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Towards understanding diversity in Arabic type styles: its origins, its current use and its effect on Arab readership

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Declaration

I confirm that this is my own work and the use of all material from other sources has been properly and fully acknowledged.

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Abstract

The current Arabic typographic practice in the Arab world shows a parallel use of distinctly diverse Arabic type styles. This research investigates the emergence of this diversity, its patterns of use, and the way it is perceived by Arab readers. The research looks at typefaces in extensive text setting, in selected countries where current practices of type use are relatively similar.

The thesis draws on existing research on the development of Arabic type in the twentieth century to contextualise technical and cultural factors that contributed to the emergence of these diverse type styles. Building on the available research on the topic, the thesis sheds light on the wider contexts in the Arab world that affected Arabic type-use practices, and provides a broader understanding of the evolution of the diversity in Arabic type styles.

The research combines statistical analysis and qualitative review to identify contemporary patterns in current practices and perceptions towards Arabic text typefaces. The study focuses on three main document genres: books, newspapers and websites. Selected materials are examined with the aim to recognise the most used text typefaces across the selected genres. The methodology of interrogating current practices of Arabic type use as a basis for studying readers' preferences towards Arabic typefaces has not been applied before this research.

Readers' perceptions towards the identified diversity in Arabic type styles are analysed through an empirical study that draws on input from both the statistical and historical elements of this research. The study combines quantitative and qualitative methods in order to get a better understanding of readers' preferences and perceptions. Moreover, a secondary empirical study examines perceptions towards the examined typefaces from the users' point of view. This is pursued through interviews with type users from selected publishing houses, newspapers, and web design companies.

This research concludes with remarkable findings on preferences in Arabic type styles that can inform practices in Arabic type and document design, and form the basis for further investigations.

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Initial notes

This thesis is typeset in Brill, designed by John Hudson, and KFGQPC Uthman Taha Naskh, designed by Uthman Taha.

Notes on transliteration and spelling
Arabic names and terms are transliterated according to the conventions of the Library of Congress Romanization of Arabic.[1] However, in cases where English transliterations are provided by the source (e.g., names of publishers or publications), the transliteration is kept in its official form to allow a link to the source. Any formatting in quotations is preserved from the original and no specific formatting is applied. This includes particular spellings, italics and other elements that are maintained as in the source.

Images
All images are at the original scale of 100%, unless otherwise stated.

Note on typographical conventions
Italic is used for publication titles. Note that newspaper names are only italicised if the actual publication is meant; the newspaper as an institution or company is set in roman type.

1. Library of Congress, 'Romanization of Arabic'. http://archimedes.fas.harvard.edu/mdh/lcromanization.pdf

Note on terminology

The list of terminology below explains the words that are commonly used throughout this research to decribe the process and concepts of type-making and typography. The majority of the terms are derived from Titus Nemeth's book Arabic type-making in the machine age. These terms are employed from related fields such as linguistics or calligraphy, or where reasonable from Western typographical practice, which provides more comprehensively documented terms compared to the younger Arabic script practice. Some familiarity with current typographical terminology such as 'ascender' or 'contrast' is assumed. In general, definitions are only provided for the meaning of terms and concepts which are specific to the present research and subject.[1]

Baseline is the line on which the majority of letterforms appear to stand.

Character is the smallest element of a fount or type. All characters in a fount define the character set.

Character set describes the composite number of different characters that are contained in a fount.

Diacritics or diacritical marks –usually smaller than a letter and placed above or below it– which modify the sound that the letter represents.

Foundry type is movable type cast from a lead-mixture for the manual composition of individual sorts into lines and paragraphs. It is the typographical technology which defined typography from Gutenberg until the introduction of the Linotype.

Font refers to a concrete rendering of a typeface in a particular character set for a particular size-range for a particular imaging system.

Fount is the collection of individual characters of an instance of a typeface in analogue typesetting technologies. A fount of foundry type or hot-metal is dependent on size and quantity of sorts.

Photocomposition, also called **Phototypesetting,** or **Filmsetting,** method of assembling or setting type by photographing characters on film from which printing plates are made.

Hot-metal refers to typographical composition with a Monotype system or a linecasting machine. In both cases the type is freshly cast and composed mechanically; as individual sorts and as lines respectively.

1. Nemeth, *Arabic type-making in the machine age: the influence of technology on the form of Arabic type, 1908-1993.* Leiden; Boston: Brill, 2017. p. 2

Justification is the adjustment of typeset matter with the goal to achieve identical line widths. Whereas Latin script typography primarily relies on the modification of the spaces between words, Arabic typography may also employ the extension of letterforms and the use of letter variants to achieve the same goal.

Letterform is the visual representation of a sound and/or concept in a writing system. In the Arabic script individual letters have multiple letterforms. In type a single letterform may be represented with one or more characters.

Ligatures are a typographical method for the rendering of multiple letterforms with a single character of movable type.

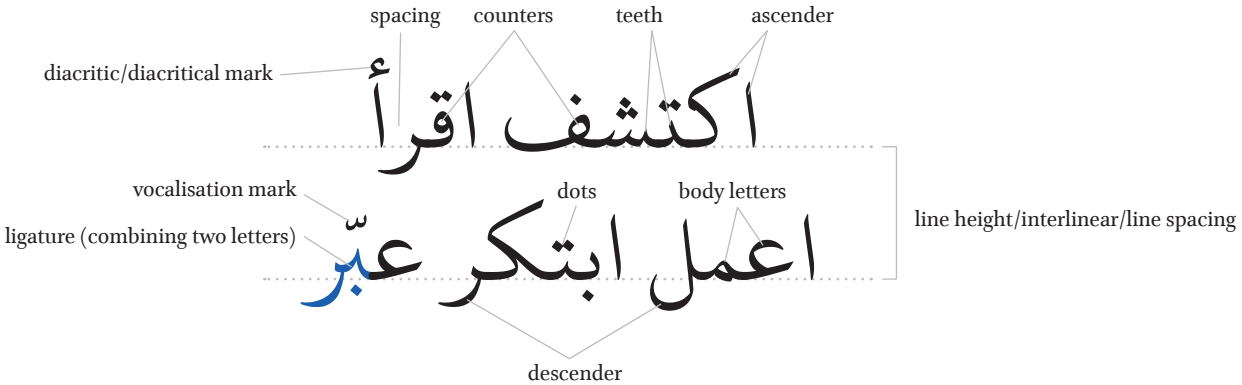
Linecasters are principally the Linotype and the Intertype machine. Linecasting differs from most other composition processes because its output consists of solid lines of type, as opposed to sequences of individual characters. Whilst advantageous for speed and facility of page make-up, linecasting had considerable drawbacks for typographical quality.

Typeface refers to the design of a set of characters.

Type is used as a generic expression to refer to characters or letters in their printed or displayed form.

Typography is the use of type for the design of text. It is not type design, and most typographers do not design type, nor do type designers usually practise typography.

Vocalisation is used as shorthand for the notation of vowels, orthographic and grammatical marks in a consonantal writing system. Because vocalisation is optional in Arabic it is considered as a distinct aspect of the script.



1. Introduction

1.1. Introduction to the topic: contextualising the research

A brief look at current typographic practices in the Arab world reveals a parallel use of distinctly diverse Arabic typefaces.[1] Differences between these typefaces can be noticed in various visual aspects. For example, distinct horizontal linearity on the notional baseline can be noticed as a general design feature in some typefaces (Figure 1.1.c). In other cases, Arabic typefaces show a close resemblance to the Latin script, translated in importing the underlying grid, the proportions and lettershapes of the Latin script into the design of the Arabic (Figure 1.1.e).[2] Other differences–which might be less obvious–relate to proportions, the variety of unique combinations between letters, dot placements and further details (Figure 1.1.a in comparison to Figure 1.1.b).[3] The term 'type style' in this research is used to refer to general design features or principles of design, such as the mentioned above, which result in a distinctive appearance of a typeface or, in most cases, a set of typefaces.[4] Diversity in Arabic type styles can be observed in both printed and digital materials ranging from signage and packaging to newspapers, books and web content (Figure 1.2).

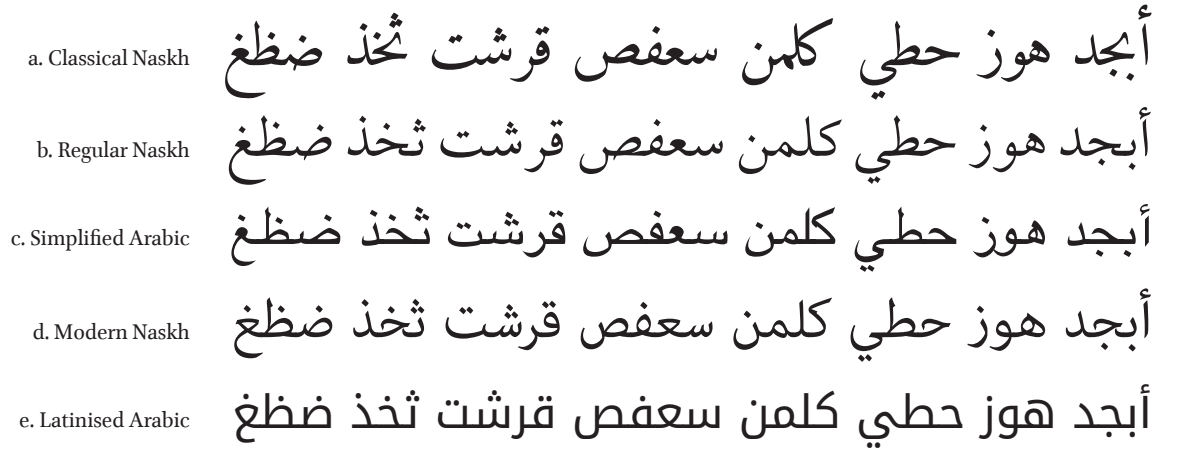


Figure 1.1 A visual demonstration of the main type styles that are addressed in this research. The majority of the listed typefaces represent a set of typefaces that have a similar design or follow the same design principle. Typefaces from top to bottom are: Amiri, Lotus, Geeza Pro, Adobe Arabic, Noto Kufi Arabic.

1. The term *typeface* in this thesis is used to refer to the design of a set of characters (e.g., Lotus is a familiar Arabic typeface). The term *font* is used to refer to 'a concrete rendering of a typeface in a particular character set for a particular size-range for a particular imaging system'. See Bigelow, 'Principles of type design for the personal workstation'. A keepsake prepared by Bigelow and Holmes for members at the ATypI Congress in Kiel, 1985. p. 1 (e.g., these two fonts share the same design but show a considerably different optical size when set at 12 points). *Type* is used as a generic expression to refer to characters or letters in their printed or displayed form (e.g., the development of Arabic type faced unique challenges during the twentieth century).
2. The approach is often referred to among type researchers and designers as 'Latinised'. 'Latinisation' can also be observed in scripts other than Arabic such as Greek, Armenian, Thai and others. See, for example, Leonidas, 'Greek fonts and cultural identity', 2000. https://leonidas.net/greek-type-design/greek-fonts-and-cultural-identity (accessed 1st December 2020); Mitchell, 'On loops and Latinisation', 2014. http://www.fontpad.co.uk/loops-and-latinisation (accessed 1st December 2020)
3. More details about these visual aspects are provided in chapters 2 and 3.
4. Using the term 'type style' to address sets of Arabic typefaces is borrowed from a previous study by the author. While the scope and aims of this research differ from the previous study in many aspects, it builds upon some concepts which were previously addressed. Using the term 'type style' to refer to classified sets of typefaces is used to bring efficiency to dealing with a large set of typefaces. See Dakak, *Reassessment of current stylistic approaches to Arabic type design.* MA diss. [Unpublished], University of Reading, 2016. p. 3.



Figure 1.2 Examples of the diversity in Arabic type styles in contemporary use. **a.** Aramco logo, Saudi Arabia. Source: www.saudiaramco.com (accessed 10 March 2020); **b.** Al Hayat newspaper logo, Lebanon. Source: en.wikipedia.org/wiki/Al-Hayat (accessed 10 March 2020); **c.** Metro wayfinding signage, Dubai. Source: https://www.pinterest.pt/pin/432627107939577033 (accessed 10 March 2020), actual size is unspecified; **d.** Street wayfinding signage, Dubai. Source: https://www.shutterstock.com/video/clip-18743540-highway-signs-arabic-tilt-down-sign-sheikh-zayed (accessed 10 March 2020), actual size is unspecified; **e.** Book text typeface, Egypt. Source: Lutfi, *Ḥikāyat Sa'īd Al-Maṣrī,* 2013. p. 13; **f.** Book text typeface, Saudi Arabia. Source: Al Zamal, *Limādha yakrahūnanā,* 2004. p. 31; **g.** Newspaper text typeface, Oman. Source: *Al-Roya* newspaper, 18 December 2018. p.1; **h.** Newspaper text typeface, Saudi Arabia. Source: *Asharq Al-Awsat* newspaper, 12 February 2019. p. 1; **i.** News website text typeface, Saudi Arabia. Source: https://www.okaz.com.sa/articles/na/1583225 (accessed 24 October 2017); **j.** News website text typeface, Jordan. Source: https://ammonnews.net/article/523278 (accessed 10 March 2020).

It is worth pointing out that the addressed case of diversity in Arabic type styles is separate from another authentic form of diversity that is rooted in Arabic calligraphy. The Arabic script in its calligraphic form has various styles that were developed to serve different purposes. For example, the Thuluth style was developed as a display style, the Naskh as the running text style, the Ruq'ah for everyday handwriting, the Nasta'līq as the Persian chancery and running text style and the Diwani as the official style of Ottoman chancery (Figure 1.3).[5] This variety was, to some extent, maintained in local Arabic type

5. See Safadi, *Islamic calligraphy*, Thames and Hudson, London, 1978. pp. 52, 62, 84; Osborn, *Letters of light: Arabic script in calligraphy, print, and digital design.* Cambridge, Massachusetts: Harvard University Press, 2017. pp. 53-67.

designs and typographic practices in both the Ottoman Empire and the Arab world until the twentieth century. For example, the Naskh style, which was well established as a text style in the scribal tradition,[6] was closely represented in Arabic typefaces used for extensive texts while display typefaces resembled styles such as Thuluth, Nastaʿlīq and Ruqʿah (Figure 1.4). The influence of the Naskh style on Arabic type design today can still be considered prominent.[7] However, the influence of the other calligraphic styles on Arabic typography can be considered marginal with respect to the current diversity addressed in this research.

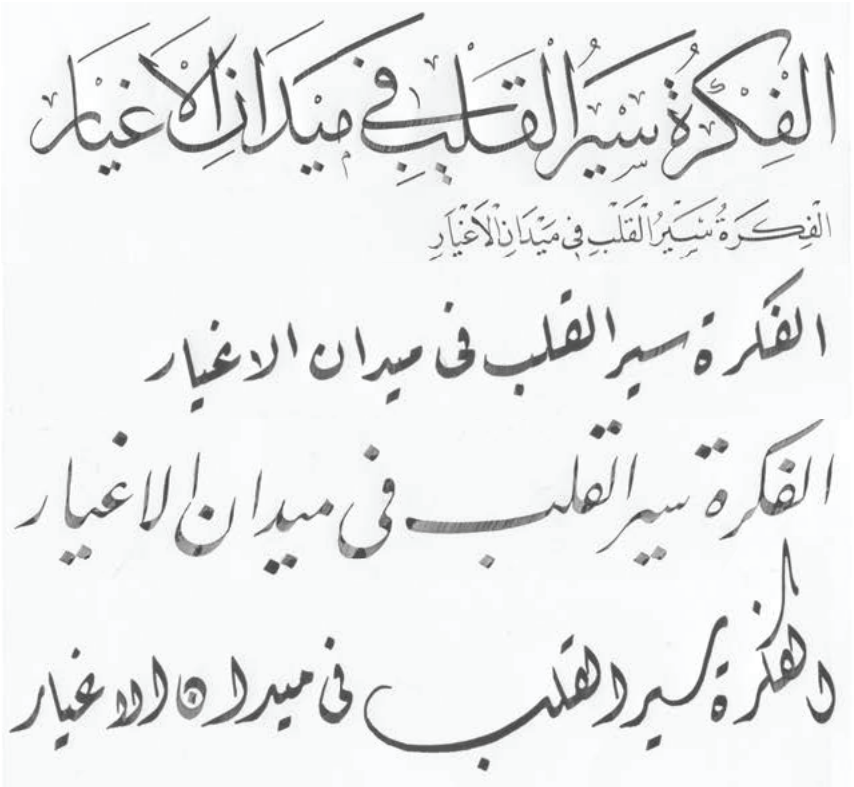


Figure 1.3 Examples of the diversity in Arabic calligraphic styles. The same line of text is written in five different styles. From top to bottom: Thuluth, Naskh, Ruqʿah, Nastaʿlīq, Diwani. Calligraphy by Mohamed Zakariya. Source: Osborn, 2017. pp. 54, 61, 62.

This research aims at contributing to understanding the current diversity in Arabic type styles with regard to its emergence, current practices of use and its effect on Arab readership. This understanding is important to inform both designers and users of Arabic type on better typographic practices. It can also contribute to resolving ongoing controversies among designers of Arabic type on better Arabic type design practices. The research addresses the current diversity through combining a historical background that helps understand the emergence of the addressed diversity with a statistical study that recognises patterns of Arabic type use across different document genres. This basis

6. Blair, *Islamic calligraphy*, 2008. pp. 160-167.
7. Although the typographic representation of the Naskh style is affected by other influences, as explained later in this introduction and in chapter 2.



Figure 1.4 Sample of the extended influence of the Arabic calligraphic styles on Arabic typographic documents. **Top left:** Nasta'liq style in titles and Naskh style in text in a book printed in Egypt in 1834. Riḍwān, تاريخ مطبعة بولاق ولمحة في تاريخ الطباعة في بلدان الشرق الأوسط (*The history of the Būlāq Press and a glimpse into the history of printing in the Middle East countries*). Cairo: 'al-Maṭba'ah 'al-'Amīrīyah. 1953. The Appendix. 75% of actual size. **Top right:** Ruq'ah, Thuluth, and Naskh styles in Um al-Qura newspaper, Saudi Arabia, August 1935. Source: World Digital Library, www.wdl.org. 75% of actual size. **Bottom:** Ruq'ah (red and second black headline) and Naskh (first black headline) used in headlines in the Egyptian newspaper *Al Ahram*, 30 November 1961. Although the Ruq'ah style is handwritten in this newspaper, its use reflects the continuing presence of the traditional calligraphic styles in Arabic typographic documents until the second half of the twentieth century. Source: http://zekrayat-nadera.blogspot.com/2012/07/nasser-talks-in-1961-about-securing.html. 75% of actual size (accessed 8 January 2021).

is then used to inform the empirical studies in this research which examine the perceptions of readers and users of Arabic type towards commonly used Arabic type styles. The value of the research is emphasised by the fact that this topic has not been covered through the same methodology before. Moreover, the research helps re-assess common typographic practices based on the perspective of readers and users of Arabic type away from the possible bias of type designers.

1.2. The typographic and geographic scope of the research

This research focuses on the typefaces used in texts while it excludes typefaces that are used for display purposes such as signage, packaging or titles. The decision to limit the scope to text typefaces is based on two main reasons. First, text typefaces generally tend to maintain a higher level of conventionality compared to display typefaces and therefore are more likely to represent the mainstream approaches in type design.[8] As a result, excluding Arabic display typefaces – where a significantly wider variety of typefaces can be found– narrows down the number of the addressed typefaces to a manageable scope. Second, determining text typefaces as the focus of this research relates to the goals of the empirical study where one of the main aims is to find out which typefaces are preferred by Arab readers for extensive texts. This determines text typefaces as a central priority for the research while display typefaces can be considered less relevant.

Determining text typefaces as the focus of the research also informs the selection of the document genres that are addressed throughout. The research focuses on document genres that are more likely to be used for immersive reading. Also, with the necessity to maintain a feasible scope, the research focuses on three main document genres: printed books, newspapers and text-based websites.[9]

Given the fact that the Arabic script is used for a wide range of languages across vast regions of the world (Figure 1.5), it was necessary to define the geographic and language scope of the research.[10] This research addresses only the Arabic language and includes nine Arab countries out of more than twenty countries where Arabic is used or recognised as an official language. The countries surveyed in this research are Egypt, Lebanon, Syria, Jordan, Saudi Arabia, Kuwait, Qatar, UAE and Oman. Within these countries, the Arabic language is widely used in main cultural aspects such as education, media and publishing.[11] Although other Arab countries also qualify for these criteria, the need to keep a workable geographic scope required limiting the number of the included countries.[12] It is also worth pointing out that part of this research (Empirical Study 2) was extremely restricted by the availability of participants, therefore, although

8. Rationale behind the general tendency of text typefaces to maintain a higher level of conventionality in comparison to display typefaces can be found in Unger, *Theory of type design.* Rotterdam: Nai010 publishers, 2018. pp. 41-43.
9. Details about the criteria for selecting specific documents are provided in chapter 3.
10. More details about the geography and language spread of the Arabic script are introduced in section 1.6.
11. Complex factors affect language use across different Arab countries and sometimes lead to the dominance of other foreign or indigenous languages. Section 1.6 includes more details.
12. For example, Bahrain, Iraq, Libya, Palestine, Sudan and Yemen are not included in the research despite having very similar contexts of language and type use to the included countries. It is worth mentioning that additional factors set the priority of selection such as population and literacy rates. Also, in some cases, countries were excluded due to ongoing military conflicts which could potentially have a negative effect on the process of data collection. Tunisia, Algeria, Morocco and Mauritania also qualify according to the selection criteria but were not addressed in the research. In this case, the concern was that the relatively considerable employment of the French language in education and other cultural aspects might bring undue complexities to the research, especially concerning the empirical study. Further details about these considerations are provided in chapter 3.

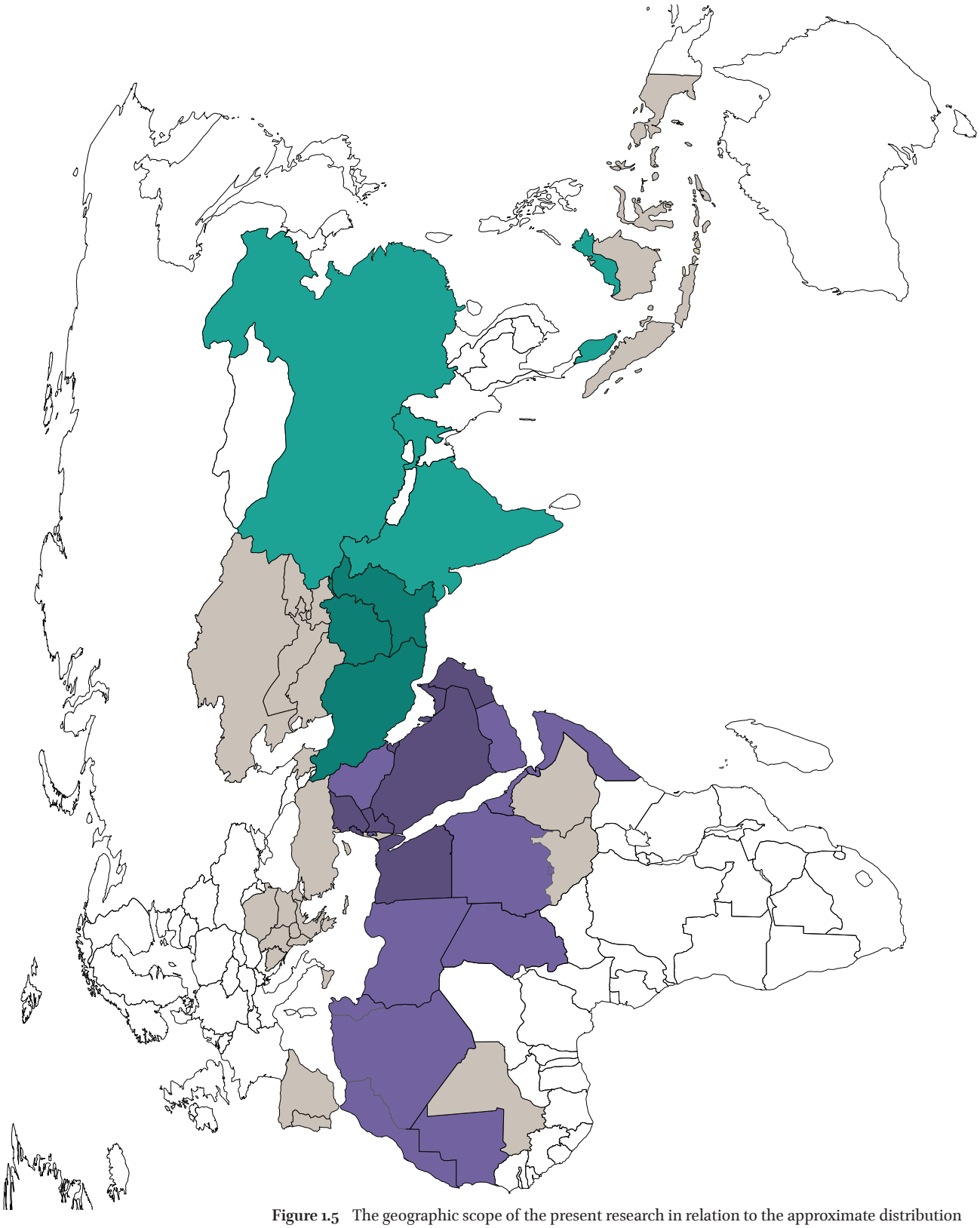


Figure 1.5 The geographic scope of the present research in relation to the approximate distribution of the Arabic script and language along current national boundaries. Purple (including dark purple): the countries of the Arab League where the Arabic language is used and/or recognised as an official language. Dark purple: the geographic scope of the present research (Egypt, Lebanon, Syria, Jordan, Saudi Arabia, Kuwait, Qatar, UAE and Oman). Dark green: primary use of the Arabic script in languages other than Arabic. Light green: secondary use of the Arabic script in languages other than Arabic. Grey: historical or marginal use of the Arabic script. Map adapted from Nemeth, *Arabic type-making in the machine age: the influence of technology on the form of Arabic type, 1908-1993.* Leiden; Boston: Brill, 2017. p. 2 and updated by the author.

the geographic scope above is addressed in the first 4 chapters of the research, it is not covered comprehensively in chapter 5 due to restrictions of participants' availability.[13]

13. Explanations about the restrictions that faced this part of the research are provided under section 5.4.

1.3. Research questions and methodology

Within the region introduced above, this research aims to investigate the present-day diversity in Arabic type styles from three main aspects: 1) its emergence; 2) the use of its distinct styles; 3) the readers' perceptions towards this diversity. These aspects are considered throughout the three main parts of the research: 1) a historical study that addresses the evolution of the current diversity from the beginning of the twentieth century until the second decade of the twenty-first century; 2) a statistical study that examines selected materials to identify the most used text typefaces and their patterns of use across the specified document genres; 3) an empirical study which investigates the perceptions and preferences of Arab native readers towards a selection of widely used Arabic typefaces. This empirical study is supported by a second empirical study that investigates the perceptions towards the examined typefaces and common typographic practices from the users' point of view. By covering these aspects, the research intends at contributing to a better understanding of the current diversity in Arabic type styles and to inform better practices in Arabic type design and type use.

The historical part of this research reviews the development of Arabic type with reference to the currently most used text typefaces. Throughout this part, the study addresses technical and cultural factors that led to the emergence and standardisation of distinct approaches in Arabic type design. The available literature on the topic provides fundamental knowledge concerning technical aspects that affected both the manufacturing and the visual representation of Arabic type during the relevant period.[14] This valuable body of literature allows the present research to expand its scope by shedding light on the contexts that surrounded the relevant type developments, allowing a wider perspective on the emergence of the current diversity in styles.

Aiming at addressing the development of Arabic type with reference to the current diversity required a research strategy that allows the historical and the statistical studies of this research to complement each other. While the historical study requires prior knowledge of the most currently used typefaces to identify the relevant developments which should be addressed, the statistical study also requires a historical background that can inform the criteria of the study, the analysis, and the classification of the examined typefaces. To overcome this dilemma, the research implements two versions of the statistical study.[15] The earliest version is a pilot statistical study of type use within

14. With relevance to these aspects, the written works of Fiona Ross and Titus Nemeth formed a cornerstone for the historical part of this research. Nemeth's book which covers the most significant developments in Arabic type-making during the twentieth century became publicly available by the beginning of this research. As Nemeth validly points out in his research, only a limited number of reliable sources addressed the recent history of Arabic type before that. See Nemeth, *Arabic type-making in the machine age: the influence of technology on the form of Arabic type, 1908-1993.* Leiden; Boston: Brill, 2017. pp. 3-8.

15. Only the latter refined version of the statistical study is addressed in this research (in chapter 3) as the initial version was considered as a working version only. Moreover, as the refined version is more carefully structured and better informed, it makes the initial version less relevant. The mention of the initial version of the statistical study here is only to explain the research process.

the proposed region and document genres. The main aim of this version is to equip the research with initial statistics about the most used text Arabic typefaces. These statistics –even when rough– help guide the focus of the historical study. After studying the factors and contexts that surround the relevant developments throughout the historical study, another refined version of the statistical study has been undertaken. This version has clear criteria for the region, document genres and materials to be included, most of which have been informed by the historical study. The historical study also allows a better-informed classification of the typefaces which is, in some cases, based on the period/technology that the typefaces represent, not only their design features.

The statistical study in this research examines a selected collection of printed and digital documents. All the collected documents are relatively recent. The included newspapers, websites and publishing houses are selected based on a set of criteria that aim at identifying documents that are widely read by Arab readers.[16] The examination of the collected materials identifies the used text typefaces and classifies them under six main categories. The classification puts the typefaces which have an overall similar design or a shared design approach into one category. This allows efficient handling of the typefaces in both the statistical and empirical studies.[17] The results from the statistical study provide recent statistics about the most used text typefaces in the addressed region and their patterns of usage across the selected document genres.

The empirical study in this research inquires about Arab readers' preferences and perceptions towards the diversity in Arabic type styles. The study implements rating tasks and semi-structured interviews to investigate the participants' preferences and perceptions towards a selected set of Arabic text typefaces. The study uses printed and digital mockups which are designed to mimic real documents while including the examined set of Arabic typefaces. By combining quantitative and qualitative methods, the study helps gain a better understanding of readers' perceptions towards the examined typefaces. The main aim of the study is to know which typefaces are preferred for immersive reading by Arab readers and the rationale behind their preferences.

Both the structure of the empirical study and the materials employed were designed after input from both the historical and the statistical parts became available. Awareness of the history of Arabic type development and the current status of type use was crucial to determining many aspects related to the empirical study. For example, statistics of type use were fundamental to informing the selection of the typefaces. Also, the materials which were collected throughout the statistical study helped inform the design of the

16. Details about the criteria of selection are provided in chapter 3.
17. More about this classification is provided in chapter 3.

mockups which are used throughout the study. Such input was valuable for informing the plan of the empirical study, especially in assuring its relevance to the current status of Arabic type use.

1.4. Studies on readers' preferences towards Arabic typefaces

In his research about Arabic type-making in the machine age, Titus Nemeth points out a notable scarcity of research on the recent history of Arabic type and its current practice.[18] This scarcity, as Nemeth rightly states, does not correlate with the significant growth in Arabic type design activity which has been taking place for a sufficient period of time:

> Taking the year 2000 as a nominal beginning for the increasing interest in Arabic type, then seventeen years seem like a sufficiently long period to see the emergence of substantial discourse about the subject, including considerations of recent history and current practice. Yet so far, this has not been the case. The majority of literature concerned with Arabic type and typography engages with pre-industrial developments. A growing body of historical studies concentrates on the first European printers cutting Arabic types, and the pioneers of the trade in the Middle East.[19]

The scarcity in research that Nemeth mentions is relevant to the topic of the present research. A notably small number of studies address readers' perceptions towards different Arabic typefaces or Arabic type-use practices.[20] This scarcity becomes more significant when considering the status of Arabic type use introduced earlier in this introduction. The distinct and wide diversity in Arabic typefaces is a case that raises many questions and concerns with regard to current typographic practices and their effect on Arab readers. Moreover, the stylistic diversity is surrounded by ongoing controversy among Arabic type designers over the different approaches towards designing Arabic type.[21] Although such factors stress the need for informed studies on the topic, this need does not yet seem to be reflected in available research.

1.5. The Arabic script

The Arabic script is the third most widely used writing system in the world after the Latin and the Chinese.[22] It had its beginnings around the fourth centu-

18. This can be relevant to current practices in Arabic type design, type use and typography.
19. Nemeth, 2017. p. 3.
20. A detailed review of available studies on Arab readers' preferences towards Arabic typefaces is available under section 4.2.2 of this research.
21. This controversy is covered in more detail in chapter 2. Some approaches, for example, aim at regaining traditional qualities of the Arabic script in its calligraphic or pre-industrial typographic forms. At the other extreme, some approaches propose new Arabic letterforms, proportions and modulation to achieve a closer visual match to the Latin script. Compare, for example, Milo, 'Arabic script and typography', in *Language culture type: International type design in the age of Unicode,* ed. Berry, John, New York: ATypI Graphis, 2002. pp. 118-125 with Chahine, 'We want the Arabic and Latin script to sit in harmony' in *Eye magazine* 94, 2017. p. 30.
22. Britannica Online Encyclopedia, 'Arabic alphabet,' in *Britannica Online Encyclopedia*, 2016. https://www.britannica.com/topic/Arabic-alphabet (accessed 19 March 2020).

ry AD and is considered the youngest of the Semitic scripts.[23] With the spread of Islam since the early seventh century, the script was adapted for the use of many other languages including Turkish, Malay, Somali, Swahili, Berber, Bosnian Serbo-Croatian, Hausa, Tamil and others.[24] However, during the twentieth century and driven by political and cultural contexts, a considerable number of countries in Asia, Europe and Africa which previously used the Arabic script switched to other scripts, mainly the Latin and the Cyrillic.[25] In the present day, the Arabic script is still used in many languages besides Arabic including Persian, Pashto, Dari, Urdu, Kashmiri, Javanese, Kurdish and Uyghur.[26]

The Arabic alphabet has twenty-eight unicase letters (Table 1.1).[27] All the letters represent consonants but three of them (alif ا, wāw و and yā' ي) also function as long vowels. The twenty-eight letters are formed using only eighteen graphemes as some groups of letters share the same grapheme and differ only through diacritics such as in the letters jīm ج, ḥā' ح and khā' خ.[28] Arabic is written from right to left. The majority of the letters within a word take a connected form. For example, the letters ح ب ر connect within a word as حبر. There are six letters (alif ا, dāl د, ḏhāl ذ, rā' ر, zāy ز and wāw و) which disconnect to following letters within the word, but they still connect to preceding letters. For example, the letters ح و ر connect within one word as حور where the letter wāw و disconnects from the letter rā' ر. The connectivity of the letters is traditionally depicted throughout a variety of contextual forms which connect either horizontally or vertically based on the combined letters (Figure 1.6).[29] However, in the common contemporary typographic representation, this connectivity structure is generally simplified to only the horizontal level. Within the simplified structure, the majority of letters take four contextual forms: initial, medial, final and isolated while the six letters which do not connect to succeeding letters take only two forms: iso-

23. Coulmas, *The writing systems of the world.* Oxford & New York: Basil Blackwell, 1991. p. 150; Safadi, 1978. p. 7.

24. Coulmas, 1991. p. 150; Britannica Online Encyclopedia, 2016; and Milo, 2002. p. 114.

25. The cases of script change in central Asian countries such as Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan among others depict clear examples of how political contexts can affect script use. The countries which formerly used the Arabic script switched to the Latin by the 1920s, then to the Cyrillic by the 1940s forced by the Soviet Union then back to the Latin after the fall of the Union. See Tolipov, 'Revere or Reverse? Central Asia between Cyrillic and Latin Alphabets', 2017. https://www.cacianalyst.org/publications/analytical-articles/item/13447-revere-or-reverse?-central-asia-between-cyrillic-and-latin-alphabets.html (accessed 3 April 2020).

26. Milo, 2002. p. 116.

27. There are two perspectives among linguists and grammarians concerning the number of Arabic letters. This is due to unresolved debates concerning the hamza and whether it should count as a distinct letter or just as another form of the alif. This explains why the Arabic alphabet is counted as either twenty-eight or twenty-nine letters. For more details, see Obeidat, أصوات العربية من الترتيب الأبجدي إلى الترتيب الصوتي ['Arabic phonemes from Abjad to alphabetical order'], in *Damascus University Journal for Arts and Humanities*, vol. 29, no. 3-4, Damascus University, 2013.

28. Diacritics are also used to represent additional letters in other languages that use the Arabic script.

29. See Blair, 2008. pp. 8-10; Coulmas, 1991. p. 150; Britannica Online Encyclopedia, 2016; Milo, 2002. pp. 112-116.

Letter	Name	Transliteration	Isolated	Final	Medial	Initial
ألف	alif	’, ā	ا/ أ/ إ/ ء	ا/ أ/ إ/ ء	–	–
باء	bāʾ	b	ب	ب	بـ	بـ
تاء	tāʾ	t	ت	ت	تـ	تـ
ثاء	thāʾ	th	ث	ث	ثـ	ثـ
جيم	jīm	j	ج	ج	جـ	جـ
حاء	ḥāʾ	ḥ	ح	ح	حـ	حـ
خاء	khāʾ	kh	خ	خ	خـ	خـ
دال	dāl	d	د	د	–	–
ذال	dhāl	dh	ذ	ذ	–	–
راء	rāʾ	r	ر	ر	–	–
زاي	zāy	z	ز	ز	–	–
سين	sīn	s	س	س	سـ	سـ
شين	shīn	sh	ش	ش	شـ	شـ
صاد	ṣād	ṣ	ص	ص	صـ	صـ
ضاد	ḍād	ḍ	ض	ض	ضـ	ضـ
طاء	ṭāʾ	ṭ	ط	ط	طـ	طـ
ظاء	ẓāʾ	ẓ	ظ	ظ	ظـ	ظـ
عين	ʿayn	ʿ	ع	ع	عـ	عـ
غين	ghayn	gh	غ	غ	غـ	غـ
فاء	fāʾ	f	ف	ف	فـ	فـ
قاف	qāf	q	ق	ق	قـ	قـ
كاف	kāf	k	ك	ك	كـ	كـ
لام	lām	l	ل	ل	لـ	لـ
ميم	mīm	m	م	م	مـ	مـ
نون	nūn	n	ن	ن	نـ	نـ
هاء	hāʾ	h	ه	ه	هـ	هـ
واو	wāw	w/ū	و	و	–	–
ياء	yāʾ	y/ī	ي	ي	يـ	يـ

Table 1.1 The twenty-eight letters of the Arabic alphabet. The majority of the letters have four contextual forms while six letters have only two. Table adapted from Sheila Blair’s *Islamic Calligraphy*, 2008. Only the name of the letter zāy was corrected (from zāʾ in Blair’s table) based on the naming of the letter in Arabic dictionaries. See, for example, https://www.almaany.com/ar/dict/ar-ar/الزاي



Figure 1.6 A sample of the variety of letter combinations in the calligraphic Naskh style (from an exercise guideline). Highlighted letters show different variations of the letter bā' in its initial form. Also, the green highlighted bā' shows a clear example of vertical connectivity. The variety of shapes based on the succeeding letters demonstrate how the concept of a unified initial form is a simplified one. Source: ICPICH, *The Naskh and Thuluth Mashqs by Mehmed Shevki Efendi.* Istanbul: ICPICH, 1999. pp. 7-8. 75% of actual size.

lated/initial and final/medial. In addition to the previously mentioned vowel letters, Arabic also has three shorter vowels which are depicted as diacritical marks at the top or the bottom of the letters as in فُعِلَ. The use of vocalisation marks, however, is usually dropped in texts presented to experienced readers and remains limited for specific purposes such as religious texts or schoolbooks.[30] Other vocalisation marks have different functions such as the shadda (ـّ) which is used to express doubling the letter and the sukoon (ـْ) which expresses the absence of vowels.[31]

The typographic visual representation of the Arabic script in the Arab world can be considered in its majority Naskh-based. However, the dominant Naskh-based Arabic typefaces show noticeable diversions from the authentic scribal form of Naskh. The deviations in the Arabic typographic representations emerged as a result of adapting the script to the characteristics and limitations of previous typesetting technologies. This adaptation led to diverse forms of simplification of the Arabic typographic representation. Some of the emerging typefaces became standardised as popular text typefaces until the present day.

Since movable type, the typesetting method which consisted of a sequential arrangement of metal sorts to form words and lines did not offer a natural production method for a script as dynamic as Arabic (Figure 1.7). The wide variety of contextual forms, the unique combinations of Arabic letters, the flexible elongations between letters and the vertical cascading of some letters are examples of features that were difficult to achieve using the typesetting technique where every distinct shape requires a separate sort. As a result, simplifying the representation of the script in movable type was inevitable as a fully faithful representation would rather require an enormous number of sorts and a formidably complex typesetting process.[32]

Early in the twentieth century, mechanical typesetting machines were introduced for Arabic type, initiating another turning point in the typographic

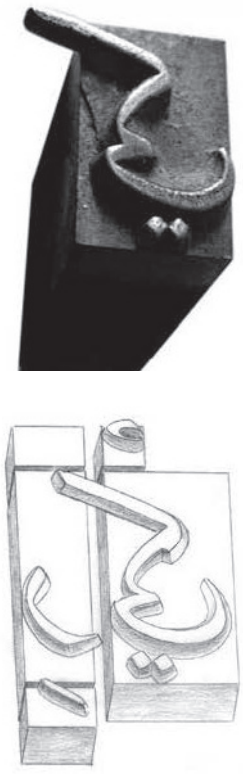


Figure 1.7 A metal sort (top) and the arrangement method of metal sorts in movable type (bottom). Source: Nemeth, 2017. p. 24.

30. Ryding, *A reference grammar of modern standard Arabic.* Cambridge: Cambridge University Press, 2005. p. 30.
31. Ibid., pp. 24, 31.
32. Nemeth, 2017. pp. 22-26.

representation of Arabic. Typesetting machines brought significant ease and speed to the typesetting process of Arabic but they also brought considerable limitations to its typographic representation. The machines which were initially designed to accommodate the Latin script were not easily adaptable to handle the number of sorts that previously represented local standards of Arabic hand composed texts in movable type (Figure 1.8).[33] The representation of Arabic was consequently adapted to the limitations of the machines, forcing considerable further simplifications in the 1950s when the speed of composition, especially for newspaper typesetting was of great importance to publishers. The simplified typefaces did not only have a wide use across the Arab world with the spread of the new efficient technology but they were also implemented in succeeding typesetting technologies without an effective re-assessment of the compromises they entailed. The extended use of these simplified typefaces across the Arab region contributed to their standardisation as popular text tyepfaces. In the present-day, although more authentic representations of the Naskh style still exist and are widely familiar to Arab readers,[34] simplified Arabic typefaces dominate the typographic representation of the Arabic script (Figure 1.9).[35]

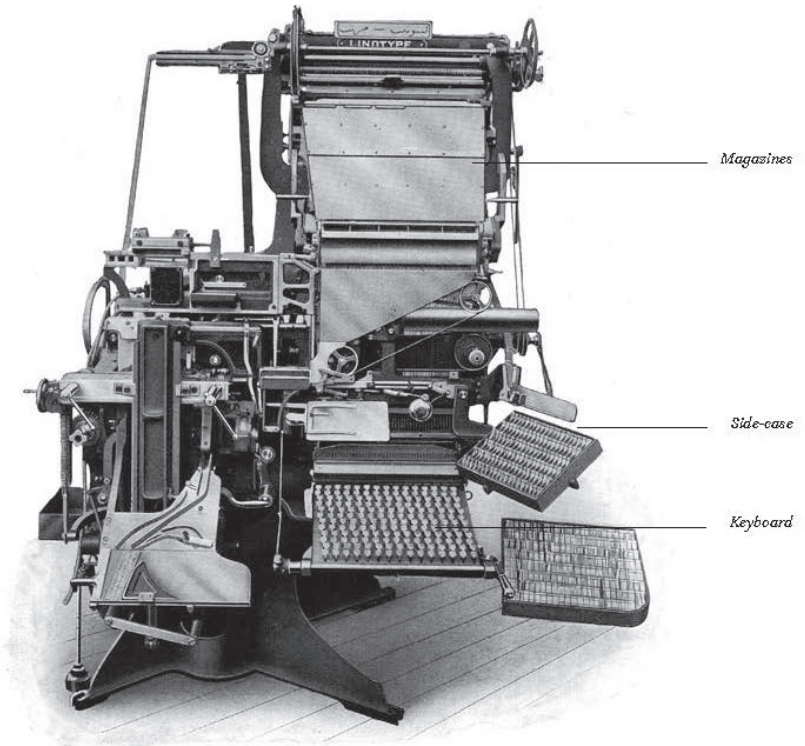
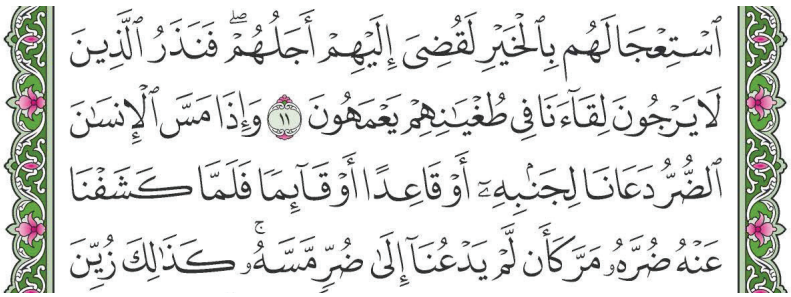


Figure 1.8 An example of a Linotype typesetting machine as built in the 1910s. The keyboard of this machine had 180 keys. Source: Nemeth, 2017. p. 46.

33. While Bulaq press typeface made for movable composition consisted of approximately 470 sorts, some of the typefaces produced for typesetting machines were condensed into 90 sorts. See Nemeth, 2017. p. 113.
34. This is most obvious in the cases of the Qur'an where the calligraphic Naskh, printed by lithographic means, is still the dominant form used in the Qur'an across the Arab world.
35. See Ross, 'The type design process for non-Latin scripts' in *Non-Latin Scripts: from metal to digital type.* London: St. Bride Foundation, 2012. p. 133 ; Nemeth, 2017. p. 463.

a



b

1. بسم الله الرحمن الرحيم
2. هذا كتاب كتبه حسن بن يعقوب
3. خليفة يحيى بن سعيد خليفة
4. القاضي عيسى بن المنكدر بالفيوم

c

وعلى الرغم من هذه النقائص، ربما يعطينا دخل البلد مقدرًا بالدولارات الدولية فكرة أفضل عن مستوى معيشته مما يفعل دخله الدولاري بمعدل التبادل السوقي. وإذا حسبنا مداخيل البلدان المختلفة بالدولارات الدولية، فإن الولايات المتحدة (تكاد) تعود إلى قمة العالم. يعتمد الأمر على التقدير، لكن لوكسمبورج هو البلد الوحيد الذي لديه دخل للفرد بتعادلية القدرة الشرائية أعلى من دخل الولايات المتحدة محسوبًا بكل التقديرات. لذا، فطالما نحينا جانبًا لوكسمبورج، الدُويلة المدينة المأهولة بأقل من نصف

d

خلف صدور بيان «استرضائي» مشترك لغريفيث ولوكوك أمس، بالتزامن مع وصول الأول إلى صنعاء. وحذر البيان الذي نشرته الأمم المتحدة من تلف كميات القمح المخزنة في الحديدة دون إمكانية الوصول إليها منذ 5 أشهر، دون توجيه اللوم المباشر إلى الحوثيين، على غرار ما جاء في البيان السابق الصادر من قِبل لوكوك.

وكان لوكوك قد اتهم الجماعة الحوثية صراحة في بيانه السابق بالمسؤولية عن

يبدو أن ترشح الرئيس الجزائري عبد العزيز بوتفليقة لولاية خامسة لن يثني أبرز منافسين له حتى الآن، اللواء المتقاعد علي غديري وعبد الرزاق مقري رئيس «حركة مجتمع السلم»، عن المضي قدماً في منافسته.

وقال مصدر من «المداومة الانتخابية» لغديري، لـ«الشرق الأوسط»، إن ترشح بوتفليقة «لسنا معنيين به، فنحن ماضون في ترتيب حملتنا الانتخابية ولا نعبأ بما

التي تم نشرها ب
للإعلان عن ترشح
تكون من الرئيس ث
الإسلامي «لا توج
الأفكار الأساسية و
مبادرة حركة مج
سماهم «المرشح
القائم»، إلى «الت
الانتخابية والتش
المخاطر التي تهـ
المرتقبة وضمان نـ

Figure 1.9 Naskh calligraphy and varieties of Naskh-based typefaces in modern use. From top to bottom: **a.** Calligraphic Naskh in the Qur'ān printed in 2019 by lithographic plates. p. 209. Source: https://qurancomplex.gov.sa/kfgqpc-quran-hafs-standard/ (accessed 7 January 2021); **b.** Traditional typographic Naskh in an academic publication. Although this form sees only marginal use in Arabic typography today, it is still in existence. Source: Sijpesteijn, Petra M. 'Delegation of Judicial Power in Abbasid Egypt' in *Legal Documents as Sources for the History of Muslim Societies: Studies in Honour of Rudolph Peters,* (eds.) Berkel; Buskens; Sijpesteijn, Volume 42. Leiden; Boston: Brill, 2017. p. 65; **c.** Typographic Naskh as widely used in printed Arabic books. This form shows a considerable level of reduction of the character set but the lettershapes are still relatively close to authentic lettershapes of Naskh. Source: Chang, Ha-Joon, *23 Things They Don't Tell You about Capitalism.* Translation by Kelfet. Doha: Bloomsbury-Qatar Foundation Publishing, 2013. p. 116; **d.** Simplified Arabic typeface as widely used in Arabic newspapers across the Arab world. Although the lettershapes still preserve a link to the Naskh style, many of the letters show considerable deviation forced by the simplification method. Source: *Asharq Al-Awsat* newspaper, 12 February 2019. p. 1.

1.6. The Arab world and the Arabic language

The rise of Islam at the beginning of the seventh century CE was a turning point in the history of the Arabs as a nation. Islam, which gave the Arabs a sense of unity and a sacred mission to spread its message, transformed them from tribes who were confined within the Arabian Peninsula into a universal nation. Within one century, the Muslim Arabs managed to conquer the leading powers of the time (Byzantines and Persians) creating an Empire that extended from the borders of China in Asia to the Iberian Peninsula in Europe. An Arab-Islamic civilisation flourished for centuries that followed, marking what is considered as the golden age of Arab Muslims. This period facilitated the 'Islamisation' and 'Arabisation' of the majority of the population in the vast newly created empire, initiating the evolvement of the Arab world as we know it today. The period between the tenth and the twelfth century set the beginning of the decline of the Arab rule, even at the centre of the Islamic Empire. The fall of Baghdad to the Mongols in 1258 CE is considered the start of this decline. The Arab rule was replaced by a succession of Muslim rules which governed different parts of the Arab region. The most successful and long-lasting rule among them was the Ottoman Empire under which large parts of the Arab region took the form of Ottoman provinces for around four centuries. With the decline and the fall of the Ottoman Empire by the beginning of the twentieth century, the majority of the Arab region was occupied by the Western colonial powers, mainly France and Britain. It was until the second half of the twentieth century that almost all the Arab countries started to gain their independence.[36]

The current national boundaries of the Arab countries are by their majority a legacy of the colonial period that dominated the region during the nineteenth and the twentieth centuries. The colonial rule had considerably variant effects on different parts of the Arab region. For example, present-day Algeria remained for 132 years under a direct French occupation which left strong influences on culture, language and society, apart from millions of Algerian casualties.[37] On the other hand, present-day Saudi Arabia faced a relatively short British intervention which mainly took the form of treaties with local rulers to distribute power and ally against the Ottoman forces, leaving almost no influences on culture or language.[38] After the second World War, the direct control of the colonial powers on the region started to decline, initiating the sequential national independence of the majority of the Arab countries in their current borders (Figure 1.10).[39]

36. See Lewis, *The Arabs in history*. (6th ed.) Oxford: Oxford University Press, 2002. pp. 5-6, 205; Hopkins & Ibrahim, *Arab society: class, gender, power and development.* Cairo, Egypt: American University in Cairo Press, 2001. p2; Rogan, *The Arabs: a history.* London: Allen Lane, 2009. pp. 3-8.

37. Jalata, *Phases of terrorism in the age of Globalization*. New York; Hampshire: Palgrave Mcmillan 2016. pp. 92–93.

38. See Rogan, 2009. p. 8; Hopkins & Ibrahim, 2001. p. 3; Ramdani, 'Fifty years after Algeria's independence, France is still in denial', 2012. https://www.theguardian.com/commentisfree/2012/jul/05/50-years-algeria-independence-france-denial (accessed January 2020).

39. The only exception is Palestine which has been promised international recognition but has not yet achieved it until the date of this research. See Hopkins, Ibrahim, 2001. p2; Rogan, 2009. p. 8.

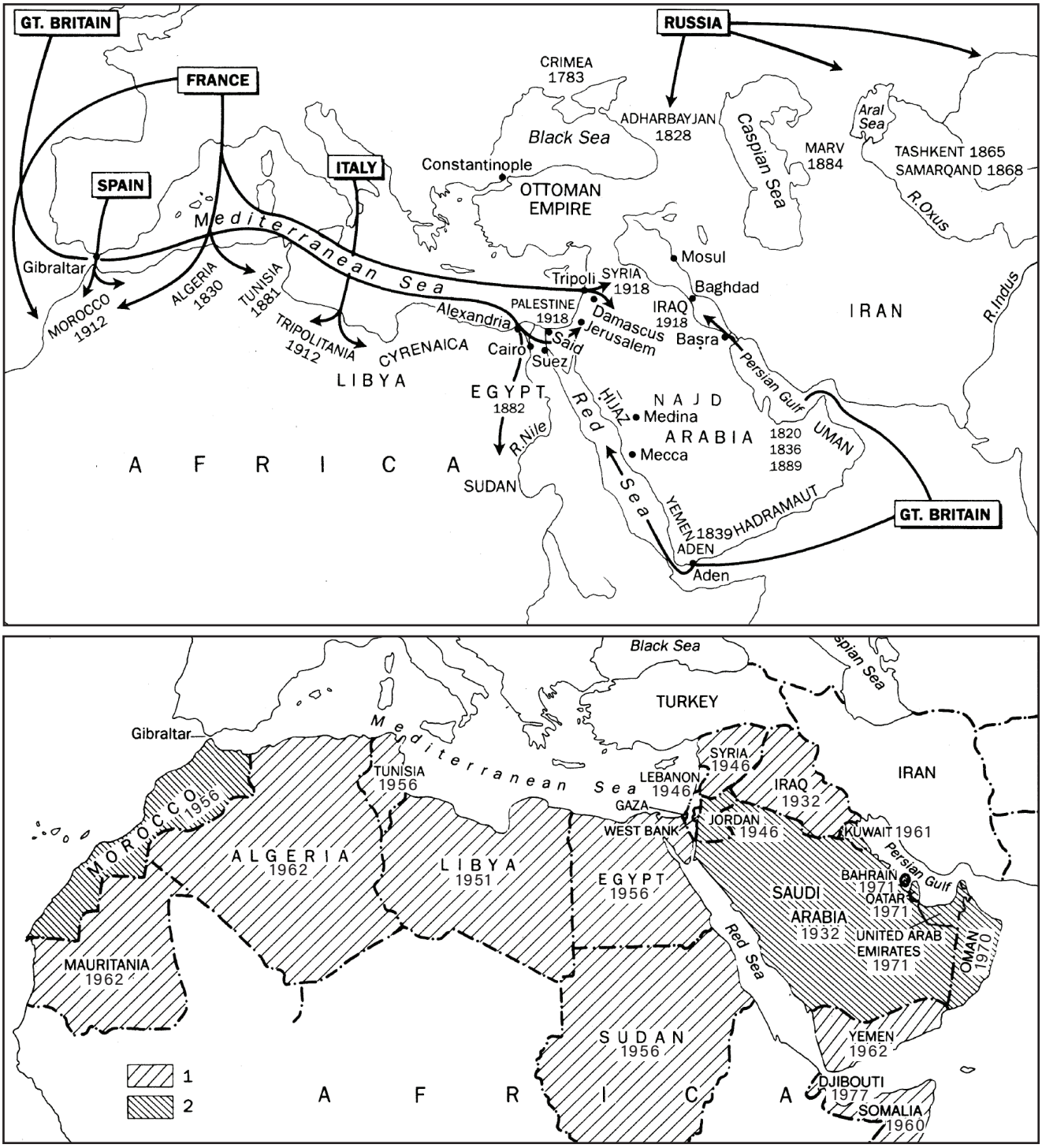


Figure 1.10 **Top:** the attacks of the European Empires on the Arab region in the nineteenth and twentieth centuries. **Bottom:** a rough map of the Arab world in 1992 (1: Republics, 2: Monarchies) with dates of the year of independence. Maps are adapted from Lewis, 2002. pp. 186, 193. Years of independence from Hopkins & Ibrahim, 2001. p. xiii. Borders in the bottom map are approximate (from the source) and show the historical situation which, in some cases, does not reflect the current borders.

The term 'Arab states' at present officially refers to twenty-two countries: Algeria, Bahrain, Comoros, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Somalia, Sudan, Syria, Tunisia, UAE and Yemen.[40] These countries extend from the Atlantic ocean in the west to the Arab-Persian Gulf in the east, with a total population of around 430 million people.[41] Islam is the religion of over 90%

40. These countries are the current members of what is known as the League of Arab states or the Arab League. See Britannica, 'Arab League'. https://www.britannica.com/topic/Arab-League; http://www.leagueofarabstates.net/ar/aboutlas/Pages/CountryData.aspx (accessed 6 April 2020).
41. Based on 2019 data. https://data.worldbank.org/ (accessed 11 Jan 2021).

of the Arab population. Christians form the main religious minority and are based mainly in Syria, Lebanon, Jordan, Egypt and Palestine. The Arabic language is recognised as the sole or the joint official language in all Arab countries; however, Arabic is by no means the sole native language used in the region. Major ethnicities that use other languages are Berbers of North Africa and the Kurds in North Iraq and Syria. Also, in some countries, indigenous languages are widely used such as Somali, Swahili and Comorian which are dominant in Somalia, Djibouti and Comoros respectively. Although the Arab region is politically divided into over twenty countries, it is still identified by its people as the 'Arab Homeland' (Al-Watan al-Arabi).[42]

The Arab countries are diverse in many aspects including wealth, population, literacy rates and types of governments (Table 1.2).[43] Economic prosperity measured by GDP per capita ranges from below $800 in Yemen and Sudan to over $30,000 in Qatar, UAE and Kuwait. Literacy rates are above 95% in Bahrain, Jordan, Kuwait, Lebanon, Oman and Saudi Arabia but are lower than 55% in Mauritania and Yemen.[44] Their histories with education also vary considerably. For example, Lebanon has higher education institutions –often with English and French as the medium of instruction– that were established since the nineteenth century while some countries in the Gulf region had their first secondary schools opened in the 1950s. The Arab countries also vary in size from city-states such as Bahrain, Qatar and Kuwait through the agrarian states of the Fertile Crescent[45] and the overpopulated Nile valley state of Egypt to countries with vast desert territories such as Saudi Arabia, Libya and Algeria. The different political regimes of the region also differ between republics and various kinds of monarchies.[46]

Language use in the Arab world

The term 'Arabic language' in the present-day refers to a variety of forms of the Arabic language. Linguists differentiate between two main current forms of Arabic: the Modern Standard Arabic (MSA)[47] and Colloquial Arabic (QA).[48]

42. See Holes, *Modern Arabic: structures, functions, and varieties.* Washington, D.C.: Georgetown University Press, 2004. pp. 1-2; Beeston, *The Arabic language today.* London; New York: Routledge, 2017. p. 11; Hopkins & Ibrahim, 2001. pp 1-2.

43. Table 1.2 shows the data in the year the study was performed (2019), not in the year the research was finished (2022). Some statistics has changed between the two periods. For example, the total population of the listed countries has increased by around 9 millions between 2019 and 2022, based on data. worldbank.org.

44. It is worth mentioning that literacy rates might sometimes give incorrect indications when they are affected by the population. For example, although a country like Egypt has a literacy rate of around 70%, its relatively high population makes the number of its educated people larger than the number in many Arab countries combined.

45. The Fertile Crescent countries term usually refers to Iraq, Syria, Lebanon, Palestine and Jordan.

46. Hopkins & Ibrahim, 1998. p.2

47. The term Modern Standard Arabic is used by some linguists to differentiate the current form of formal Arabic from Classical Arabic which is sometimes regarded as an older form of formal language. However, this classification is controversial among linguists as some consider that the differences between Classical Arabic and Modern Standard Arabic are not worth distinguishing the two forms. See Ryding, 2005. p. 4.

48. Also referred to as Vernacular Arabic. See Ryding, 2005. p. 5.

	Literacy rate (Most recent)	Population (2019) in Millions	GDP per capita (2019) in USD
Algeria	81 (2018)	43,053,054	3,974.0
Bahrain	97 (2018)	1,641,164	23,504.0
Comoros	59 (2018)	850,891	1,370.1
Djibouti	Not available	973,557	3,414.9
Egypt	**71.1 (2017)**	**100,388,073**	**3,019.2**
Iraq	86 (2017)	39,309,789	5,955.1
Jordan	**98 (2018)**	**10,101,697**	**4,405.5**
Kuwait	**96 (2018)**	**4,207,083**	**32,000.4**
Lebanon	**95 (2018)**	**6,855,713**	**7,583.7**
Libya	86 (2004)	6,777,453	7,685.9
Mauritania	53 (2017)	4,525,698	1,679.4
Morocco	74 (2018)	36,471,766	3,204.1
Oman	**96 (2018)**	**4,974,986**	**15,343.1**
Palestine	97 (2018)	4,685,306	3,562.3 (2018)
Qatar	**93 (2017)**	**2,832,067**	**62,088.1**
Saudi Arabia	**95 (2013)**	**34,268,528**	**23,139.8**
Somalia	Not available	15,442,906	Not available
Sudan	61 (2018)	42,813,238	441.5
Syria	**81 (2004)**	**17,070,135**	**2,032.6 (2007)**
Tunisia	79 (2014)	11,694,721	3,317.5
UAE	**93 (2015)**	**9,770,529**	**43,103.3**
Yemen	54 (2004)	29,161,922	774.3

Table 1.2 Literacy rates, population and GDP per capita across the Arab countries (countries highlighted in bold are the focus of this research). Source: https://data.worldbank.org/ Literacy rate, adult total (% of people ages 15 and above); Population, total; GDP per capita (current US$), (last accessed 16 December 2020)

Modern Standard Arabic has a unified form across the Arab world and is the form that is used in schools and almost all forms of the written word including newspapers, books, journals, street signs and advertisement. It is also the language that is used in formal speeches such as public speaking and news broadcast on television and radio. Colloquial Arabic, on the other hand, is used for everyday informal conversations and has a wide range of vernaculars across the Arab world. These vernaculars are almost entirely spoken and are not codified in national education. Colloquial Arabic differs on various levels from and within one region/country to another. For example, dialects that are used across Syria, Jordan, Palestine and Lebanon are relatively clearly intelli-

gible to their speakers. The same case applies within the countries of the Arabian Peninsula.[49] However, mutual intelligibility decreases with geographical distance, for example, when comparing the countries of Maghreb[50] with any of the afore-mentioned regions.[51]

Language use in the Arab world also shows a noticeable spread of foreign languages, mainly English and French, across many countries. This use is more recent in some countries or regions than in others as it is related to different cultural and political factors. For example, the spread of the French language in the countries of Maghreb started since the French occupation of the region in the nineteenth century and still affects language use in education, governance, media and everyday speaking until the current day.[52] Lebanon, on the other hand, can be considered as a unique example in its surrounding region where language use can be associated with different cultural identities within its society. Religious and commercial associations with France since the nineteenth century, besides the French occupation period during the twentieth century, has contributed to the wide popularity of the French language in Lebanon until today.[53] However, no considerable influence of the French language is still to be found in Lebanon's surrounding region. In countries such as Egypt, Jordan and the Arabian Gulf, the English language is gaining increasing dominance in higher education and business alongside increasing popularity in daily interactions by young Arabs.[54] This increasing use of the English language across parts of the Arab world can be linked to the present universal position of the English language.[55]

The status of Arabic language use across the Arab region makes Modern Standard Arabic the form of language that is most relevant to research on Arabic typographic materials. Moreover, this unified form of language in Arab education, media and publishing across the Arab region brings obvious advantages when addressing materials and readers' preferences in various Arab countries despite the possible cultural diversity and differences in dialects.

49. Arab Peninsula countries refer to Kuwait, Saudi Arabia, Bahrain, Qatar, UAE, Oman and Yemen. The same countries with the exception of Yemen are referred to as the Gulf countries or Gulf Cooperative Countries.

50. Countries of Maghreb (West) refer to the West African Arab countries: Mauritania, Morocco, Algeria, Tunisia and Libya.

51. This coexistence of two varieties of language within a society; one that is vernacular and another that is literary and for formal speaking is referred to in linguistic terms as 'diglossia'. See Albirini, *Modern Arabic sociolinguistics: Diglossia, variation, codeswitching, attitudes and identity.* London: Routledge, 2016. pp. 3-4, 9-14; Ryding, 2005. pp. 5-6; Holes, 2004. pp. 3-6; Beetson, p11-12.

52. As previously mentioned in section 1.2, this partially explains why the Maghrib countries were excluded from the geographic scope of this research.

53. Albirini, 2016. p. 156; Suleiman, *The Arabic language and national identity: a study in ideology.* Edinburgh: Edinburgh University Press, 2003. pp. 204-207. It is worth pointing out that Lebanon is often referred to as Syria in this historical context for being part of Ottoman Syria. Referring to it here as Lebanon is only to allow a simple connection with the present-day national boundaries.

54. The massive number of expatriate workers in the Gulf region also contributes to the status of language use within the region. See Kirkpatrick and Barnawi, 'Introduction: English language education policy in MENA', in *English Language Education Policy in the Middle East and North Africa,* ed. Kirkpatrick, Robert. Cham: Springer, 2017. p. 5.

55. Amara, 'Challenges of Arabic language education policies in the Arab world,' in *The Routledge handbook of Arabic linguistics.* Milton Park, Abingdon, Oxon; New York, NY: Routledge, 2018. pp. 551-552.

1.7. Arabic-language publishing

The development of Arabic-language printing and publishing[56] in the Arab world during the last two centuries took significantly distinct lines across different Arab regions and countries. For example, while the establishment of the first local printing press and newspaper in Egypt took place in the 1820s,[57] similar initiations in the Gulf region took place almost one hundred years later in the 1920s.[58] Several factors contributed to separate development lines across the region including differences in literacy rates, education levels, technology, political and economical contexts, population and geography.[59]

The changing contexts in the developing and often unstable Arab region also brought constant changes, either positive or negative, to the movement of publishing across the region. For example, the oil economic boom in the Gulf region in the last few decades enabled a constantly increasing role for its countries in Arabic-language publishing.[60] Moreover, the region eventually turned into one of the most important markets in the Arab world,[61] supported by the increase in population and literacy rates, developments in education and the relatively higher purchasing power. On the other hand, in countries such as Iraq, Libya, Syria and Yemen, the disastrous wars and military conflicts had severe effects on the publishing sector. The forced displacement of population, economic damages and disruptions on the exports of Arabic-language publications led publishers to reduce the numbers of titles and their print runs. Publishers were also forced to close their businesses or transfer their premises to more secure areas or neighbouring countries.[62]

Considering the complex situations and factors that surround the status of Arabic-language publishing across the Arab region, this section does not attempt to give detailed information about Arabic-language publishing in each of the countries surveyed but rather introduces some main characteristics,

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56. The term publishing in this research refers to the industry of producing and distributing books, magazines, newspaper and other material, either printed or digital.
57. Amin, 'Status of media in Egypt' in *Encyclopedia of international media and communications,* ed. Johnston, Donald, vol. 4. San Diego, California: Academic Press, 2003. p. 480. It is worth mentioning that, in Ottoman Syria, Christian Arabs had small local presses much earlier through their relations with Europe. The influence of those presses, however, was minimal as they often had short functioning time spans and their role remained limited to printing religious books for the Christian minorities.
58. It is believed that the printing press and newspapers were first introduced in the Gulf region by the Ottoman government since 1882, but without a considerable extending influence. See Ṣābāt, تاريخ الطباعة في الشرق العربي (*History of printing in the Eastern Arab region*), Cairo, Egypt: Dār 'al-Ma'ārif, 1966. p. 331-3.
59. Essoulami, 'The press in the Arab world: 100 years of suppressed freedom', 2009. https://al-bab.com/arab-media-historical-background (accessed 11 April 2020).
60. Wheeler, 'Status of media in Saudi Arabia and the Gulf states' in *Encyclopedia of international media and communications,* ed. Johnston, Donald, vol. 4. San Diego, California: Academic Press, 2003. p. 128.
61. Atiyeh, 'The book in the modern Arab World: The cases of Lebanon and Egypt.' in *The Book in the Islamic world,* ed. George N. Atiyeh. Albany: State University of New York Press, 1995. p. 243; Winkler, 'Book production and publishing' in *Mass media, politics & society in the Middle East,* ed. Kai Hafez. Cresskill: Hampton Press, 2001. p. 169; Dajani, 'Arabic books' in *Arab media: globalization and emerging media industries,* ed. Mellor, Noha. Cambridge: Polity, 2011. p. 38
62. Mermier, 'Arab Publishing in Troubled Times: Features of Arabic Publishing', 2017. https://www.villaromana.org/front_content.php?idcat=265&idart=1058&lang=3 (accessed 5 May 2020).

developments and statistics with relevance to the scope of this research. The introduction provides an overview of the historical development and current status of Arabic-language publishing across the surveyed region with a focus on Arabic books, newspapers and websites.

Understanding Arabic-language publishing

Researchers in Arabic-language publishing suggest that, to understand the history of Arabic-language publishing, one does not need to focus on the early introductions of printing presses in the region but rather on the events and circumstances that established publishing as a public culture. While early local initiatives to produce printed Arabic materials took place since the beginning of the eighteenth century,[63] it was only around the mid-nineteenth century that Arabic-language publishing started to have a sufficient level of stability and popularity.[64] Introducing printing presses among Arab societies did not result in an immediate emergence of publishing as a public culture because other key ingredients for such an emergence were also required. One of the main requirements, for example, was the achievement of mass literacy among Arab people. Such an achievement required major educational and cultural transformations and was tied to many factors including organisational and economical capabilities and governmental will.[65] Only when such transformations in mass literacy were achieved, an effective establishment of publishing as a public culture became possible.

In correlation with the explanations listed above, Nabil Dajani, a media sociologist and a researcher on Arab media, mentions an additional factor that influenced the emergence of the popular press in the region:

> Popular papers in the Arab world could not develop until necessary and sufficient factors for their need by the population materialized. These factors are printing, literacy, and, most important, conflict. While printing and literacy are necessary ingredients, they are not sufficient for the emergence of a popular press. Popular need for information develops during times of conflict or discord. Conflicts prompt the population to seek information that will help them understand events and reduce public dissonance.[66]

Said Essoulami, a researcher on Arab media, mentions this in greater detail:

63. Printing with Arabic type took place much earlier in Europe since the early sixteenth century but the European attempts are not addressed in this introduction as they are less relevant to the research.
64. Auji, *Printing Arab modernity: Book culture and the American press in nineteenth-century Beirut*. Leiden, Netherlands; Boston, Massachusetts: Brill, 2016. pp. 1-2; Atiyeh, 1995. p. 233.
65. Auji also suggests that such transformations were challenged by established education and knowledge transmission methods among Arab societies which strongly relied on verbal methods. See Auji, 2016. p. 35.
66. Dajani, 'Arab press' in *Arab media: globalization and emerging media industries*, ed. Mellor, Noha. Cambridge: Polity, 2011. p. 45; Dajani & Najjar, 'Status of media in Syria, Lebanon and Jordan' in *Encyclopedia of international media and communications,* ed. Johnston, Donald, vol. 4. San Diego, California: Academic Press, 2003. p. 302.

> Among the most important of the political factors we should cite: the Arab nationalism which called for independence from the Ottoman, French and British empires, the creation of the state of Israel and its ensuing wars, military coups d'etat, civil conflicts and the Gulf War, as well as the development of a politicised Islam. The petrol boom, the baby boom and its corollary of an increase in literacy, [...] have also influenced the development of the press [...].[67]

Egypt and Lebanon were established as pioneers of Arabic-language publishing since the nineteenth century. Both regions were introduced to the printing press at a relatively early stage. More importantly, both had political and cultural contexts which motivated the spread of publishing among the public. In Lebanon, the competition between Western Christian missionary schools on influencing Arab Christians in tandem with the Arab nationalistic movement in opposition to the Ottoman Empire were major motivations behind the early spread of printed works. In Egypt, the interest of the local government in introducing the printing press to the public played an important role in establishing Egypt as a regional publishing centre.[68]

The drastic changes in the Arab region during the twentieth century including the colonial period, revolutions, regional and civil wars all had significant effects on Arabic-language publishing. In Egypt and Lebanon, the influence of these contexts often had negative impacts on publishing, particularly on printed media.[69] Interventions of governments, censorship regulations and financial problems often disrupted the functioning of newspapers, restricting or manipulating their role.[70] Due to such circumstances, Egypt and Lebanon lost their regional pioneering role in Arab media in the last few decades; however, they are still considered leaders in Arabic book publishing.[71]

During the second half of the twentieth century, the oil economic boom in the Gulf countries enabled an increasing role in publishing for the region. Interests from the governments in improving the cultural environment in their countries, besides the wish to create local media voices that can stand in the face of competition from regional media, especially after the 1991 Gulf war, were the main factors that encouraged these advancements. The new opportunities in the Gulf attracted experts in printing, publishing and media from other Arab countries, contributing to significant developments.[72] Countries

67. Essoulami, 2009. It is worth mentioning that the time span of these events is roughly between 1850s and 1990s.
68. See Amin, 2003. pp. 479-80; Auji, 2016. p. 2; Dajani & Najjar, 2003. p. 302; Dajani, 'Arabic books', 2011. pp. 35-40
69. Arabic books publishing was also temporarily affected by some political situations. See Atiyeh, 1995. pp. 249-250.
70. Dajani, 'Arab press', 2011. pp. 52-3.
71. Atiyeh, 1995. p. 234
72. Essoulami, 2009 ; Al-Jaber & Gunter, 'Evolving news systems in the Gulf countries' in *News media in the Arab world,* ed. Gunter, Barrie and Dickinson, Roger. New York: Bloomsbury, 2013. pp. 23-24; Dajani, 'Arab press', 2011. pp. 53-54; Gunter & Dickinson, 'The changing nature of news and the Arab world' in *News media in the Arab world,* ed. Gunter, Barrie and Dickinson, Roger. New York: Bloomsbury, 2013. p. 6.

such as Kuwait, Saudi Arabia, Qatar and UAE started to gain increasing roles in Arabic-language publishing,[73] and some even emerged to become regional leaders in Arab media.[74]

Statistics on Arabic-language publishing

There are no accurate statistics on the production and sales of printed Arabic-language publications in the Arab world.[75] There are no centralised systems that audit the production and distribution of printed Arabic-language books, while only a small number of Arabic newspapers have their circulation figures audited.[76] Recent statistics on global publishing from international organisations either do not cover the Arab region or include only fragmented data from a small number of Arab countries, which reflects the lack of data from the region.[77] As a result, available figures on the circulation of newspapers or sales of books often come as fragments from various sources with no ability to validate their accuracy. With relevance to the scope of this research, the case is only better concerning statistics on Internet penetration and visits to Arabic websites which are available through web-analysis technologies. Considering the difficulties presented above, the figures on the production and circulation of printed publishings in this section are presented as approximate indicators of the scale of publishing in the region and should not be considered to be precise.

According to relatively recent statistics on newspapers in the Arab region, the number of daily printed newspaper titles and the circulation figures in the countries surveyed in this research show a general constant increase between the years 2003 and 2009.[78] The number of newspaper titles increased from 81 in 2003 to 95 in 2006 and 111 in 2009 (Figure 1.11). Estimated figures concerning the circulation of daily newspapers in the same countries show an increase

73. It is worth noting that the strong purchasing power in the region also brought obvious advantages to the industry. See, Dajani, 'Arabic books', 2011. p. 41.

74. The establishment of Al Jazeera channel in Qatar, for example, can be considered a turning point in modern Arab media as it presented new regional standards in journalistic quality and freedom. With its wide popularity, other countries in the region realised the importance of competence and took similar initiatives such as the establishment of Al Arabiya channel by the Saudi government. In the present-day, the two channels can be considered among the most influential in the region and their websites are among the most visited Arabic websites. See Gunter & Dickinson, 2013. p. 36.

75. See Dajani 'Arabic books', 2011. p. 39; Abou-Zeid, 'the Arab book market', 2013. http://www.vrijgeestesleven.be/vanaf70/b91/buchmarkt_arabische_welt.pdf (accessed 28 April 2020); Rugh, *Arab mass media: newspapers, radio, and television in Arab politics.* Westport, Connecticut: Oxford Praeger Publishers, 2004. p. ix.

76. Only five newspapers in the surveyed region are audited according to data from 2009. No further updates could be found. See DPC, *Arab media outlook 2009-2013,* Dubai: Dubai Press Club, 2010. p. 41.

77. For example, reports by International Publishers Association (IPA) and World Intellectual Property Organization (WIPO) between 2016 and 2018 include almost no data from the countries surveyed with the exception of fragmented data from Saudi Arabia and Lebanon. See IPA and WIPO, *The global publishing industry.* Switzerland, 2016; 2017; 2018.

78. DPC, 2010. p. 29. The report does not clarify whether the numbers include non-Arabic language newspaper titles as well; however, comparing the data with another study indicates that they apparently do. Statistics from Rugh's book from 2003 show a similar total number of titles as that given above among which 19 titles (around 20%) were published in English or French. See Rugh, 2004. pp. 30, 61, 92, 123.

from 8,400,000 in 2007 to 9,500,000 in 2009 (Table 1.3).[79] Calculating the circulation figures to the population in the addressed region in 2009 reveals an average of 61 daily newspapers per 1000 people.[80]

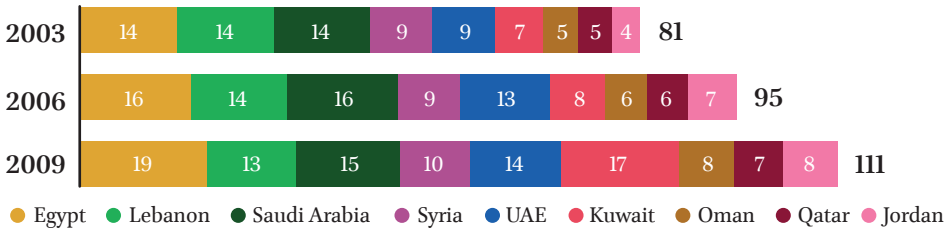


Figure 1.11 Number of printed newspaper titles in the countries surveyed between 2003 and 2009. Figure adapted from *Arab media outlook 2009-2013*, 2010. p. 29.

	Circulation estimates, 2007	Circulation estimates, 2009
Egypt	3,627,000	4,018,000
Saudi Arabia	1,756,000	1,878,000
UAE	993,000	1,092,000
Kuwait	550,000	961,000
Lebanon	386,000	396,000
Syria	358,000	379,000
Jordan	302,000	313,000
Oman	250,000	290,000
Qatar	200,000	200,000
Total	**8,422,000**	**9,527,000**

Table 1.3 Estimates of daily newspaper circulation in the surveyed countries in 2007 and 2009. Data adapted from *Arab media outlook 2009-2013*, 2010. p. 29.

While there are no detailed figures about the production and distribution of Arabic-language books in the Arab countries, available data can provide rough indications about the scale of the industry in the countries surveyed. Researchers in Arabic book publishing state that the majority of Arabic books are produced in Egypt, Lebanon, Syria, Jordan and recently Saudi Arabia.[81] The average annual book production in these countries combined between the years 2011 and 2013 is estimated between 15,000 to 18,000 new titles, with print runs usually ranging between 1,000 to 3,000 copies each.[82] These figures can be considered very low compared to international publishing

79. DPC, 2010. p. 30. The author was not able to find more recent comprehensive statistics.
80. Population in the surveyed countries in 2009 was approximately 155.6 million based on data from worldbank.org.
81. See, for example, Winkler, 2001. p. 168 and Abou-Zeid, 2013. Abou-Zeid's article mentions that these countries combined represent around 80% of Arabic book production in the Arab region. However, it is difficult to know to what extent the industry of Arabic book publishing in Syria has been affected by the ongoing conflicts since 2011.
82. Abou-Zeid, 2003.

figures.[83] Researchers in Arabic-language publishing attribute the small scale of Arabic book production to several serious issues that affect the industry. These mainly include high levels of piracy, low purchasing power, insufficient readership, strict censorship regulations, restrictions on the distribution of books across the Arab region and the closure of important regional markets due to conflicts.[84]

Access to the Internet in the Arab region experienced a rapid increase during the last fifteen years, bringing significant changes to the publishing industry and reading habits. Although the introduction of the Internet for individual users occured at a slow pace in the majority of the Arab countries until 2005, the years which followed brought speedy developments (Figure 1.12). Between 1992 and 2000, the Middle East was ranked among the lowest Internet provided regions in the world.[85] In the present day, the percentage of Internet users is more than 90% of the population in 5 out of the 9 surveyed countries. The employment of the Internet provided a new form of communication which gradually evolved as a popular source of information among

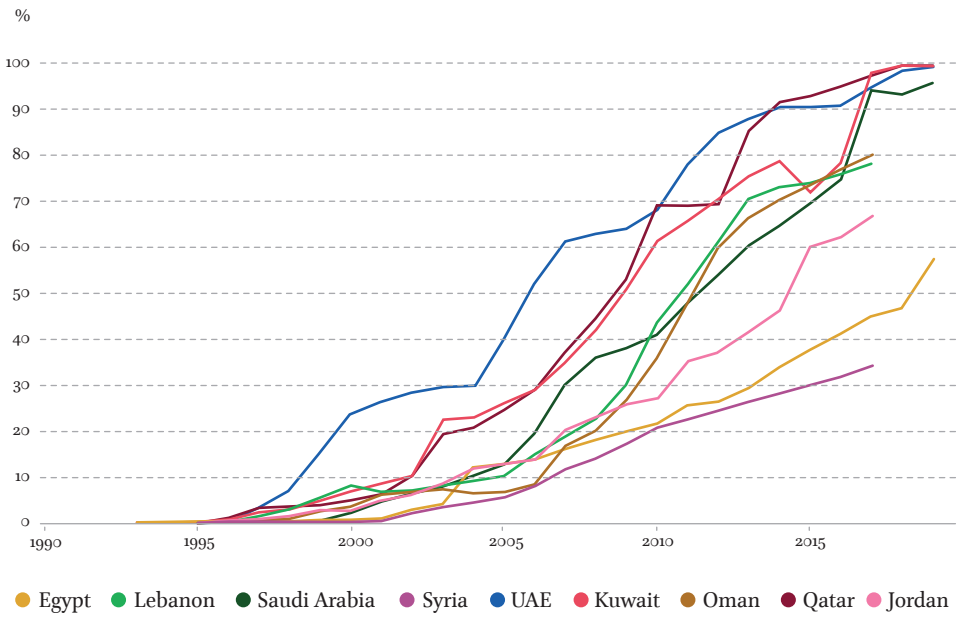


Figure 1.12 Internet access among individual users in the addressed Arab countries. https://data.worldbank.org/ Individuals using the Internet (% of population) (accessed 3 December 2020)

83. For example, the number of new and revised titles published in the UK in 2013 was about 184,000, of which 60,000 were digital. If only the printed publishings are counted, the figure (about 124,000) makes around 7 times the estimated number of new titles in the mentioned Arab countries combined. When considering that the population in these Arab countries in 2013 (approximately 146 million) was around double the population in the UK (around 64 million), the gap becomes more significant. See The Guardian, 'UK publishes more books per capita than any other country, report shows', 2014. https://www.theguardian.com/books/2014/oct/22/uk-publishes-more-books-per-capita-million-report (accessed 12 December 2020). Population data are based on worldbank.org.

84. Atiyeh, 1995. pp. 249-50; Winkler, 2001. pp. 169-70 and Abou-Zeid, 2013.

85. El Gody, 'New media, new audience, new topics, and new forms of censorship in the Middle East' in *New media and the new Middle East,* ed. Seib, Philip. New York : Palgrave Macmillan US, 2007. p. 213.

Arab readers, especially as a source of news.[86] Studies from 2009 and 2011 suggest that around 40% to 50% of Arab news readers access news via the Internet.[87] Data from 2015 claims a considerable further growth, especially among younger readers, with up to 84% of them relying on online sites as an important source for news and information, compared to 73% among all adults.[88] In correlation with these statistics, data on the most visited Arabic websites between 2018 and 2020 often show a considerable number of news websites among the most visited websites, which reflects the increasing importance of the Internet as a source of information.[89]

86. Gunter and Dickinson, 2013. pp. 1, 12-13. It is worth mentioning that digital book publishing might not show similar popularity as in the case of news websites, however, such evaluations might be considerably affected by the issue of piracy in the Arab world. See, for example, Wischenbart & Jarrous, 'An Arab publishing panorama', 2012. https://www.bookbrunch.co.uk/page/free-article/an-arab-publishing-panorama/ (accessed 5 May 2020).

87. DPC, 2010. p. 34.

88. This does not mean a complete replacement of printed newspapers but rather both media are used in parallel, as the same study shows. 40-47% still rely on printed newspapers as an important source of news. See DPC, *Arab media outlook 2016-2018,* 2016. p. 62.

89. To give an indication of numbers of visits, aljazeera.net, one of the most Arabic visited websites had an average of 20.36 M visits per month based on data from Similarweb analytics service. https://www.similarweb.com/website/aljazeera.net (accessed on 15 Apr 2020).

2. Diversity in Arabic type styles: emergence and contexts

This chapter addresses the emergence and standardisation of influential Arabic text typefaces in relation to type-use practices by the beginning of the 21st century. The factors that affected the development of Arabic type styles that are addressed in this research can be broadly categorised as technical and cultural factors. The effect of technical factors on the representation of Arabic type is a topic that has been addressed in several studies concerning different periods and typesetting technologies.[1] The transformations of the Arabic script between different production methods, starting with the transition from the scribal form to movable type through hot-metal type, photocomposition and ending by digital type, have brought considerable and permanent influences on the visual representation of the Arabic script. These influences can be mainly summarised in the imposition of various levels of simplification and/or distortion of Arabic letterforms and the orthographic structure of the script as a result of adapting Arabic to different typesetting methods. The development of Arabic type during the last few decades was also affected by cultural factors that led to the emergence of new Arabic type design approaches. Towards the turn of the 21st century, the increasing influence of globalisation affected large parts of the Arab region, contributing to the emergence of design practices that import features from the Latin script into the Arabic. This section addresses the technical and cultural aspects mentioned above in light of the surrounding contexts that contributed to the standardisation of the new Arabic type styles.

This chapter relies on existing research to address the technical aspects that contributed to the emergence and standardisation of popular Arabic text type styles. The written works of Fiona Ross and Titus Nemeth formed an important basis for this part of the research. This chapter includes only a condensed demonstration of information related to the scope of this research, although the consulted works provide further details and excellent analyses that are closely related to this topic. To avoid extensive repetition of existing works, this chapter focuses on covering aspects that are necessary to understand the developments related to the scope of the research.

The analysis towards the end of this chapter (i.e., Latinisation and delocalisation of Arabic type-making) is an original contribution of this research. Part of the analysis is based on a previous study by the author,[2] however, the analysis in this research expands on related contexts and presents the case from a wider perspective.

1. Among the most prominent studies and articles that address this topic are the written works of Fiona Ross, Titus Nemeth, Graham Shaw, Emanuela Conidi and Thomas Milo (listed in the bibliography of this research).
2. Dakak, 2016. pp. 14-15; 24-30.

2.1. The status of local Arabic foundry type before the introduction of hot-metal typesetting

Examining printed Arabic language publications in the Arab region from the early 1900s shows that the Naskh style formed the dominant design reference of Arabic text foundry type[3] during that period.[4] Although the quality of type or typesetting can show noticeable differences across different local presses,[5] the uniformity of the design reference of the majority of Arabic text typefaces is evident (Figure 2.1). This relatively close resemblance of the Naskh style in Arabic text typesetting can be seen as a natural extension of its rooted use in the scribal tradition. However, maintaining such resemblance of the Naskh style in movable type required implementing a large character set and complex typesetting techniques to represent the variations of Arabic letters, their unique connections and correct placement of dots and diacritics.[6] This willingness to preserve a faithful representation of Arabic type despite the intrinsic complexities in the typesetting process reflects the strong tendency among local printers toward maintaining a conventional typographic representation of the Arabic script.

Reviewing the history of the development of local Arabic foundry type shows that Arabic type-making was established as a local craft since the beginning of popular Arabic printing.[7] Under this line of development, which extended roughly between the 1820s and the 1920s, the quality of local Arabic foundry type went through remarkable progress. A pioneer in producing Arabic foundry type was Būlāq Press in Egypt, which is widely recognised as one of the most influential presses in the Arab region.[8] The involvement of Būlāq Press in producing Arabic type started in the early years of establishing the press in 1821. Before the establishment of the press, a group of Egyptian

3. Foundry type is movable type cast from a lead-mixture for the manual composition of individual sorts into lines and paragraphs.

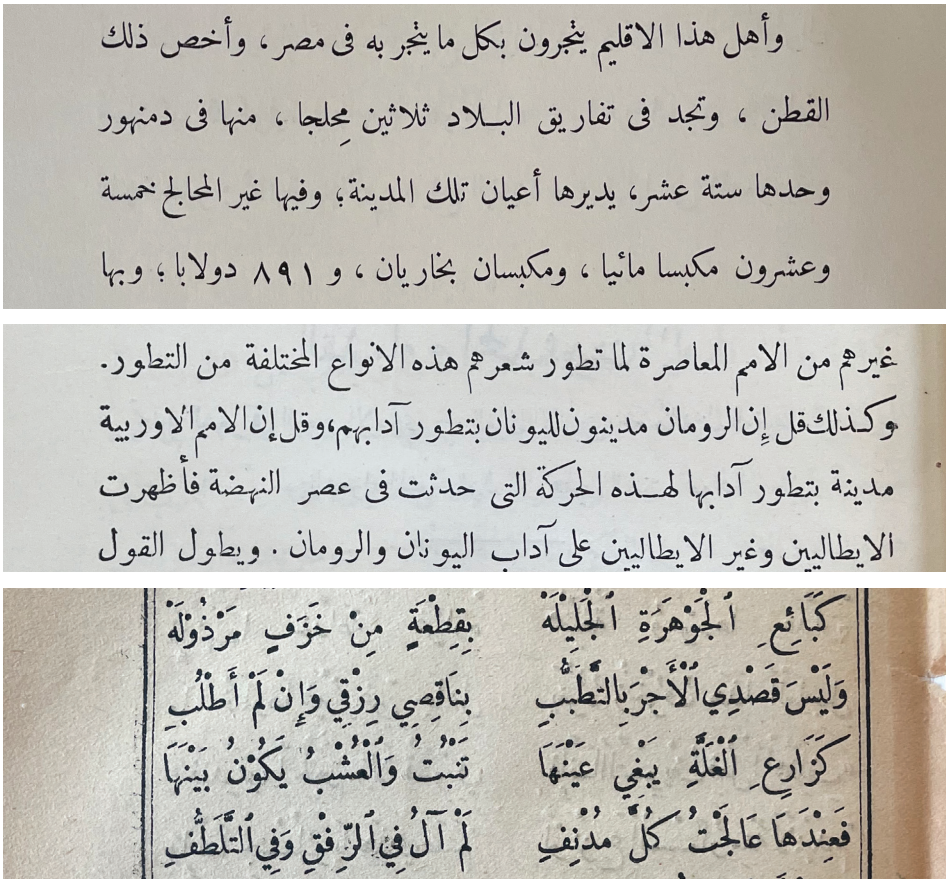
4. Among some Arabic local presses, a European Arabic type style was also used or formed a reference for local Arabic type design until the beginning of the twentieth century, especially in Lebanon or among Christian minorities across the Arab region. This unique case of type use can be explained by the close cultural and religious ties between Arab Christians and Europe. However, reviewing printed publications towards the twentieth century indicates that even this restricted use of the European type style has been gradually replaced by the more popular Naskh-based style. See, for example, Conidi, *Early Arabic types in Europe and the Middle East between XVI and XIX centuries,* PhD thesis [Unpublished], University of Reading, 2018. p. 565-567. The European type model is not covered in this study due to its limited use and insignificant influence on subsequent type developments in the Arab region.

5. Quality of printing can be affected by several factors including the quality of sorts, their age, the quality of typesetting and the skill of the printer.

6. As explained earlier in the introduction (section 1.5), the scribal form of the Arabic script has several features that cannot be easily achieved using the typesetting method. Among these features are the variations of shapes, cascading connectivity of letters and the potentially complex placement of diacritics, dots and vocalisation marks. For more detail, see Milo, 2002. pp. 118-122; Nemeth, 2017, pp. 22-26.

7. See Riḍwān, *Tārīkh maṭba'at Būlāq wa-lamḥah fi tārīkh 'al-ṭibā'ah fi buldān 'al-Sharq 'al-'Awsaṭ* [*The history of Būlāq Press and a glimpse into the history of printing in the countries of the Middle East*]. Cairo: 'al-Maṭba'ah 'al-'Amīrīyah, 1953. p. 96.

8. See, for example, Riḍwān, 1953. pp. 89-97, Mansour, 'The Būlāq Press Museum at the Bibliotheca Alexandrina' in *Historical aspects of printing and publishing in languages of the Middle East.* ed., Roper, Geoffrey. Leiden; Boston: Brill, 2014. pp. 287-289.


وأهل هذا الاقليم يتجرون بكل ما يتجر به فى مصر، وأخص ذلك
القطن ، وتجد فى تفاريق البلاد ثلاثين محلجا ، منها فى دمنهور
وحدها ستة عشر، يديرها أعيان تلك المدينة، وفيها غير المحالج خمسة
وعشرون مكبسا مائيا ، ومكبسان بخاريان ، و ٨٩١ دولابا ؛ وبها

غيرهم من الامم المعاصرة لما تطور شعرهم هذه الانواع المختلفة من التطور.
وكذلك قل إن الرومان مدينون لليونان بتطور آدابهم، وقل إن الامم الاوربية
مدينة بتطور آدابها لهذه الحركة التى حدثت فى عصر النهضة فأظهرت
الايطاليين وغير الايطاليين على آداب اليونان والرومان . ويطول القول

كَبَائِعِ ٱلْجَوْهَرَةِ ٱلْجَلِيلَهْ بِقِطْعَةٍ مِنْ خَزَفٍ مَرْذُولَهْ
وَلَيْسَ قَصْدِي ٱلْأَجْرَ بِالتَّطَبُّبِ بِنَاقِصِي رِزْقِي وَإِنْ لَمْ أَطْلُبِ
كَزَارِعِ ٱلْغَلَّةِ يَبْغِي عَيْنَهَا تَنْبُتُ وَٱلْعُشْبُ يَكُونُ بَيْنَهَا
فَعِنْدَهَا عَالَجْتُ كُلَّ مُدْنِفِ لَمْ آلُ فِي ٱلرِّفْقِ وَفِي ٱلتَّلَطُّفِ

Figure 2.1 Sample of the dominance of the Naskh style as a design reference of Arabic text typefaces in Arabic language publications from the second half of the twentieth century. Sources (from top to bottom) *'al-Riḥlah 'al-sulṭānīyah 'ilá 'iqlīm 'al-Buḥayrah*, 1920. Būlāq: 'al-Maṭba'ah 'al-'Amīrīyah, 1934. p. 5; Ḥusayn, Ṭāhā. *Ḥadīth 'al-'arba'ā.* Egypt: Dār 'al-Ma'ārif, 1925. p. 15; Ibn Al-Habbārīyah, Muḥammad Ibn Muḥammad, *Kitāb Natā'ij 'al-fiṭnah Fī Naẓm Kalīlah Wa-Dimnah*, ed. 'Asmar, Ni'mat 'Allāh. Beirut: 'al-Maṭba'ah 'al-Lubnānīyah, 1900. p. 13.

students, headed by Nīqulā al-Masābikī, were sent to Milan to learn the art of printing, including the crafts of punchcutting and casting type; at the same time printing presses were purchased from Italy.[9] Upon the return of al-Masābikī from Italy, the Arabic type which was made in Italy and which was used to print the first Arabic book in Būlāq Press was considered unsatisfactory as it resembled a 'foreign' style that does not fit the local taste.[10] Consequently, the press sought to cut and cast its own type based on an Arabic type model that was popular in Istanbul.[11] The press hired Senglākh Efendi al-Fārisī, a skilful Persian calligrapher who lived in Egypt, to help draw the new type. Senglākh created two letters: one that is based on the Naskh style for text setting; and another one based on the Nasta'līq style for titles. The Naskh type became the main type used by the Būlāq Press and no further publications were printed using the model that was imported from Italy (Figure 2.2).[12] Further developments on Būlāq type were carried out during later decades through several refinements and renovations. As highlighted by Abu al-Futūḥ Riḍwān, a researcher in the history of Būlāq Press, these developments were contributions of local or native punchcutters and calligraphers. Riḍwān

9. See Riḍwān, تاريخ مطبعة بولاق ولمحة في تاريخ الطباعة في بلدان الشرق الأوسط (*The history of the Būlāq Press and a glimpse into the history of printing in the Middle East countries*). Cairo: 'al-Maṭba'ah 'al-'Amīrīyah. 1953. pp. 47-49; Mansour, 2014. p. 293; Ṣābāt, 1966. pp. 148-151.
10. See Riḍwān, 1953. pp. 89-90; Conidi, 2018. pp. 609-611.
11. The Arabic script was used to write and print the Turkish language in Ottoman Istanbul during that period until 1928 when it was changed to the Latin. See Shaw & Shaw, *History of the Ottoman Empire and modern Turkey. vol. 2, Reform, revolution, and republic: The rise of modern Turkey, 1808-1975*. Cambridge: Cambridge University Press, 1977. p. 386.
12. Riḍwān, 1953. pp. 91-92.

mentions, for example, Qāsim Efendi al-Kīlānī, Mirza Wafa, ʿAbdullah Khairat and Muḥammad Jaʿfar Bey who worked on refinements and new designs of Būlāq Arabic types between 1832 and 1905.[13] Būlāq's type became widely recognised for its quality during the nineteenth and twentieth centuries, forming a role model for many other presses in the region.[14] In 1924, the type of Būlāq Press –which has reached its zenith by that time– was used to typeset the first authorised printed Qur'ān in Egypt, an occasion that is seen as a testimony to the fine standards of the type (Figure 2.3).[15]

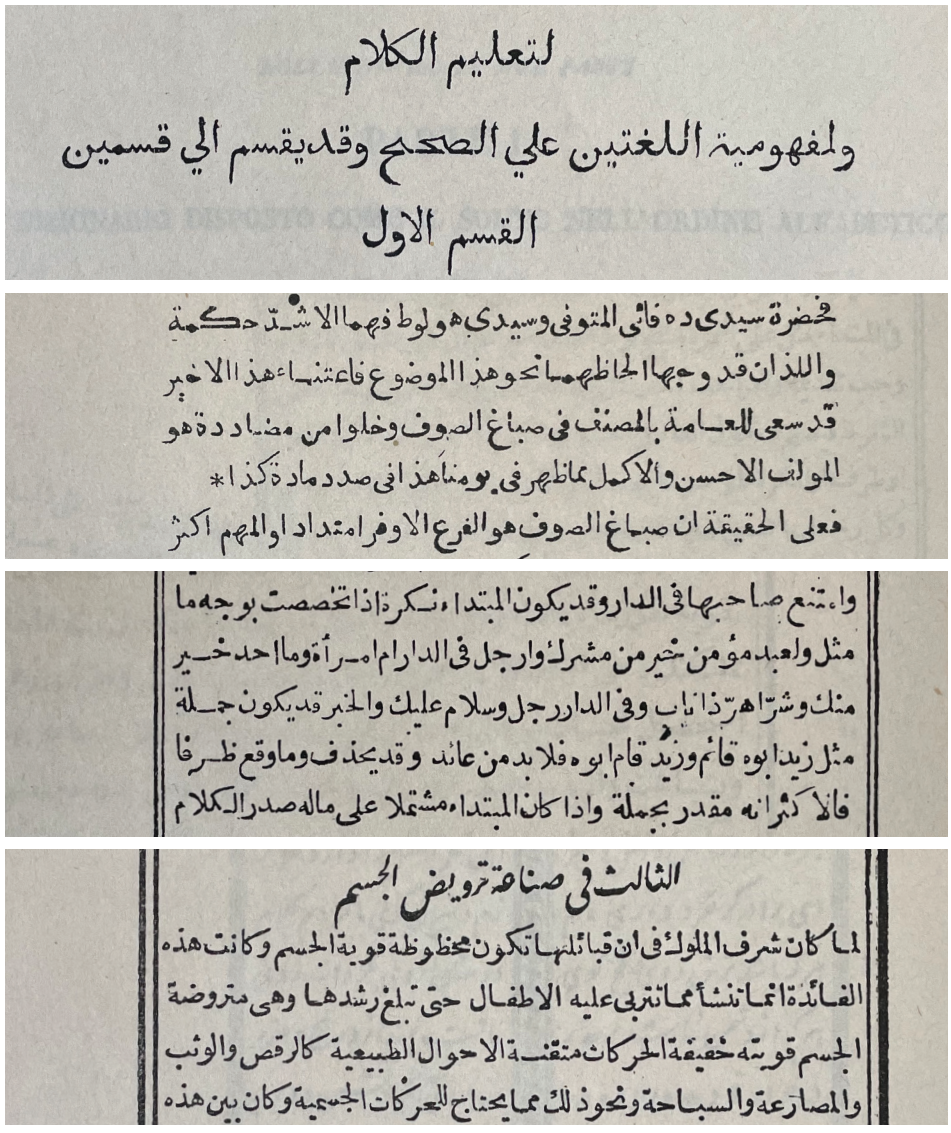
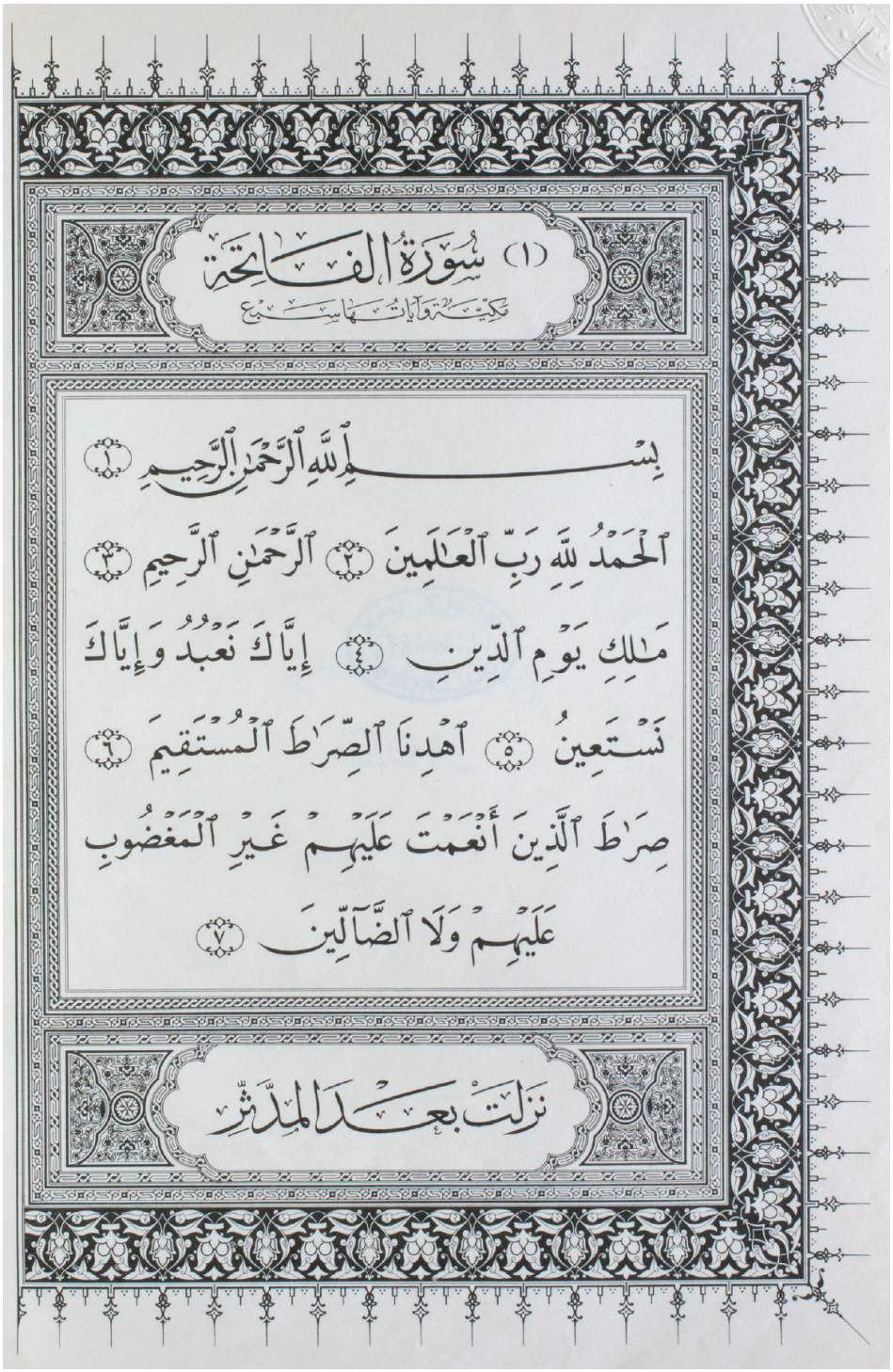


Figure 2.2 Sample of the early type used in Būlāq Press: **a.** The European Arabic type on the title page in the first book printed in Būlāq Press in 1822; **b.** The European Arabic type used in text setting in the same book; **c.** The local Arabic type of Būlāq used in a book printed in 1825; **d.** Sample of the use of Bulaq's Nastaʿlīq type in titles and the Naskh type in text in a book printed in 1834. Source: Riḍwān, 1953. The Appendix.

13. Riḍwān, 1953. pp. 91-93, 97, 223-224. Mansour, 2014. p. 288; Hosny, 'The Amiri typeface' in *TUGboat: Communications of the TEX users group*, Vol. 33, no. 1. ed., Beeton. USA: TEX Users Group, 2012. p. 12.
14. See Riḍwān, 1953. pp. 87-92, 190-193, 211; Ṣābāt, 1966. pp. 200, 204.
15. Mansour, 2014. p. 293; Nemeth, 2017. p. 160.



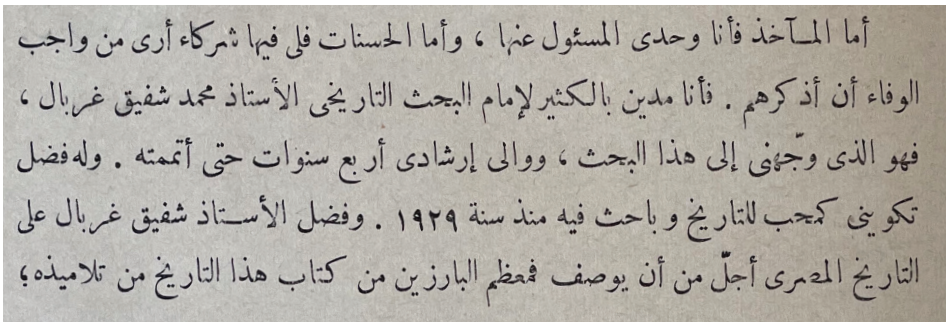

أما المآخذ فأنا وحدى المسئول عنها ، وأما الحسنات فلى فيها شركاء أرى من واجب
الوفاء أن أذكرهم . فأنا مدين بالكثير لإمام البحث التاريخى الأستاذ محمد شفيق غربال ،
فهو الذى وجّهنى إلى هذا البحث ، ووالى إرشادى أربع سنوات حتى أتممته . وله فضل
تكوينى كمحب للتاريخ و باحث فيه منذ سنة ١٩٢٩ . وفضل الأستاذ شفيق غربال على
التاريخ المصرى أجلّ من أن يوصف فمعظم البارزين من كتاب هذا التاريخ من تلاميذه ؛

Figure 2.3 Examples of Būlāq Arabic type in the twentieth century. Top: page from the Fu'ād Qur'ān, al-Qur'ān al-Karim, Cairo, 1924. 80% of actual size. Source: Conidi, 2018. p. 614. Bottom: page from the book of Abu al-Futūḥ Riḍwān set in Būlāq Arabic type. Source: Riḍwān, 1953. p. ix.

2.1.1. Design features of Būlāq typeface

A brief review of the design of Būlāq type helps realise some of the features that gave it its reputation and also helps understand the effect of succeeding type developments on the representation of Arabic type.[16] The design of Būlāq type is closely based on the calligraphic rules of the Naskh style. The design maintains many features of the calligraphic Naskh style, for both functional and aesthetic purposes. For example, different height levels of teeth letters are applied to enable better distinguishing between characters (Figure 2.4.a). A large number of letters variations is implemented, resembling the scribal treatment of contextual forms of Arabic letters (Figure 2.4.b). Elongation of the connection between some letters also works as a technique to justify the lines (Figure 2.4.c). A numerous set of ligatures is applied to enable a relatively close resemblance of conventional script rules. As a result of this sophisticated representation, the type contained at least 470 different sorts, which can be considered a relatively large character set compared to common standards in later technologies.[17]

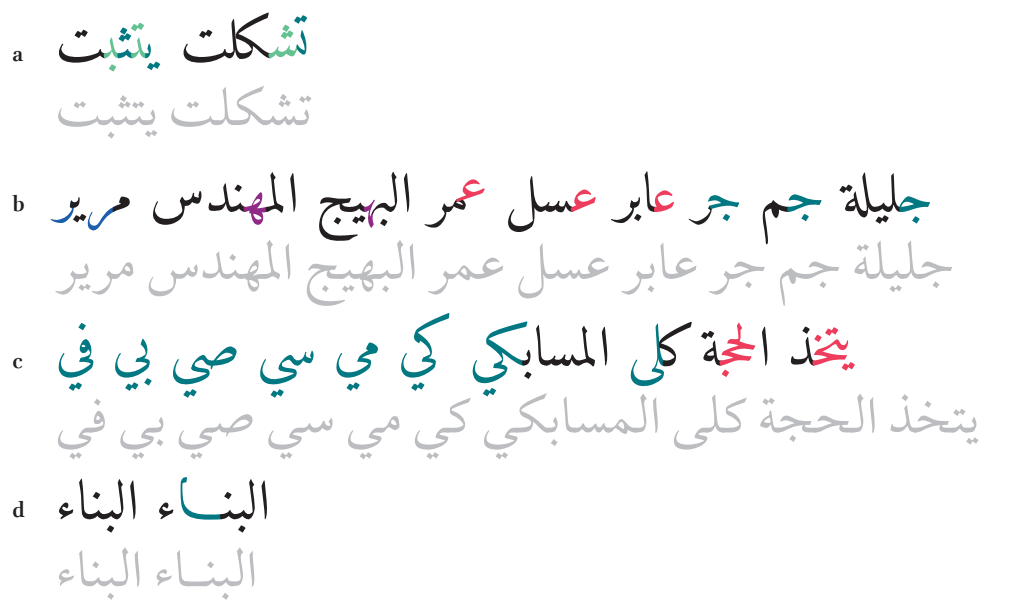


Figure 2.4 Sample of the design features of Būlāq Arabic type (black and coloured) in the twentieth century. The provided comparison with a more contemporary design (light gray) aids highlighting the demonstrated features of Būlāq type. **a.** An example of the different height levels of teeth letters (highlighted green) to help differentiate the letters. Note how this functional feature is lacking in a contemporary less sophisticated typeface (the gray comparison) ; **b.** Sample of the contextual alternates of letters jīm (highlighted green), ʿayn (highlighted red), hāʾ (highlighted purple) and rāʾ (highlighted blue); **c.** Sample of the ligatures of Būlāq type. Highlighted blue are two-letters ligatures. Ligatures have both functional and aesthetic benefits as they help eliminate unnecessary space between letters and offer a more aesthetic connection compared to the rigid connection seen in the gray comparison. Highlighted red are three-letters ligatures; **d.** A fluid elongation of the final alif. Typefaces: Amiri (top) and Lotus (bottom).

16. The digital typeface Amiri, which can be considered a faithful revival of Būlāq type, is used to demonstrate the addressed features of the design for efficiency purposes.
17. See Nemeth, 2014. p. 160; Conidi, 2018. p. 619.

The case of the development of local Arabic foundry type shows that Arabic type-making had a mature development as a local craft in one of the most influential centres of Arabic printing in the Arab region. Although printing machines for movable type remained imported from Europe,[18] local Arabic printers were keen on producing their own type that meets their aesthetic standards and expectations of text appearance. Būlāq Press played a significant role in developing and making Arabic foundry type, setting a reference for printing and type-making in the Arab region. The quality of Būlāq type was based on expert knowledge of the visual representation of the Arabic script and a skilful application of this knowledge in movable type.

With the introduction of mechanical typesetting machines for Arabic type by the beginning of the twentieth century, a new phase in Arabic type-making started to take place. The spread of mechanical typesetting and the gradual replacement of the older and less efficient method of typesetting not only contributed to the emergence and standardisation of new Arabic type styles but also had significant influences on the industry of Arabic type-making. These influences, as addressed throughout the following sections, affect the status of Arabic type design and use until the present day.

2.2. Hot-metal Arabic type: the emergence and standardisation of reduced character set Arabic type styles

Mechanical typesetting machines started to be developed for the Latin script during the nineteenth century and were successfully put in practice by 1885.[19] The new typesetting method eased the process of typesetting by allowing the arrangement of text through keying instead of arranging the sorts manually. This method brought significant speed and efficiency compared to the previous hand composition method, bringing considerable economical and practical advantages to the printing process. This invention that allowed the mechanisation of the composition of text succeeded previous steps that aimed at industrialising the printing process including the industrialisation of papermaking, pressing and casting type. These technical developments were mainly motivated by the newspaper industry to allow a more practical and cost-effective printing process.[20] At the beginning of the twentieth century, three successful typesetting machines were widely used: the Linotype, the Intertype and the Monotype system (Figure 2.5).[21]

Mechanical typesetting for Arabic type was first introduced around 1910 by Mergenthaler Linotype Company through the request of an Arabic-language newspaper in the United States.[22] However, it was only towards the 1950s that considerable popularity of mechanical typesetting machines started to take

18. See Riḍwān, 1953. pp. 47-48, 86, 189.
19. Nemeth, 2017. p. 37.
20. Ibid. pp. 35-36.
21. Ibid. p. 46.
22. Ibid. pp. 46-52.

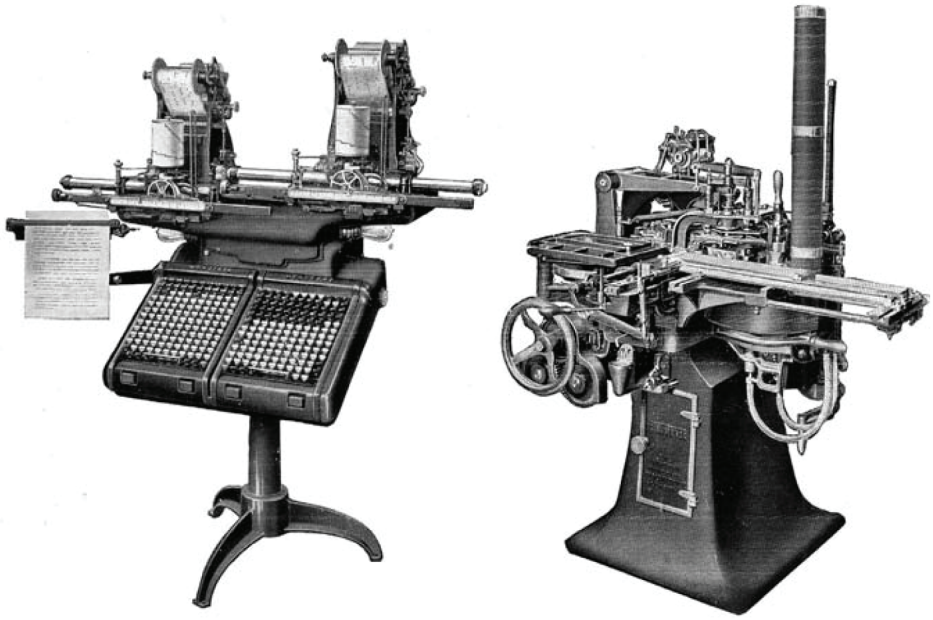


Figure 2.5 Monotype DD style keyboard (left) and caster (right). Source: Nemeth, 2017. p. 132.

place in the Arab region.[23] The increased need for printing equipment was fueled by the movements of mass education and the increasing growth of printed media within the emerging Arab countries after their independence from the colonial powers.[24] With the lagging industrial capabilities of the Arab countries, Western manufacturers of typesetting machines were the inevitable source for the required equipment and technology.[25] However, the machines –which were initially designed to serve the Latin script– brought considerable restrictions to typesetting Arabic, which was mainly a result of their limited character set capacity. Consequently, pushed by the advantages of mechanical typesetting, simplifications of Arabic type and alterations to its lettershapes were introduced to allow its accommodation in the new machines. As Nemeth points out, 'Mechanisation and its resulting advantages were considered so important that compromises were sought with the script, rather than the already existing equipment.'[26]

23. Ibid. pp. 69, 104.
24. A reflection of this urge for facilitating speedy printing of Arabic type can be seen in the initiation of the Arabic Script Reform project by the Academy of Arabic Language in Egypt in 1938. The project aimed to simplify the writing of Arabic. A competition was announced and more than 200 ideas were received; however, in 1960, the academy decided that no meaningful reform could be arrived at. Consequently, the project eventually ceased. The project can be seen as an expected result of an attempt to impose drastic changes on the scripts. However, as Nemeth accurately states, a wider and more lasting influence on the form of printed Arabic took place through the invention of the Simplified Arabic type style, as will be addressed later throughout this chapter. See Nemeth, 2017. pp. 82-104.
25. Ibid. p. 106.
26. Ibid. p. 55. In correlation with Nemeth's statement, Graham Shaw points out that 'The change may have made good sense commercially, but in terms of design the advent of hot-metal typesetting had an adverse effect. [..] Script was made to meet the needs of technology; technology was not made to meet the needs of script. Often in the name of script 'reform', 'simplification' or 'rationalization', the design of a font was reduced to a minimum, debasing the essence and aesthetics of the script in the process.' See Shaw, 'Non-Latin scripts and printing technologies: triumphs and tribulations' in *Non-Latin Scripts: from metal to digital type*. London: St. Bride Foundation, 2012. p. 32.

Mechanical typesetting machines –which brought considerable speed, practicality and economical benefits for printers– gained gradual popularity across the Arab region. Early adaptations of Arabic type to the new machines were mainly achieved through the reduction of letters variations and ligatures.[27] However, later adaptations imposed considerable changes on Arabic letter-forms to allow further condensation of the character set and facilitate more speedy typesetting (Figure 2.6).[28] These noticeably simplified typefaces gained wide popularity, particularly among Arabic newspapers, where efficiency in the typesetting process can be a crucial factor.[29] This wide spread of simplified Arabic typefaces contributed to their standardisation as conventional text typefaces. As pointed out by Ross, 'there existed considerable disadvantages for non-Latin typesetting, for which purpose the composing machines had never been designed', and the results of adapting those scripts to the limitations of the mechanical typesetters 'ultimately redefined what was to become acceptable as legible typography'.[30]



Figure 2.6 A sample of the gradual simplification of Arabic type for mechanical composition. Left: a specimen of Mergenthaler 22 pt Arabic, the first Arabic typeface ever made for mechanical composition; middle: Intertype Arabic typeface used by Arabic newspapers, including the famous Egyptian newspaper *al-Ahram,* since the 1930s; right: Intertype Abridged Arabic typeface (bottom) alongside a larger size of Intertype's normal Arabic fount (top) used by *al-Ahram* newspaper in the 1960s. Note how the earlier adaptation of Arabic type for mechanical typesetting machines shows a closer resemblance to the conventional representation of Arabic foundry type while later typefaces show more considerable compromises. Source: Nemeth, 2017. pp. 53, 117, 125.

Among the Arabic typefaces that were produced for mechanical composition, two typefaces had a significant influence on the development of Arabic type that extends until the present-day, Linotype Yakout and Monotype Arabic Series 549. These two typefaces have distinct cases concerning their design brief, the machines they were designed for, their design reference and their

27. For more about early Arabic typefaces produced for hot-metal composition, see Nemeth, pp. 45-69.
28. As pointed out by Fiona Ross, 'hot-metal fonts were particularly constrained in newspaper setting that favoured the use of the Linotype machine, which operated at its fastest and most efficient capacity with only 90 sorts'. See Ross, 2012. pp. 130-131.
29. See Ross, 2012. pp. 130-131 and Nemeth, 2017, pp. 439-440.
30. Ross, *The Printed Bengali Character and Its Evolution,* Richmond, Surrey: Curzon ,1999. p. 135.

intended use. The following two sections provide a brief demonstration of the two cases.

2.2.1. Linotype Yakout typeface

The initial design of Linotype Yakout was produced in 1959 based on a request from a Lebanese newspaper, named *al-Hayat*. In 1954, Kāmil Mruwwah, the owner and editor-in-chief of al-Hayat, approached Linotype with a proposal for a new Arabic typeface.[31] The concept of the proposed design was to create an Arabic type with 90 sorts only, to allow its accommodation within the character set capacity of one keyboard in the Linotype machine. The aim of Mruwwah was to enable increasing the composition speed for his newspaper.[32] The proposed design concept was based on the simplification principle of a German Arabic typewriter that Mruwwah was acquainted with. Generally speaking, the simplification principle reduces the letterforms required to produce the joined appearance of Arabic to only two variations for letters that take a minimum of four variations, and to one form for letters that take a minimum of two. Typewriters based on this principle had been in use for decades and the text they produce had proved acceptable for certain kinds of documents such as business correspondence and accounts. However, an equivalent of the typewriter's simplification in typeset documents would have appeared too unconventional.[33]

The proposal of Mruwwah received mixed opinions among the directors at Mergenthaler Linotype Company concerning the potential success of such an extremely simplified design. Walter Tracy, the typographical advisor at Linotype, expressed interest and support for the project for its potential practical advantages. On the other hand, Chauncey Griffith, Mergenthaler's former director of typographical development, discouraged an attempt at further simplification of Arabic, suggesting that such simplification –which is far from the conventional form of Arabic– will face resistance from readers of Arabic.[34] Despite the doubts raised by Griffith, Tracy went ahead with the project and, after some delays affected by the workload at Linotype, the font was finally delivered in 1959.[35] The typeface, which was initially named Mrowa-Linotype Simplified Arabic, was a commercial success and gained wide popularity among Arabic newspapers.[36] In the following years, more sizes were added and refinements were made until the design reached its form that remains influential until the present-day (Figure 2.7).[37]

31. Other transliterations of his name are Kamel Mrowa/Mroueh. See Nemeth, 2017. p. 109.
32. Earlier Linotype machines offered a keyboard of 180 sorts, giving access to two magazines that were required for a single Arabic fount. However, as pointed out by Ross, the Linotype machine 'operated at its fastest and most efficient capacity with only 90 sorts'. See Fiona, pp. 130-131; Nemeth, 2017, p. 46.
33. Nemeth, 2017. pp. 109-111.
34. Nemeth points out that Griffith's assessment was probably a reflection of Mergenthaler's experience with its customers who used Arabic founts in the United States. See Nemeth, 2017. p. 112.
35. Ibid, pp. 111-116.
36. Ibid, pp. 118-119; Ross, 2012. pp. 130-131.
37. Nemeth, 2017. pp. 129.



Figure 2.7 An extract of Yakout specimen. Source: Nemeth, 2017. p. 130.

The design of Yakout shows several distinguishable features that are worth highlighting. One of the main features is the introduction of some distorted letterforms to allow the intended reduction of the character set. For example, the letters khāʾ, jīm and ḥāʾ خ ج ح take a novel form to be used in both their initial and medial positions. The new form can be considered as a compromise between the initial and medial forms where the right part of the letter is positioned on the baseline instead of the conventional position towards the middle of the letter's height (Figure 2.8.a).[38] Another clear example can be seen in the new form of fāʾ and qāf ف ق. Similar to the case above, the new form is a hybrid between the initial and medial forms of these letters to allow it to work for both positions (Figure 2.8.b). Other letters did not have considerable alterations on their skeleton, however, they were forced into a noticeable angular treatment on the right part of the letterforms to allow them to connect with preceding letters when used as medial forms (Figure 2.8.c). This treatment gives the typeface a noticeable overall linearity on the baseline in comparison to the conventional fluid connectivity between letters. Another general feature of Yakout is the considerable reduction of letter variations, a feature that can be easily recognised when comparing it to the typeface of Būlāq Press (Figure 2.8.d).[39]

Despite the obvious compromises introduced in Yakout typeface, the economical and practical advantages were main factors that contributed to its success. Simplified Arabic did not only allow a considerable increase in composing speed but also cost less to purchase as it required significantly

38. The digital typeface Geeza Pro Bold, which can be considered a close copy of Yakout, is used to visualise the addressed design features above.

39. This analysis is partially based on a previous study by the author. See Dakak, *Reassessment of current stylistic approaches to Arabic type design.* MA diss. [Unpublished], University of Reading, 2016. pp. 21-25.

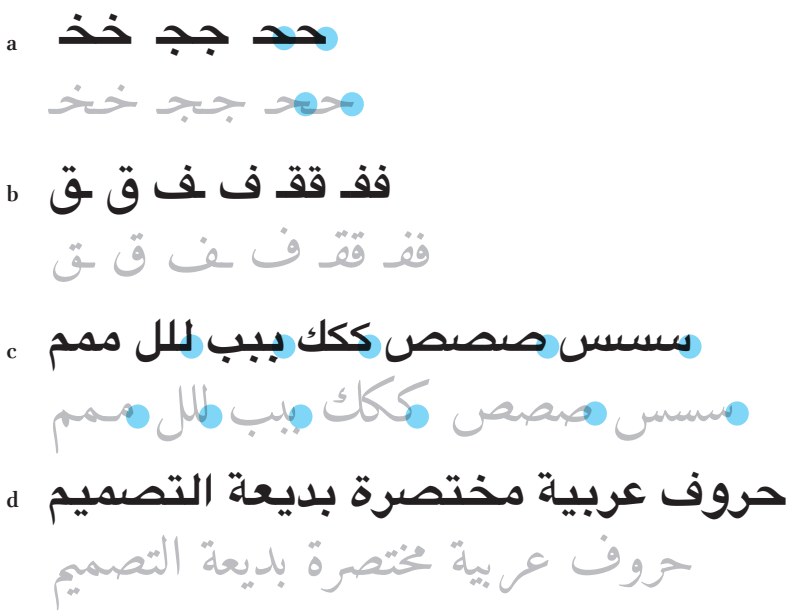


Figure 2.8 A demonstration of some general design features of the Simplified Arabic approach. A comparison is provided with Amiri typeface (gray) to support the explanation. **a.** The new form of initial and medial khāʾ, jīm and ḥāʾ. Note the new position of the right part of the letter (highlighted blue); **b.** The hybrid form of fāʾ and qāf. Also note that the final and isolated forms take a unified shape in Simplified Arabic; **c.** Letter take an angular treatment (highlighted blue) to allow their connection with preceding letters; **d.** Simplified Arabic shows noticeable linearity on the baseline compared to the conventional fluid connection in Amiri (below). Typefaces: Geeza Pro Bold (black), Amiri (gray).

fewer matrices than other Arabic typefaces. Such advantages were especially favoured in the newspaper industry where production speed and efficiency were crucial. Overall, the design of Yakout indeed can be seen as a successful solution to the brief –a typeface that allows more speed. Nemeth describes the success of Simplified Arabic as:

> The implication is that gains in efficiency, speed and cost savings would eventually overcome concerns about aesthetics and stylistic appropriateness. And indeed most newspapers in Arabic countries did eventually adopt simplified typefaces, whether by Linotype or by other manufacturers, making this form of printed Arabic widely read throughout the Middle East.[40]

It is also worth pointing out that the Simplified Arabic typefaces, although emerged as an adaptation to the deficiency of the machines that they were designed for, they ironically were perceived and propagated with a notion of modernity as they reflected the adoption of advanced technologies. This can be considered as another factor that contributed to their wide acceptance.[41]

40. Nemeth, 2017. pp. 128-129. It is worth mentioning that the design approach of Yakout was later adopted by other companies (Intertype's Abridged Arabic was a prominent example). However, Yakout indeed remained the typeface with the widest and most extending influence, as confirmed earlier by Fiona Ross and Titus Nemeth. For more detail about Intertype's Abridged Arabic, see Nemeth, pp. 120-124.
41. See Nemeth, 2017, pp. 55, 439.

Although later typesetting technologies –which were introduced throughout the second half of the twentieth century– allowed overcoming the character set restraints of mechanical typesetting machines, Yakout typeface was often the first typeface to be transferred or copied in following technologies.[42] The simplicity of applying the approach and the efficiency in transferring/copying it made it a favourable choice for manufacturers. Also, although maintaining this compromised representation of Arabic can be seen as a poor assessment of the factors that necessitated its emergence, the established popularity of the typeface through its wide use in hot-metal composition made a safe choice for inventors of new technologies. As a result, the use of the Simplified Arabic approach is continued in the digital era as a legacy of its popularity in hot-metal composition. Yakout, or copies of it are still widely seen in Arabic newspapers in the present day. Also, its design approach was copied in typefaces that became widely used as default system fonts on main digital operating systems, including Windows and OS, further contributing to their standardisation as conventional Arabic text typefaces. (Figure 2.9).[43]

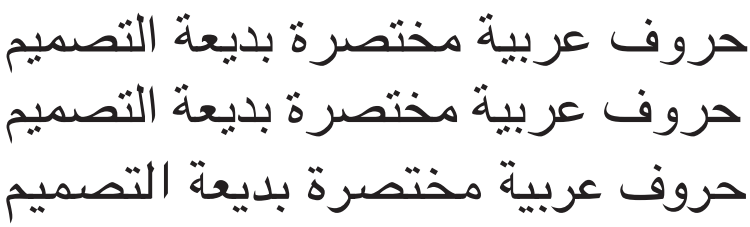


Figure 2.9 Arial Arabic (top), Times New Roman Arabic (middle) and Geeza Pro (bottom), all of which closely resemble the design of Yakout. These typefaces have been used as system fonts on Microsoft and/or OS for decades.

2.2.2. Monotype Arabic Series 549 typeface

The typeface Monotype Arabic Series 549 was developed between 1944 and 1947 based on the commission of the Egyptian publisher Dār al-Maʿārif. In 1944, Dār al-Maʿārif expressed interest in purchasing four Monotype composing machines with keyboards and founts in different sizes. Dār al-Maʿārif, however, rejected an Arabic typeface that was previously developed by Monotype and suggested instead that a new design be considered, based on the renowned foundry type used at the Egyptian Būlāq Press. After initial concerns at Monotype regarding the legality of using the type of Būlāq Press as a design reference, Monotype's representative in the Middle East advised that no legal objections can be made against this use and the project was initiated in 1945.[44] The design process included direct collaboration between Monotype and Dār al-Maʿārif, trial versions of the type and detailed feedback

42. See Nemeth, 2017. pp. 459-460.
43. Ibid, pp. 459-463.
44. Monotype's representative, Joseph Lindell, justified his view by stating that 'all available faces in the M.E. [Middle East] are copied from others' designs'. Moreover, he considered that the necessary adaptation of the typeface to the unit system of the machine is sufficient to differentiate the Monotype version from its design reference model. See Nemeth, 2017. p. 158.

from script experts at Dār al-Maʿārif until the design was considered satisfactory. In 1947, the fount was manufactured and delivered to clients in Egypt. Series 549 was reported as a great success and was considered by experts in Cairo as the best typeface in existence.[45] In the following years, more sizes of the design were added by Monotype and, in 1956, Monotype released a fully vocalised Arabic version of the typeface under the name Series 589.[46]

The design of Series 549 shows a clear resemblance to its reference model from Būlāq Press. Generally, the letterforms and their proportions closely resemble those of the foundry type. The design of Series 549 shows occasional adjustments in proportions, which seem to be a result of adapting the typeface to the unit system in the Monotype machine. Other differences can be seen in the reduction of ligatures, absence of some contextual letterforms and subtle changes in fitting (Figure 2.10). Overall, however, the design indeed can be considered a successful adaptation of the foundry type reference to mechanical composition. Titus Nemeth describes this successful transition as:

> On both macro and micro levels, the typeface excelled above all previous Arabic founts for mechanical composition and the majority of earlier foundry type founts. Series 549 successfully combined the readability and aesthetics of a typeface deemed suitable for printing the holy Qur'ān with the advantages and convenience of mechanical composition. According to Monotype's promotional material, composition of between 110 and 140 characters per minute was possible with the new fount –six times faster than type composed by hand.[47]

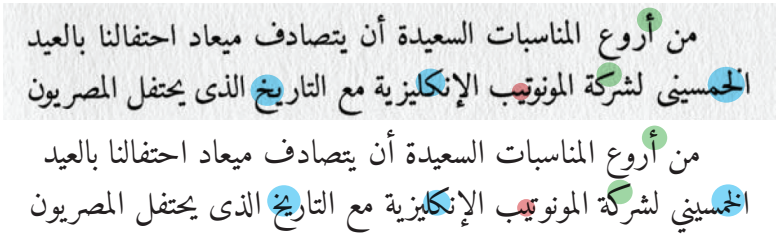


Figure 2.10 A demonstration of the similarities and differences between Series 549 (top) and the typeface of Būlāq Press (bottom). Note the differences in proportions of alif and kāf (highlighted green) which take a more compact proportion in Series 549. Highlighted blue are examples of reductions of ligatures in Series 549. Highlighted red is an example of the absence of some contextual alternates (different height of teeth letters). Apart from that, the resemblance of the reference model is evident.

Similar to the case of Linotype Yakout, the success and popularity of Monotype Arabic typeface contributed to its transfer in succeeding typesetting technologies. Moreover, the success of the typeface encouraged Linotype –who was Monotype's main competitor then– to make a typeface, named Lotus, based on the same source of Monotype Series 549, the foundry type

45. The excellence of Monotype Arabic type was recognised even by its competitors. In 1973, Hrant Gabeyan, the consultant of Linotype, expressed in a letter to the company that 'None of our existing Arabic typefaces, is good enough to compete with the Monotype design which at the present time is considered to be the best on the market'. See Nemeth. 2017. p. 241.
46. Ibid. pp. 170-182.
47. Ibid. p. 168.

of Būlāq Press.[48] However, as Nemeth points out, the transfer of Series 549 to succeeding technologies resulted in degraded versions of the typeface as the custom engineering and the quality of drawing that were applied in mechanical typesetting were not faithfully transferred. Moreover, in the digital era, the typeface had many copies which do not match the standards of the original design with regard to the quality of the drawing of letterforms, the production of the font or the character set support (Figure 2.11).[49]

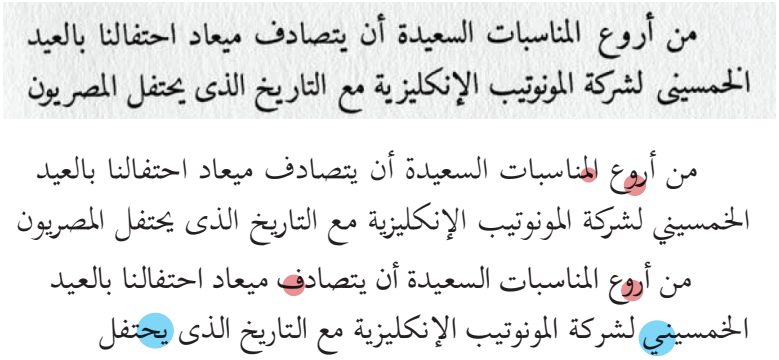
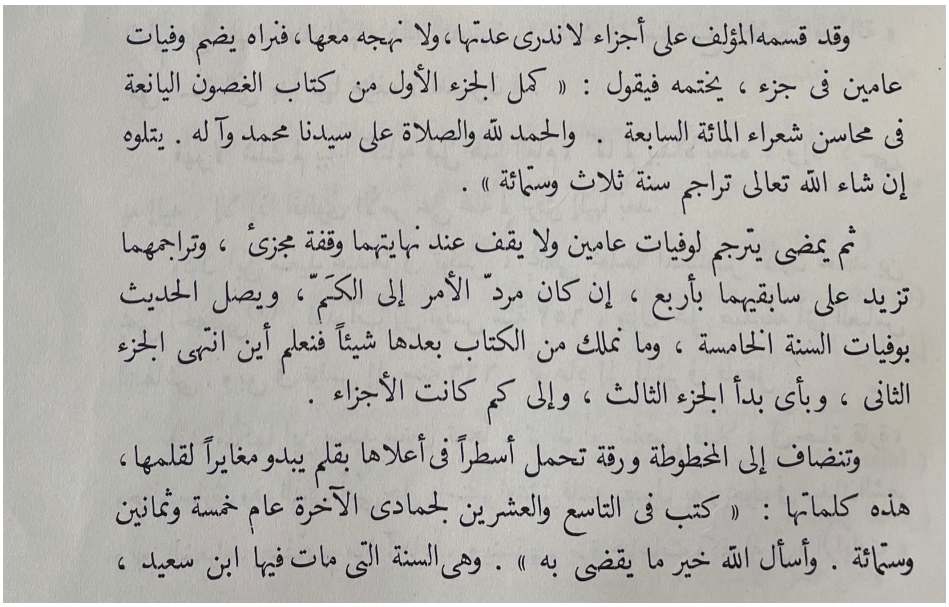


Figure 2.11 Samples of digital copies of Monotype typeface with degraded quality in drawing/spacing (highlighted red) and support of ligatures (highlighted blue). Typefaces from top to bottom: Monotype Sereis 549 (in hot-metal typesetting), Traditional Arabic and Nile (digital fonts).

There are a few aspects worth reflecting on with regard to the distinction between the case of Monotype Series 549 and the case of Linotype Yakout that was addressed previously. The two cases show distinctly different attitudes towards designing Arabic type, although both typefaces were developed for mechanical composition. While Yakout represents a case where extreme compromises on the visual representation of Arabic type were introduced to adapt the design to the limitations of a specific machine, Monotype shows an attempt at providing the best possible typographic rendering of Arabic with the available technology.[50] While the popularity of Linotype Yakout was most prominent in speedy typesetting (i.e., newspapers), Monotype gained its popularity as a typeface for quality typesetting (i.e., in book typesetting).[51] As demonstrated above, both typefaces were ordered by local customers around the same time; however, the attitudes of the two customers towards the representation of the Arabic script were distinct. While Al-Hayat proposed an extreme simplification to Arabic type that even the non-native manufacturer was initially doubtful about, Dār al-Maʿārif, on the other hand, were keen to get the most faithful representation possible of their foundry type reference. Yet, despite the difference between the two approaches, both designs had commercial success. Arguably, this interesting situation is explained not only by the speed factor which was more pressing in newspapers in comparison

48. Ibid. p. 253.
49. Ibid, pp. 459-463.
50. Ibid, pp. 441-442.
51. Ross, 1999. p. 162; Nemeth, 2017. p. 133.

to book typesetting but also by common type-use practices across different document genres at that time. It is safe to assume that both clients were aware, even if intuitively, of the level of compromise that can be accepted in the document genres they publish. In newspapers, simplifications to Arabic type have been introduced and were already widely in use when Mruwwah proposed further simplifications. In other words, the introduction of Yakout in Arabic newspapers, even when it pushed the simplification of Arabic type to more extreme levels, can be considered as part of a gradual change. On the other hand, in book typesetting, the standards remained significantly higher and were more resistant to simplifications. A clear example of this preservation of a conventional representation of Arabic type can be seen in the books printed by Dār al-Maʿārif around the time they ordered the new typeface from Monotype (Figure 2.12).


وقد قسمه المؤلف على أجزاء لا ندرى عدتها ، ولا نهجه معها ، فنراه يضم وفيات
عامين فى جزء ، يختمه فيقول : « كمل الجزء الأول من كتاب الغصون اليانعة
فى محاسن شعراء المائة السابعة . والحمد لله والصلاة على سيدنا محمد وآله . يتلوه
إن شاء الله تعالى تراجم سنة ثلاث وستمائة » .

ثم يمضى يترجم لوفيات عامين ولا يقف عند نهايتهما وقفة مجزئ ، وتراجمهما
تزيد على سابقيهما بأربع ، إن كان مردّ الأمر إلى الكمّ ، ويصل الحديث
بوفيات السنة الخامسة ، وما نملك من الكتاب بعدها شيئاً فنعلم أين انتهى الجزء
الثانى ، وبأى بدأ الجزء الثالث ، وإلى كم كانت الأجزاء .

وتنضاف إلى المخطوطة ورقة تحمل أسطراً فى أعلاها بقلم يبدو مغايراً لقلمها ،
هذه كلماتها : « كتب فى التاسع والعشرين لجمادى الآخرة عام خمسة وثمانين
وستمائة . وأسأل الله خير ما يقضى به » . وهى السنة التى مات فيها ابن سعيد ،

Figure 2.12 An extract of a page from a book printed by Dār al-Maʿārif in 1945, around the same time they ordered the new typeface from Monotype. The text shows a close resemblance of the conventional representation of Arabic type that was transferred to Monotype's typeface. Source: Ibn Saʿīd, ʿAlī Ibn Mūsā, *al-Ghuṣūn al-yāniʿah Fī Maḥāsin Shuʿarāʾ al-miʾah al-sabiʿah.* Egypt: Dār al-Maʿārif, 1945.

2.3. Influential Naskh-based Arabic text typefaces in the digital age

The introduction of the personal computer with graphical user interface by the 1980s initiated drastic changes in the industries of typesetting and type-making. Rapid developments in personal computers and desktop publishing applications during the 1980s and 1990s made desktop publishing the new industry standard. Another prominent change that was brought about by this technological shift was the dissolution of the proprietary systems of type-making that have been maintained for decades in earlier technologies that relied on industrial manufacturing processes.[52] Traditional firms (such as

52. King, 'Digital type decade' in *Eye magazine* no. 40, vol. 10, 2001. https://www.eyemagazine.com/feature/article/digital-type-decade-full-text (accessed March 2022); Nemeth, 2017. pp. 464.

Monotype and Linotype) were forced to slim down, merge or seek out niches in a market they had previously dominated. In their place, software firms such as Adobe, Apple and Microsoft emerged as the new pioneers in the development of desktop publishing technology. Consequently, the new software firms became required to facilitate their applications with functional typefaces, prompting a demand for creating designs in new font formats as well as the design of type for the screen.[53]

Arabic-enabled page layout software were introduced in 1986 through an application named al-Nashir al-Maktabi, developed by the company Diwan Ltd based on a desktop publishing application for Macintosh. Diwan's applications, including a later application named al-Nashir al-Sahafi, evolved to become the standard in Arabic-enabled desktop publishing during the late 1980s and early 1990s. Diwan provided basic font support for their applications, with no pretence for originality. Until 1987, Diwan provided only four typefaces, among which two can be considered copies of Linotype's Yakout typeface (Figure 2.13).[54] The position of Diwan as a prominent supporter of Arabic computing software started to erode as competitors entered the market. For example, by the early 1990s, the desktop publishing application QuarkXPress, enabled for Arabic composition by the company Layout Ltd, became widely popular throughout the Middle East. In later years, Adobe Inc –who are widely known for their schemes to supply quality fonts for their applications– dominated the market through their application inDesign until the present day.[55]



Figure 2.13 The typefaces Geeza and Nadeem on Diwan's fonts collection. The designs show close similarity to Linotype's Yakout. Source: Diwan, 'Diwan's Arabic Fonts Collection', https://www.diwan.com/index.php/products/fonts/36-diwan-arabic-fonts (accessed March 2022)

53. Kinross, 'The digital wave' in *Eye magazine* no. 7, vol. 2, 1992. https://www.eyemagazine.com/feature/article/the-digital-wave (accessed March 2022); King, 2001.
54. Nemeth, 2017. pp. 407-408. As highlighted by Nemeth, this tendency to copy existing models is not surprising as 'for manufacturers, the immediate concern was to make the most popular and economically successful types available for new technologies. Besides the commercial aspects that must feature prominently in a trade, existing typefaces were readily available, making their adaptation a pragmatic choice over new designs.' Nemeth, 2017. p. 459. Diwan's font collection at the time of this research includes 25 typefaces, among which 13 typefaces that can be considered close copies of Linotype's Yakout and Monotype's Arabic typefaces. See Diwan, 'Diwan's Arabic Fonts Collection', https://www.diwan.com/index.php/products/fonts/36-diwan-arabic-fonts (accessed March 2022).
55. See Kinross, 1991; King, 2001.

Against this background, two Arabic typefaces that were developed for desktop publishing applications are worth addressing in relation to the scope of this research: Muna and Adobe Arabic. The typeface Muna is addressed due to its wide use as a text Arabic typeface, while Adobe Arabic is addressed as it can be considered an influential typeface with regard to its design approach.

2.3.1. Muna typeface

The typeface Muna was designed by ʻAbdullah Faris in 1993 and released by the company Diwan Software Ltd in their desktop publishing application Al-Nashir Al-Sahafi. Little information is available about the designer or the design case of Muna; however, a brief analysis of the design can help explain some of the aspects that have contributed to its popularity.[56] Although the typeface Muna shows a certain level of novelty in its outlines (i.e., contrast and details of letterforms), it can be considered a highly conventional typeface, a feature that Muna is often complimented for.[57] The recognised conventionality of Muna can be realised when comparing it to a Simplified Arabic typeface, one of the most popular Arabic type forms by the time Muna was released. The skeleton of lettershapes, their proportions and the spacing between letters show remarkable similarity to those of Simplified Arabic (Figure 2.14.a). Muna also has noticeable linearity on the baseline, similar to the distinguishable feature in Simplified Arabic. However, despite this close similarity, Muna presents more successful forms of some letters compared to what appears to be its reference model, most notably, the letters khāʾ, jīm, ḥāʾ, fāʾ and qāf. In Simplified Arabic, these letters lack contextual variety and have forms that can be considered distorted as a result of the simplification principle. Muna, on the other hand, implements initial, medial and final forms of these letters, similar to the approach of Monotype Arabic Series 549 and Linotype Lotus typefaces (Figure 2.14.b,c).[58] Overall, Muna can be seen as a successful hybrid between Simplified Arabic and Monotype Series 549 (Figure 2.14.d).[59] In addition to that, Muna introduces subtle unique design features through its relatively high contrast and angular outlines, providing the typeface with an elegant appeal. In summary, the close similarity of Muna to two conventional Arabic typefaces combined with a balanced level of novelty can be considered the main design features that contributed to its success.

56. A few blogs address the typeface Muna with minimal information about the design case and the designer (See, for example, Hasan, ʻAl-khaṭ al-ṭibāʻaī Munaʼ (The typeface Muna), 2021. https://hibastudio.com/muna/). The author contacted Diwan company in an attempt to get more details about the case, however, only a brief explanation was available. Although the staff at Diwan were keen to help with the inquiry, it seems that their lack of recent communication with the designer (or previous employees who can explain further about the design case) did not allow acquiring more information. The initial brief explanation that the author received was that ʻFaris approached Diwan with a new design which was liked by the company and released'.

57. See, for example, Hasan, 2021 (accessed March 2022); Alabdullah, ʻSuccessful font: Munaʼ, https://arabictype.wordpress.com/2012/01/02/muna-abdallah-faris/ (accessed March 2022).

58. Lotus Linotype is used for the visual demonstration as it can be considered a more successful digitisation of this design approach.

59. The design has many copies, including but not limited to Al-Mohanad and AXT Manal.

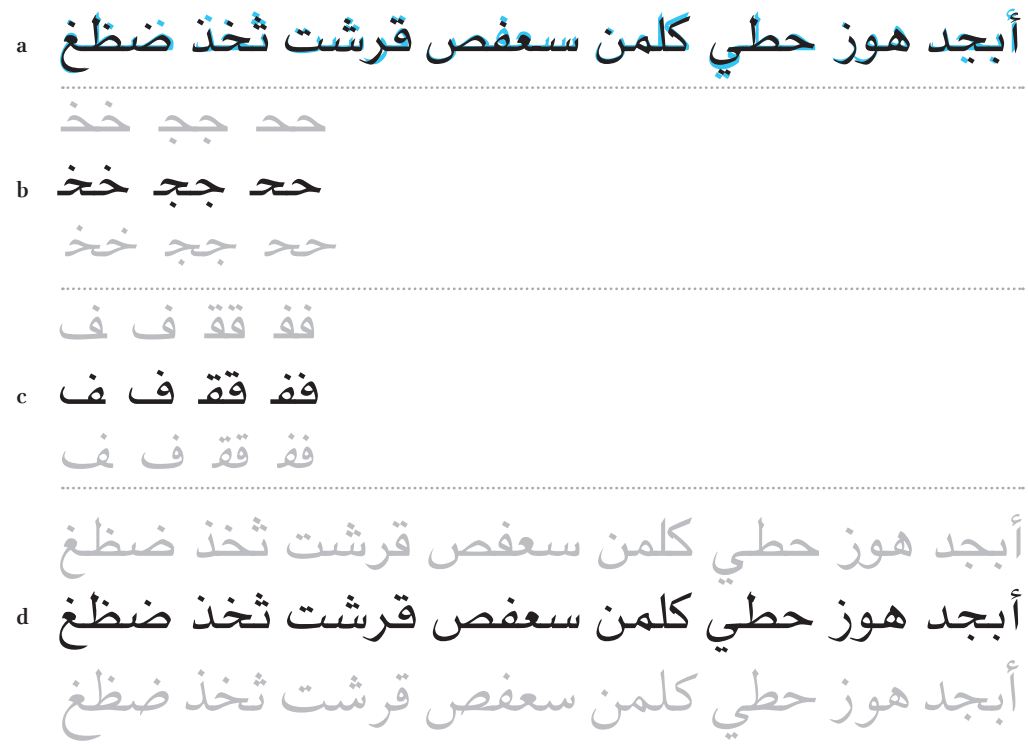


Figure 2.14 General design features of Muna: **a.** note the close similarity between the skeleton and proportions of Muna (black) and Simplified Arabic (blue); **b.** Initial and medial forms of khāʾ, jīm and ḥāʾ in Muna (black) compared to Simplified Arabic (above) and ; **c.** Initial and medial forms in fāʾ and qāf of and final and isolated forms; **d.** Muna (black) in comparison to two popular Arabic type forms. Typefaces: Muna, Geeza Pro (for Simplified Arabic); Traditional Arabic.

In addition to the conventional design of Muna, the success of the typeface can be further explained when considering the context in which it was released. During the early 1990s, support for Arabic in desktop publishing applications was still in its beginning, with only a few functional Arabic typefaces available for users. Most of the available typefaces during that period resembled previous models which have been in use for decades. Offering a new yet fairly conventional typeface such as Muna among a limited variety of Arabic typefaces can be seen as a factor that contributed to its popularity.

2.3.2. Adobe Arabic typeface

Adobe Arabic was released in 2005 by Adobe as a complementary Arabic font to Robert Slimbach's Minion Pro which was published in 2000.[60] Designed by Timothy Holloway (with contributions from Fiona Ross and John Hudson), the typeface is intended to give a contemporary look, and also to be readable on screen.[61] A look at the design of Adobe Arabic shows that the lettershapes closely resemble conventional Naskh letterforms, with noticeable yet balanced adjustments on their proportions (Figure 2.15.a). For example, body letters and counters are slightly enlarged compared to proportions in traditional

60. Nemeth, *Harmonisation Of Arabic & Latin script.* [Unpublished], University of Reading, 2006. p. 10.
61. See myfonts.com, www.myfonts.com/fonts/adobe/adobe-arabic/ (accessed March 2022); adobe.com, http://fonts.adobe.com/designers/fiona-ross (accessed March 2022).

text typefaces and teeth are more prominent (Figure 2.15.b,c). These design features are implemented to increase the legibility of the letters in small text sizes.[62] Also, the design has compact ascenders and descenders, a feature that can be practical for setting texts with shorter line height.[63] The design of Adobe Arabic also shows a tendency to maintain a faithful resemblance to authentic Arabic type. For example, it achieves a more flowing joining line and the incorporation of a large set of ligatures (Figure 2.15.d). Although Adobe Arabic can be considered one of the earliest influential typefaces to implement this design approach, other Arabic text typefaces with considerable popularity follow the same approach (Figure 2.16).

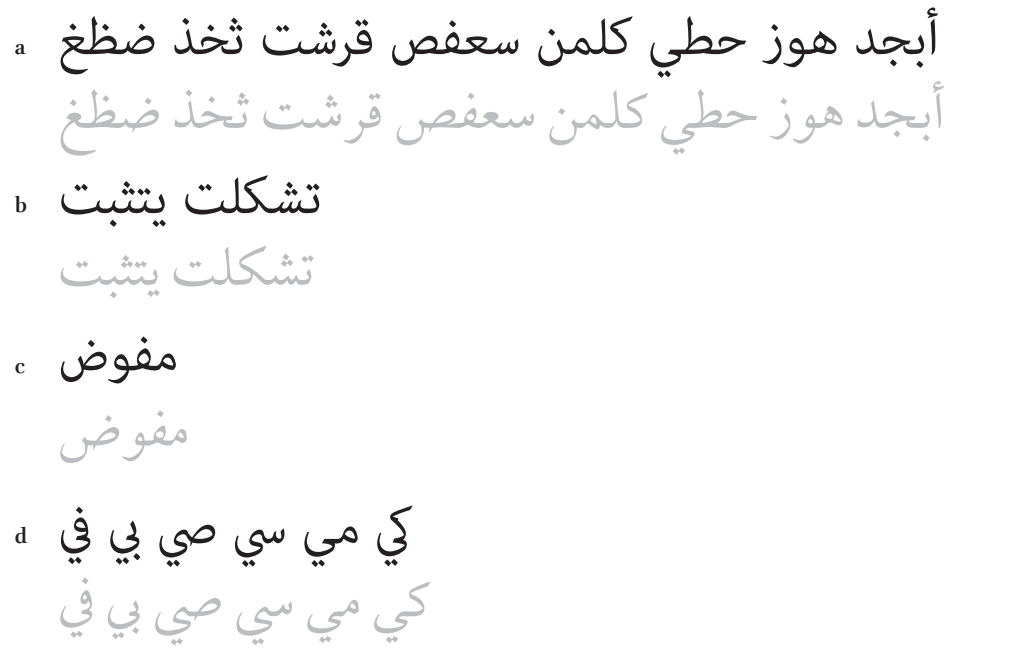


Figure 2.15 General design features of Adobe Arabic: **a.** note the similarity in lettershapes between Adobe Arabic (black) and a conventional Arabic text typeface (gray) despite the adjustments on proportions; **b.** Note the prominent teeth in Adobe Arabic; **c.** Enlarged counters in Adobe Arabic; **d.** Sample of ligatures in Adobe Arabic. Typefaces: Adobe Arabic (black), Lotus (Gray).

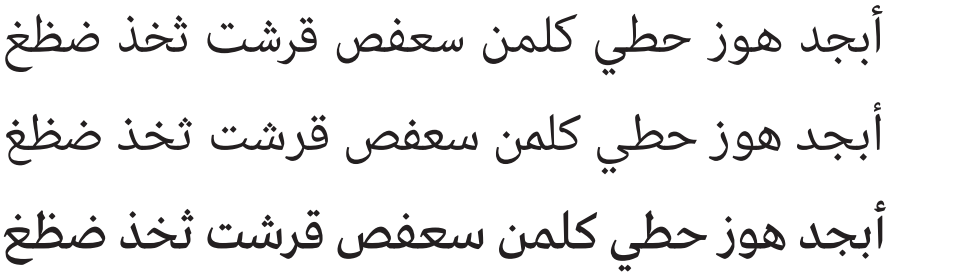


Figure 2.16 Sample of Arabic typefaces that follow a design approach similar to Adobe Arabic. From top to bottom: Adobe Arabic, Noto Naskh, Greta Text.

62. Legibility, as defined by Walter Tracy, is the ease of recognising letters. See Tracy, *Letters of credit.* Gordon Fraser Gallery Ltd., London, 1986. p 31.
63. Titus Nemeth points out further design features that lead to a successful visual harmonisation between the Arabic and Latin counterparts of Adobe Arabic, enhancing the functionality of typeface in bilingual typesetting. See Nemeth, 2006, p. 10.

2.4. The use of the pre-mechanical Arabic type style in the digital age

After reviewing the developments above and their contribution to the emergence and standardisation of new forms of Arabic type, it is worth reflecting on the status of the pre-mechanical form of Arabic type throughout these changes. As addressed at the beginning of this chapter, this form of Arabic type was the dominant typographic style in the Arab region before the introduction of mechanical composition for Arabic. However, support for this style –which requires a large number of sorts and complex typesetting rules– could not be provided in mechanical composition and some succeeding typesetting technologies that dominated the industry during the second half of the twentieth century. As a result, the use of this type style was interrupted for a few decades, while other type styles –which were widely supported in the new machines– evolved as the new conventions in Arabic texts. However, in the digital age, developments in digital font formats –which allowed accomodating a large character set and sophisticated substitution rules in one font file– enabled the revival of the pre-mechanical form as a digital font.[64] In 2010, a faithful digitisation of the Būlāq Press foundry type, designed by Khaled Hosny, was released under the name Amiri and later made available on Google Fonts.[65] Despite the high quality of the design, its contemporary use in main document genres (i.e., printed Arabic books and newspapers) seems to be relatively marginal. This situation can be explained by the fact that these genres were already occupied by new conventions of type use. Moreover, the interrupted use of the style over a few decades probably contributed to perceiving it as an outdated style, contributing to its lack of use.[66]

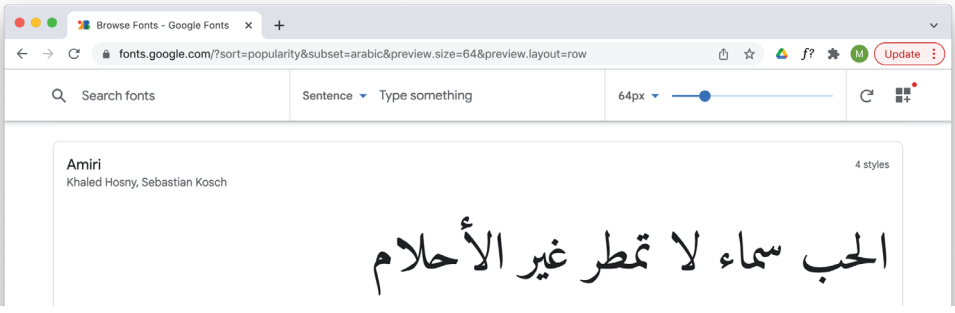


Figure 2.17 Amiri typeface on GoogleFonts. Source: fonts.google.com

64. OpenType fonts may contain more than 65,000 glyphs and offer smart features such as contextual alternates, which allow achieving a sophisticated representation of Arabic type with no extra effort on users. It is worth mentioning that even more sophisticated typographic representations of Arabic are available in the digital age. A prominent example is the work of Decotype company who were able to present typographic renderings that faithfully resemble the calligraphic representation of Arabic. Decotype typefaces are not covered in this research due to their lack of use in the examined document genres and thus being considered beyond the scope of the research. The case is covered in detail in Nemeth's book which also provides an excellent analysis concerning the marginal popularity of Decotype fonts. See Nemeth, 2017. pp. 410-434; 466-467.

65. Hosny, 2012. p. 12.

66. It is worth pointing out that, despite the marginal use of the Classical Naskh style in contemporary Arabic typography, the style is still widely popular in its calligraphic form in lithographic printing of the Qur'ān. Until the 21st century, the style remains the dominant style in this genre.

2.5. The emergence of Latinised Arabic typefaces: contexts and approach

The turn of the 21st century brought an increasing influence of globalisation on the local Arab culture, which was reflected in the spread of western ideas, customs, institutions and attitudes.[67] Mehran Kamrava provides an explanation for this situation as:

> For a variety of reasons, the twists and turns of history have left developing countries in an inferior global position in relation to other, increasingly more powerful and advanced economies. Domestic political institutions and procedures have remained equally underdeveloped and have been subject to violent oscillations and even revolutions, so that making rational economic policy has been even more difficult. Economic and industrial infrastructures could not or have not been allowed to develop, and when they have developed they often have fallen victim to foreign economic domination, the greed or incompetence of domestic tyrants, or, as is often the case, a combination of both. It did not take long for the developing world to lag significantly behind in basic indices of development such as the availability of transportation and storage facilities (roads, ports, and warehouses), hydroelectric dams and power-generating plants, steel mills, and various other industrial complexes that manufacture consumer goods and provide employment opportunities. By the 1950s and 1960s, the glaring underdevelopment of what by now had emerged as the "Third World" made the large-scale importation of Western industry an attractive and indeed necessary option.[68]

With the increasing influence of Westernisation, the English language evolved to occupy an important position across the Arab region in many aspects of life including education, legal and commercial transactions, signage and stores' signs, products and even everyday communication.[69] With this increasing importance of the English language, its use started to become perceived as a sign of high social status and an expression of modernity. The use of the English language even started to replace the Arabic language where many younger Arabs use what is termed 'Arabizi', switching between Arabic and English languages.[70]

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67. Rubin, 'Globalization and the Middle East: Part One', Yale Center for the Study of Globalization, 2003. https://web.archive.org/web/20150925034217/http://yaleglobal.yale.edu/content/globalization-and-middle-east-part-one (accessed March 2022).
68. Kamrava, *The modern Middle East: a political history since the first World War.* California: University of California Press, 2005. pp. 257-258.
69. Amara, 2016. pp. 551-552. As addressed previously in the introduction (section 1.6), some Arab countries such as Lebanon and the Maghrib countries had an earlier significant influence of Westernisation due to different factors including colonialism and cultural and religious relationships with Europe.
70. 'Arabizi', a term to combine the words 'Arabic' with 'Inglizi' (meaning English). Kirkpatrick and Barnawi, 2017. p. 4

2.5.1. The evolvement of Latinised Arabic type style under the influence of Westernisation

Against the cultural context presented above, Arabic type was not isolated from the influence of Westernisation. Early reflections of this influence can be seen in Arabic logotypes and lettering explorations that mimic the structure and visual elements of the Latin script. The popularity of this approach started to take a noticeable momentum towards the turn of the 21st century, fueled by the increasing influence of globalisation. Arabic logotypes that are designed as counterparts of western brands formed a main area for the popularity of this approach, with graphic designers often aiming at harmonising the Arabic counterpart with the Latin reference (Figure 2.17). In the 21st century, the Latinised Arabic design approach seems to dominate Arabic logotype design.[71]



Figure 2.18 A demonstration of the introduction of Latinisation in Arabic logotypes over time. The two examples to the left show the use of logotypes from the 1950s and 1980s informed by Arabic calligraphic styles, while the two examples to the right show more recent Latinised versions. Sources: https://ar.wikipedia.org/wiki/ملف:Pepsi_logo_MENA.svg vintageegypt.tumblr.com; https://canada.defocusmedia.com/

The design principle of Latinised Arabic can be considered a simple and highly flexible one. With the purpose of harmonising the appearance of Arabic letters to the Latin counterpart, several visual features are borrowed from Latin lettershapes. One of the most prominent design practices is the implementation of the unified x-height and ascender and descender grid of the Latin for the Arabic lettershapes (Figure 2.19.a,b). Another common practice can be noticed in the borrowing of lettershapes or parts of them to form the Arabic letters (Figure 2.19.b,c). Also, imitation of the modulation and other design details such as serifs (when applicable) are usually applied to achieve the intended harmonisation. The design approach can lead to various design solutions based on the designer's interpretation of the new shapes. Indeed, this flexibility in implementing the approach combined with the impression of achieving a creative solution that transfers the quality of the Latin counterpart can be seen as a main factor that contributes to the spread of the approach.

71. Examples of the wide spread of the Latinised Arabic approach in Arabic logotypes can be seen in a PhD thesis that addresses design practices in Arabic logotypes. See Gassas, *Best practice in adapting logo marks from Latin to non-Latin scripts: A case study in the Arabic market.* PhD thesis [Unpublished], Anglia Ruskin University, 2016. pp. 170-175.



Figure 2.19 Examples of practices of Latinisation in a selection of Arabic logotypes. Note the geometric treatment of letters and the implementation of x-height grid in FedEx and Givenchy Arabic logotypes, the implementation of serifs and the introduction of uppercase dāl in Dior Arabic logotype. Sources: https://twitter.com/keakreative/status/562255247352279040?lang=ca; https://canada.defocus-media.com/; https://twitter.com/3azalam/status/595276340468850688

Towards the turn of the 21st century, the Latinised Arabic approach started to be introduced in Arabic typefaces to be used for display or text settings in certain kinds of documents such as advertising and popular magazines.[72] Implementing the approach in Arabic type design appeared through motivations similar to the case of Arabic logotypes –to harmonise Arabic typefaces with Latin ones. Type designers who propagate the approach often propose it as a 'modernisation' of Arabic type, a transfer of the qualities of the more developed Latin type into Arabic or a necessary response to the increase in global communication. Some go further by suggesting that the simplicity in the Latin letterforms aids legibility and readability of texts, contrary to the inherited complex Arabic letterforms that prioritise aesthetics above functionality.[73] Putting aside that these suggestions are highly questionable with regard to the proposed design solution or the validity of some claims, they indeed reflect the cultural context which Latinised Arabic typefaces emerged through.[74] The increased use of bilingual typesetting (often combining Arabic and English texts) within a growing influence of Westernisation among Arab communities created a demand for new Arabic typefaces to fulfil the evolving needs of graphic designers, which was partially filled by Latinised Arabic typefaces.



Figure 2.19 Examples of Latinised Arabic typefaces that had considerable popularity in the 2010s. Typefaces: GE SS (top), GE East (middle) and GE Dinar One (bottom) designed by Boutros International.

72. Early examples of Latinised Arabic typefaces can be found as early as the 1980s. See Bahia & Nawar, *History of Arab graphic design.* Cairo; New York: The American University in Cairo Press, 2020. p. 315.
73. See, for example, Khera, 'Abbar: building bridges' in *Eye magazine* no. 50, vol. 13, 2003, pp. 30- 37; Smitshuijzen AbiFares, *Typographic matchmaking: Building cultural bridges with typeface design.* Amsterdam: BIS Publishers, Netherlands, 2006. pp. 11-15; Chahine, *Simplification and script reform: the Arabic script at the turn of the century.* MA diss. [Unpublished], University of Reading, 2003. pp. 83-85.
74. The idea of adapting one script to the visual appearance or production methods' of another (usually adapting scripts to the Latin) has been criticised for being a negative cultural/technical influence and an unsuccessful design solution. See, for example, Shaw, 2012. pp. 25-33; Nemeth, 2006. pp. 3-8, 11.

2.5.2. Latinised Arabic typefaces

It is not easy to trace back the spread of the Latinised Arabic style to a specific typeface or design case. Rather, this spread can be seen as a design orientation where different typefaces contributed to this evolving trend in Arabic type design. Moreover, Latinised Arabic typefaces present a wide variety of lettershapes and proportions, which further complicates recognising a specific typeface as a reference model. However, this section addresses a specific case of Latinised Arabic typefaces to allow explaining some general aspects related to the design approach. The Typographic Matchmaking project is selected for the analysis as it includes a number of typefaces as part of the same project, which helps reflect on a variety of practices. Also, the wide publicity that surrounded the release of the project makes it one of the influential cases that represent the design approach.[75]

The Typographic Matchmaking project started in 2005 with the idea of teaming up five renowned Dutch designers with five upcoming and established Arab designers.[76] The aim of the collaboration was to produce five Arabic typefaces for the Dutch designers' already existing families.[77] The main goal of the project, as described by the project founder, was 'to address the modernisation of Arabic text faces and to produce legible Arabic typefaces that answer the multi-script setting needs'.[78]



Figure 2.20 The Arabic typefaces released through the Typographic Matchmaking project. From top to bottom: **a.** FrescoArabic (to match Fresco); **b.** BigVesta Arabic (to match with Vesta); **c.** TheMixArabic (to match with TheMix); **d.** Sada (to match with Seria); **e.** Fedra Arabic (to match with Fedra). Note the unified height level (dotted strokes), implementation of serifs (highlighted blue) and the use of the j to draw the Arabic rā' (highlighted red).

75. See Smitshuijzen AbiFares, 'A turning point for Arabic typography and design'. https://www.khtt.net/en/page/1424/a-turning-point-for-arabic-typography-and-design (accessed March 2022).
76. The teaming structure is questionable as it pairs experts of Latin type design who had no experience in the Arabic script with local Arabic type designers who were in their early career in type design at the time of the project.
77. Smitshuijzen AbiFares, 2006. p.18.
78. Ibid. p. 19.

The five Arabic typefaces show the implementation of design practices similar to those described above concerning Arabic logotypes, although the level of Latinisation might differ across these typefaces. For example, the typefaces FrescoArabic, BigVesta Arabic, TheMixArabic and Fedra Arabic apply a unified height for the Arabic letters, similar to the x-height grid in Latin (Figures 2.20.a,b,c,e). Also, the typefaces BigVesta and TheMixArabic show a clear imitation of the modulation of the Latin counterparts and the use of Latin letterforms to draw Arabic letters, such as the drawing of the letter rāʾ based on the lowercase j (Figures 2.20.b,c). Also, Fresco and TheMixArabic apply the serifs from the Latin typefaces to the Arabic letters (Figures 2.20.a,c).

Besides the features explained above, one of the main points to consider is how the design approach can lead to various interpretations of letterforms and proportions, as can be seen in the obvious distinction between the five Arabic typefaces. This variety can lead to legibility issues within a typeface and to inconsistent interpretation of lettershapes across different typefaces, which is more noticeable in the typefaces that apply a strict imitation of the Latin structure. For example, in the typefaces Fresco Arabic, BigVesta Arabic and TheMixArabic, the letters ḥāʾ and dāl ح د and khāʾ and dhāl خ ذ show noticeable similarity (Figure 2.21). Also, the letters fāʾ, mīm and hāʾ ف م ه become almost identical in the typefaces BigVesta and TheMix (Figure 2.22). The letters fāʾ and ghayn ف غ, which originally have a distinct treatment of their counters and outlines, lose part of this distinction in the typefaces Sada and Fresco Arabic (Figure 2.23). Also, the typeface BigVesta Arabic introduces novel lettershapes which are hard to recognise given the high flexibility in treating letterforms (Figure 2.24).[79]



Figure 2.21 Examples of distorted proportions in Latinised Arabic typeface (black) compared to a conventional Arabic typeface (gray). Typefaces from top to bottom: Lotus, Fresco Arabic, BigVesta Arabic and TheMixArabic.

79. It is worth pointing out that these are only selected examples of legibility/consistency issues, while the examined typefaces include other similar issues which emerge from the design approach. Also other Latinised Arabic typefaces might show different issues that are not addressed in this analysis. The main point of the analysis is to show how the design approach can lead to inconsistent or even conflicting interpretations of lettershapes.



Figure 2.22 Distorted proportions of fā', mīm and hā' in BigVesta Arabic (middle) and TheMixArabic (bottom) compared to Lotus (top).



Figure 2.23 Similarity between fā' and ghayn as a result of the design approach in Sada (middle) and Fresco Arabic (bottom) compared to Lotus (top).



Figure 2.24 The level of novelty in BigVesta Arabic makes it difficult to recognise some letters. For example, is the letter bellow a 'ayn or a mīm? Typefaces: Lotus (top), BigVesta (bottom).

In summary, the issues above show how the addressed design approach can be problematic concerning the legibility of lettershapes and the consistency in their representation. While the project claims to present solutions for legible Arabic typefaces, it seems that the priority is given to a stylistic matching of the Arabic typeface to the Latin counterpart, resulting in issues that contradict the claimed aim of the project.[80] Consequently, while Latin typefaces maintain a fair level of conventionality, the majority of the matching Arabic typefaces can be considered highly explorational.

80. Indeed, this contradiction can be clearly realised when comparing the ideas put forward by Huda Smitshuijzen AbiFares, the founder of the Typographic Matchmaking project, with, for example, those of Gerard Unger, one of the Dutch designers involved in the project. Huda suggests that 'when designing Arabic fonts, one must assume the responsibility of taking creative risks that may challenge established conventions; of recognising present realities of contemporary design and visual branding; of being ready to constantly question what we take for granted [..]'. See Smitshuijzen AbiFares, 2006. p15. Unger, on the other hand, mentions numerous statements that emphasise the importance of maintaining a high level of conventionality when designing a text typeface. See, for example, Unger, 2018. pp. 41-43, 63-64; Unger, *While you're reading.* Mark Batty, New York, 2007. p. 51.

2.6. Arabic type development in the twentieth century in light of the delocalisation of Arabic type-making

The brief historical background presented above shows how the twentieth century brought drastic changes to the development of Arabic type. Among the most prominent changes is the introduction of distinct approaches in Arabic type design, particularly the Simplified and Latinised Arabic approaches. Another significant change is the dominance of type styles that were introduced initially for mechanical composition as text typefaces, replacing the pre-mechanical style that once dominated this domain. In order to understand the developments that Arabic type underwent during the twentieth century, it is important to consider the wider technical and cultural contexts that surrounded these developments.

The standardisation of Simplified Arabic typefaces in text setting is linked not only to the limitations of the machines that led to their introduction but also to the wider industrial context that surrounded their emergence. The industrialisation of Arabic type-making which was initiated by the introduction of mechanical typesetting machines brought a unique situation where the making of Arabic type became a proprietary industry. During this period (which extended roughly between the 1930s to 1980s),[81] Arabic fonts –which became integrated parts of the new machines– could be produced exclusively by the manufacturers of the typesetting machines. This meant that the development of Arabic type during this period was largely determined by the tendencies of western manufacturers, often driven by commercial and practical considerations rather than a sufficient sensitivity towards the typographic representation of the Arabic script.[82] Although early Arabic typefaces for mechanical composition were produced in collaboration with local customers, some approaches were mainly driven by efficiency needs, introducing compromised typographic representations of Arabic. Although succeeding typesetting technologies allowed applying better methods to render Arabic type, re-assessing existing type styles –which had already become established– seemed almost irrelevant to manufacturers/developers of new technologies. As a result, compromises that were inherited from mechanical composition continue to be the standard in Arabic typography until the present day. As Nemeth points out, 'Indeed, most Arabic typefaces on the market today could technically be implemented on a Monotype hot-

81. The 1930s can be considered the period when mechanical composition started to gain popularity in the Arab region, although mechanical composition was introduced in the 1910s, as addressed earlier. The 1980s is suggested as the end of this period as the developments in digital applications initiated the end of the proprietary nature of the industry of type-making.

82. This tendency can be clearly seen in the internal correspondence of the manufacturers. See, for example, Nemeth, 2017, pp. 240-241, 452. It is also important to point out that, during the same period, a few concepts brought the potential to advance the way Arabic type was conceived; however, such innovations were either dismissed by manufacturers or, as described by Nemeth, happened along the margins of the trade with a modest influence on the bulk of applied typography. As a result, the mainstream rendering of Arabic type remained affected by the established Latin-centric methods. For more detail, see the cases of Edward Plooij, Sheeraz and Decotype in Nemeth, 2017, pp. 268-283; 410-434; 466-467.

metal system, and in some cases would even work on a linecaster without alteration –a situation that speaks volumes about the actual advances technological 'progress' has brought for Arabic type-making'.[83]

Another important yet rarely addressed factor that should be considered is the extended effect of what can be termed the 'delocalisation' of Arabic type-making on the development of Arabic type within the Arab region. This delocalisation was arguably an inevitable result of the lagging industrial situation in the Arab region while the advanced western technologies evolved to dominate the typesetting industry on a global scale. The spread of the more efficient typesetting technologies contributed to a gradual loss of valuable local expertise in Arabic type design that previously emerged around movable type. This typographic expertise, which was crucial for type-makers and typesetters in hand composition, became irrelevant in the new machines which came with integrated fonts and where the typesetting process became automated. In other words, the type-makers and typesetters of movable type, who were required to be equipped with detailed knowledge of the script design and typesetting rules, could be replaced by workers who knew how to operate the new machines. This replacement of man by the machine has been documented by Khalīl Ṣābāt who reported the decrease in the number of typesetting workers with the introduction of Linotype machines.[84] A more specific example is found in the case of Dār al-Maʿārif who reported that, within five years, the introduction of Monotype equipment helped reduce its hand composition by 75%.[85] This reduction in employment, although justifiably lauded by printers for its economical and practical advantages, arguably brought significant disadvantages to the development of Arabic type.

Looking at the development of Arabic type during the twentieth century in light of the lack of local expertise in Arabic type-making helps further understand the features of this development. For example, the standardisation of compromised forms of Arabic type is better explained when realising the lack of local competency that can effectively challenge these practices. Moreover, the lack of effective re-assessments of compromised approaches when digital applications 'democratised' type-making is not surprising when considering the vacuum that this change happened through. Unlike the development of Arabic type for movable composition, where people such as Nīqulā al-Masābikī, Senglākh Efendi and Muḥammad Jaʿfar Bey at Būlāq Press questioned available practices and provided constant refinements on Arabic typefaces, Arabic type development during the machine age lacked effective contributions from local experts. It is also important to consider that the detachment between the local expertise and the development of Arabic type in the machine age meant that previous knowledge was not sufficiently

83. Nemeth, 2017. p. 466.
84. Ṣābāt, 1966. p. 240.
85. Nemeth, 2017. p. 173.

transferred into succeeding typesetting technologies. As a result, a large part of established script knowledge became a legacy of hand-composed texts or Arabic calligraphy, but is almost irrelevant to common Arabic type design practices in the present day.

The emergence of Latinised Arabic type style can also be seen in light of the delocalisation of Arabic type-making during the twentieth century. Although the emergence of this style shows a clear link to the influence of Westernisation on the Arab region, it can be argued that the lack of mature local typographic practice was also a main contributor to its spread. With the lack of local typographic expertise and education in the Arab region, it is not surprising that early local involvement in Arabic type design looked for information and inspiration in other cultures where typographic development is more developed. Although, in some cases, this search was translated into a superficial adoption of western typographic principles, the scarcity of exemplary contemporary Arabic typefaces gave a vacuum for the spread of these approaches.[86]

In summary, the development of Arabic type during the twentieth century can be seen as a mirror of drastic technical and cultural influences in the Arab region, including the lagging industrial capabilities, dependency on Western industries, significant cultural transformations and influences of Westernisation. The emergence of distinct Arabic type styles reflects different ingredients of these influences (Figure 2.25).

The following parts of this research examine how these changes affect type-use practices in the present day and, more importantly, how the different type styles are perceived by Arab readership.

86. It is indeed ironic that both Adobe Arabic typeface and the Typographic Matchmaking project were released in the same year, each presenting a different interpretation of a 'contemporary' Arabic type to harmonise with a Latin typefaces. While the Typographic Matchmaking project, designed by local designers, presented highly explorational Latinised Arabic typefaces, Adobe Arabic, designed by non-native experts in Arabic type, presented a more mature interpretation that balances conventionality with modern proportions and design details.

Modern Naskh

أبجد هوز حطى كلمن

Designed for Adobe Inc, to be contemporary and readable, based on the Naskh style, with proportions for enhanced legibility on screen

Latinised Arabic

أبجد هوز حطى كلمن

Gradual appearance of Latinised Arabic, first in Arabic logotypes then in Arabic typefaces, influenced by Westernisation

Linear Naskh

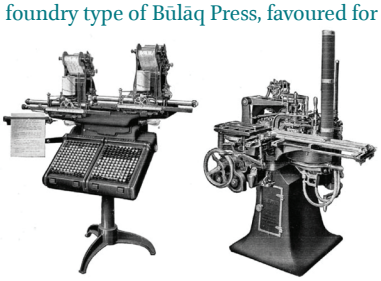
أبجد هوز حطى كلمن

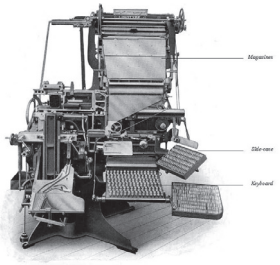
Released by Diwan Ltd company, for desktop publishing, with close similarity to Linotype and Monotype popular typefaces

Regular Naskh

أبجد هوز حطى كلمن

Developed by Monotype for an Egyptian publisher based on the foundry type of Būlāq Press, favoured for quality typesetting





Simplified Arabic

أبجد هوز حطى كلمن

More extreme simplification through the typeface Yakout, based on the typewriter scheme

Linecaster machines initiated gradual simplification of Arabic type for efficiency purposes, particularly favoured in newspapers

Classical Naskh

أبجد هوز حطى كلمن

Dominant text style in hand composition until the beginning of the twentieth century

Gradual disappearance due to the lack of support in hot-metal composition

Re-introduction in digital type-setting with marginal use

1900 1910 1920 1930 1940 1950 1960 1970 1980 1990 2000 2010 2020

Figure 2.25 An approximate timeline of the emergence of the main Arabic type styles addressed in this research. The gradient on some of the dotted strokes indicates a gradual appearance/use or disappearance/lack of use of the demonstrated styles.

3. Statistical study: Arabic type use in selected document genres

3.1. Aim and methods of the study

This study aims at identifying popular Arabic text typefaces in selected document genres in a specified region of the Arab World. The study examines text typefaces used in selected books, newspapers and websites. The main aim of the study is to understand type-use practices in the examined genres to better inform the selection of typefaces in the empirical study of this research. The study also helps perceive the current status of Arabic type use in light of the historical contexts that affected its development.

3.1.1. Criteria for selecting countries and materials

Limiting the number of the Arab countries included in this study to a manageable scope was a practical necessity although some excluded countries are highly likely to have similar patterns of Arabic type use. The criteria which determined the exclusion of countries included language use, situations of production and/or consumption of published materials, population and literacy rates. For example, the relatively lower literacy rates in Mauritania, Yemen and Sudan and the relatively low population of Bahrain contributed to excluding them from the study.[1] Also, the considerable presence of the French language in the Maghrib countries (Algeria, Mauritania, Morocco, and Tunisia) in education and publishing was one of the main factors that contributed to their exclusion.[2] In some cases, ongoing war conflicts and instabilities in countries such as Iraq, Libya and Yemen brought concerns about potential inefficiencies in communication, collection of materials or involvement of participants.[3] The considerations above narrowed the geographical scope of the statistical and empirical studies to nine Arab countries: Egypt, Lebanon, Syria, Jordan, Saudi Arabia, Kuwait, Qatar, UAE and Oman (Figure 3.1). The included countries form a region that has close geographical and cultural connections and potentially similar practices of Arabic type use.

The statistical study aims at including samples of Arabic-language publications that are widely read and circulated across the region surveyed. Based on that, one of the first steps in the statistical study was to collect data about the most influential publishers of Arabic publications, the most widely read Arabic books and newspapers and the most visited Arabic websites in the region. This step aimed at determining the list of publishers, newspapers and websites which would be included in the study. However, due to the limited scope of the study, besides the lack of available data in some cases, the determined

1. For details on literacy rates and population, see Table 1.2 in the introduction.
2. Albirini, 2016. pp. 40-41. The main concern was the potential different reading habits and/or educational background of readers in the listed countries which might complicate the sampling of the participants for the later empirical study of this research.
3. See Mermier, 2017. Although Syria had similar ongoing conflicts, the study includes the country for two main reasons: 1) its relatively important role in Arab publishing until recent years; 2) an established communication network that the author has with Syrians inside and outside Syria which reduced the concerns of unprecedented difficulties in data collection.



Figure 3.1 The Arab countries included in the study (highlighted purple) among the rest of the Arab countries (named). Map by the author.

list cannot be considered as comprehensive but rather only aims at ensuring that the included samples represent widely read Arabic materials.

Selecting the list of book publishers was the most challenging part of this stage due to the lack of reliable statistics about the publishing or sales of books in the Arab world.[4] Although some resources which address modern Arabic-language printing and publishing were helpful in identifying a few well-established and highly influential publishers,[5] this small number was insufficient for the aim of the study. As a result, to inform the selection of a wider list of publishers, it became necessary to rely on popular sources for relevant data. The study reviewed a number of web articles that address the most influential publishers of Arabic-language publications and best-selling Arabic books in the surveyed countries to form an initial list of publishers.[6] Although some of the consulted articles can be considered less authoritative, they were helpful in compiling a wide initial list. This list was refined by reviewing the publishers' websites to gain an insight into their history, their scale of publications and the genres of their published books to determine the final list for the study.[7]

In the case of printed newspapers, resources that address Arab Media during the twentieth century were crucial to identifying leading newspapers. Approximate circulation figures and years of active functioning were the two

4. Refer to section 1.5 in the introduction for more details.
5. See, for example, Atiyeh, 1995. pp. 242, 248; Winkler, 2001. pp. 165-167.
6. The following articles informed the selection of book publishers: http://2016.omandaily.om/?p=326536; http://www.dotmsr.com/news/204/191282/أشهر-٧-دور-نشر-مصرية-في-معرض-الكتاب; https://alroya.om/post/182434/دار-الوراق-وصناعة-عهد-جديد-للكتاب-العماني; https://bestonebest.com/top-arabic-publishing-house; https://qesah.net/اكثر-الروايات-قراءة-في-٢٠١٨-قائمة-ب٤٠-من-افض; https://sabq.org/تعرف-على-الكتب-الأكثر-مبيعا-في-معرض-الكتاب; https://thenewpublishingstandard.com/storytel-arabia-inks-audiobook-deal-top-arab-publisher-dar-el-shorouk/; https://uae.kinokuniya.com/t/books/arabic-books/sdrt-jdyd-at; https://www.al-watan.com/news-details/id/43505; https://www.aljazeera.net/midan/miscellaneous/2019/2/3/10-كتب-لتشتريها-من-معرض-القاهرة-الدولي; https://www.assawsana.com/portal/pages.php?newsid=27057; https://www.e3lam.org/2017/02/04/185484; https://www.facebook.com/Arabic.Goodreads/posts/595194907303347/; https://www.goodreads.com/list/show/12317.Arabic_non_fiction; https://www.jarir.com/arabic-books/self-development.html (articles accessed between November and December 2018).
7. Publishers who focus on children's literature or educational books were not involved in the study as the later empirical study targets older readers who are fluent in Arabic. The included publishers are listed under Appendix A.

main factors that informed the selection.[8] Also, a number of local and international reports which provide lists of the most popular Arabic newspapers in the surveyed region were helpful to confirm and expand the selection.[9]

In the case of Arabic websites, the study relied on statistics from two providers of web traffic analysis (Alexa.com and Similarweb.com) to identify the most visited Arabic websites in the region surveyed (Figure 3.2). The study reviewed and compared data from the two sources to determine the list of included websites. The study also reviewed related web articles to obtain a secondary confirmation of the selection.[10] Only websites which include extensive texts were included in the study while websites such as search engines, youtube, booking or delivery services were excluded.

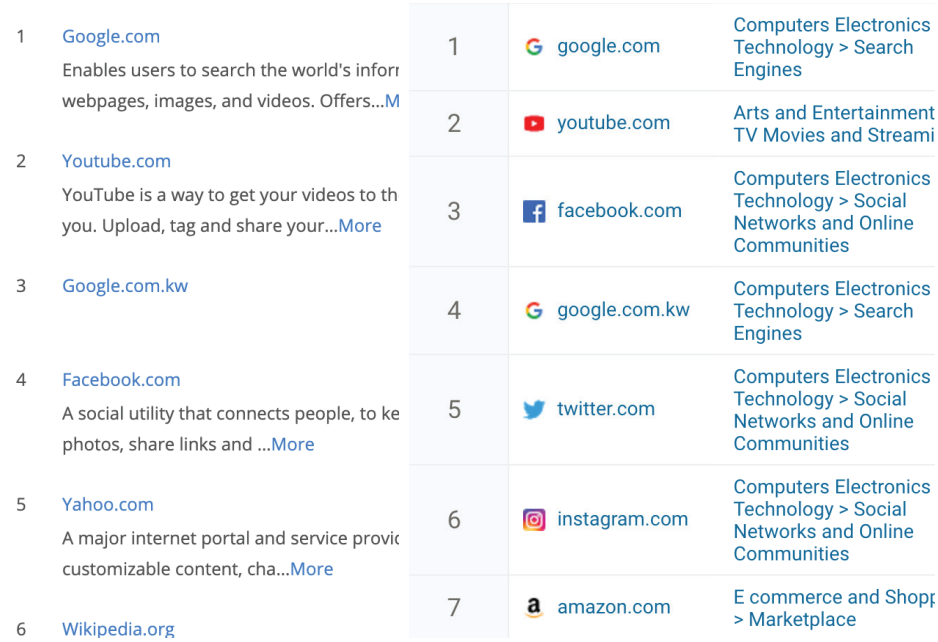


Figure 3.1 A sample of the data provided by Alexa.com (left) and Similarweb.com (right). The two providers show closely similar ratings of the most visited websites in each of the Arab countries surveyed. Snapshots of top sites in Kuwait (accessed on June 2019).

8. The main two sources for this information were Rugh's *Arab Mass Media,* 2004 and *Encyclopedia of international media and communications*, 2003. Also, *Arab media outlook* reports provided useful relevant data.

9. The following articles informed the selection of newspapers: https://al-ain.com/article/99726 http://www.databank.com.lb/docs/Media%20Landscape%202018.pdf https://gulfbusiness.com/revealed-10-oldest-newspapers-in-the-gcc/#.UtWFDmRdWi8; https://lifeinsaudiarabia.net/blog/2015/05/06/most-popular-newspapers-in-saudi-arabia/; https://www.alanba.com.kw/ar/kuwait-news/education/644759/21-04-2016-الحسيني-الصحف-الورقية-قادرة-على-الاستمرارية; https://www.alghad.com/articles/1415232-استطلاع-الغد-أكثر-الصحف-قراءة-من-قبل-الشباب-الأردني; https://www.industryarabic.com/arabic-newspapers-2018/; https://www.marefa.org/قائمة_مواقع_الصحف_العربية#_.D9.85.D8.B5.D8.B1; http://www.pressreference.com/Ky-Ma/Lebanon.html; https://www.topteny.com/top-10-effective-newspapers-middle-east/ (articles accessed between November and December 2018).

10. The following articles informed the selection of websites: https://thenextweb.com/news/top-10-websites-in-the-middle-east-during-2010; https://www.themedialab.me/top-ksa-websites/; https://www.alexa.com/topsites/category/World/Arabic; https://www.alexa.com/topsites/countries/; https://www.emirates247.com/news/emirates/forbes-me-reveals-top-arab-online-media-2012-12-27-1.488983; https://www.forbesmiddleeast.com/list/top-newspapers-online-in-the-arab-world-2012/; https://www.similarweb.com/top-websites/ (articles and sources accessed between December 2018 and January 2019).

The study includes materials from sixty publishing houses, fifty newspapers and sixty websites from the countries surveyed. The number of included book publishers, newspapers and websites from each country differs based on a variety of considerations (Table 3.1). In the case of publishing houses, the majority of the included publishers come from Egypt and Lebanon followed by Syria and Saudi Arabia due to the leading role of these countries in Arabic book publishing.[11] However, the study also includes a minimum of two publishing houses from each of the remaining countries. In the case of printed newspapers, the number of included titles was mainly decided based on population, estimated circulation figures and the number of active newspapers in the countries surveyed. For example, the relatively higher population and circulation figures of newspapers in Egypt and Saudi Arabia contributed to including the largest number of titles from these two countries. Similarly, the relatively high number of active newspapers in Kuwait and Lebanon informed the decision to include a relatively large number of titles from the two countries. In the case of Arabic websites, it is less relevant to link the number of websites to specific countries because, in most cases, Arabic websites were popular in more than one Arab country. However, the study occasionally includes local websites in specific countries to allow a more balanced inclusion of websites from the countries surveyed.[12]

	Number of publishing houses	Number of newspapers
Egypt	16	9
Jordan	2	4
Kuwait	4	6
Lebanon	18	6
Oman	2	4
Qatar	2	4
Saudi Arabia	7	9
Syria	7	4
UAE	2	4

Table 3.1 The number of included publishing houses and newspapers from each of the surveyed countries.

3.1.2 Recognising type use through materials

After determining the list of targeted publishers, the study initially aimed at inquiring about their type use through direct communication with their

11. As Egypt and Lebanon rely heavily on book exportation, their published books are highly likely to be distributed to other Arab countries, especially the region surveyed in this research. See Winkler, 2001. p. 168. This explains why the study includes a large number of publishing houses from Lebanon despite its relatively low population.
12. Appendix A provides the full list of included publishing houses, newspapers and websites.

design teams. However, initial attempts at communication soon revealed the impracticality of the planned method. The majority of communication attempts failed to acquire useful responses while, in some cases, the respondents expressed their lack of interest in participating in the study.[13] As a result, it became clear that a more practical method of data collection was needed. The obvious alternative was to examine materials published by the targeted publishers to recognise their use of text typefaces. Although this method might not allow the same level of detail which could be obtained through direct communication,[14] it helps avoid disruptions that are highly likely to be caused by inefficient communication. The alternative method also assures that the majority of the targeted publishers are included in the study.

3.1.3. The data collection process

The materials included in this study were collected from different countries and locations in various forms. Printed books were mainly collected as photographs or scans. Cambridge University Library as well as the library of the Faculty of Asian and Middle Eastern Studies were major sources for the included books. Additionally, a considerable number of the included books were obtained from bookstores in the UAE through the help of volunteers.[15] A smaller number of books were obtained from personal collections. Newspapers were collected by volunteers in their physical form. Seventeen out of the fifty included newspapers were posted to the author while the remaining were photographed and sent as digital photos.[16] In many cases, newspapers were also available as identical pdf versions on the official websites of the newspapers;[17] however, obtaining the physical versions or photographs of them was necessary to confirm that they are identical (Figure 3.3).[18] The included websites were collected as screenshots.

As part of the data collection for this study involved remote contributions from volunteers from the surveyed Arab countries, setting simple specifications for the digitally collected materials was necessary to allow an efficient process. The study has set specifications that help identify both the materials

13. The majority of email communications received no response at all. Phone communications, on the other hand, often led to a maze of transfers between different departments to eventually either fail to reach the right person or be advised to send the questions through email only to receive no further response.
14. Examples of such details can be seen in the interviews addressed in chapter 5 where a limited number of users agreed to participate in the study.
15. Books Kinokuniya and Borders Group bookstores were the two main sources for the remotely collected books.
16. The author wishes to express his gratitude to Abdullah, Ahmad and Khaled Dakak, Dirar Tlas, Duaa Kojak, Hadia Adi, Maher Hamad, Murad Al Wawi, Najla Badran, Omar Makook, Reem Madoh and Yara Younes for their support in collecting physical and digital materials from the UAE, Saudi Arabia, Syria, Jordan, Egypt, Lebanon, Kuwait and Qatar. Without their great help, the data collection process would have been extremely difficult, especially as the author was incapable of travelling to the surveyed countries due to complex reasons.
17. Thirty-eight out of the fifty included newspapers were available in identical pdf versions.
18. Collecting the newspapers in their physical form or images of them was also important to know the dimensions of the printed material.


وأوروبا بشبكة كوابل ضوئية

المستشار النمساوى: المساعدات ليست الحل الأمثل لمواجهة مخاطر الفقر

فى القارة السمراء.. ورئيس الاتحاد الإفريقى يطالب بالتركيز على الإبداع

«أ. ش. أ»:

قال الرئيس عبدالفتاح السيسى، إن مصر تسعى حاليا لإقامة شبكة كوابل ألياف ضوئية متطورة لربط الدول الإفريقية ببعضها وتطوير كفاءة نقل البيانات مع أوروبا، من خلال شبكة كوابل تمر بالأراضى والمياه الإقليمية المصرية.

وتنمية دول القارة والقضاء على مظاهر الفقر.

فى الوقت نفسه أكد زعماء الدول الإفريقية والأور

ـ المشاركون فى فاعليات «منتدى التعاون الإفريق

الأوروبى» بالعاصمة النمساوية فيينا ـ أهمية تعزيز الش

الاقتصادية لدعم التنمية «المستدامة» ومواجهة الهجرة

وأوروبا بشبكة كوابل ضوئية

المستشار النمساوى: المساعدات ليست الحل الأمثل لمواجهة مخاطر الفقر

فى القارة السمراء.. ورئيس الاتحاد الإفريقى يطالب بالتركيز على الإبداع

«أ. ش. أ»:

قال الرئيس عبدالفتاح السيسى، إن مصر تسعى حاليا لإقامة شبكة كوابل ألياف ضوئية متطورة لربط الدول الإفريقية ببعضها وتطوير كفاءة نقل البيانات مع أوروبا، من خلال شبكة كوابل تمر بالأراضى والمياه الإقليمية المصرية.

وتنمية دول القارة والقضاء على مظاهر الفقر.

فى الوقت نفسه أكد زعماء الدول الإفريقية والأور

ـ المشاركون فى فاعليات «منتدى التعاون الإفريق

الأوروبى» بالعاصمة النمساوية فيينا ـ أهمية تعزيز الش

الاقتصادية لدعم التنمية «المستدامة» ومواجهة الهجرة

Figure 3.3 Digital copies of newspapers were cross-checked against images of the hard copies to ensure that they use the same typefaces. Source: *Al Shorouk* newspaper, 19 December 2018.

and the used typefaces without requiring a complex set-up or professional equipment for taking the photos. The main instructions which were shared with the volunteers were that the pictures should show clearly the title, the publishing date, the publisher's details, the physical scale of the material[19] and details of the text typeface. No further concerns with regard to the resolution, lighting or other quality-related aspects were required as long as the images did not show considerable blur or distortion. Although some of the collected pictures might show compromised quality, they fulfil the practical aim of the data collection sufficiently. The advantage of allowing this efficient data collection process was to enable an effective remote contribution of volunteers which was crucial to complete the study.

The study looks at relatively recent materials. The included newspapers and snapshots of websites are dated between November 2018 and January

19. The physical scale was recognised by placing a ruler next to the photographed materials.

2019.[20] The printed books are included from a wider period (between the years 2000 and 2019) due to their potentially longer commercial life span. A total of 270 books are included in the study with an approximate average of 5 books from each publishing house. The aim of including several books from each publishing house is mainly to allow a closer verification of whether the identified typefaces are consistently used by the publishers or are rather randomly applied in the collected material.[21] The collected pictures of books include samples from a variety of fiction and non-fiction genres. The included websites also cover a wide variety of genres including news, culture, religion, sports, cooking and education.

3.1.4. Identifying the typefaces

The typefaces in the examined materials were mainly identified by comparing text strings against digital typefaces to find the identical match of each used typeface (Figure 3.4).[22] In cases where a group of typefaces shared close similarities, several key visual features such as dot placements, spacing, details of drawing or proportions aided a closer identification of the precise typeface (Figure 3.5).[23] On the web, the typefaces were initially recognised by

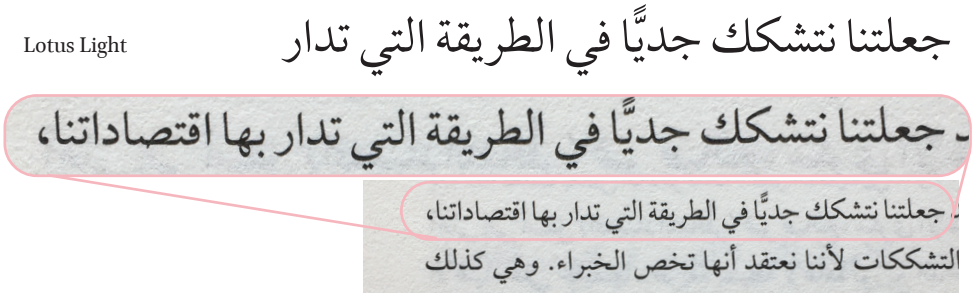


Figure 3.4 A sample of the technique used to identify the examined typefaces. The identified typeface (above) appears identical to the one used in the book. Source: Chang, *23 Things They Don't Tell You about Capitalism*. Translation by Kelfet. Doha: Bloomsbury-Qatar Foundation Publishing, 2013.

20. The study also reviewed older versions of newspapers (where possible) to explore whether they show considerable changes in type-use practices during the last decade. However, the study only counts recent newspapers as detailed above in the statistics. Older versions of newspapers were often available on the digital archives of the included newspapers. The analysis did not show any considerable changes in type-use practices.

21. This obviously is not sufficient to confirm a consistent use of the recognised typefaces by the publishing houses, but it is helpful in assessing their use. This approximate assessment was considered sufficient for the purpose of the study, especially considering the previously mentioned difficulties in communications with the publishers.

22. The author's familiarity with popular Arabic typefaces due to his previous work as a graphic designer in the Middle East as well as his previous MA study brought considerable efficiency to identifying the typefaces used in the examined materials.

23. Due to the large number of copies of some Arabic typefaces, some of the identified typefaces might likely have different names but identical designs to the recognised typefaces. This, however, does not affect the purpose of the study which mainly aims at identifying the typefaces based on their visual appearance. Trying to provide a comprehensive list of the possible names of replicas is not within the scope of the study. It is also worth mentioning that, in some cases, typefaces showed identical designs to the identified typefaces but slightly wider word spacing. In such cases, this difference –which can be a result of either text justification or a custom modification on the font file– was ignored. In rare cases, some typefaces were not precisely identified but were almost identical to some of the identified typefaces. These cases are highlighted by * next to the typeface name under Appendix B.

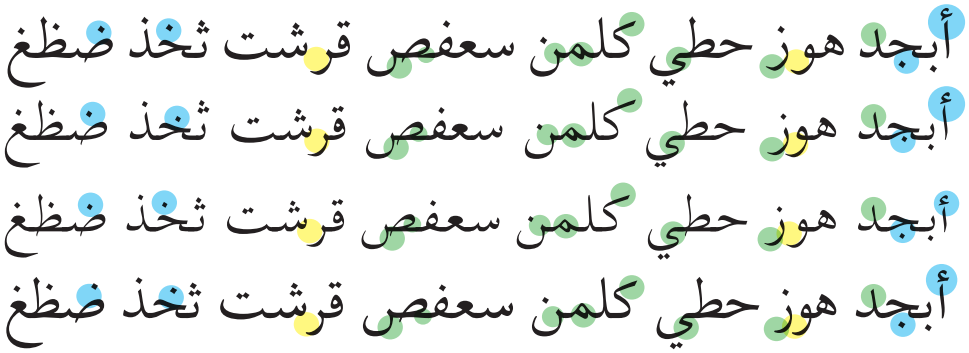


Figure 3.5 Examples of key features which enabled the identification of a specific typeface among a group of similar typefaces. Comparing differences in the placement of dots/marks (highlighted blue), the details of lettershapes (green) and spacing (yellow) allowed a better identification of the used typefaces. Typefaces from above to bottom are: Lotus, Traditional Arabic, Al Bayan, Al Nile.

using the application WhatFont, which efficiently reveals the name of the used typeface. However, as the font names can possibly be modified by the user, the typefaces were also visually cross-checked against digital typefaces to avoid any misrecognition that can be caused by altered names.

3.2. Categorisation of the recognised typefaces

The examination of the collected materials identified forty-five different text typefaces used across the three document genres. The study categorises the typefaces under six main categories to enable efficient handling of the large number of the recognised typefaces. The categorisation considers a number of measures. For example, typefaces that hold considerable similarity to each other fall under one category. This can be most clearly seen in the cases of the Regular Naskh, Simplified Arabic and Linear Naskh categories. The Latinised Arabic and the Modern Naskh categories include typefaces that follow a similar design principle although the differences across the categorised typefaces can be considered relatively more noticeable than the differences within the other categories. Besides similarities in design, the categories listed above show considerable use in at least one of the addressed document genres. The Classical Naskh category was included due to its historical significance despite its relatively marginal use in contemporary Arabic typography. It is worth pointing out that the presented categorisation is not intended to propose a theoretical classification of the addressed Arabic typefaces but rather functions as a working classification specifically for the research.

Each of the categories mentioned above is represented visually by the most used typeface within the category.[24] The following section describes each category and lists the typefaces which are included under each of them:

24. Uniquely in the case of the Modern Naskh category, the typeface has a different representative typeface on the web compared to print. This is because Noto Naskh was found to be the most used typeface among the category on the web while Adobe Arabic was found to be the most used typeface from the category in both printed books and newspapers.

a) Classical Naskh is the Arabic typographic representation that can be considered the closest to the calligraphic Naskh style. The lettershapes, proportions, modulation, spacing, unique connections between the letters all resemble relatively closely the calligraphic Naskh style. As explained earlier in the research, this type style dominated Arabic text typefaces in the Arab world before the introduction of mechanical typesetting machines. The typeface Amiri, which is the sole typeface under this category,[25] is a digitisation of the historically renowned foundry fount of Bulaq Press. Although this category does not show much presence in modern-day Arabic typography, it is still widely seen in printed Qur'an, especially in Egypt.[26] Also, the Naskh style in its calligraphic form remains remarkably dominant in the lithographic printing of the Qur'an across the Arab world.

Amiri Regular أبجد هوز حطي كلمن سعفص قرشت ثخذ ضظغ

b) Regular Naskh can be considered as an extension of the Classical Naskh type style with a relatively more regular texture through a standardisation of a reduced character set and a more regular spacing. As described earlier in the research, the typeface was first introduced by Monotype during the twentieth century as an adaptation of the foundry font of the Egyptian Bulaq Press to one of their typesetting machines.[27] The typeface remains one of the most influential Arabic text typefaces to the current day.[28] The typefaces under this category exhibit subtle differences in design details, the implementation of ligatures, proportions, weight, spacing and the quality of production. They can all be considered copies or extensions of the Monotype typeface.

Lotus Light أبجد هوز حطي كلمن سعفص قرشت ثخذ ضظغ

Traditional Arabic Regular أبجد هوز حطي كلمن سعفص قرشت ثخذ ضظغ

Nile Regular أبجد هوز حطي كلمن سعفص قرشت ثخذ ضظغ

Al Bayan Plain أبجد هوز حطي كلمن سعفص قرشت ثخذ ضظغ

A_Nefel_Adeti أبجد هوز حطي كلمن سعفص قرشت ثخذ ضظغ

Akhbar MT أبجد هوز حطي كلمن سعفص قرشت ثخذ ضظغ

Baghdad Regular أبجد هوز حطي كلمن سعفص قرشت ثخذ ضظغ

25. While there are several high-quality typefaces such as Dectoype Naskh, KFGQPC Uthman Taha Naskh and Bustani which can be considered under this category, none of these typefaces were found to be used in any of the materials examined throughout the study.
26. This typographic reproduction of the Qur'an is known as King Fu'ad Mus'haf.
27. Nemeth, 2017. pp. 160-162.
28. Nemeth, 2017. p. 182.

c) Simplified Arabic implements a simplification approach that brings a noticeable alteration to a number of Arabic letters besides distinct linearity at the baseline. As has been explained above,[29] this approach was introduced to Arabic typesetting machines during the twentieth century to bring more efficiency to the typesetting process. The approach gained considerable popularity among Arabic newspapers and was later adopted in succeeding typesetting technologies due to both its simplicity and established popularity.[30]

Geeza Pro Regular أبجد هوز حطي كلمن سعفص قرشت ثخذ ضظغ

Geeza Pro Bold **أبجد هوز حطي كلمن سعفص قرشت ثخذ ضظغ**

Damascus Regular أبجد هوز حطي كلمن سعفص قرشت ثخذ ضظغ

Damascus Bold **أبجد هوز حطي كلمن سعفص قرشت ثخذ ضظغ**

Yakout أبجد هوز حطي كلمن سعفص قرشت ثخذ ضظغ

Arial Regular أبجد هوز حطي كلمن سعفص قرشت ثخذ ضظغ

Arial Bold **أبجد هوز حطي كلمن سعفص قرشت ثخذ ضظغ**

d) Linear Naskh can be considered as a hybrid between the Regular Naskh and the Simplified Arabic approach. The design approach is distinguished by clear linearity at the baseline, similar to the features of the Simplified Arabic design approach. However, it also represents a relatively closer resemblance to the Naskh lettershapes similar to the Regular Naskh approach.[31]

Muna Regular أبجد هوز حطي كلمن سعفص قرشت ثخذ ضظغ

Muna Bold **أبجد هوز حطي كلمن سعفص قرشت ثخذ ضظغ**

Harf Fannan **أبجد هوز حطي كلمن سعفص قرشت ثخذ ضظغ**

Raya Meten **عبدالله بن أحمد السليطي سفير دولة**

Assafir Newspaper font (name unknown) **«تسوية الترقيات» تتقدم.. والحوار على**

e) Modern Naskh introduces the Naskh style with compact ascenders and descenders, larger medium-height letters and larger counters. These features enhance legibility in smaller sizes, corresponding to the need for typesetting text in smaller displays. However, the design approach of the typefaces under this category still maintains a relatively close relationship to the proportions and letter shapes of the Naskh style.

29. See section 1.5.
30. See Ross, 2012. pp. 130-133 and Nemeth, 2017. pp. 109-120.
31. The typeface AXT Manal is identical to Muna with only a slight difference in word spacing. Therefore, the study does not consider AXT Manal as a separate typeface.

Noto Naskh	أبجد هوز حطي كلمن سعفص قرشت ثخذ ضظغ
Adobe Arabic	أبجد هوز حطي كلمن سعفص قرشت ثخذ ضظغ
Greta Arabic	أبجد هوز حطي كلمن سعفص قرشت ثخذ ضظغ
Nassim	أبجد هوز حطي كلمن سعفص قرشت ثخذ ضظغ
Nassim Semibold	أبجد هوز حطي كلمن سعفص قرشت ثخذ ضظغ
BBC Nassim-EX	أبجد هوز حطي كلمن سعفص قرشت ثخذ ضظغ
Arabic UI Text	أبجد هوز حطي كلمن سعفص قرشت ثخذ ضظغ
Dubai	أبجد هوز حطي كلمن سعفص قرشت ثخذ ضظغ

f) Latinised Arabic adapts the visual representation of the Arabic script to the structure and features of the Latin script. This can be mainly noticed in the adoption of the x-height grid and the diminution of descenders. It is also apparent in the importation of Latin letterforms, or parts of them, to form Arabic letters. These treatments are usually implemented to achieve a direct visual harmony with the Latin script. The design principle generally allows a high level of novelty which can be noticed in the substantial differences among the typefaces under this category.[32]

Noto Kufi	أبجد هوز حطي كلمن سعفص قرشت ثخذ ضظغ
Helvetica Neue Arabic	أبجد هوز حطي كلمن سعفص قرشت ثخذ ضظغ
Cairo	أبجد هوز حطي كلمن سعفص قرشت ثخذ ضظغ
Din Next Arabic	أبجد هوز حطي كلمن سعفص قرشت ثخذ ضظغ
Tajawal	أبجد هوز حطي كلمن سعفص قرشت ثخذ ضظغ
GE SS	أبجد هوز حطي كلمن سعفص قرشت ثخذ ضظغ
GE Dinar One	أبجد هوز حطي كلمن سعفص قرشت ثخذ ضظغ
29LT Kaff	أبجد هوز حطي كلمن سعفص قرشت ثخذ ضظغ
Al Qabas	أبجد هوز حطي كلمن سعفص قرشت ثخذ ضظغ
Hasan Tunisia	أبجد هوز حطي كلمن سعفص قرشت ثخذ ضظغ
Frutiger LT Arabic	أبجد هوز حطي كلمن سعفص قرشت ثخذ ضظغ

32. The substantial differences among the Latinised Arabic typefaces bring obvious challenges to testing and discussing preferences towards the Latinised Arabic category as preferences might differ considerably across some distinct typefaces under this category. Therefore, unless all the distinct typefaces above are included in the testing, it would be difficult to link the results of the testing to the category as a whole. However, due to the limited scope of this research, the empirical studies (chapters 4 and 5) focus on examining preferences towards the most used typeface under this category (as recognised through this statistical study). Also, the second most used typeface under this category is included in part of Empirical Study 1 (see sections 4.1 and 4.3 for more detail). Examining preferences towards the large variety of Latinised Arabic typefaces is beyond the scope of this research.

f) Uncategorised typefaces includes typefaces that carry a complex mix of features, making it difficult to categorise them under any of the previously defined categories. Except for Tahoma, all these typefaces appear to be custom fonts of Arabic newspapers as listed below. Tahoma, on the other hand, is offered as a Microsoft Windows system font.

Al Ghad Newspaper (Hacen Liner Printout)
أبجد هوز حطي كلمن سعفص قرشت ثخذ ضظغ

Al Khaleej
الاجتماعـي. كمـا اعتمـد سموه، خـلال ترؤسه،

Al Watan
بتاريخ أوطانهم وتعرفهم على الملامح التاريخية

Al Seyassah
سيطرة الدولة العثمانية في القرن السادس

Al Nahar
التي تأسّست في خمسينات القرن العشرين، ج

Al Joumhouria
خاصاً في زفاف ابنة موكيش أمباني، أغنى رجل

Tahoma
أبجد هوز حطي كلمن سعفص قرشت ثخذ ضظغ

3.3. Use of Arabic typefaces across document genres

Analysing the use of Arabic text typefaces in the collected materials revealed noticeably different patterns of use across the addressed document genres. The following sections show the percentages of use in each of these document genres and point out general observations related to type-use practices in light of the historical contexts of Arabic type development and other possibly relevant factors.

3.3.1. Use of Arabic type in book typesetting

Type use in the collected books shows a significant dominance of the Regular Naskh category with around 72.5% of the included publishers using Regular Naskh typefaces. Linear Naskh typefaces came next by 18% of the publishers, while the Simplified Arabic and Modern Naskh typefaces were used by only around 9.5% of the publishers. The analysis of type use in the collected materials indicates that around 70% of the selected publishing houses have consistent or dominant use of one type category across their publications. On the other hand, 30% used a variety of typefaces from the Regular Naskh, Simplified Arabic and Linear Naskh categories across their publications. No use of the Classical Naskh or Latinised Arabic typefaces was found in the text typesetting of any of the examined printed books (Figure 3.6).

The prominence of the Regular Naskh category in book typesetting raises a number of important observations. As the design of this approach was originally based on the Classical Naskh style, its current dominance can be seen as an extension of the rooted dominance of the Classical Naskh style in Arabic book typesetting. This extended use shows the strong effect of convention

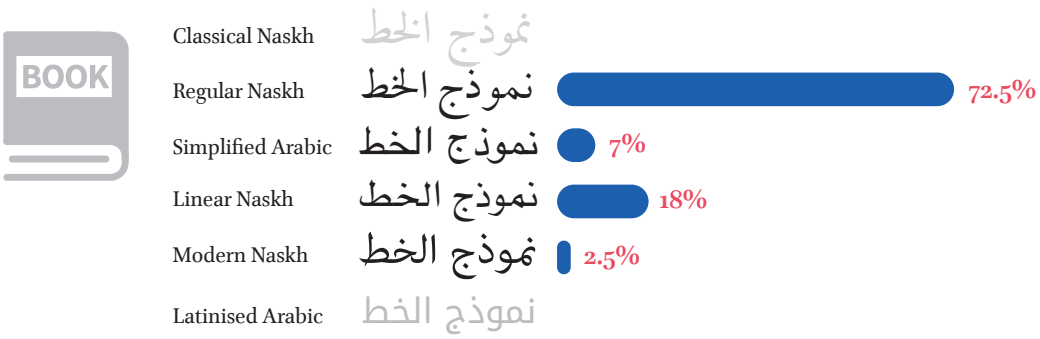


Figure 3.6 Percentages of use of Arabic type categories in book publishing. Chart by the author.

on typographic practices. On the other hand, it is also interesting to see that the Classical Naskh approach, which formed the reference of the Regular Naskh, seems to have been replaced completely by it successor. The apparent absence of the Classical Naskh style in present-day book texts can be strongly linked to its absence in popular typesetting technologies during the twentieth century. This noticeable replacement shows an example of the significant influence of technology on Arabic type use.

3.3.2. Use of Arabic type in newspaper typesetting

Analysis of type use in the collected newspapers shows a high percentage of use for the Simplified Arabic and the Linear Naskh categories at 52% and 28% respectively.[33] The Modern Naskh category is used in only 6% of the newspapers while the remaining 12% goes for uncategorised typefaces.[34] No use of the Classical Naskh, Regular Naskh or Latinised Arabic categories was found in the text setting of the examined newspapers.

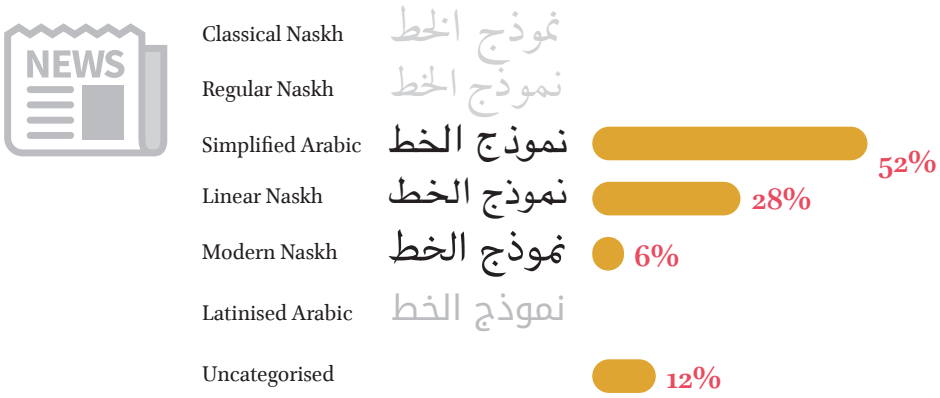


Figure 3.7 Percentages of use of Arabic type categories in printed newspapers. Chart by the author.

33. The dominance of the Simplified Arabic typefaces in Arabic newspapers correlates with findings of a previous MA dissertation by Titus Nemeth. Although Nemeth's dissertation covers additional Arab countries and a different time-scale, it reveals similar patterns of type use. See Nemeth, 2006. pp. 19, 27.
34. In most cases, the uncategorised typefaces seem to be custom typefaces designed for the newspapers. This is supported by data from two of the interviews addressed in chapter 5.



Figure 3.8 Sample of the high popularity of the Simplified Arabic typefaces in newspapers text setting. From top to bottom: *Al Watan*, *Al Ahram* (Egypt), *Al Sharq Al Awsat* (Pan-Arab), *Al Sharq*, *Al Akhbar*, *Al Diyar* (Lebanon).

The remarkably high percentage of use of the Simplified Arabic typefaces in Arabic newspapers text setting can be strongly linked to their established popularity in this genre which emerged during the twentieth century. As previously explained in this research, the popularity of the Simplified Arabic approach in Arabic newspapers was mainly due to its efficiency in composition using hot-metal typesetting. This established popularity, however, still affects type use in Arabic newspapers despite the irrelevancy of the efficiency factor in digital typesetting (Figure 3.8). The case can be seen as another clear example of the effect of previous technologies on contemporary Arabic type-use practices.

Another remarkable situation is the absence of the Regular Naskh category in newspapers despite its dominance in book typesetting. It is worth inquiring whether this absence of use is related to functional reasons or is rather affected by habit or trend. A possible explanation might be found in the considerable use of the Linear Naskh typefaces. The use of this approach –which shares features from both the Regular Naskh and the Simplified Arabic approaches– can indicate the users' cautiousness about taking considerable deviations from the established practice in this genre.

The relatively recent appearance of Modern Naskh typefaces in some of the examined newspapers reveals an emerging tendency towards using more contemporary typefaces in this document genre.[35] The use of these typefaces can also be related to their relatively conventional appearance which allows them to be perceived as safe choices for text typesetting in this genre.

35. Reviewing older versions of the included newspapers show that they only started to use Modern Naskh typefaces after 2010.

3.3.3. Use of Arabic type in web typesetting

Inconsistent type rendering

Examining type use on the web brought unique challenges to this study as some of the selected websites did not show a consistent rendering of typefaces across different devices/operating systems. The inconsistency issue is related to how the websites are programmed to import and display fonts. If the programming of a website is not properly set to import the assigned font, the browser switches to a default font which can differ from one operating system to another.[36] As a result, the same website can show different typefaces based on the device/operating system used to navigate it (Figure 3.9). This issue brought challenges related to both the examination of the typefaces used on the web and to the calculation of their percentages of use.

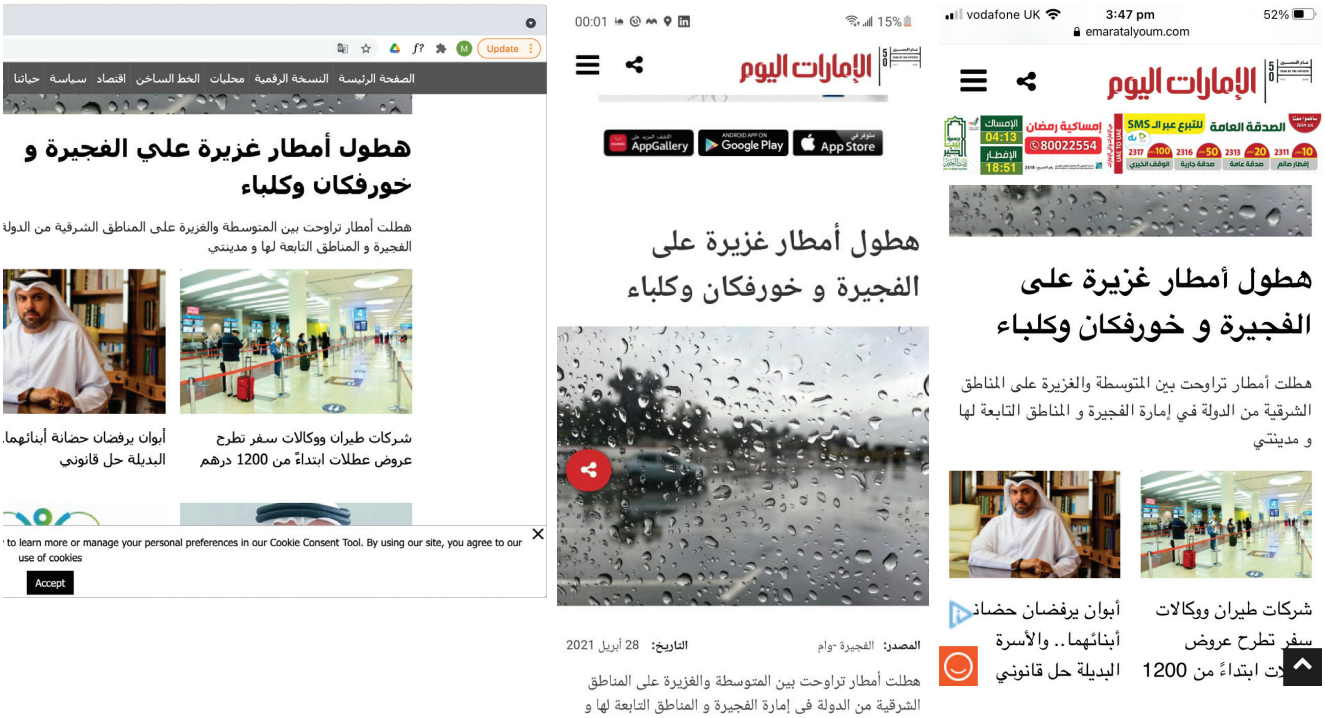


Figure 3.9 Example of inconsistent rendering of typefaces on the web across different devices/operating systems. From left to right: snapshots of emaratalyoum.com website on macOS (the same typefaces also shows on Windows), Android and iOS systems. Notice the variety of typefaces across different operating systems (accessed on 28 April 2021).

As a first step to allow more accurate statistics of type use on the web, it was necessary to recognise the websites which show inconsistent rendering of typefaces on different operating systems. Browsing the selected websites

36. For a website to show the assigned typeface correctly, either the font file should be installed on the device displaying the website or a link to the font file should be provided in the programming rules of the website so that the browser can download and display the font. If neither is the case, the browser alternatively uses a default font which can differ from one operating system to another. The author wishes to thank Aladdin Dabbagh for his help in explaining these technical aspects about web programming.

on different operating systems revealed that nine out of the sixty examined websites showed inconsistent type rendering (Figure 3.10).[37] The typefaces on these websites varied between Geeza Pro, Arial, Tahoma, Noto Naskh and Arabic UI (Figure 3.11).

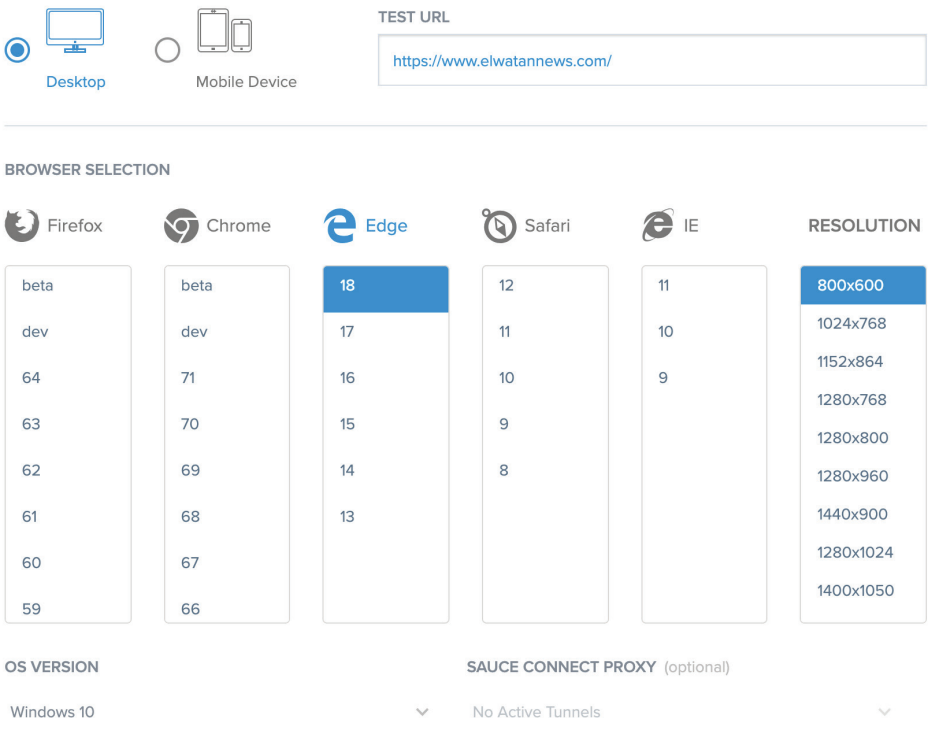


Figure 3.10 Sample of the features provided by the application app.saucelabs.com that allowed testing the examined websites on different operating systems. From top to bottom, the application allows testing websites with different device types (desktop or mobile), web browsers (with different versions of web browsers) and different operating systems (Android, iOS, MacOS and Windows).

Tahoma	نموذج للخط المستخدم في المواقع	**macOS/Windows**
Arial	نموذج للخط المستخدم في المواقع	**macOS/Windows**
Arabic UI	نموذج للخط المستخدم في المواقع	**macOS/iOS**
Geeza Pro	نموذج للخط المستخدم في المواقع	**iOS**
Noto Naskh	نموذج للخط المستخدم في المواقع	**Android**

Figure 3.11 The variety of system fonts as often rendered on different operating systems.

The system fonts above fall under three of the previously defined categories (Simplified Arabic, Modern Naskh and Uncategorised typefaces). However, due to the inconsistency issue described above, it is impractical to count the websites which use system fonts under any of the mentioned categories. Therefore, the study puts these websites under a separate category (labeled "System Fonts") to avoid distorting the figures in a way that can possibly lead to misinterpretations in the following parts of the research.

37. The application Saucelabs was used to browse the websites on four different operating systems: Android, iOS, MacOS and Windows.



Figure 3.12 Percentages of use of Arabic type categories in web text setting. Chart by the author.

Percentages of use

The study reveals that the majority of the selected websites used typefaces under the Latinised Arabic (35%) and Modern Naskh (33.3%) categories. Only 13.3% of the websites showed a consistent use of Simplified Arabic typefaces. 15% of the websites showed system fonts. The Classical Naskh category showed a marginal percentage of use at only 3.3%. None of the examined websites used the Regular Naskh or Linear Naskh typefaces.

The results above reveal that Arabic type use shows another distinct pattern on the web compared to the two previous document genres (Figure 3.14). Most notably, the Latinised Arabic category, which shows zero use in the texts of both printed books and newspapers, exhibits considerable use on the web. Also, the Modern Naskh typefaces show a considerable presence on the web while their use in both books and newspapers is marginal. The noticeable use of these two categories on the web indicates a strong tendency towards using more contemporary typefaces in this document genre. The fact that no established typographic conventions predominate the relatively new genre possibly contribute to the diversion from the previously conventional practices (Figure 3.13). Moreover, the virtual absence of a sales value of web

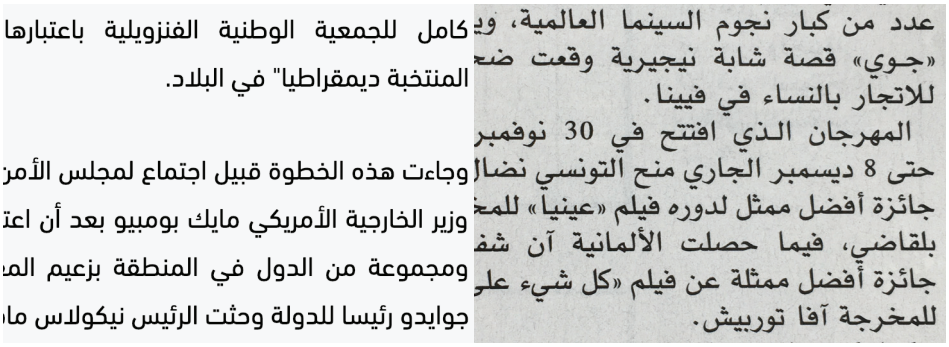

كامل للجمعية الوطنية الفنزويلية باعتبارها
المنتخبة ديمقراطيا" في البلاد.
وجاءت هذه الخطوة قبيل اجتماع لمجلس الأمن
وزير الخارجية الأمريكي مايك بومبيو بعد أن اعت
ومجموعة من الدول في المنطقة بزعيم الم
جوايدو رئيسا للدولة وحثت الرئيس نيكولاس ما
عدد من كبار نجوم السينما العالمية، و
«جوي» قصة شابة نيجيرية وقعت ضح
للاتجار بالنساء في فيينا.
المهرجان الذي افتتح في 30 نوفمبر
حتى 8 ديسمبر الجاري منح التونسي نضال
جائزة أفضل ممثل لدوره فيلم «عينيا» للمخ
بلقاضي، فيما حصلت الألمانية آن شف
جائزة أفضل ممثلة عن فيلم «كل شيء علو
للمخرجة آفا توربيش.

Figure 3.13 An example of the common difference in type use between that on the web and for print. The images above show type use by the same newspaper (Al Etihad) on the web (left) using a Latinised typeface and in print (right) using a Linear Naskh typeface. Printed newspaper at 125% of original size. Sources: www.alittihad.ae (accessed on 20 January 2019), *Al Etihad* newspaper, United Arab Emirates, 10 December 2018.

pages can bring a lower sense of risk in experimenting with less usual typefaces. Another factor that might be related to this practice is that web design as a profession is more likely to be occupied by a relatively younger generation of professionals who might be more willing to experiment with new typefaces.[38]

The use of the Simplified Arabic typefaces on the web can be considered marginal, especially when considering their wide accessibility as system fonts. This situation further conveys the tendency to abandon typefaces that might be perceived as outdated. The same factor can also partially explain the absence of use of the Regular Naskh and the Linear Naskh typefaces in the examined web pages.[39] The lack of use of these two categories might be further supported by the fact that they are not available under the default list of HTML and CSS fonts,[40] making them less accessible. Interestingly, however, website use was the only genre where the Classical Naskh category showed an appearance, although very marginal. The style seems to be preferred by websites where a depiction of authority or authenticity might be favoured such as dictionaries or websites which provide religious content.

Finally, handling the font files throughout this study permitted the recognition that the source of fonts might possibly be one of the major factors that affect Arabic type use on the web. For example, around 50% of the fonts used on the web are provided by Google Fonts. Among these are Noto Naskh and Noto Kufic which are the two most used Arabic fonts on the web. Furthermore, 27% of the fonts were system fonts. Therefore, overall, around 80% of the fonts used on the web are easily accessible and legally free fonts.

3.4. Summary

The statistical study reveals remarkably distinct patterns of type use across the three addressed document genres. Categories of typefaces that were dominant in one genre saw marginal or even no use in others. Although these patterns show an interesting case of type use, they actually reflect the influence of the historical contexts on Arabic type development since the mid-twentieth century. The identified patterns of use reveal the strong role of previous typesetting technologies on Arabic type use until the date of the study. Typesetting machines contributed to both the standardisation of new typefaces and the replacement of previously dominant ones. The identified patterns of use also indicate the strong role of convention on typographic

38. It is worth pointing out that, since the statistical study was performed (late 2018), many of the examined websites have changed their text typefaces. This reflects the high flexibility in changing type-use practices in this document genre.

39. This does not mean that these two categories are completely absent on the web as the examined samples of Arabic websites are obviously limited. However, the reported absence of use can reflect a low popularity of these typefaces on the web.

40. The majority of HTML and CSS default fonts (including Arial, Brush Script MT, Garamond, Helvetica, Trebuchet MS, Times New Roman and Verdana) give Simplified Arabic typefaces (Geeza Pro, Arial and Times New Roman). Tahoma and New Courier give Arabic versions of the typefaces.

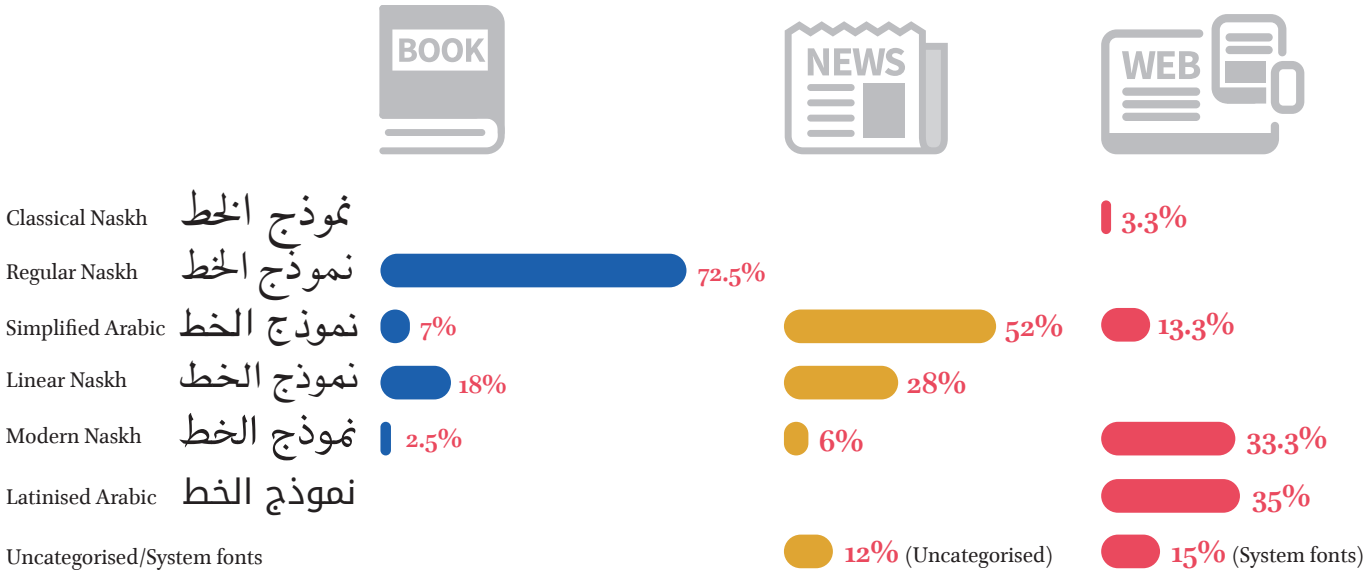


Figure 3.14 Comparing percentages of use of Arabic type categories across the three examined document genres. Chart by the author.

practices. This can be clearly seen in the continuation of previously established type-use practices in both books and newspapers. On the other hand, on Arabic websites, where such conventions are less influential, there is a noticeable tendency to use new Arabic typefaces. Other factors such as accessibility and the cost of fonts also seem to play a considerable role in Arabic type-use practices.

Many of the observations listed above require further investigation with users of Arabic type about the rationale behind some common typographic practices. Moreover, the distinct patterns of use which have been identified throughout this study raise important questions with regard to how Arab readers perceive the different typefaces. These two aspects are addressed in the following two chapters of the research.

4. Empirical study 1: readers' preferences towards Arabic typefaces in text

4.1. Aim of the study

This study aims at investigating Arab readers' preferences and perceptions regarding a selected set of Arabic typefaces. The selection of the typefaces is informed by both the historical and the statistical studies of this research which addressed the development and current status of use of Arabic text typefaces. The study aims mainly at inquiring into which Arabic typefaces are most preferred for extensive reading. The study also tries to understand the rationale behind the readers' preferences and perceptions. The results of this study can inform both designers and users of Arabic type about better practices in designing and choosing Arabic text typefaces for effective typography use.

The selection of typefaces in the empirical study is based on the categorisation which was decided in the statistical study. As addressed earlier throughout the statistical study, these categories include widely used Arabic text typefaces. Each of these categories is represented by the most used typeface of the category. Throughout the empirical study, the representative typefaces are referred to as "models" of their categories (i.e., the Regular Naskh model is the typeface that represents the Regular Naskh category). In the majority of cases, the models are consistent across the addressed document genres. However, in the case of the Modern Naskh category, a different model is used in print (books and newspapers) in comparison to the one used digitally. This decision is based on the finding that Adobe Arabic was the most used typeface among the category in printed materials while it showed no use in the examined web pages. On the other hand, Noto Naskh was the most used typeface on the web while it showed no use in the examined printed materials. Based on this unique situation of use, the study implements two different models for this category to better reflect real type-use practices across the addressed document genres.

The findings of the statistical study helped guide not only the selection of the typefaces but also aspects related to the structure of the empirical study, the design of the materials and the questions addressed throughout the study. For example, the distinct patterns of type-use across the addressed document genres which were identified throughout the statistical study inspired inquiring about the readers' perceptions towards these patterns. Therefore, the empirical study was designed to examine the readers' preferences/perceptions across the three addressed document genres. Furthermore, recognising these patterns of use raised the importance of inquiring about the participants' reading habits to explore whether they have any influence on their preferences. The statistical study also helped inform the design of the mockups which are used throughout the empirical study. As detailed later in this chapter, the design of the mockups is mainly informed by the materials which were collected throughout the statistical study to ensure that they closely mimic real documents.

4.2. Literature review

There is a limited number of studies that address readers' preferences and/or reading performance concerning Arabic typefaces.[1] The majority of the available studies rely mainly on experimental methods (e.g., eye-tracking and/or measuring reading speed) to compare the legibility and/or readability of selected Arabic typefaces.[2] However, implementing these methods in examining the quality of typefaces requires sufficient knowledge of both typographic aspects and experimental research methods to assure that both the study is well-designed and the analysis is well-informed. Otherwise, the researcher can easily fall into many pitfalls that can affect the validity of the research outcomes, which indeed seems to be a common issue with relevant research.[3] Relating to this situation, Sofie Beier rightly points out that:

> 'Many studies into typeface legibility are carried out by researchers from a non-design oriented academic background. These researchers –naturally– do not have a professional understanding of typography, which tends to reduce the suitability of their test material'.

Although Beier's statement seems to be referring to studies that address Latin typefaces, the situation above closely applies to the majority of studies that address Arabic typefaces, as demonstrated later throughout this review.

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1. There are six studies related to the topic of the present research which could be found when reviewing related literature. Four of these studies appear as journal papers: Abubaker and Lu, 'The optimum font size and type for students aged 9-12 reading Arabic characters on screen, a case study' in *Journal of Physics: Conf. Ser. 364.* University of Benghazi, 2012; Ramadan, 'Evaluating college students' performance of Arabic typeface style, font size, page layout and foreground/background color combinations of e-book materials' in *Journal of King Saud University – Engineering Sciences.* King Saud University, 2011; Al-Dosary; Al-Salloom; Al-Rashid, 'Examining the readability of Arabic electronic content: an exploratory eye tracking study' in *Proceedings of the IADIS International Conference e-learning.* Riyadh: Idrac Research, 2010; Al-Wabil, and George, 'An eyetracking study of Arabic typography readability' in *Proceedings of the IADIS International Conference Interfaces and Human Computer Interaction.* King Saud University. 2010. One study is an MA dissertation: Almuhajri, *Arabic e-reading: studies on legibility and readability for personal digital assistants.* Concordia University, 2013. One study is a PhD thesis: Chahine, *Reading Arabic: legibility studies for the Arabic Script.* PhD thesis [Unpublished], Lieden University, 2012. It is worth mentioning that Almuhajri's MA dissertation was also published later as a chapter by Almuhajri, M., & Suen, C. Y., 'Legibility and readability of Arabic fonts on personal digital PDAs' in M. C. Dyson & C. Y. Suen (Eds.), *Digital fonts and reading* (pp. 248-265): World Scientific Publishing, 2016.

2. It is worth pointing out that the present research implements different methods compared to the reviewed studies above. However, despite the difference in research methods, these studies are reviewed as relevant to the present research because they share the same aim of trying to inform type-use and/or type design practices.

3. Studying the effect of different typefaces or typographic features on reading is a research area that has brought much controversy among researchers, experts, practitioners and commentators in the field. Ole Lund points out that, during the last two centuries, psychologists, opthalmologists, engineers, typographers and type researchers implemented a variety of experimental methods in attempts to understand how different design features in typefaces affect reading. However, in many cases, the findings of many experiments differed widely from one study to another or, in some cases, were even contradictory. In his extensive study of legibility research, Ole Lund concludes that nearly all of the examined studies lack internal validity. He also states that the huge effort that went into producing those studies has not resulted in an incremental body of knowledge, nor has it resulted in any clarifying theories. His conclusions also suggest that traditional experimental legibility research has provided a non-productive approach to typographic knowledge production. See Lund, *Knowledge construction in typography: the case of legibility research and the legibility of sans serif typefaces.* PhD thesis, University of Reading, 1999. pp. 34, 224, 247.

4.2.1. General challenges in legibility and readability research

One of the main challenges that can face legibility and/or readability is the questionable validity of some common methods in measuring the quality of typefaces under certain circumstances. For example, among the most common experimental methods is reading speed (the quicker the reading is, the better the typeface, and vice versa). However, it can be argued that reading speed, in some cases, can be marginally dependent on factors such as typefaces (especially if they do not show large differences) compared to other factors that can affect the complex process of reading. For example, factors such as the complexity of the text or its familiarity to the reader can have a considerable effect on their reading speed. Also, the moods of the participants (e.g., how relaxed or engaged they are during the experimenting environment) can potentially affect their reading performance. Moreover, the outcomes of an experiment might be partially affected by the participant's adaptation to the process/requirements of the experiment. Such aspects –which are arguably more difficult to measure than reading speed– can potentially affect the outcomes of this method and therefore give misleading results when outcomes are simply linked to the quality of the typefaces. Therefore, if a study is not well-designed to isolate other factors, it will be very difficult to quantify the quality of typefaces through measuring the reading speed.[4]

Another challenge that can face experimental legibility/readability research is the hypothesis that habit plays an important role in reading which, if valid, makes it less meaningful to study the effect of specific typographic features on reading.[5] The potential role of habit in reading can be summarised by the famous statement 'we read best what we read most'.[6] The hypothesis suggests that typefaces are not intrinsically easier or harder to read but rather that it is the readers' level of familiarity that accounts for that aspect.[7] The renowned type designer Adrian Frutiger expressed his scepticism about legibility research by stating that 'I learnt to read with gothic characters and I never experienced the slightest difficulty. I think legibility is solely a matter of habit [...]'.[8]

Another problematic aspect concerning legibility and readability experimental research appears in studies that rely inappropriately on single typographic variables, whereas a number of other variables can potentially affect

4. Lund, 1999. pp. 63-65.
5. Many typography experts presented views that correlate with this hypothesis. A demonstration of these views can be found in Unger, 2018. pp. 41-44. Also, a study by Beier and Larson on the effect of familiarity on reading confirms this effect. It is noteworthy, however, that the study distinguishes between exposure time to a typeface design and commonalities in letter shapes. See Beier, S., & Larson, K., 'How does typeface familiarity affect reading performance and reader preference?' in *Information Design Journal,* 20 (1), 2013. pp. 16-31. https://doi.org/10.1075/idj.20.1.02bei
6. Licko, 'Typeface designs' in Emigre no. 15, 1990. https://www.emigre.com/Essays/ZuzanaLicko/Emigre15 (accessed March 2021).
7. Lund, 1999. pp. 67-70.
8. Lund, 1999. p. 73. The original source of the comment is in Eurographic Press Interview, 'Designer's profile: Adrian Frutiger' in *Print in Britain*, no. 9, vol. 9, 1962. p. 260.

their results. For example, when a study attempts to examine the effect of x-height on reading performance while it implements typefaces that show many other design differences (i.e. width, spacing, proportions, etc), linking the results of the study solely to the x-height can be highly problematic as it ignores the potential effect of the other variables.[9] Similarly, a more obvious example can be seen in studies that attempt to compare the legibility level of different typefaces while using typefaces that show considerable differences in optical size. In such cases, linking the results of the study solely to the style of the typefaces can be highly problematic as it ignores the potential effect of the difference in size.

The wide variety of issues that potentially can affect the validity of legibility/readability research, as briefly demonstrated in the examples above, bring obvious challenges to studies that address related aspects. Researchers who aim to address this line of research need to be aware of the various methods, theories, recognised shortcomings and considerations related to these types of experiments. Such awareness is crucial to avoiding some common pitfalls in order to allow more effective outcomes.[10]

4.2.2. A review of relevant research on Arabic typefaces

Reviewing the limited number of available studies on readers' preferences towards Arabic typefaces, taking into account some of the main criticisms towards legibility and readability research, reveals various issues in almost all of the reviewed studies. Although the level of awareness of experimental research and typographic considerations varies across the examined studies, all the studies show major issues which can make their results questionable.[11] The following review of general shortcomings in these studies helps show the gap in research that can inform Arabic type-design and type-use practices.

All the reviewed studies use reading speed as a main method to examine reading performance across different typefaces. However, there are various shortcomings in the way this method is implemented as can be noticed in the reviewed studies.[12] For example, in two of the reviewed studies, participants were asked to read aloud the text in order to measure the

9. Lund, 1999. pp. 61-62. It is worth pointing out that contemporary experimental studies suggest practices that can solve the issue above. See, for example, Beier, 'Legibility investigations: Controlling typeface variables' in *Praxis and poetics: Research through design, conference proceedings* (pp. 92-95): Northumbria University, 2013. However, as detailed in the following pages, the majority of studies that address Arabic type do not seem to be able to handle this aspect satisfactorily.

10. See Muratovski, *Research for designers: A guide to methods and practice.* London: SAGE Publications Ltd, 2016. p. 95.

11. This review demonstrates only some of the principal problematic aspects in the examined studies while many further issues can be noticed. Providing a detailed review of the issues can lead to an extensive analysis which is outside the scope of this research. Also, it is worth mentioning that some studies do not provide sufficient detail about different aspects of their processes, which leaves many questions concerning their validity unanswered. This is especially the case in the shorter studies. See, for example, Al-Dosary, Al-Salloom, Al-Rashid, 2010. p. 304 and Al-Wabil, George, 2010. p. 310.

12. See Abubaker and Lu, 2012. p. 10; Al-Dosary, Al-Salloom, Al-Rashid, 2010. p. 305; Al-Wabil, George, 2010. p. 310; Ramadan, 2011. pp. 92-93; Almuhajri, 2013. p. 54; Chahine, 2012. p. 181-2.

accuracy and/or reading speed using different typefaces.[13] However, linking the outcomes of this method to the quality of the examined typefaces is, arguably, questionable for obvious reasons. The speed of careful reading aloud –where considerable attention is given to the pronunciation or clarity of speech– can obviously differ from silent reading where the speed of the eye is the limit. Therefore, making observations in relation to the typefaces based on input from reading aloud can be completely irrelevant. Another type of issue appears in one of the studies where the selection of the texts which were used throughout the experiment is, arguably, ill-advised. The study uses classical Arabic texts containing dated vocabulary and complex sentence structures which, potentially, can confuse even today's fluent reader.[14] In this case, it can be argued that the effect of the considerable oddity of the selected texts on reading speed can be larger than the effect of the minor differences across the examined typefaces. Consequently, the randomness that this oddity can bring to the results of the study across different participants is arguably more difficult to measure than reading speed. This is further emphasised when considering that the experiments were performed with younger readers (13-17 years old), who might still have been developing reading skills.[15]

In addition to the shortcomings in applying reading speed as a method throughout the reviewed studies, the majority of the studies used various forms of comprehension checks to support the experiments.[16] In some cases, results from these checks were linked to the quality of the typefaces,[17] while in other cases the purpose seemed to be only to confirm the engagement of the participants. Comprehension checks –which followed reading tasks– included questions such as: 'Salt is usually spread on the pathways in cold weather in order to prevent the ice from melting, correct or false?'[18] or 'How did the smartest fish manage to escape the waterway?'.[19] The issue with these questions is not only in the obvious irrelevance of being able to answer them

13. See Abubaker and Lu, 2012. p. 6 and Al-Wabil, George, 2010, p. 310.
14. See Chahine, 2012. pp. 233-239.
15. The fact that reading speed averages (as recognised by the reviewed study) show random differences in relation to the examined typefaces but more obvious patterns of differences in relation to both age and vocalisation/un-vocalisation of the texts can be seen as a reflection of the scepticism presented above. This does not mean that the data is not of use but it strongly indicates that the outcome does not solely reflect the effect of the examined typefaces on reading speed but also includes major influences of the other two factors (i.e., the fluency of the participants and the effect of applying/removing vocalisation) on the collected data.. To check the random differences in relation to the typefaces, see Chahine, 2012. pp. 189-190, 203.
16. See Abubaker and Lu, 2012. p.6; Ramadan, 2011. p. 94; Almuhajri, 2013. pp. 52-53 and Chahine, 2012. pp. 187.
17. For example, some conclusions stated that: 'participants better understood "Simplified" font style when compared to the other font styles' based on outcomes from reading comprehension checks. See Ramadan, 2011, p. 94.
18. The question is as confusing in Arabic as it is in the provided translation (i.e., does the question rather mean 'prevent the ice from forming' instead of 'melting'? Or is the comprehension check trying to trick the participant?). See Ramadan, 2011. p. 93.
19. The question above follows a text which tells the tale of three fish who were trapped in a water stream by fishermen and had different fates based on the way they acted. See Chahine, 2012. p. 234.

to the quality of the typefaces[20] but also in the fact that they require the participants to provide correct answers to subsequent questions, which can act as a challenge that can potentially alter their reading style. As a result, the implementation of comprehension checks can further affect the outcomes of the studies which rely on reading speed to measure the quality of typefaces.

Another obvious problematic issue with the majority of the reviewed studies is their failure to isolate or define the typographic variables across the examined typefaces, sometimes even on a basic level. This is clearly evident in the implementation of considerably different optical sizes across the examined typefaces when the studies' actual aim is to discern which fonts enable better reading performance. Four out of the six reviewed studies apply a unified point size based on the software input, failing to consider that this does not necessarily give a unified optical size across different fonts.[21] As a result, it is unsurprising that some studies showed different outcomes when the font size changed, leading the researcher to confusing conclusions.[22]

While two of the reviewed studies show relatively better consideration of the previous aspect, some related issues remain questionable. For example, in one of the studies, the researcher attempts to optically match the size of the examined typefaces in part of the study but does not apply that in other parts, meaning that the research outcomes were partially affected by this shortcoming.[23] In another study, the researcher puts extensive effort into isolating the typographic variables by designing three custom typefaces for the research. While this step thoughtfully and painstakingly handles this aspect, it also shows a unique complication concerning the definition of the isolated variable. The researcher suggests that the three typefaces represent different levels of 'complexity'; however, reviewing the design process shows that two of the typefaces are based on two widely used Arabic typefaces while the third typeface introduces many features which are rarely seen in modern Arabic typography.[24] This can indicate that, although 'complexity' might indeed be a valid variable there, it can also be strongly suggested that 'familiarity' is another important factor to be considered. Taking that into account, the core basis on which the researcher has built the discussion and the conclusions of the study may be questionable.

In summary, the obvious shortcomings in the reviewed studies above make it difficult to rely on their data or findings as practical knowledge on the qual-

20. Considering the points presented above, such questions clearly show that what is being tested in these studies can far exceed testing the quality of the examined typefaces and can be related to other aspects such as the participants' comprehension, their attention to details and probably even their interpretations of the provided questions.

21. See Abubakr and Lu, 2012. p.5; Al-Dosary, Al-Salloom, Al-Rashid, 2010. p. 305; Al-Wabil, George, 2010. p. 310; Ramadan, 2011. p. 91.

22. For example, a study showed an advantage for one typeface (the optically larger) over another in smaller font sizes while this advantage diminished when both fonts were set at larger font sizes. See Al-Wabil, George, 2010. p. 311.

23. It could be that the researcher realised the importance of this point only at a later stage of the research. Compare pages 28-29 with pages 69-81 in Almuhajri, 2013.

24. See Chahine, 2012. pp. 79-88.

ity of the examined Arabic typefaces or typographic features. Even if parts of some studies might hold some relative validity, the various issues throughout the design of their methodology, their research process, sampling or analysis make the elicitation of any valid information a difficult task. This situation emphasises the need for research that contributes to informing Arabic type-design and type-use practices.

It is also worth pointing out that the present research differs from the reviewed studies in three main aspects. First, this research sets a clear criterion for the selection of the examined typefaces through a statistical study that recognises the most used Arabic typefaces, which is a method that has not been implemented in previous studies.[25] Another difference is that the present research aims at understanding the rationales behind readers' perceptions/preferences towards the examined typefaces through semi-structured interviews while most of the reviewed studies rely mainly on quantitative input which does not allow such an insight. Another main difference appears in the sampling of the participants in the empirical study in the present research which aims at involving readers from a relatively wide geographical region while most of the reviewed studies involved local participants, mostly from a specific school or college.[26] These aspects can bring extra value for the outcomes of the present research to both designers and users of Arabic type.

4.3. Methods of the empirical study

The present study enquires about the participants' perceptions towards the examined Arabic typefaces using a combination of quantitive and qualitative methods. Implementing a combination of methods (usually referred to as 'multiple methods' or 'mixed methods') aims at allowing more nuanced insights into the participants' perceptions.[27] In the first stage of the study, each participant is exposed to mockups of documents and asked to rate them across the three document genres based on how comfortable they are to read. This quantitative method aims at gaining an insight into the participants' preferences numerically. However, as this type of data is not enough to understand the participants' perceptions, an explanatory qualitative method is implemented to achieve this purpose.[28] In this stage, the participants are

25. The majority of the reviewed studies provide simplistic explanations about the criteria for the selection of the examined typefaces. For example, in one of the studies, the researcher explains that the included typefaces were chosen based on what is available on Microsoft Windows 2003 system. Some studies state that they included typefaces that are the most common, but this evaluation seems to be decided on a personal judgement without explaining how the information was reached. See Abubakr and Lu, 2012. p.4; Al-Dosary, Al-Salloom, Al-Rashid, 2010. p. 305; Al-Wabil, George, 2010. p. 310; Ramadan, 2011. p. 91.

26. See Abubakr and Lu, 2012. p.4; Al-Dosary, Al-Salloom, Al-Rashid, 2010. p. 304; Al-Wabil, George, 2010. p. 310; Chahine, 2012. p. 189; Ramadan, 2011. p. 91.

27. See Muratovski, 2016. pp. 40, 106; Creswell, *Research Design: Qualitative, Quantitative and Mixed Methods Approaches.* London: Sage Publications, 2003. pp. 40-42; Schutz; Nicholas; Rodgers, 'Using multiple methods approaches' in *Research Essentials: An introduction to designs and practices, eds. Lapan, Stephen and Quartaroli, Marylynn.* San Francisco, California: Jossey Bass, 2009. p. 244.

28. This method is referred to as 'explanatory sequential design'. see Creswell, 2003. p. 299-302.

asked through a semi-structured interview to provide a brief rationale behind their preferences. The participants are also asked questions concerning their educational background and reading habits to examine the potential effect of these aspects on readers' preferences.[29]

Throughout the rating task, the participants are first briefly introduced to the general purpose of the study.[30] Throughout this introduction, the participants are informed that there are no right or wrong answers and that only their natural preferences matter for the study.[31] They are then asked to rate the displayed mockups on a scale from 7-1 (7 being most comfortable to read to 1 being not at all comfortable).[32] The option to give the same rating for more than one mockup is possible if a participant has an equal preference for them. Participants are not required to read long passages of texts in order to give their ratings. Rather, they are able to rate the mockups based on the general impression of how comfortable the displayed typefaces appear to them. Each mockup has the same content set in a different typeface. The selection of the texts aimed for secular and politically-neutral content that is written in accessible and contemporary language. The presented mockups are designed to mimic real documents mainly to support the impression that the displayed documents are text-heavy and, therefore, collect the participants' preferences based on that impression.

Throughout the study, the printed mockups are arranged next to each other on a flat surface while the digital mockups are displayed on a laptop screen.[33] The order through which the mockups are arranged is randomised from one participant to another to avoid any possible effect of the mockups' arrangement on the data collection. Also, the order through which the document genres are presented to the participants is randomised across participants. The rating task is documented by using sticky notes, photographing the ratings after each participant finishes the interview (Figure 4.1) and writing down the results at a later stage.[34]

Throughout the semi-structured interview, participants are first asked to describe the reasons for their relative preferences with regard to the presented typefaces. If the participants' ratings of the same model differ noticeably across different genres, the participants are asked why they think they provid-

29. Gjoko Muratovski recommends using qualitative research methods when there is little information on the topic, when variables are unknown or when the relevant theory base is inadequate or missing. This closely relates to the situation of the present study. See, Muratovski, 2016. pp. 37, 48.
30. The purpose of the study was introduced both verbally and through the participation form which the participants had to read and sign.
31. The aim of this was to encourage intuitive answers throughout the study by assuring that the study does not aim to evaluate the participants' views but rather to collect their preferences.
32. Choosing and implementing this method was mainly informed by Muratovski's book *Research for Designers, a guide to methods and practice.* For more details, see Muratovski, 2016, pp. 110-133.
33. A MacBook Pro (Retina, 15-inch) was used to display the digital mockups.
34. This method brought considerable efficiency to fieldwork. While on location, the researcher tried to focus on inviting more participants to join the study. Therefore it was more practical to leave the transcription of the results and the interviews to a later stage.



Figure 4.1 A sample of how the participants' ratings were noted down throughout the study.

ed different ratings for the same model.[35] The interview then enquires whether the participants used to notice the differences between Arabic typefaces before the interview and, if applicable, to provide their impressions about these differences.[36] They are also asked questions with regard to their reading habits (i.e., what Arabic texts do they usually read, how often do they read Arabic texts on a daily or weekly basis, what forms of documents do they read and what devices they use for reading, if applicable). They are then asked to provide general details including their age, country of education and their level of education in the Arabic language.

The semi-structured interview is followed by a secondary rating task which enquires about the participants' perceptions towards the examined typefaces concerning aspects other than reading comfort. Participants are asked to rate the typefaces on a scale from 7-1 with regard to familiarity; pleasantness; appearing modern. These aspects are decided based on common views that surround the design and use of Arabic typefaces and text typefaces in general. For example, the commonly proposed importance of familiarity of text typefaces for high readability is one of the main reasons for including this aspect in the survey. Also, the commonly suggested modern look of the Latinised Arabic typefaces inspires exploring the participants' perceptions towards this aspect. To avoid tiring the participants with extensive further questions, the

35. The researcher tried to check whether such differences exist throughout the rating task without bringing that to the attention of the participant. Differences in ratings were considered worthy of enquiry only in cases where the difference was more than 2 points. However, as the present study discusses later, this situation happened only in rare cases.

36. Creswell refers to the sequence through which the rating task and the interview were performed as the 'explanatory sequential design'. Also, Muratovski advises that such a sequence helps engage the participants and establish a better rapport before moving to more difficult questions. See Creswell, 2018. p. 300 and Muratovski, 2016. p. 112.

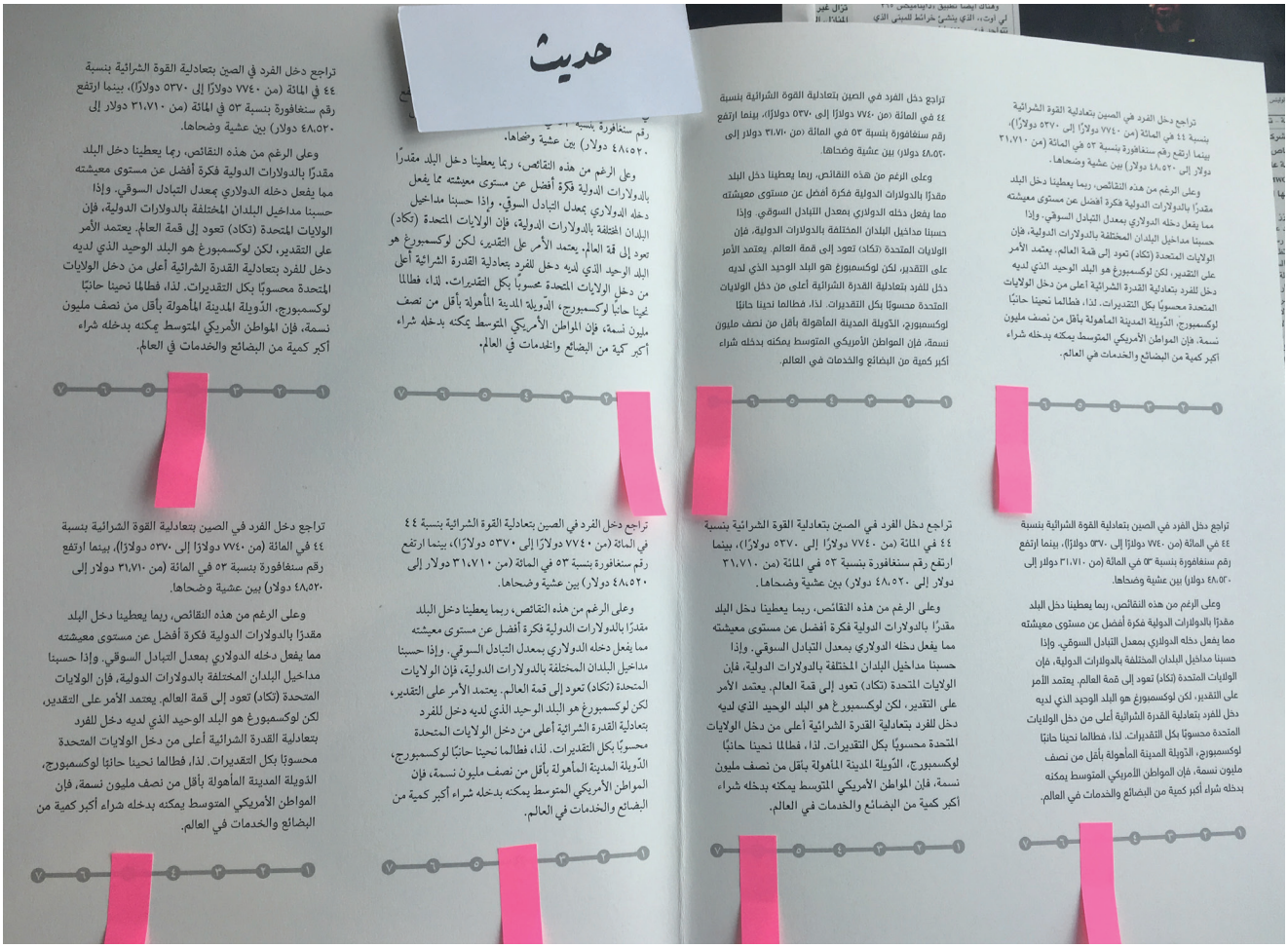


Figure 4.2 A sample of how the secondary rating task was displayed and documented. The label at the top of the picture translates as 'modern'. Other label (referring to pleasantness and familiarity) were used to rate with regard to those aspects as well. Actual size of the sheet is 320 x 450 mm.

secondary task is kept simple with no requirements to provide the rationale behind the ratings.[37] Also, to keep the task simple, it is performed using a compact cardboard sheet (Figure 4.2). Supported by the brevity of this task, the researcher saw a possible advantage in including an additional typeface from the Latinised Arabic category. As explained earlier in the statistical study, this category includes typefaces that hold relatively more noticeable differences among each other. Therefore, including an additional Latinised Arabic typeface helps explore whether perceptions towards the selected model relate to other typefaces from the same category. Accordingly, the study adds Neue Helvetica Arabic, the second most used Arabic typeface based on input from the statistical study.

4.4. The study environment

Based on several considerations, the researcher decided to perform the study in an external setting (in a natural setting during fieldwork) over an internal setting (in a controlled environment within a research facility).[38] While an internal setting can more easily establish an environment in which all factors that may cause an effect can be controlled,[39] there were many other considerations that brought advantages to the external setting. One of the main considerations was the considerable practicality of fieldwork. The study was

37. The researcher wanted to avoid extending the interview further, especially as the aspects which are examined in the secondary task are not the central aspects for the study.
38. Muratovski, 2016. pp. 107-108.
39. Such as light, space, noise and other factors that might potentially affect the reading experience.

planned to take place in different locations in order to enable involving a wider and more versatile sample of participants. Having to repeat an identical setting in different locations over an extended period would not have been efficiently achievable (if possible at all). On the other hand, a natural setting allowed considerable flexibility to both setting the materials and inviting the participants to easily accessible locations. Also, the natural setting can allow a more relaxed environment in comparison to an internal research facility which might give a laboratory-like environment. Also, in terms of validity, the natural setting brought no major concerns with regard to the effect of the environment on the reading experience in the case of this study. As each participant is asked to provide his/her ratings and perceptions towards the displayed mockups during one session, a potential advantage for one typeface over another due to the environment was considered less relevant.

4.5. Mockups and typesetting considerations

Mockups of six books, six newspapers and six digital articles were produced for the study (Figures 4.4 a,b,c).[40] The typefaces used in the mockups represented the six categories of Arabic text typefaces detailed earlier in the statistical study. The design and the size of the mockups aimed to emulate real documents with regard to physical size, layout and paper type. The typesetting of the mockups also applies common typesetting specifications with regard to font size, line width and spacing. However, while the design of the mockups was partially informed by actual materials, some specifications were refined for the study's purpose. For example, most of the newspapers which were collected for the statistical study applied fully justified alignment for text columns. However applying this setting across the mockups would add noticeable inconsistencies in the rendering of words and spacing, which can potentially affect the participant's preferences based on typographic aspects that are out of the scope of the study. These inconsistencies appear due to the method through which automatic justification of Arabic text works. In most cases, Arabic texts are justified through both the adjustment of word spacing and the insertion of kashidas (horizontal elongation strokes) between selected Arabic letters. This justification method would lead to random differences in word spacing and placement of kashidas across the examined typefaces, which would be more noticeable in narrow columns. In addition to that, one of the examined typefaces (the classical Naskh model) applies the justification through only the adjustment of word spacing (without kashidas), which adds to the randomness of the typesetting situation (Figure 4.3). Therefore, to minimise the possible effect of these random differences on readers' perceptions towards the examined typefaces, the decision was to apply unjustified text across the mockups.[41]

40. See Appendix C for the complete list of mockups.

41. This does not apply to books where a sufficient line width considerably minimises this effect. The mockups of web articles apply unjustified text similar to the majority of the websites included in the statistical study.

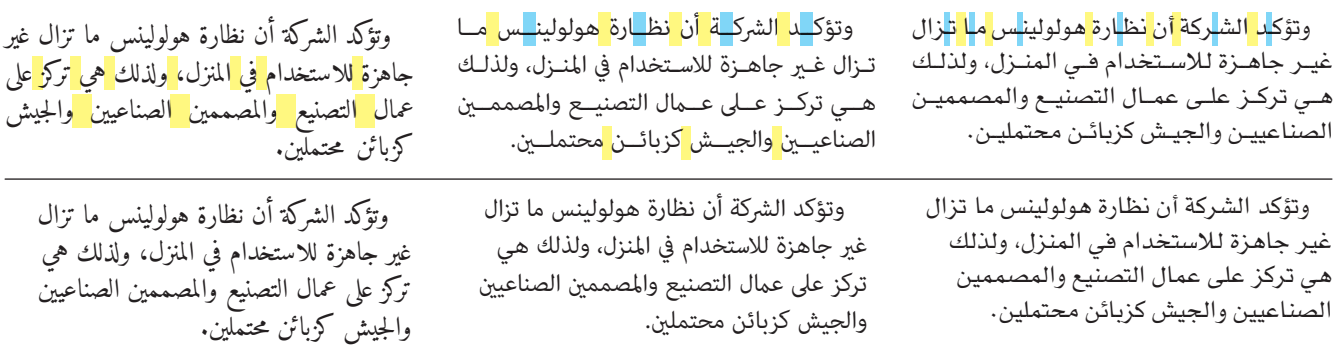


Figure 4.3 A sample of the random word spacing and/or insertion of kashidas caused by the justification method. Top row: justified text across the Classical Naskh, Modern Naskh and Linear Naskh models (from left to right respectively). The automatic justification of the Classical Naskh model is applied through word spacing only (highlighted yellow) while the justification of the two other models is applied through both adjustment of word spacing (highlighted yellow) and insertion of kashidas (highlighted blue). Bottom row: unjustified text setting eliminates this random rendering by removing the kashidas and maintaining the default word spacing.

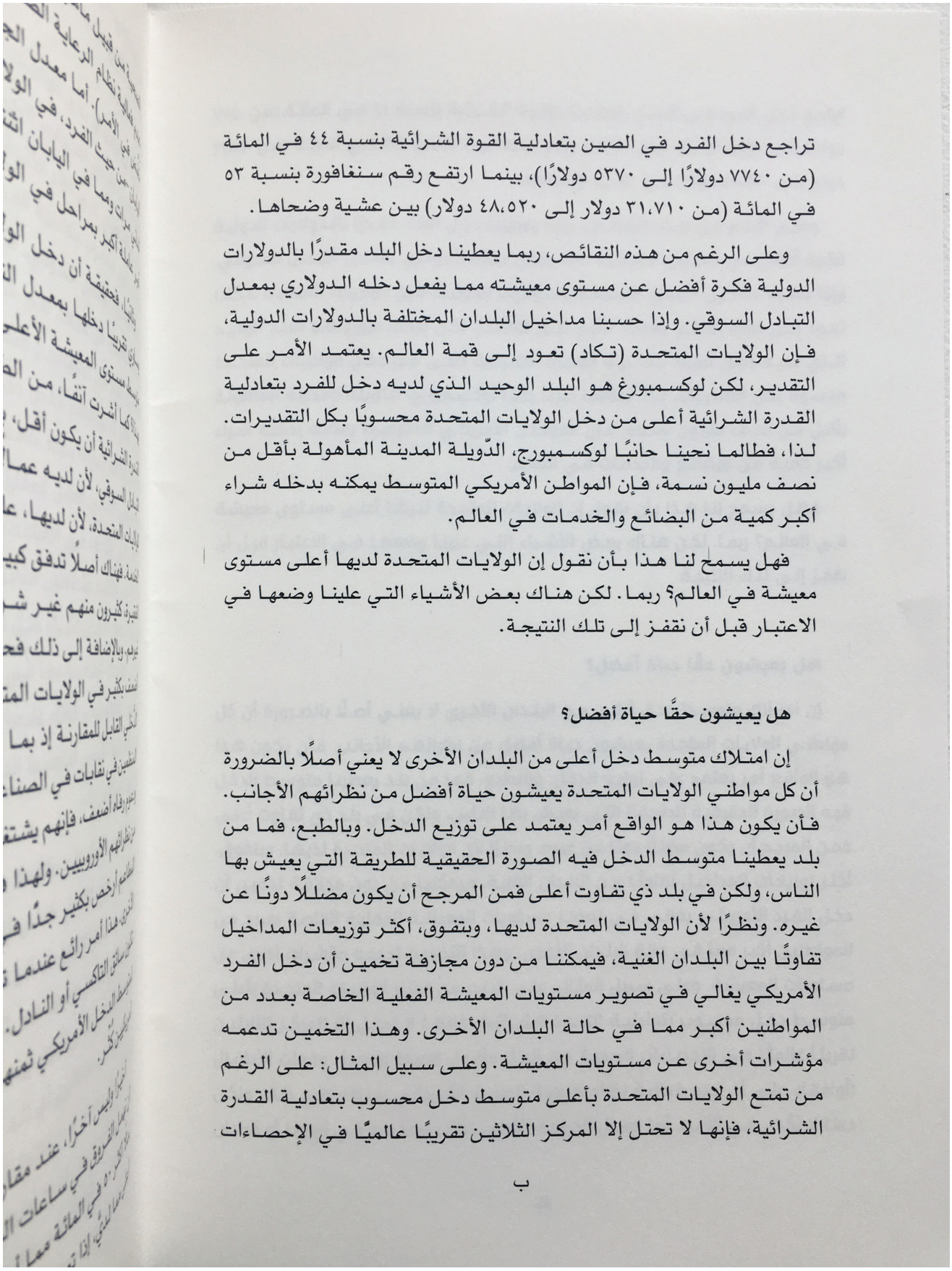
Another example of refining the design specifications for the purpose of the study appears in the design of the digital articles where the websites which were examined in the statistical study used distinctly various type sizes ranging from very large to very small.[42] This lack of reliable design references necessitated deciding the font size in the digital mockups based on the researcher's judgement (Figure 4.4.c).

After the general typesetting specifications for each genre were decided, the design of the mockups tried to achieve an optical uniformity between the models with regard to size and line spacing. This measure aimed to minimise the potential effect of variables other than the design of the typefaces on the reader's preferences. However, it was difficult to decide a fair balance with regard to these aspects across models which sometimes show completely different structures or considerably different proportions compared to others (Figure 4.5). An obvious example can be noticed in the Latinised Arabic model which adapts many letters to a unified grid. This feature gives relatively larger counters to many letters compared to the other models when the height of the ascenders is unified. Another example can be seen in the Classical Naskh which has relatively long ascenders and descenders compared to the other models. This can lead to colliding shapes between the lines if the model is set at a similar line height as other models. Such considerable differences in the structure of some models necessitated balancing the size and line height across the models through optical judgement (Figure 4.6).[43]

The study uses three pieces of Arabic-language text across the three different genres. The same text is used across the six type models within each genre. The text used in the book mockups is taken from a book that addresses eco-

42. This might be due to the lack of typesetting conventions in Arabic websites compared to the more established printed genres.

43. Although the process of balancing the mentioned features included careful design, comparison and evaluation, besides expert input from the research supervisors, it can be argued that a level of subjectivity is unavoidable given the considerably different structures of some models. The aim, however, is to minimise the effect of other variables as much as possible.



تراجع دخل الفرد في الصين بتعادلية القوة الشرائية بنسبة ٤٤ في المائة (من ٧٧٤٠ دولارًا إلى ٥٣٧٠ دولارًا)، بينما ارتفع رقم سنغافورة بنسبة ٥٣ في المائة (من ٣١،٧١٠ دولار إلى ٤٨،٥٢٠ دولار) بين عشية وضحاها.

وعلى الرغم من هذه النقائص، ربما يعطينا دخل البلد مقدرًا بالدولارات الدولية فكرة أفضل عن مستوى معيشته مما يفعل دخله الدولاري بمعدل التبادل السوقي. وإذا حسبنا مداخيل البلدان المختلفة بالدولارات الدولية، فإن الولايات المتحدة (تكاد) تعود إلى قمة العالم. يعتمد الأمر على التقدير، لكن لوكسمبورغ هو البلد الوحيد الذي لديه دخل للفرد بتعادلية القدرة الشرائية أعلى من دخل الولايات المتحدة محسوبًا بكل التقديرات. لذا، فطالما نحينا حانبًا لوكسمبورج، الدّويلة المدينة المأهولة بأقل من نصف مليون نسمة، فإن المواطن الأمريكي المتوسط يمكنه بدخله شراء أكبر كمية من البضائع والخدمات في العالم.

فهل يسمح لنا هذا بأن نقول إن الولايات المتحدة لديها أعلى مستوى معيشة في العالم؟ ربما. لكن هناك بعض الأشياء التي علينا وضعها في الاعتبار قبل أن نقفز إلى تلك النتيجة.

هل يعيشون حقًا حياة أفضل؟

إن امتلاك متوسط دخل أعلى من البلدان الأخرى لا يعني أصلًا بالضرورة أن كل مواطني الولايات المتحدة يعيشون حياة أفضل من نظرائهم الأجانب. فأن يكون هذا هو الواقع أمر يعتمد على توزيع الدخل. وبالطبع، فما من بلد يعطينا متوسط الدخل فيه الصورة الحقيقية للطريقة التي يعيش بها الناس، ولكن في بلد ذي تفاوت أعلى فمن المرجح أن يكون مضللًا دونًا عن غيره. ونظرًا لأن الولايات المتحدة لديها، وبتفوق، أكثر توزيعات المداخيل تفاوتًا بين البلدان الغنية، فيمكننا من دون مجازفة تخمين أن دخل الفرد الأمريكي يغالي في تصوير مستويات المعيشة الفعلية الخاصة بعدد من المواطنين أكبر مما في حالة البلدان الأخرى. وهذا التخمين تدعمه مؤشرات أخرى عن مستويات المعيشة. وعلى سبيل المثال: على الرغم من تمتع الولايات المتحدة بأعلى متوسط دخل محسوب بتعادلية القدرة الشرائية، فإنها لا تحتل إلا المركز الثلاثين تقريبًا عالميًا في الإحصاءات

ب

Figure 4.4.a Sample of the book mockups. Actual size of the sheet is 235 x 150 mm.

بـ٣٥٠٠ دولار.. مايكروسوفت تطلق نظارة الواقع المعزز «هولولينس ٢»

نظارة هولولينس ٢ الجديدة تدعم استخدام النظارات الطبية (رويترز)

برشلونة - تكنولوجيا

كشفت شركة مايكروسوفت، في حدث خاص أقامته بمدينة برشلونة الإسبانية على هامش مؤتمر الجوال العالمي (MWC ٢٠١٩)، عن الجيل الثاني من نظارتها للواقع المعزز «هولولينس».

والواقع المعزز هو إسقاط أجسام وهمية ثلاثية الأبعاد على الواقع الحقيقي لتعزيزه بمعلومات أو رسومات. ولتوضيح ذلك تخيل وجود أسهم تظهر أمامك لترشدك إلى الطريق أثناء السير، أو تعليمات طفو أمامك أثناء إصلاح آلة ما.

وتحمل النظارة الجديدة اسم هولولينس ٢، وستطرحها الشركة في وقت لاحق هذا العام مقابل ٣٥٠٠ دولار، علما أن الطلب المسبق عليها بدأ اليوم الأحد.

وتؤكد الشركة أن نظارة هولولينس ما تزال غير جاهزة للاستخدام في المنزل، ولذلك هي تركز على عمال التصنيع والمصممين الصناعيين والجيش كزبائن محتملين.

وتأتي النظارة الجديدة بحجم أصغر من الجيل السابق، مع وجود حشوة إضافية في مقدمة الجهاز، ومفتاح ضبط خلفي للحفاظ على النظارة في مكانها.

وتتضمن النظارة مستشعرات لتتبع حركة العينين تقع قرب تجويف الأنف في النظارة، وستستخدم هذه المستشعرات لتسجيل الدخول في الجهاز، حفاظا على إعدادات المستخدم الخاصة في حال كان يشارك النظارة مع زميل أو صديق.

كما تتضمن النظارة نظام التعرف على قزحية العين، الذي يعمل مع تقنية «ويندوز هللو» لتسجيل الدخول في نظارة هولولينس.

تُميز نظارة هولولينس الأولى إيماءات النقر والحركات الهوائية الأساسية، لكن هذه النظارة الجديدة تُميز ٢١ نقطة من التعبيرات لكل يد؛ مما يتيح حركات يد أكثر واقعية.

إلى جانب ذلك، حسنت الشركة «مجال الرؤية» (FoV) في هولولينس ٢، أي مقدار الأجسام الوهمية ثلاثية الأبعد التي يمكنك رؤيتها في وقت معين. ويبلغ مقدار مجال الرؤية في النظارة الجديدة ٥٢ درجة، وهو

تقريبا ضعف ما كان متاحا في ال
منها (٣٠ درجة).

وتدعم النظارة الجديدة استخدا
النظارات الطبية أثناء ارتدائها، مد
ميزة لها أمام النظارات المنافسة،
«ماجيك ليب» التي لا تعمل مع الن
الطبية.

وأعلنت الشركة عن تطبيقات هو
جديدة تعتقد أن معظم الشركات س
منها، مثل تطبيق «دايناميكس ٣٦٥
الذي يتيح للشركات وضع إرشادا
في الواقع المعزز، مثل إرشادات ت
ما لإصلاح آلة مكسورة.

وهناك أيضا تطبيق «دايناميكس
لي آوت»، الذي ينشئ خرائط للمب
تتواجد فيه، ويخزنها لدى مايكروس
وهذا يتيح مثلا للمستخدم إحلال
وهمي ثلاثي الأبعاد على طاولة في



Figure 4.4.b Sample of the newspaper mockups. Actual size of the folded newspaper is 225 x 320 mm.

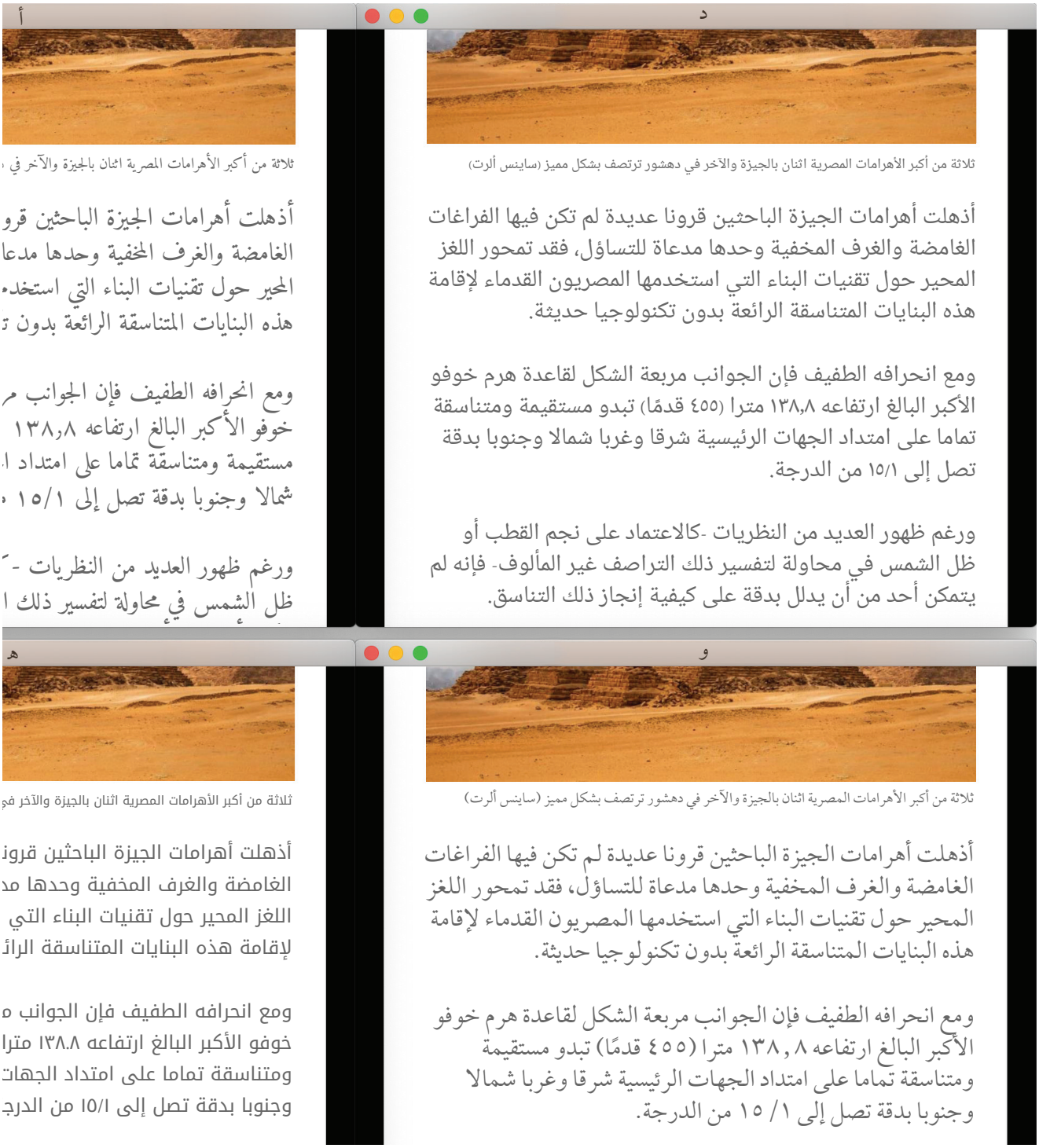


Figure 4.4.c Sample of the digital mockups. The windows were arranged in 3 culomns and two rows in identical dimensions on the full screen of a MacBook Pro 15-inch device. The content is scrollable in the actual mockups.



Figure 4.5 Sample of the different structures across the examined typeface models which necessitated an optical balancing of font size and line length. In the top line, a unified point size (16pt) is applied. This leads to clearly different optical sizes across the models. In the second line from the top, a unified ascenders' height is applied. This still does not achieve a satisfactory optical balance as can be seen in the first two words from the left. The third and fourth lines show how applying a unified line height can lead to cramped diacritics for the Classical Naskh model (highlighted red).

أذهلت أهرامات الجيزة الباحثين قرونا عديدة لم تكن فيها الفراغات الغامضة والغرف المخفية وحدها مدعاة للتساؤل، فقد تمحور اللغز المحير حول تقنيات البناء التي استخدمها المصريون القدماء لإقامة هذه البنايات المتناسقة الرائعة بدون تكنولوجيا حديثة.

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Figure 4.6 Sample of the decided optical balance in font size and line length across the models.

nomical aspects for non-specialist readers. The text used in the newspaper mockups is a newspaper article that addresses a device launched by Microsoft. The digital mockups use part of an article that discusses the arrangement of the Egyptian Pyramids.[44]

4.6. Sampling

The target of the study is to recruit participants who are native Arabic readers and who had Arabic as a main education language. Limited by time and avail-

44. Sources of the mentioned content are (respectively): Chang, 2013, pp. 116-117; https://www.aljazeera.net/news/scienceandtechnology/2019/2/24/نظارة-مايكروسوفت-هولولينس2--الواقع (accessed Feb 2019); https://www.aljazeera.net/news/scienceandtechnology/2019/2/25/دراسة-تكشف-سر-تراصف-الأهرامات-الفريد (accessed Feb 2019).

ability of participants, the study was able to recruit a total of 66 participants who studied and lived in the selected countries: 16 from Saudi Arabia, 13 from Egypt, 8 from Syria, 7 from Jordan, 6 from the UAE, 5 from Kuwait, 4 from each Lebanon and Oman and 3 from Qatar (Table 4.1). The study involved a small number of participants who had their main education in English or French but studied some topics in Arabic. This was particularly necessary in the case of Lebanon where it was challenging to find participants who studied mainly in Arabic.[45] The participants ranged in age between 21 and 76 years old. 27 participants were between 21 and 30 years old; 28 were between 30 and 44 years old; and 11 were above 44 years old. 47 of the participants were male; 19 were female. While the majority of participants were met in person in the UK,[46] 10 participants were interviewed remotely. Remote interviews were necessary in cases where an insufficient number of participants could be met in the UK from some countries. Also, some remote interviews targeted selected frequent readers of Arabic texts. Participants who were interviewed remotely were sent printed materials by post and were interviewed by telephone.

Country	Saudi Arabia	Egypt	Syria	Jordan	UAE	Kuwait	Lebanon	Oman	Qatar
No. of participants	16	13	8	7	6	5	4	4	3

Table 4.1 Number of participants from each country.

Throughout the interviewing process, the researcher aimed at achieving a balanced sampling with regard to the number of participants from each country, their age range and their reading habits. Throughout the first thirty interviews of the study, participants were included mainly based on availability as long as they fufilled the criteria of the study. Until that point, however, the majority of the participants were from a relatively younger age group and stated that they occasionally read Arabic texts. Also, the sampling did not cover all the surveyed Arab countries. Therefore, the sampling in the later interviews focused on involving older and more frequent readers to reach a more balanced sampling (Figure 4.7). Also, the later interviews aimed at achieving a proportional balance between the number of participants from each country with the population of the surveyed countries. For example, a larger number of participants is included from the most populated countries such as Egypt and Saudi Arabia while a smaller number is included from less populated countries such as Qatar and Oman.[47]

45. Even with this exception, all the recruited participants considered themselves as native readers of Arabic. In the case of the Lebanese participants, two participants were frequent readers of Arabic texts.
46. The majority of participants were students, residents or visitors to the UK who previously had lived and had their education in one of the countries surveyed.
47. However, the inclusion of participants was in some cases restricted by availability. For example, Egypt came second in the number of participants although it has the highest population among the surveyed countries. This was the case because fewer participants could be met from Egypt in comparison to Saudi Arabia, which is the second most populated country among the list.

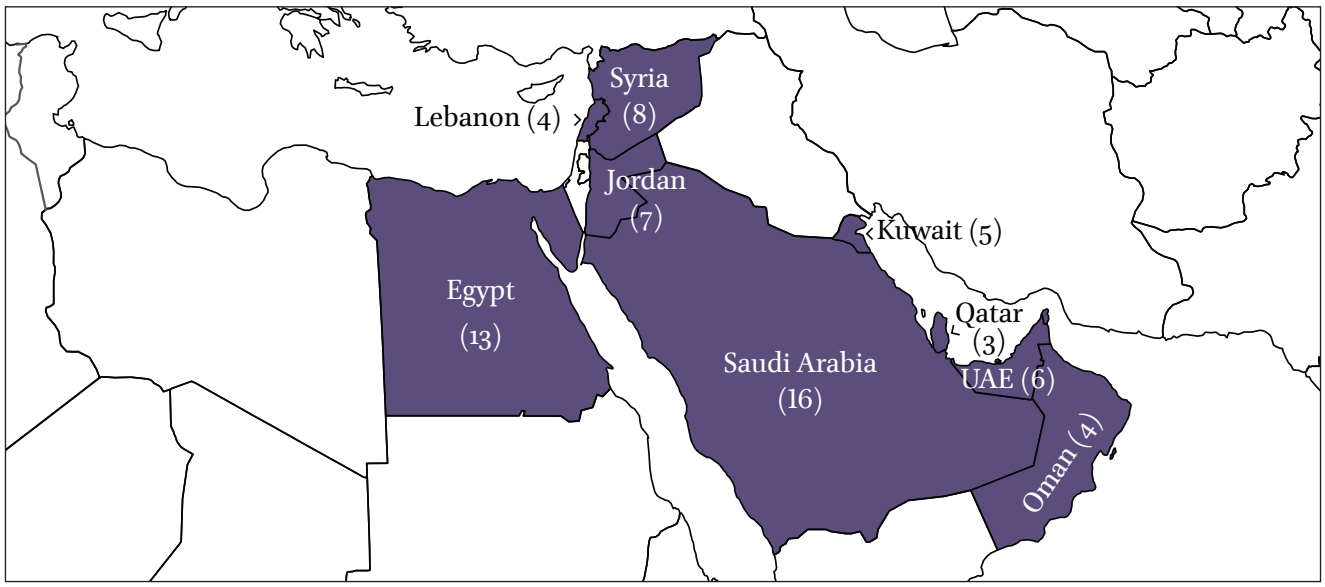


Figure 4.7 The number of participants from each of the surveyed Arab countries. Map by the author.

4.7. The analysis

The analysis of this study looks at the participants' feedback in relation to two main factors: age and reading habits. The noticeable link between these two factors and different patterns of preferences was recognised throughout the interviewing process. The analysis, therefore, categorises the participants in relation to these two aspects based on input that they provided throughout the semi-structured interviews. Participants who clearly stated that they do not read Arabic texts at all (despite being native readers) or they read very occasionally were categorised as 'occasional readers'. On the other hand, participants who stated that they read/used to read Arabic texts extensively were categorised as 'frequent readers'. Some participants gave answers that were not clearly compatible with either group so they were excluded from this categorisation to avoid inaccurate analysis. However, the data of these participants were included in other parts of the analysis.[48]

4.7.1. General perceptions

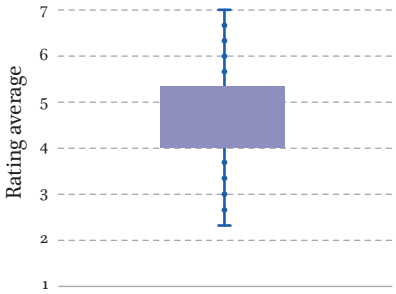
The average ratings from the total number of participants showed generally higher preferences towards 4 out of the 6 examined type models (Figure 4.8), however, a closer look at the data reveals more complex patterns of preferences. Analysing the collected data identified two distinct patterns of preferences which are particularly related to the Latinised Arabic model, while feedback on the rest of the models can be considered relatively homogenous (Figure 4.9). Ratings for the Latinised Arabic model ranged from not at all comfortable (rated 1) to very comfortable to read (rated 7). This was a confusing case for the researcher at the beginning of the study but, as more participants were involved, the factors which appear to be related to the varying preferences started to become clearer.[49] In general, it can be stated that younger participants were highly comfortable with all the models. This can be seen more obviously with less frequent readers and those who only read occasionally from the web. On the other hand, participants who were relatively older and/or were more

48. Accordingly, the total of the 'frequent readers' (17) and the 'occasional readers' (27) is less than the total number of the participants (66).

49. Before performing the study, the researcher assumed that the Latinised Arabic model would be less favoured by all the readers due to its relatively unconventional appearance; however, the results showed more complex patterns of preferences as the analysis reveals.

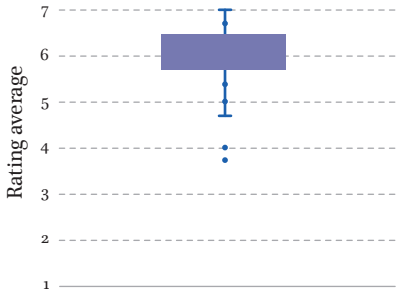
Type models		All participants (66) Rating average
Classical Naskh	نموذج الخط	4.6
Regular Naskh	نموذج الخط	5.9
Simplified Arabic	نموذج الخط	6.3
Linear Naskh	نموذج الخط	6.3
Modern Naskh	نموذج الخط/نموذج الخط	6
Latinised Arabic	نموذج الخط	4

Figure 4.8 Rating average from all participants across the three document genres.



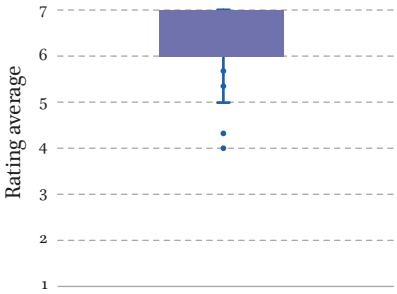
Classical Naskh نموذج الخط

Figure 4.9.a The average ratings for the Classical Naskh model came as follows: 38 participants between 4 and 5.33; 15 participants at 5.66 and above; and 13 participants below 4.



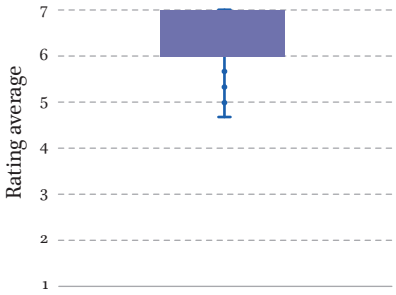
Regular Naskh نموذج الخط

Figure 4.9.b The average ratings for the Regular Naskh model came as follows: 46 participants at 6 and above; 12 participants between 5 and 5.66; 6 participants at 4.66; 1 participant at 4; and 1 participant at 3.66.



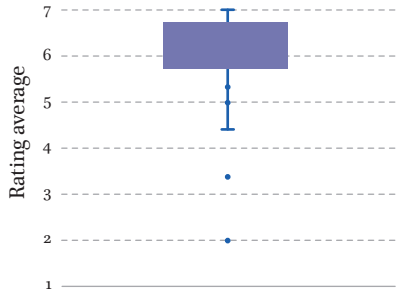
Simplified Arabic نموذج الخط

Figure 4.9.c The average ratings for the Simplified Arabic model came as follows: 54 participants at 6 and above; 10 participants between 5 and 5.66; 1 participant at 4.33; and 1 participant at 4.



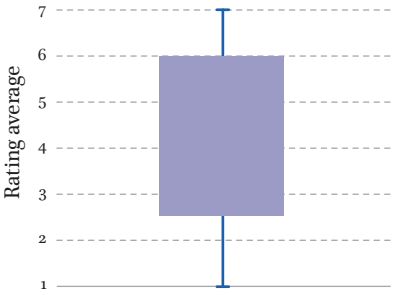
Linear Naskh نموذج الخط

Figure 4.9.d The average ratings for the Linear Naskh model came as follows: 55 participants at 6 and above; 10 participants between 5 and 5.66; and 1 participant at 4.66.



Modern Naskh نموذج الخط/نموذج الخط

Figure 4.9.e The average ratings for the Modern Naskh model came as follows: 39 participants at 6 and above; 23 participants between 5 and 5.66; 2 participants at 4.33; 1 participant at 3.33; and 1 participant at 2.



Latinised Arabic نموذج الخط

Figure 4.9.f The average ratings for the Latinised Arabic model came as follows: 37 participants between 2.66 and 6 (20 between 2.66 and 4, 17 between 4.33 and 6); 16 participants below 2.66; and 14 participants above 6.

Figure 4.9 Distribution of rating average from all participants across the six type models. Note the wide range of ratings towards the Latinised Arabic model in comparison to the rest of the models.

frequent readers strongly disfavoured the Latinised Arabic model while they were fairly comfortable with the rest of the models. The following two sections show these patterns of preferences in more detail.

4.7.2. Preferences in relation to reading frequency

Among more frequent readers, ratings for the Latinised Arabic model were at a lower average compared to the average among the total number of participants. This difference is more clear when compared with ratings from occasional readers (Figures 4.10 and 4.11). Among frequent readers, the rating of the model was at 2.5, while among occasional readers, the rating average was considerably higher at 5.3. The ratings of the rest of the models had a relatively very similar level across the occasional and frequent readers and were respectively at: Linear Naskh 6.5/6.3, Simplified Arabic 6.3/6.2, Regular Naskh 5.8/6, Modern Naskh 6.1/5.9, Classical Naskh 5/4.7.

Type models		Frequent Readers (*17 participants*) Rating average	Occasional Readers (*27 participants*) Rating average
Classical Naskh	نموذج الخط	4.7	5
Regular Naskh	نموذج الخط	6	5.8
Simplified Arabic	نموذج الخط	6.2	6.3
Linear Naskh	نموذج الخط	6.3	6.5
Modern Naskh	نموذج الخط/نموذج الخط	5.9	6.1
Latinised Arabic	نموذج الخط	2.5	5.3

Figure 4.10 A comparison between ratings of the models in relation to reading frequency. Notice the considerably different rating of the Latinised Arabic model across the two groups in comparison to the relatively homogenous ratings of the other models.

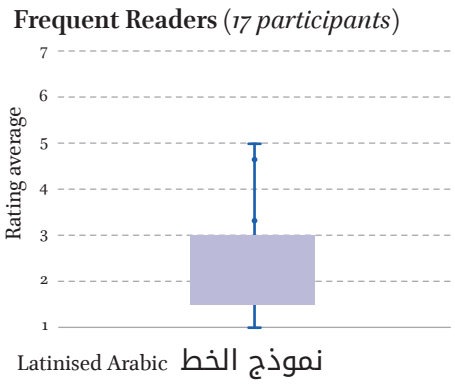


Figure 4.11.a Among frequent readers, the average ratings for the Latinised Arabic model came as follows: 11 participants between 2 and 3.33; 4 participants at 1; 1 participant at 4.66; and 1 participant at 5.

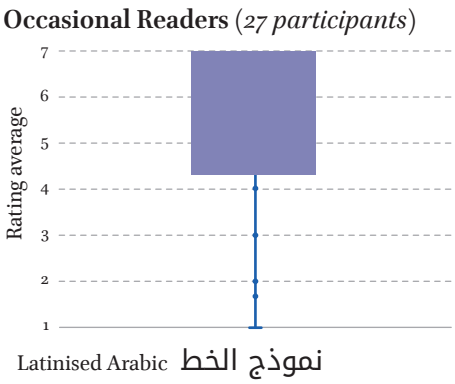


Figure 4.11.b Among occasional readers, the average ratings for the Latinised Arabic model came as follows: 19 participants above 5; 2 participants at 4.33; 1 participant at 4; 1 participant at 3 and 4 participants at 2 or below.

Figure 4.11 A comparison between the distribution of rating average across frequent readers (left) and occasional readers (right).

4.7.3. Differences in relation to age

Ratings for the Latinised Arabic model were also considerably different when comparing feedback from younger and older participants (regardless of their reading habits). This distinction becomes more clear when comparing the ratings for the model among readers above 44 years old with ratings among readers below 30 years old. The rating of the model among readers below 30 year old resulted in an average of 5 while it was at 2.2 among readers above 44 years old (Figures 4.12 and 4.13). The rest of the models resulted in very similar averages between the younger and older groups and were respectively rated at: Linear Naskh 6.2/6.3, Simplified Arabic 6/6.3, Regular Naskh 5.8/6, Modern Naskh 6.4/6.2, Classical Naskh 4.5/4.9.

Type models	**Above 44 years old** (*11 participants*) Rating average	**30-44 years old** (*28 participants*) Rating average	**Below 30 years old** (*27 participants*) Rating average
Classical Naskh نموذج الخط	4.9	4.4	4.5
Regular Naskh نموذج الخط	6	5.9	5.8
Simplified Arabic نموذج الخط	6.3	6.4	6
Linear Naskh نموذج الخط	6.3	6.4	6.2
Modern Naskh نموذج الخط/نموذج الخط	6.2	5.6	6.4
Latinised Arabic نموذج الخط	2.2	3.7	5

Figure 4.12 A comparison between ratings of the models in relation to age. Notice the distinct pattern of rating of the Latinised Arabic model, especially between the oldest and youngest age groups.

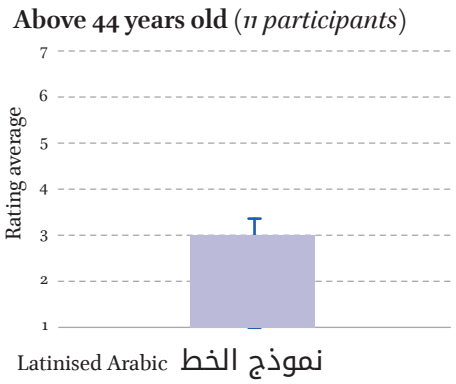


Figure 4.13.a Among participants above 44 years old, the average ratings for the Latinised Arabic model came as follows: 10 participants between 1 and 3; and 1 participant at 3.33.

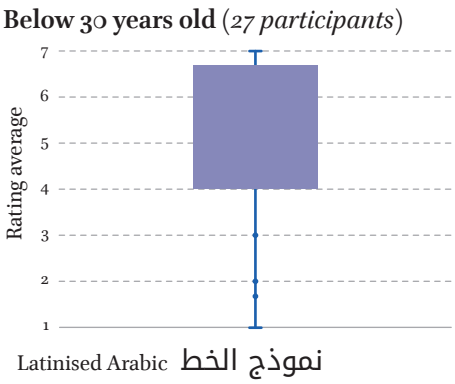


Figure 4.13.b Among participants below 30 years old, the average ratings for the Latinised Arabic model came as follows: 15 participants between 4 and 6.66; 6 participants at 7; and 6 participants between 1 and 3.

Figure 4.13 A comparison between the distribution of rating average across participants above 44 years old (left) and participants below 30 years old (right).

4.7.4. Preferences across different document genres

The participants' ratings did not show considerable differences in preferences towards the models in relation to the document genres in which they are used. This consistency in rating is not surprising given that the participants' ratings were based on the same criteria (comfort of reading in extensive text). However, this consistency in rating reveals that the unique patterns of type use across different document genres (which were recognised in the statistical study) seem to be decided by design trends/habits, and not necessarily in accordance with the preferences of readers. The consistent ratings across the three document genres also helps confirm that the participants' feedback was deliberate, not random. Only in rare cases, some participants gave higher ratings for one model in a specific document genre compared to their rating of the same model in the other two genres. In most of these cases, the model received the higher rating in the genre in which it was widely used.

7 participants out of the total of 66 gave relatively inconsistent ratings for the Classical Naskh model across the three document genres (Figure 4.14.a).[50] In all of these cases, the model received the lowest rating in newspaper where the models shows no contemporary use according to the statistical study of this research. Also, in five of these cases, the model received a higher rating on web where the model shows marginal use. In the remaining two cases, the model received higher rating in books. Concerning the Regular Naskh model, only 2 participants gave inconsistent ratings for the model across the three document genres (Figure 4.14.b). In both cases, the model received considerably lower rating in newspapers where the model shows no contemporary use. In one of these cases, the model also had a considerably lower rating on web where the model has no usual appearance. Concerning the Simplified Arabic model, 6 participants gave inconsistent ratings for the model across the three document genres (Figure 4.14.c), however, these differences were relatively small (ratings in all these cases were between 4 and 7). Concerning the Linear Naskh model, only 2 participants gave inconsistent ratings across the three document genres (Figure 4.14.d). In both cases, the the model received 7 in both book and newspaper but 4 on the web where the model shows no use. Concerning the Modern Naskh model, only 3 participants gave inconsistent ratings for the model across the three document genres (Figure 4.14.e). In two of these cases, the model received a lower rating in newspaper where the model is marginally used. Also, in two cases the model received higher rating on web where the model is commonly used. Finally, concerning the Latinised Arabic model, only 4 participants out gave inconsistent ratings for the model across the three document genres. In all these cases, the model received considerably higher rating on web where the model is widely used.

50. The standard error charts in figure 4.14 are used to demonstrate the inconsistencies in ratings in the mentioned cases in comparison to the consistent ratings among the majority of participants. The standard error measures the deviation in ratings across the three document genres from the average rating for each model for each participant.

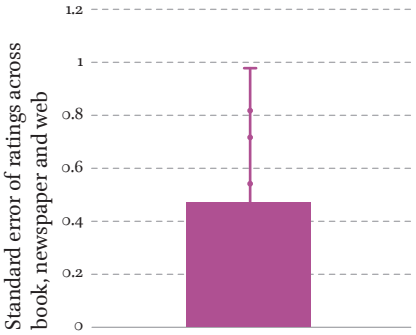


Figure 4.14.a Out of 66 participants, 59 gave consistent ratings for the Classical Naskh model with an average standard error of 0.24 while 7 participants were outliers with inconsistent ratings and an average standard error of 0.77. Note that the standard error of five outlier participants was identical (0.72) and appears on the chart as a single dot.

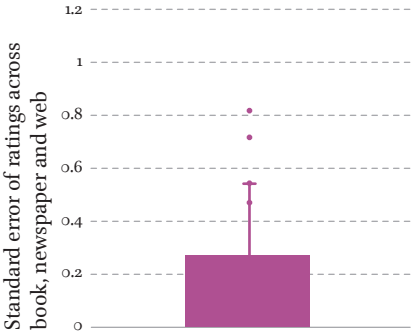


Figure 4.14.b Out of 66 participants, 64 gave consistent ratings for the Regular Naskh model with an average standard error of 0.23 while 2 participants were outliers with inconsistent ratings and an average standard error of 0.76.

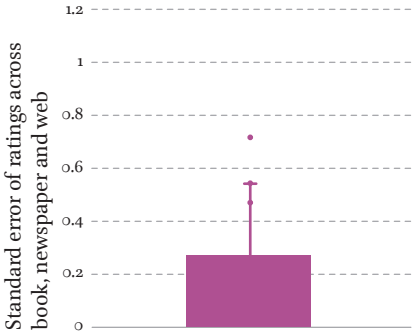


Figure 4.14.c Out of 66 participants, 60 gave consistent ratings for the Simplified Arabic model with an average standard error of 0.18 while 6 participants were outliers with inconsistent ratings and a standard error of 0.72. Note that the standard error of all the outlier participants was identical (0.72) and appears on the chart as a single dot.

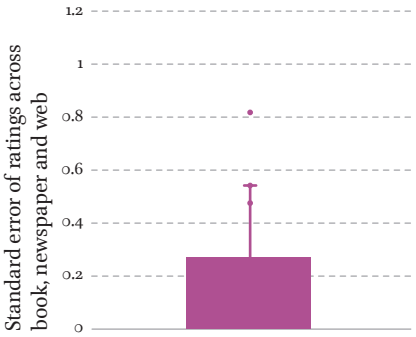


Figure 4.14.d Out of 66 participants, 64 gave consistent ratings for the Linear Naskh model with an average standard error of 0.19 while 2 participants were outliers with inconsistent ratings and an average standard error of 0.81.

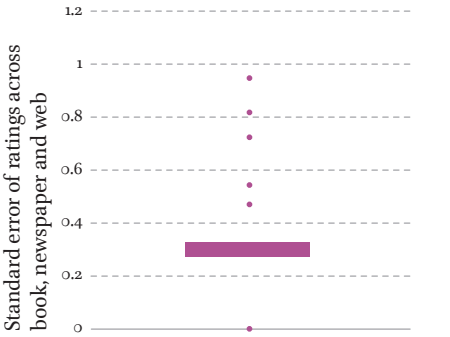


Figure 4.14.e Out of 66 participants, 63 gave consistent ratings for the Modern Naskh model with an average standard error of 0.27 while 3 participants were outliers with inconsistent ratings and an average standard error of 0.82.

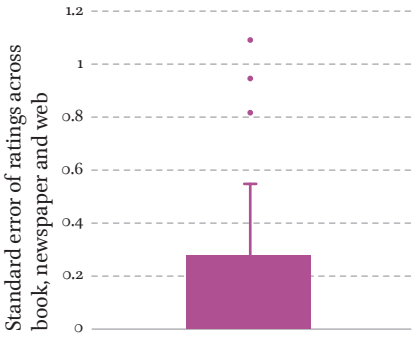


Figure 4.14.f Out of 66 participants, 62 gave consistent ratings for the Latinised Arabic model with an average standard error of 0.11 while 4 participants were outliers with inconsistent ratings and an average standard error of 0.91. The standard error of two outlier participants was identical (0.81).

Figure 4.14 Distribution of the standard error of the ratings across the three document genres for all 66 participants. Standard error charts are presented separately for each of the six type models.

In the majority of cases mentioned above, the participants were not able to give a clear rationale behind their inconsistent ratings for a model across different document genres. However, the clear link between the lower rating for a model and its lack of use in a specific document genre (or the opposite) indicates that ratings were affected by the context of use in these occasional cases. On the other hand, some participants who gave a higher rating for the Latinised Arabic model on screen compared to the other two printed document genres justified this rating by the fact that they are used to seeing the model on the web. Two participants further explained that they gave it a higher rating on screen because they do not expect to read extensive texts in this document genre, which indicates that their different rating was affected by their expectations of a shorter text.

4.7.5. Preferences across countries/regions

The collected data does not show noticeable differences in the participants' preferences across countries/regions. Although, the participants' sampling does not allow a detailed comparison between preferences across all countries,[51] the available data indicates a general homogeneity in relation to this aspect. This can be seen in the fact that the recognised categories of readers –which had generally consistent ratings for the examined type models– include a diverse distribution of participants in relation to countries. For example, among the group of frequent readers (Figure 4.10 shown previously), 6 participants are from Syria, 4 from KSA, 2 from Egypt, 2 from the UAE, 2 from Lebanon and 1 from Qatar. Also, the group of occasional readers includes 9 participants from KSA, 4 from Egypt, 4 from Jordan, 3 from Kuwait, 2 from Oman, 2 from Lebanon, 2 from Qatar and 1 from Syria. Similarly, the group of readers above 44 years old (Figure 4.12 shown previously) includes 3 participants from Syria, 2 from Egypt, 2 from KSA, 1 from Kuwait, 1 from Oman, 1 from the UAE and 1 from Qatar. Also, the group of readers below 30 years old includes 8 participants from KSA, 6 from Jordan, 5 from Egypt, 4 from Lebanon, 2 from Kuwait, 1 from Qatar and 1 from the UAE. In addition to the above, comparing the average ratings of participants based on regions (regardless of their age and reading habits of readers) further confirms the general homogeneity in relation to this aspect.[52]

Type models		**The Levant** (*11 participants*) Rating average	**The Gulf** (*28 participants*) Rating average	**Egypt** (*27 participants*) Rating average
Classical Naskh	نموذج الخط	4.8	4.6	4.3
Regular Naskh	نموذج الخط	5.9	5.8	6.1
Simplified Arabic	نموذج الخط	6.2	6.3	6.5
Linear Naskh	نموذج الخط	6.1	6.5	6.2
Modern Naskh	نموذج الخط/نموذج الخط	6	5.9	6
Latinised Arabic	نموذج الخط	3.5	4.4	3.8

Figure 4.15 A comparison between average ratings of the models in relation to countries. Notice the general homogeneity in ratings across the three regions.

51. As explained earlier in section 4.6 the number of participants from each country was partially decided on the population of the countries but was also constrained by availability. Moreover, the available participants from some countries were only from a certain age group. This situation of sampling complicates comparing the readers' preferences in relation to countries although the available data still enables useful observations in relation to this aspect.

52. The most noticeable difference in the average of ratings across regions appears in the higher rating for the Latinised Arabic model in the Gulf compared to the two other regions. However, this difference is highly likely to be affected by the distribution of the sampling where a high percentage of the available participants from this region were younger and/or less frequent readers.

4.7.6. Rationale behind the ratings

The participants' explanations for their preferences gave valuable insights into their perceptions towards the examined typefaces. In many cases, the rationale behind preferences were similar across different participants.[53] Also, the rationale had distinguishable patterns between the different groups of readers, correlating with their different ratings towards the Latinised Arabic model. This section summarises the feedback towards the six models.

The four models which were considered highly comfortable to read among the majority of participants were generally described similarly. The high preference for these models was often rationalised by their conventional letterforms, comfortable spacing, clear and balanced proportions and for being generally familiar and easy to read. In some cases, the Simplified Arabic and the Linear Naskh models were aesthetically criticised for their emphasised linearity; however, this did little to affect their ratings negatively. Similarly, in a few cases, both the Simplified Arabic and the Regular Naskh models were slightly less favoured for looking relatively old. The Modern Naskh model was, in a few cases, favoured for balancing clear letters and large counters with conventional proportions and lettershapes. It was also in some cases admired for its contemporary look and/or its smooth curves on the baseline. On the other hand, a few participants did not prefer the model due to its relatively tighter spacing, its less usual and/or slightly informal look (Figure 4.16).

Concerning the Classical Naskh model, the participants often rationalised why they had only a relatively moderate preference in comparison to other models because they were less keen on the tighter spacing between some letters, the less usual combinations (ligatures) between some letters and the odd placement of dots in some letters (Figure 4.17). Also, some participants criticised the relatively small counters in letters such as wāw و, mīm م, and fā' ف. The participants also often criticised a specific contextual form of rā' which is unfamiliar in contemporary typography (Figure 4.18). The model was also often critisised for its perceived antiquated or traditional look. However, despite the criticisms above, the majority of the participants still considered the model fairly readable. A few participants rated the model low (between 1-3) and explained that the model looks too crowded besides some of the other reasons given above. On the other hand, a few participants gave the model a high rating, as it reminds them of old books they used to read and/or that it depicts a relatively higher sense of authority. It was also sometimes admired for its beauty.

53. Although the participants used different expressions to describe their perceptions, their explanations, in most cases, showed clear reasoning. For example, participants who explained their high preferences for some typefaces used expressions such as 'I'm used to it', 'I read it a lot', 'It looks positively neutral', 'It does not have shapes that I'm not used to' and similar comments which all refer to the familiarity of the typefaces. On the other hand, participants described the low readability of the Latinised Arabic model using expressions such as: 'it slows down reading', 'it is impossible to skim-read, unlike the rest of the typefaces', 'it constantly disrupts my reading', 'it needs to be read word by word', 'the letters look like undecipherable codes'. Comments which expressed discomfort with the model sometimes included entertaining expressions such as 'it puts my eyes out', 'it dazzles the eyes', 'it is completely out of the rating', 'please take this one away'.

وعلى الرغم من هذه النقائص، ربما يعطينا دخل البلد مقدرًا
بالدولارات الدولية فكرة أفضل عن مستوى معيشته مما يفعل
دخله الدولاري بمعدل التبادل السوقي. وإذا حسبنا مداخيل
البلدان المختلفة بالدولارات الدولية، فإن الولايات المتحدة

Linear Naskh model

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دخله الدولاري بمعدل التبادل السوقي. وإذا حسبنا مداخيل
البلدان المختلفة بالدولارات الدولية، فإن الولايات المتحدة

Simplified Arabic model

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Regular Naskh model

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Modern Naskh model (digital)

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Modern Naskh model (print)

Figure 4.16 The four models which received high ratings across almost all the participants.

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Regular Naskh model

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Classical Naskh model

Figure 4.17 Comparing the Classical Naskh model with the relatively similar and more conventional Regular Naskh model assists in perceiving the criticised features regarding tight spacing (highlighted blue), complex ligatures (highlighted red) and unusual placements of some marks and dots (highlighted green).

شرقا وغربا

Figure 4.18 The contextual form of the rāʾ (highlighted red) was often critcised by readers for being less familiar. The other rāʾ (highlighed green) shows the more conventional form which also exists in the same typeface.

The Latinised model received mixed and even contrasting feedback among participants, correlating with the distinguishable patterns of preferences among different groups of readers (Figure 4.19). Participants who gave high ratings for the model described it as clear, simple, having large counters which aids the legibility of letters and having good spacing. On the other hand, participants who gave it low ratings described it as eye-disturbing, tiring to read, having distorted proportions of letters which makes it difficult to distinguish one letter from another (specifically letters with similar counters such as ʻayn عـ, mīm مـ, ṣād صـ, fāʾ فـ, qāf قـ, ghayn غـ, ḍād ضـ), being too geometric, being very tightly spaced, having unusual lettershapes and being difficult to skim read. Also many participants critisised the model for looking too informal and not suitable for intellectual or literary content. Some participants explained that they would expect to see the model used for popular content but not in literary work and that they would consider the information set in this typeface unauthorative.

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دخله الدولاري بمعدل التبادل السوقي. وإذا حسبنا مداخيل
البلدان المختلفة بالدولارات الدولية، فإن الولايات المتحدة

Latinised Arabic model

Figure 4.19 The Latinised Arabic model received mixed feedback from participants.

Some participants gave interesting comments about the Latinised Arabic model which show a close correlation with ideas related to the usability of some typefaces for display purposes rather than for text composition.[54] For example, a few participants who disfavoured the model expressed that they find it nice to look at but not comfortable to read for long text. Some participants expressed that they consider the model 'OK for short texts/logos/packaging but not suitable for extensive texts'. Such feedback shows an obvious correlation with views that conventionality is more expected/necessary in text typefaces than in display typefaces, where novelty can be more tolerated or even favoured.[55]

A few participants also gave an interesting insight into their consciousness of the unconventionality of the Latinised Arabic model and their varying positions towards that. Some participants stated that they used to struggle with the model years back but they became used to it over time. Others stated that they are very conscious of it and they would not read an article if it is set in similar typefaces. Others stated that they find it very annoying to read; however, they would read it if the content was important to them. These varying comments do not only confirm the effect of conventionality on reading comfort but can also be seen collectively as a reflection of how convention changes over time.

54. This aspect was briefly mentioned under section 1.2 in the introduction. For further detail, see Unger, 2018. pp. 41-43.
55. Ibid.

It is worth pointing out that comments from some participants who had a high preference for the Latinised Arabic model seemed to relate to their reading habits more than the suitability of the typeface for extensive reading. Two participants from the occasional readers group expressed that they preferred the Latinised Arabic model because it gives them an impression that the text is light while the other models were preferred less because they give an impression that the content is extensive, serious and literary.[56] Such comments draw attention to whether feedback from occasional readers should be considered as relevant to reading comfort as feedback from frequent readers. This doubt, however, requires further investigation that is not within the scope of this study.

A general observation that was noticed throughout the interviewing process is that every participant seemed to have, to some extent, unique perceptions. The participants' different rationale often showed a link between their preferences and the variety of factors that relate to their reading habits such as the genres they read most, the devices they carry, or even their favourite newspapers or websites. For example, in many cases, the participants who used Android phones gave high ratings for the Noto Naskh typeface which is the default typeface on Android devices. Also, participants sometimes rationalised their high ratings of a specific model by the fact that it reminds them of their favourite newspaper.[57] In one of the interesting cases, a participant rated the Classical Naskh at 7, higher than all the other models. This rating initially appeared as an unusual case; however, when the participant provided details about his reading habits, a potential explanation was found in that his favourite source of news was a website that uses the same typeface.[58] Also, there were 5 participants from the occasional readers group who gave extremely low ratings for the Latinised Arabic model (between 1-2). These low ratings –which can be considered exceptional among the group– can be linked to the participants' information about their reading habits which revealed that they rarely read on the web. In summary, the cases above can be seen as an evident correlation with Zuzana Licko's statement 'we read best what we read most'.

4.7.7. Key observations from the secondary task

Although the secondary task in this study does not provide in-depth insights about how the examined typefaces are perceived in regard to the additional aspects (familiarity, modernity and pleasantness), there are a few useful observations that can be noted from the collected feedback. One of the main observations is that ratings with regard to familiarity show the closest link

56. While the comments in these two cases contradict the criteria which was initially introduced to the participants for the rating task, the researcher did not try to alter the participants' ratings to avoid manipulating their input.

57. Cross-checking the participants' input and their mention of the typefaces used in their favourite newspapers confirmed that indeed they are the same or similar.

58. The website was ammounnews.net which uses the typeface Amiri as its text typeface.

to the participants' preferences with regard to reading comfort, which was addressed in the main rating task.[59] This is not only seen in the average rating of all participants (Figure 4.18), but also when comparing the patterns of preferences across the different groups of participants. For example, ratings for the Latinised Arabic typefaces with regard to familiarity are relatively higher across younger and less frequent readers in comparison to older and more frequent readers (Figures 4.20-4.24).[60] Also, the ratings of the other models with regard to familiarity do not show big differences across the two groups, correlating with the patterns of ratings with regard to reading comfort addressed in the main rating task.[61] Another principal observation is that Latinised Arabic typefaces were rated high on modernity across all the groups of readers while the Classical Naskh model took the lowest ratings with regard to this aspect followed by the Regular Naskh. Ratings with regard to appearing modern, however, did not mirror the preferences towards the typefaces for extensive reading, as the previous task and rationale from participants reveal. Ratings with regard to pleasantness did not give valuable insights.[62]

The secondary rating task also shows that the two Modern Naskh typefaces (Adobe Arabic and Noto Naskh) received very similar ratings across the majority of participants. Similarly, the two Latinised Arabic typefaces (Helvetica

All participants (*66 participants*)

Type category		Familiarity	Modernity	Pleasantness
Classical Naskh	نموذج الخط	5.6	2.6	4.5
Regular Naskh	نموذج الخط	6	3.6	4.9
Simplified Arabic	نموذج الخط	6.2	4.3	4.7
Linear Naskh	نموذج الخط	6.3	4.5	4.9
Modern Naskh	نموذج الخط	5.2	4.6	4.9
Modern Naskh	نموذج الخط	5.4	4.8	5.1
Latinised Arabic	نموذج الخط	4.6	5.9	4.5
Latinised Arabic	نموذج الخط	4.5	6	4.3

Figure 4.20 Results from the secondary rating task across all participants.

59. Although it was not within the main aims of the study to verify whether familiarity is important for reading comfort, the collected data showed clear correlation with this view which was worth pointing out in this analysis.
60. It is important to admit that the quantitative nature of the secondary rating task brings some limitations. For example, the participants can potentially have different interpretations of the addressed aspects, which can affect their ratings. However, as the examined aspects are secondary to the study, a general picture with regard to the these aspects was considered sufficient.
61. The correlation between these two aspects is further supported by the previously addressed rationale behind the participants' preferences.
62. The irrelevancy of examining the participants' perceptions with regard to 'pleasantness' throughout this study was only perceived retrospectively.

Arabic and Droid) also received close ratings across the majority of participants. These similar ratings bring valuable confirmation to the validity of the categorisation of typefaces, especially among these two categories which include relatively more distinct typefaces.

Above 44 years old (*11 participants*)

Type models		Familiarity	Modernity	Pleasantness
Classical Naskh	نموذج الخط	5.5	2.1	3.7
Regular Naskh	نموذج الخط	5.7	2.9	4.1
Simplified Arabic	نموذج الخط	6.2	3.5	4.2
Linear Naskh	نموذج الخط	5.8	4.4	5.5
Modern Naskh	نموذج الخط	4.5	5	4.8
Modern Naskh	نموذج الخط	5.4	4.8	5.6
Latinised Arabic	نموذج الخط	4.7	6.5	4.4
Latinised Arabic	نموذج الخط	3.3	6.5	3.4

Figure 4.21 Secondary ratings from participants above 44 years old.

Frequent Readers (*17 participants*)

Type models		Familiarity	Modernity	Pleasantness
Classical Naskh	نموذج الخط	6.1	2.4	4.7
Regular Naskh	نموذج الخط	6.3	3.4	4.6
Simplified Arabic	نموذج الخط	6.3	4	4.9
Linear Naskh	نموذج الخط	5.9	4.6	5.2
Modern Naskh	نموذج الخط	5	5	5.2
Modern Naskh	نموذج الخط	5.3	4.9	5.3
Latinised Arabic	نموذج الخط	4	6.3	4.2
Latinised Arabic	نموذج الخط	4.1	5.9	3.8

Figure 4.22 Secondary ratings from frequent readers.

Below 30 years old (*27 participants*)

Type models		Familiarity	Modernity	Pleasantness
Classical Naskh	نموذج الخط	5.7	2.9	4.9
Regular Naskh	نموذج الخط	5.9	3.6	5
Simplified Arabic	نموذج الخط	6.3	4.3	4.9
Linear Naskh	نموذج الخط	6.5	4.7	5
Modern Naskh	نموذج الخط	5.5	4.6	5.3
Modern Naskh	نموذج الخط	5.8	4.9	5.2
Latinised Arabic	نموذج الخط	5.3	5.6	4.4
Latinised Arabic	نموذج الخط	5.3	5.8	4.4

Figure 4.23 Secondary ratings from participants below 30 years old.

Occasional Readers (*27 participants*)

Type models		Familiarity	Modernity	Pleasantness
Classical Naskh	نموذج الخط	5.4	3.1	4.8
Regular Naskh	نموذج الخط	5.9	3.7	5.4
Simplified Arabic	نموذج الخط	6.1	4.6	5.1
Linear Naskh	نموذج الخط	6.6	4.6	5
Modern Naskh	نموذج الخط	5.6	4.4	4.9
Modern Naskh	نموذج الخط	5.9	4.9	5.3
Latinised Arabic	نموذج الخط	5.3	5.8	4.9
Latinised Arabic	نموذج الخط	4.9	6	4.8

Figure 4.24 Secondary ratings from occasional readers.

4.8. Conclusion

This study reveals that almost all the participants had high preferences for four out of the six examined type models. Those models are Linear Naskh, Simplified Arabic, Modern Naskh and Regular Naskh models. Results also show relatively homogenous ratings of the Classical Naskh model which received moderate ratings across the majority of participants. The Latinised Arabic model received distinctly different responses across the participants. These differences show clear patterns in relation to both the age and the reading habits of the participants. The participants' rationale and the secondary rating task help explain the different patterns of preferences in light of the readers' familiarity with the examined models. The results of the study do not show noticeable differences in preferences towards the models across different regions/countries. The results also do not show considerable differences across the different document genres wherein the typefaces were displayed.

The study shows interesting insights into how type-use practices can affect readers' preferences and perceptions. The distinctly higher preferences towards the relatively recent Latinised Arabic model across younger participants can be strongly linked to their exposure to this model on the web. On the other hand, participants who rarely read digitally in general strongly disfavoured the model. Another example can be seen in the generally moderate ratings of the Classical Naskh model across the majority of participants which can be linked to its marginal use in present-day typography. Also, perceiving the Latinised Arabic model as non-dependable/informal by some participants can be partially linked to its dominance in popular content, in contrast to its absence in printed literary content.[63]

Understanding the factors behind different perceptions and ratings across participants was mainly possible through the semi-structured interviews. Also, the analysis of this study was largely informed by data from the statistical study which helped understand the participants' perception in relation to type-use patterns across different document genres.

The empirical study reveals that the distinct patterns of type use across the different document genres –which were identified in the statistical analysis– seem to reflect the users' decisions' and not necessarily the readers' preferences. For example, the popularity of the Latinised Arabic typefaces on the web might be linked to the potentially younger age of web designers who are more likely to have high preferences towards the model. Also, the continued use of the Simplified Arabic and Regular Naskh categories in Arabic newspapers and books can be linked to the evident effect of familiarity on preferences towards text typefaces. These hypotheses are further examined in the following study.

63. Although this perception can also be linked to its distorted proportions and lettershapes as described by some participants.

5. Empirical study 2: users' perceptions towards Arabic typefaces in texts

5.1. Aim of the study

Following on from the previous section (Empirical Study 1), it is important to understand the perceptions towards the addressed Arabic typefaces from the users' perspectives. As revealed by Empirical Study 1, some participants (especially among the more frequent and/or older readers) strongly disfavoured some Arabic typefaces that are widely used on the web. This situation brings importance to understanding the factors that drive common type-use practices by users of Arabic type. Therefore, this study (Empirical Study 2) aims at investigating the different aspects that affect type-use practices across the examined document genres. The results of Empirical Study 2 complement some findings of Empirical Study 1 and help further explain the distinct patterns of Arabic type use across the addressed document genres as identified earlier in the statistical study of this research. The main aim of Empirical Study 2 is to help reassess some of the common Arabic type-use practices and to contribute to better-informed ones.

Empirical study 2 that addresses type choices and perceptions of users of Arabic type concerning Arabic text typefaces has not been done before.[1] Although the number of participants and the process of the study were restricted by complex research circumstances,[2] the collected data through this study provide valuable insights into some common Arabic type-use practices. The collected data reveal many interesting aspects, both contemporary and historical, that can be linked to the situation of Arabic type use in the 21st century. The study also emphasises the need for further research in this area.

Empirical Study 2 is largely based on the methodology and structure of Empirical Study 1. For example, combining quantitative and qualitative methods (i.e, a rating task and a semi-structured interview), the selection of the typefaces and the criteria of the main rating task which were applied in Empirical Study 1 are all similarly implemented in this study. Empirical Study 2 also benefits from aspects such as the selection of text samples and the balancing of the optical size and line height which were determined in Empirical Study 1.
On the other hand, there are several aspects in Empirical Study 2 that are slightly different from Empirical Study 1. For example, Empirical Study 2 focuses on the particular type-use practices of each interviewee more than their perceptions towards the Arabic type models that are examined throughout the previous parts of the research. Accordingly, Empirical Study 2 starts with a set of questions concerning the type preferences of the interviewees and the different aspects that affect their type-use practices. On the other hand, the rating task which explores the interviewees' perceptions towards the examined

1. Up to the date of this research, the researcher was not able to find any studies that cover this topic.
2. Restrictions on travelling, due to visa complications and later due to the coronavirus pandemic, did not allow for field research which would have been ideal for the study. Also, as mentioned earlier in chapter 3, invitations for remote participants to contribute to the study proved to be impractical, leading to a small number of participants.

Arabic type models is treated as a subsidiary part of Empirical Study 2. Another difference is that Empirical Study 2 inquires about the users' preferences only in the document genre where each participant is recently specialised, dropping the request to rate the typefaces across other document genres. Empirical Study 2 also drops the secondary rating task (which inquires about the additional aspects: familiarity, pleasantness and modernity) that was performed in Empirical Study 1 to allow more focus on other aspects. Another difference is that this is a study conducted remotely, which necessitates the use of adjusted mockups to allow an efficient remote sharing and viewing of the text samples.

5.2. The process and questions of Empirical Study 2

This study starts with a set of questions that inquire about the type preferences of the interviewees (or their companies) for text in their printed or digital material. The questions inquire about the names of the typefaces, their sources, how they were chosen (or commissioned) and the considerations which decided the selection/design of the typefaces. The participants are then asked questions with regard to the design process of their material. The aim of this question is to investigate whether the design process or the design tools (e.g., the available standard fonts) affect type-use practices. Concerning printed matter, the interviewees are asked whether the design of their documents has changed over time, particularly, whether other typefaces have been used and the reason behind the change, if applicable. In the case of newspapers, the interviewees are asked why their newspapers use other typefaces on their websites compared to the typefaces they use in print. Some of the questions above, however, might differ slightly from one interviewee to another based on their feedback, level of involvement in type selection decisions, the discussed document genre and even the method of communication through which the interview was conducted.[3] The aim of this part of the interview is to collect qualitative data that can help in understanding the different aspects that affect type-use practices.

In the second part of the study, each interviewee is provided with six mockups of Arabic text in one document genre (the genre where he/she is recently specialised) and asked to rate the used typefaces based on their suitability for text-setting in the specified document genre. The participants were asked to rate the typefaces on a scale from 7-1 (7 being the most suitable to use to 1 being not at all suitable). After providing their ratings, the interviewees are asked to provide a brief rationale behind their preferences. The aim of this task is to investigate how the interviewees perceive the typefaces that are examined throughout the research.

3. In general, phone and video calls enabled more focused feedback from the interviewees compared to written feedback or recorded messages. Appendix D gives details about the communication method of each interview.

The rating task is followed by another set of questions that inquire about the interviewees' professional and educational background. Also, this part of the study inquires about the observations and views of some interviewees concerning some common Arabic type-use practices as recognised throughout this research.

5.3. Mockups

This study uses modified versions of the printed mockups that were used in the first empirical study. The need to perform the interviews remotely necessitated using forms of mockups that can be efficiently shared and discussed with the interviewees. Accordingly, to avoid delays, disruptions or inconveniences that can be caused by posting the printed materials to the interviewees,[4] digital forms of the printed mockups were a necessary alternative in the majority of cases. Only one of the interviewees (from a newspaper publisher) received printed mockups of newspapers, while two interviewees (one from a book publisher and one from a newspaper publisher) received alternative digital forms of books and newspapers. The remaining two interviewees (both UI/UX designers) received digital forms of web articles which are identical to the digital mockups that were used in Empirical Study 1, except that the text is not scrollable. The alternative mockups of books and newspapers include parts of the same content used in the printed mockups (Figures 5.1 & 5.2). Although the modified versions of the mockups compromise their physical resemblance to real documents, this compromise was less of a concern given that Empirical Study 2 targets experienced users who are well-aware of the design considerations within their area of specialty.

5.4. Sampling

This study targets participants who are involved in (or aware of) type-use decisions in Arabic books, newspapers or websites. The initial plan was to invite the participants particularly from the list of publishers that was addressed throughout the statistical study of this research. However, due to the inefficiency of remote communication that became evident at an early stage of this research,[5] this study includes interviewees who are not necessarily part of the mentioned list. Also, due to the same constraints, the study was able to include only 5 participants. The interviewees are Pascale Kahwaji from Hachette Antoine/Nawfal Publishing (a book publisher) in Lebanon, Hassan Younes from the Dar Al Watan (a newspaper publisher) in Qatar, Rabie Salmo from the Dar Al Khaleej (a newspaper publisher) in the UAE, Aladin Dabbagh from Select Creatives in the UAE and Zaid Adi from Maxima Group in the UAE.

4. The author experienced these difficulties during the first empirical study when, in some cases, posted mockups did not reach their destination and the author had to send them again. In other cases, the mockups took up to six weeks to reach the participants. In this study, the author was keen to avoid stressing the interviewees with similar scenarios.

5. See sections 5.1 and 3.1.2.



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وعلى الرغم من هذه النقائص، ربما يعطينا دخل البلد مقدرًا بالدولارات الدولية فكرة أفضل عن مستوى معيشته مما يفعل دخله الدولاري بمعدل التبادل السوقي. وإذا حسبنا مداخيل البلدان المختلفة بالدولارات الدولية، فإن الولايات المتحدة (تكاد) تعود إلى قمة العالم. يعتمد الأمر على التقدير، لكن لوكسمبورغ هو البلد الوحيد الذي لديه دخل للفرد بتعادلية القدرة الشرائية أعلى من دخل الولايات المتحدة محسوبًا بكل التقديرات. لذا، فطالما نحينا حانبًا لوكسمبورج، الدّويلة المدينة المأهولة بأقل من نصف مليون نسمة، فإن المواطن الأمريكي المتوسط يمكنه بدخله شراء أكبر كمية من البضائع والخدمات في العالم.

فهل يسمح لنا هذا بأن نقول إن الولايات المتحدة لديها أعلى مستوى معيشة في العالم؟ ربما. لكن هناك بعض الأشياء التي علينا وضعها في الاعتبار قبل أن نقفز إلى تلك النتيجة.

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وعلى الرغم من هذه النقائص، ربما
الدولية فكرة أفضل عن مستوى معيشته م
السوقي. وإذا حسبنا مداخيل البلدان المخ
المتحدة (تكاد) تعود إلى قمة العالم. يعتم
هو البلد الوحيد الذي لديه دخل للفرد بت
الولايات المتحدة محسوبًا بكل التقديرات.
الدّويلة المدينة المأهولة بأقل من نصف
المتوسط يمكنه بدخله شراء أكبر كمية م

فهل يسمح لنا هذا بأن نقول إن الولاي
في العالم؟ ربما. لكن هناك بعض الأشيا
أن نقفز إلى تلك النتيجة.

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وعلى الرغم من هذه النقائص، ربما يعطينا دخل البلد مقدرًا بالدولارات الدولية فكرة أفضل عن مستوى معيشته مما يفعل دخله الدولاري بمعدل التبادل السوقي. وإذا حسبنا مداخيل البلدان المختلفة بالدولارات الدولية، فإن الولايات المتحدة (تكاد) تعود إلى قمة العالم. يعتمد الأمر على التقدير، لكن لوكسمبورغ هو البلد الوحيد الذي لديه دخل للفرد بتعادلية القدرة الشرائية أعلى من دخل الولايات المتحدة محسوبًا بكل التقديرات. لذا، فطالما نحينا حانبًا لوكسمبورج، الدّويلة المدينة المأهولة بأقل من نصف مليون نسمة، فإن المواطن الأمريكي المتوسط يمكنه بدخله شراء أكبر كمية من البضائع والخدمات في العالم.

فهل يسمح لنا هذا بأن نقول إن الولايات المتحدة لديها أعلى مستوى معيشة في العالم؟ ربما. لكن هناك بعض الأشياء التي علينا وضعها في الاعتبار قبل أن نقفز إلى تلك النتيجة.

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وعلى الرغم من هذه النقائص، ربما يعـ
فكرة أفضل عن مستوى معيشته مما يفعل
وإذا حسبنا مداخيل البلدان المختلفة بالدولا
تعود إلى قمة العالم. يعتمد الأمر على الـ
الذي لديه دخل للفرد بتعادلية القدرة الش
محسوبًا بكل التقديرات. لذا، فطالما نحينا حا
بأقل من نصف مليون نسمة، فإن المواطن
أكبر كمية من البضائع والخدمات في العالـ

فهل يسمح لنا هذا بأن نقول إن الولاي
في العالم؟ ربما. لكن هناك بعض الأشياء
نقفز إلى تلك النتيجة.

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وعلى الرغم من هذه النقائص، ربما يعطينا دخل البلد مقدرًا بالدولارات الدولية فكرة أفضل عن مستوى معيشته مما يفعل دخله الدولاري بمعدل التبادل السوقي. وإذا حسبنا مداخيل البلدان المختلفة بالدولارات الدولية، فإن الولايات المتحدة (تكاد) تعود إلى قمة العالم. يعتمد الأمر على التقدير، لكن

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وعلى الرغم من هذه النقائص، ربما
الدولية فكرة أفضل عن مستوى معيشته م
السوقي. وإذا حسبنا مداخيل البلدان المخ
المتحدة (تكاد) تعود إلى قمة العالم. يعتم

Figure 5.1 Part of the alternative text samples that were shared with the interviewee from the publishing house. The samples were shared as one pdf file. The numerals next to the models help refer to each model throughout the interview.



أذهلت أهرامات الجيزة الباحثين قرونا عديدة لم تكن فيها الفراغات الغامضة والغرف المخفية وحدها مدعاة للتساؤل، فقد تمحور اللغز المحير حول تقنيات البناء التي استخدمها المصريون القدماء لإقامة هذه البنايات المتناسقة الرائعة بدون تكنولوجيا حديثة. د

أذهلت أهرامات الجيزة الباحثين قرونا عديدة لم تكن فيها الفراغات الغامضة والغرف المخفية وحدها مدعاة للتساؤل، فقد تمحور اللغز المحير حول تقنيات البناء التي استخدمها المصريون القدماء لإقامة هذه البنايات المتناسقة الرائعة بدون تكنولوجيا حديثة. أ

أذهلت أهرامات الجيزة الباحثين قرونا عديدة لم تكن فيها الفراغات الغامضة والغرف المخفية وحدها مدعاة للتساؤل، فقد تمحور اللغز المحير حول تقنيات البناء التي استخدمها المصريون القدماء لإقامة هذه البنايات المتناسقة الرائعة بدون تكنولوجيا حديثة. ج

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أذهلت أهرامات الجيزة الباحثين قرونا عديدة لم تكن فيها الفراغات الغامضة والغرف المخفية وحدها مدعاة للتساؤل، فقد تمحور اللغز المحير حول تقنيات البناء التي استخدمها المصريون القدماء لإقامة هذه البنايات المتناسقة الرائعة بدون تكنولوجيا حديثة. هـ

أذهلت أهرامات الجيزة الباحثين قرونا عديدة لم تكن فيها الفراغات الغامضة والغرف المخفية وحدها مدعاة للتساؤل، فقد تمحور اللغز المحير حول تقنيات البناء التي استخدمها المصريون القدماء لإقامة هذه البنايات المتناسقة الرائعة بدون تكنولوجيا حديثة. ب

أذهلت أهرامات الجيزة الباحثين قرونا عديدة لم تكن فيها الفراغات الغامضة والغرف المخفية وحدها مدعاة للتساؤل، فقد تمحور اللغز المحير حول تقنيات البناء التي استخدمها المصريون القدماء لإقامة هذه البنايات المتناسقة الرائعة بدون تكنولوجيا حديثة. و

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Figure 5.2 The alternative text samples that were shared on phone with one of the interviewees from an Arabic newspaper. The samples were shared as two images. Each model is referred to by the initial at the end of each paragraph.

5.5. Key observations from the collected feedback

This section summarises the feedback from the interviewees under three sections based on the document genre. The summary focuses on the collected data that are relevant to type-use practices. It also focuses on feedback that is related to aspects that were presented and/or found in the previous chapter. The full transcription of the interviews is included under Appendix D.

5.5.1 Type use in Arabic books

Feedback from Kahwaji at Hachette Antoine/Nawfal Publishing describes well-determined text type choices for their published books. The typesetting of the books follows the visual identity guidelines that are set by their design team. These guidelines set specific typefaces for different genres of books (i.e., the typeface Nassim for fiction/non-fiction and classics while the typeface Greta is used for projects such as coffee table books). Also, using these typefaces –which are both under the Modern Naskh category– successfully fulfils the publisher's aim to present a modern touch in their publications.

Correlating with the text type choices of Hachette Antoine/Nawfal, the interviewee gives the highest rating for the Modern Naskh model (Adobe Arabic). This high preference for the model besides the interviewee's attention to the importance of readability in texts shows that the Modern Naskh typefaces are perceived as sufficiently readable by the interviewee. Also, the interviewee views that the model successfully portrays a touch of modernity. The Regular Naskh and Classical Arabic models were favoured less by Kahwaji (rated at 6 and 5 respectively) due to their old-fashioned look. The Simplified Arabic and Linear Naskh models received even a lower rating (4) as they were not considered appealing. The Latinised Arabic received the lowest rating (3) as it was considered not suitable for extensive texts (Figure 5.3).

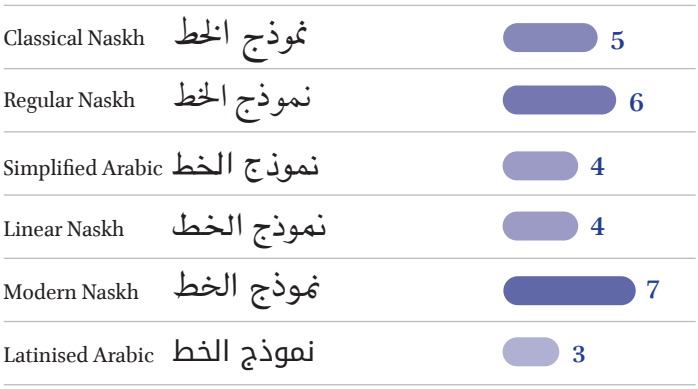

Figure 5.3 Kahwaji's ratings for the six type models in books.

While Kahwaji's views about type-use practices can be considered reasonable, they reflect unique practices given the ongoing dominance of the Regular Naskh model among publishers of Arabic books. Kahwaji also explains that earlier type-use practices at Hachette Antoine/Nawfal Publishing followed an

'old-fashioned' way.[6] The situation above indicates that, although the recent years show some tendency to use Modern Arabic typefaces in Arabic books, this change is taking place cautiously and also remains very limited.

5.5.2. Type use in Arabic newspapers

Feedback from Younes at Dar Al Watan and Salmo at Dar Al Khaleej confirm that convention plays an important role in type-use practices in printed Arabic newspapers. Younes, for example, considers that the majority of printed Arabic newspapers use very similar text typefaces, which rationalises the almost consistent type-use practices among the newspapers where he worked for nearly four decades. Younes elaborates that only headlines can use distinctive typefaces, while text typefaces have a small margin for change. Similarly, Salmo considers that the text typeface used by *Al Khaleej* newspaper resembles conventional Arabic typefaces. Salmo also states that the text typeface of *Al Khaleej* has been consistently in use since before he joined the newspaper in 2011.

Salmo points out a favourable design feature in Arabic text typefaces for newspapers that can partially explain the popularity of Simplified Arabic and Linear Naskh typefaces in Arabic newspapers. Salmo highlights the necessity to have a typeface that is highly legible in smaller sizes to allow more space for advertisements. Both the Simplified Arabic and the Linear Naskh typefaces show design features that aid their legibility in small sizes such as their prominent teeth and large counters (Figure 5.4). Also, the relatively compact ascenders and descenders of these typefaces make them practical to use in shorter line heights and reduces the amount of interlinear spacing, allowing



Figure 5.4 Comparing the Simplified Arabic and Linear Naskh models to the Regular Naskh model can help understand the dominance of the first two models in Arabic newspapers. The paragraphs at the top row show the clarity of short strokes (highlighted blue) in the first two models compared to the third model. Also, notice the bolder weight, especially in the Simplified Arabic model, while the high contrast in the Regular Naskh gives it a lighter weight that can decrease its legibility in small font sizes. The comparison at the bottom row shows how the Simplified Arabic and Linear Naskh models (left) have almost similar compact ascenders and descenders, while the Regular Naskh (right) obviously requires increased line height to fit its relatively longer ascenders and descenders.

6. Early publications of Hachette Antoine/Nawfal used a typeface from the Regular Naskh category.

more lines per column. Moreover, Salmo's explanation that a bolder typeface can enhance clarity in small sizes might justify the popularity of the Simplified Arabic typefaces in Arabic newspapers.[7] These explanations might also account for the lack of use of the Regular Naskh model in Arabic newspapers as it does not provide the same economies of space coupled with readablity when printed on newsprint.

Besides the interviewees' high preference for both the Linear Naskh and the Simplified Arabic models, they also give a high rating to the Modern Naskh model with regard to its suitability for newspaper text-setting (Figures 5.5 and 5.6). This high rating correlates with the readers' perceptions from the first empirical study where the Modern Naskh generally was accorded high ratings. It also shows that, despite the dominance of conventional type-use practices in Arabic newspapers, the Modern Naskh typefaces are seen as satisfactory alternatives by Arab type users. The fact that some Arabic printed newspapers implement Modern Naskh typefaces (i.e., Adobe Arabic and Greta Text) in their texts further supports this suggestion.[8]

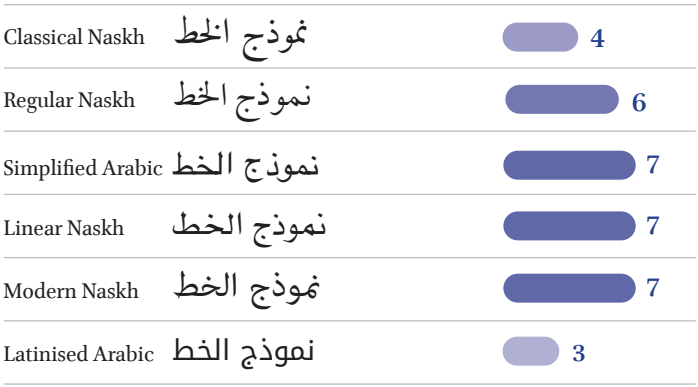

Figure 5.5 Younes' ratings for the six type models in printed newspapers.

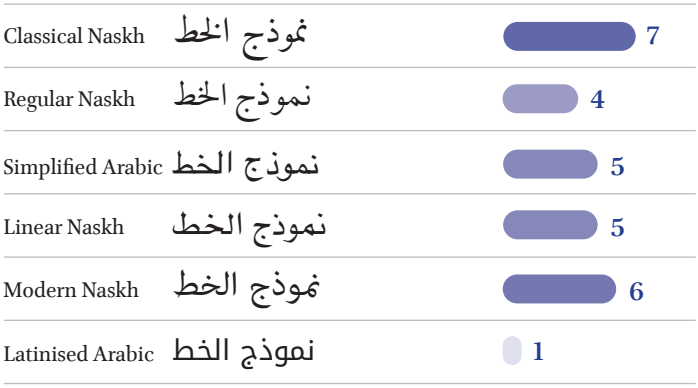

Figure 5.6 Salmo's ratings for the six type models in printed newspapers.

7. It is worth pointing out that the statistical study of this research indeed shows a considerable use of bold text typefaces in Arabic newspapers, which correlates with Salmo's justification.
8. The use of Modern Naskh typefaces in Arabic printed newspapers is addressed earlier in the statistical study of this research. It is worth noting that the relatively recent use of some Modern Naskh typefaces in printed newspapers might be partially aided by the radical changes in newsprint over the last few years (i.e., the use of higher quality paper). These changes allow a more accurate rendering of typefaces with lighter weight and finer details (e.g., Adobe Arabic).

Younes rates the Regular Naskh model slightly lower than the Linear Naskh, Simplified Arabic and Modern Naskh models; however, he still considers it suitable to use and easy to read. Salmo, on the other hand, gives it a moderate rating (4), describing it as more suitable for books. The Classical Naskh model is given a moderate rating (4) by Younes who states that it is a bit tiring to read. This perception correlates with the readers' average rating of the model in the first empirical study. Salmo, on the other hand, gives the Classical Naskh model the highest rating, rationalising that its tight yet natural spacing makes it space-efficient, and its bolder weight enhances its clarity in small sizes. Salmo, however, explains further that his evaluation still requires further testing, especially regarding the line height.[9]

The Latinised Arabic model takes the lowest rating among the examined typefaces by the two interviewees (3 by Younes and 1 by Salmo). Younes describes the model as tiring to read, while Salmo describes it as unsuitable for newspapers.

Concerning the different type-use practices across the printed newspapers and their websites, the feedback from the interviewees shows two different cases that explain the situation. Younes –who was personally involved in the type selection process– explains that a committee at the newspaper nominated a set of typefaces based on their evaluations of typefaces used on other newspapers' websites. From the proposed list, two typefaces (Greta Text and Noto Naskh) were shortlisted and the selected typeface (Noto Naskh) was the one that received more votes. In the case of *Al Khaleej* newspaper, Salmo explains that the design of the website is beyond his professional scope. Otherwise, he would have recommended using the same typeface that is used in the printed newspaper on the website. These cases reveal that the type-use practices on the websites of Arabic newspapers are decided through a different design process, if not by a different design team. Consequently, while the printed newspapers remain attached to the established type-use practices, type use on the websites seems to be driven by the common practices on the web. As a result, it is not surprising that the newspapers' websites use Modern Naskh and Latinised Arabic typefaces, the most dominant categories on Arabic websites.

The interviewees provide valuable historical insights into the users' perceptions towards typesetting technologies nearing the 1990s and their possible link to type-use practices in Arabic newspapers today. Both interviewees recall the significant efficiency that desktop publishing applications brought to the production processes of newspapers, particularly the applications Al Nashir Al Sahafi and later Quark XPress. Despite the initial deficiency of these tools with

9. Indeed more careful testing might probably change Salmo's evaluation, especially that the long ascenders and descenders in the Classical Naskh model require increased line height, which will occupy more space. The fact that Salmo received a simplified digital version of the mockup may have affected his evaluation. Younes, on the other hand, received printed samples in their actual size.

regard to handling Arabic fonts, as Salmo recalls,[10] the ease that they brought to the design process made them revolutionary tools. Consequently, the applications gained noticeable popularity among Arabic newspapers. Salmo points out that, during these years, the typeface Muna, provided by Diwan company, was one of the most popular Arabic typefaces. Within the technical contexts mentioned above, the availability of Muna among a limited set of Arabic typefaces was probably the starting point for its popularity in Arabic newspapers.

Younes provides another valuable historical insight which helps explain the distinct type-use practices across Arabic newspapers and books. Younes mentions that, towards the 1980s, while Simplified Arabic typefaces were already widely accepted in Arabic newspapers, Arabic books maintained a stronger attachment to the traditional typesetting method and the appearance of Arabic text. Younes narrates that clients used to perceive the typesetting provided by the hot-metal Linotype machine of lower quality. On the other hand, they used to value the manual typesetting craftsmanship and the authentic visual appearance of text in this document genre. Younes links these perceptions to the higher sentimental and physical value of books which made clients insist that their books are typeset manually. These interesting perceptions reveal how value and conventions might have contributed to maintaing specific type-use practices in Arabic books while Arabic newspapers were allowed to develop others.

5.5.3. Type use on Arabic websites

Feedback from Dabbagh and Adi reveals interesting aspects about the popularity of the Latinised Arabic typefaces on Arabic websites. Both interviewees name Cairo and Tajawal (two Latinised Arabic typefaces) among the typefaces that they would most likely use on their web projects. Adi explains that the trends of the market necessitate this use, whether the designer likes these typefaces or not. He elaborates that perceiving these typefaces as 'modern' by both clients and designers is the main factor that contributes to this trend. He also explains that these established trends make the Latinised Arabic typefaces safe options to use. Designers use Latinised Arabic typefaces because they know that they will please their clients and, therefore, will save the designer requests for amendments. Moreover, using Latinised Arabic typefaces gives the clients a positive impression that the designer is 'up-to-date', as Adi describes. As a result, the designers become contributors to these trends even if they do not necessarily admire them. Correlating with Adi's feedback, Dabbagh states that he prefers to use a few Latinised Arabic typefaces because they look modern. He also confirms the popularity of these typefaces among his clients.

Both interviewees further justify the use of Latinised Arabic typefaces with reference to their functional and aesthetic aspects. Dabbagh, for example,

10. These issues are addressed in more detail by Nemeth. See Nemeth, 2017, pp. 406-410.

prefers GE SS, Tajawal and Cairo typefaces for being clear at all sizes. Adi, on the other hand, explains that, although he does not like Latinised Arabic typefaces, he can partially justify their use by the 'solid and steady' structure that they provide, which is a useful feature, particularly for the web interface. Adi elaborates that the geometric nature of the Latinised Arabic typefaces allows the single words (i.e., buttons and menus) to appear as solid visual elements (Figure 5.7). Adi explains the importance of this feature by drawing a comparison with the Latin script and the way it allows single words to appear. This comparison indicates that referring to the Latin script (or Latin-based websites or applications) as a visual reference possibly influences this perception. This influence is not surprising when considering the spread of bilingual websites and web applications in Arab countries where the English language has considerable use.

خدمات الشركاء	الخدمات الإسكانية	دائرة الإسكان	الرئيسية
خدمات الشركاء	الخدمات الإسكانية	دائرة الإسكان	الرئيسية

Figure 5.7 A visual demonstration of the comparison that is provided by Adi. The top line is a menu sample from one of Maxima group's designs (Source: https://www.dh.sharjah.ae); the bottom is a comparison provided by the author using Noto Naskh typeface. According to Adi, the geometric nature of the type style at the top allows the words to look as solid visual elements, while the example at the bottom does not allow the same appearance.

Both Dabbagh and Adi explain that their Arabic type preferences would differ significantly between short and extensive texts. While Adi partially justifies using Latinised Arabic typefaces for the interface, he strongly disfavours them for extensive texts. He elaborates that, when some clients ask to use Latinised Arabic typefaces for text, he would strongly discourage them to do so because the text would be hard to read. Similarly, comments from Dabbagh indicate that his preference for the Latinised Arabic typefaces on the web is based on his expectation of shorter texts in this document genre. On the other hand, during his rating for the typefaces for more extensive texts, Dabbagh is keen to rate the typefaces based on how readable they are, giving the lowest rating to the Latinised Arabic model. This indicates that the usually shorter texts on websites might generally reduce the concerns with regard to the readability of the typefaces, allowing aspects such as 'modernity' to determine type choices. Adi, however, rightly points out that many Arab designers might not show this level of typographic awareness and consequently use 'unreadable' typefaces for extensive texts.

Concerning the sources of fonts and their effect on type-use practices, both interviewees verify the efficiency of using Google Fonts and the contribution of this factor to the popularity of the fonts provided by Google on Arabic

websites. The interviewees mentioned many aspects that bring exceptional efficiency to using Google Fonts including the ready-to-use font formats, the straightforward process of applying the fonts,[11] the enhanced performance of websites that is allowed by enabling a speedy download of fonts and the fact that they are provided by default on the majority of website builders. Also, both interviewees confirm the importance of using free fonts in the Arab market where clients would rarely agree to pay extra costs for fonts. Google Fonts also provide free and easy licensing that does not require any subscription, which gives significant efficiency to web development. This verified popularity of Google Fonts among Arab web developers/designers shows a strong correlation with the considerable use of these fonts on Arabic websites, as revealed in the statistical study of this research.

Both interviewees give high ratings (5-7) for the Linear Naskh, Simplified Arabic, and the Regular Naskh models. Their rationale describe these fonts as easy-to-read, conventional and suitable for extensive texts. Dabbagh, however, justifies the lack of use of the Linear Naskh and Regular Naskh models on Arabic websites due to their lack of support as CSS default fonts. He elaborates that, during his early years in web development (around 2005), there were only two Arabic typefaces available to use through CSS, Tahoma and Arial. As a result, these typefaces dominated Arabic websites for a few years. Adi adds that the trends of the market accord lower preferences for these typefaces (including the Simplified Arabic model) as clients usually do not prefer to see 'overused' typefaces on their websites. Adi also suggests that the general lack of typographic awareness among web developers –who are more likely to be software engineers than designers– contributes to the spread of Latinised Arabic typefaces for extensive texts over more conventional typefaces.

The interviewees give different feedback concerning the Modern Naskh model. Dabbagh gives the model (Noto Naskh) the highest rating across the examined typefaces, considering it the most suitable for text. He also explains that its low contrast makes it a practical typeface for screens. Dabbagh also states that he likes to use the typeface Adobe Arabic (another Modern Naskh typeface) in his projects due to its modern and elegant look. Adi, on the other hand, gives a moderate rating for Noto Naskh (4), describing it as 'neither on the conventional side nor on the side that is considered 'modern' by clients.

The interviewees' feedback strongly supports the interpretation in the first empirical study that type-use practices on Arabic websites might be linked to the younger age of Arab web developers/designers. Based on their experience in the field, both Dabbagh and Adi state that Arab web developers/designers are more likely to be below 35 or 30 years old. The interviewees give several explanations to this situation including the low salary range, high competi-

11. For more detail on the efficiency of applying fonts from Google Fonts to a web page, see Mills, 'How to use Google Fonts in your next web design project', 2018. https://www.freecodecamp.org/news/how-to-use-google-fonts-in-your-next-web-design-project-e1ad48f1adfa/ (accessed November 2021)

tion and the constantly changing nature of the field. These confirmations from the interviewees allow understanding type-use practices on the web in light of the results from the first empirical study where younger participants generally had high preferences towards the Latinised Arabic typefaces.

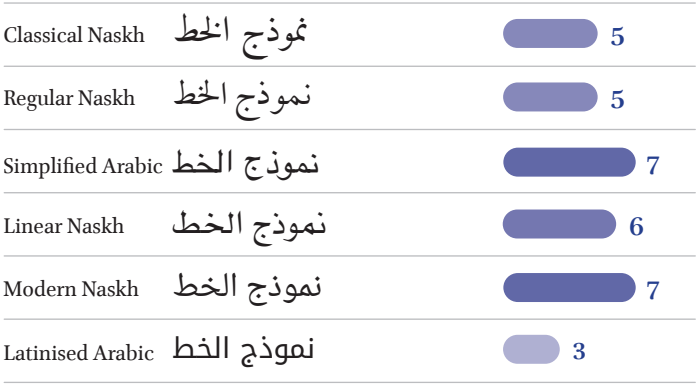

Figure 5.8 Dabbagh's ratings for the six type models on the web.

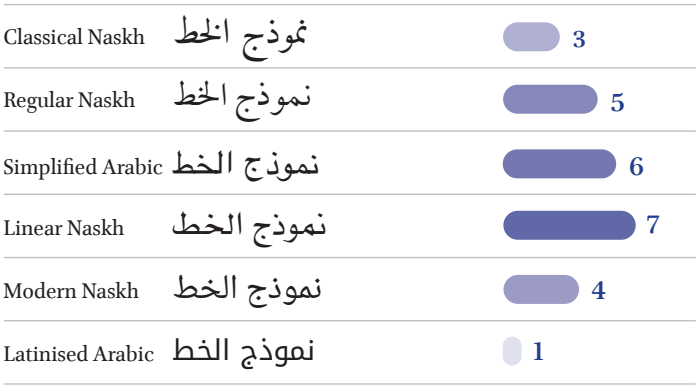

Figure 5.9 Adi's ratings for the six type models on the web.

5.6. Conclusion

This study provides valuable insights into the users' rationale behind some common Arabic type-use practices across the examined document genres. Despite the limited number of interviewees, the collected data closely relate to many type-use practices that were recognised in the statistical study of this research. Also, the interviewees' feedback enables the understanding of some type-use practices in light of the distinct preferences of Arab readers across different age groups, as recognised through the first empirical study.

The collected data strongly confirms the considerable role of conventions in type-use practices. In printed genres, established conventions are evidently still maintained by habit, especially as revealed by the feedback from the surveyed newspapers. Established practices are rarely questioned and the wide popularity of specific typefaces further assures their credibility. Similarly, type-use practices on Arabic websites are noticeably influenced by trends (probably new conventions) in this document genre. The emergence of new

Arabic type-use trends on the web seems to be affected by two main factors: 1) the pursuit of showing a 'modern' look, which is usually linked to both the Latinised Arabic and Modern Naskh typefaces; and (2) the expectation of shorter texts on the web, which allows the use of less conventional typefaces. These trends are reinforced by both the clients' expectations and the web developers/designers' practices, as the feedback from the interviewees reveals.

The study also confirms the considerable role of design tools (or typesetting methods) in driving some common Arabic type-use practices. For example, feedback from one of the interviewees reveals that Arabic books maintained an attachment to the traditional typesetting methods even until the 1970s. On the other hand, hot-metal Linotype machines were widely accepted across Arabic newspapers during the same period. In light of this feedback, the distinct patterns of type use across these two document genres can be partially linked to the different typesetting methods/machines. Similarly, the feedback from the interviewed web developers strongly verifies that the efficiency of using specific Arabic typefaces is a main contribution to their popularity on the web.

The distinct Arabic type-use practices across different document genres can also be partially linked to different age groups of type users. The feedback from the interviewed web developers/designers confirms that web design in the Arab region is generally undertaken by younger practitioners. Accordingly, the popularity of Latinised Arabic typefaces on the web can be linked to the high preferences of these typefaces among younger readers of Arabic, as revealed by the first empirical study of this research.

Finally, it is worth pointing out that, due to the restrictions that surrounded this study, the collected data obviously does not provide comprehensive coverage of the perceptions of users of Arabic type towards Arabic text typefaces. Although the collected data helps explain many aspects related to common type-use practices across the examined genres, further research might reveal aspects that were not possible to cover in this study. A larger and more varied sample can allow a more comprehensive coverage of users' perceptions and practices. Furthermore, fieldwork research in this area can cover details that cannot be easily inquired about remotely.

6. Diversity in Arabic type styles in the 21st century: conclusions and reflections

This research addressed three main aspects in relation to the current diversity in Arabic type styles, allowing original contributions to understanding the topic from a wide perspective. The historical part of the research (chapter 2) explained how widely used Arabic type styles emerged and became standardised as text typefaces. The statistical study then revealed the unique patterns in which these type styles are used across printed books, printed newspapers and websites. Based on input from the previous two studies, the first empirical study examined the perceptions and preferences of Arab readers towards a selected set of typefaces. The second empirical study then addressed these perceptions from the users' perspective, providing useful insights in relation to common type-use practices. This methodology of combining historical and statistical studies with empirical research to examine preferences and perceptions towards Arabic typefaces has not been applied before.

As addressed throughout chapter 2, the current diversity in Arabic type styles emerged through drastic technical and cultural contexts that affected the development of Arabic type during the 21st century. One of the main influences was the introduction of the linecasters for Arabic typesetting, which initiated the standardisation of simplified Arabic typefaces. The benefits of the simplified Arabic typefaces for speedy typesetting besides the tendencies among manufacturers of typesetting technologies to transfer the approach to succeeding technologies contributed to its wide acceptance as a conventional type style. Another distinct approach in Arabic type design evolved under the influence of globalisation and westernisation, which translated into the appearance of Latinised Arabic typefaces. The popularity of Latinised Arabic typefaces was mainly driven by perceptions of this design approach as a 'modern' way of designing Arabic type, especially among the younger generation of Arab designers. While new Arabic type styles emerged under these abnormal technical and cultural situations, the influence of the rooted representation of Arabic type that preceded their emergence remained existent. The consequences of this relatively rapid appearance and standardisation of distinct Arabic type styles can be seen in both type-use practices and readers' preferences in the present day.

The current diversity in Arabic type styles can also be seen as a reflection of a period of delocalisation of Arabic type-making. The introduction of mechanical typesetting technologies –where founts became integrated parts of the machines– led to the discontinuation of local expertise in Arabic type-making that has been previously established around foundry type-making. With this shift, however, the profession of Arabic type-making became an exclusive business of western manufacturers of typesetting technologies. This situation contributed to the lack of effective re-assessment of compromised forms of Arabic type that emerged from the limitations of outdated typesetting technologies. Moreover, the gap in expertise in Arabic type-making led to the unbalanced

development of Arabic type when digital technologies allowed a 'democratisation' of Arabic type-making. Early Arab local contributions lacked maturity and were mostly explorational or, in best cases, copied existing practices.[1]

The distinct type-use patterns of Arabic text typefaces across different document genres –which were recognised in chapter 3– can be strongly related to the rapid changes in Arabic type during the twentieth century. A prominent example is seen in the dominance of the Simplified Arabic type style in Arabic newspapers as a continuation of its popularity in linecasters of the twentieth century. On the other hand, Arabic books maintained type-use practices that resemble rooted typographic conventions, which can be seen as an expression of preserving higher standards in Arabic typography. Another interesting example can be seen in the use of the Latinised Arabic typefaces which shows considerable use on the web, driven by their perceived 'modern' look, but no use in text typesetting of Arabic books and newspapers where considerations of readability discourage their use.

Another remarkable effect of the rapid changes in Arabic type development can be seen in the distinct perceptions towards Latinised Arabic typefaces among readers from different age groups, as recognised in chapter 4. While older readers strongly disfavoured Latinised Arabic typefaces, younger readers were noticeably more accepting of the style. This shift in readers' perceptions, which is captured by the first empirical study of this research, can be linked mainly to differences in reading habits and exposure to type styles. While the differences in readers' perceptions show how type-use practices can alter readers' perceptions over time, they also help further explain the spread of Latinised Arabic typefaces on the web. The fact that the profession of web development is mainly occupied by a relatively younger generation of designers/programmers among which the Latinised Arabic typefaces were generally highly preferred further explains the considerable use of these typefaces on the web.[2]

The empirical study of this research shows that the validity of the suggestions that a simplification of Arabic type by importing features from the Latin enables a better reading experience is a highly questionable claim.[3] Rather, the results show a strong indication that the comfort of reading is affected by the conventionality of letterforms, correlating with the views of many typography

1. See sections 2.3, 2.5 and 2.6.
2. The high preference towards the Latinised Arabic typefaces among younger readers is mainly based on the data collected through Empirical Study 1 and should not be confused with the disfavour towards some Latinised Arabic typefaces by the two selected interviewees in Empirical Study 2. For example, both Adi and Dabbagh disfavoured some Latinised Arabic typefaces (especially for text setting), however, despite this disfavour, they both confirmed the wide popularity of this type style among web developers, UI/UX designers as well as clients. Concerning this distinction in perceptions, it is worth considering that Dabbagh –who was 38 years old at the time of the interview– can be considered older than the average age of web developers as suggested by both Dabbagh and Adi. Also, the critical typographic views of Adi seem to be formed through his well-informed educational and professional background, however, as suggested by Adi, these views do not reflect common typographic practices that are mainly driven by the trends (see pages 117-118 and interview transcript).
3. See section 2.5.1.

experts.[4] This effect of conventionality is not only confirmed by the disfavour of the Latinised Arabic type style by the more frequent/older readers but also in the high preference towards the established Arabic type styles (i.e., Simplified Arabic, Regular Naskh and Linear Naskh) by the majority of participants. Moreover, Modern Naskh typefaces, which present a better balance between modernity and conventionality, proved to be more successful as seen in their high preference among participants from different age groups and reading habits. This empirical data supports a statement by Titus Nemeth that 'The Eurocentric notion that Latin typography should serve as a role model for typographic cultures with a shorter history should be re-evaluated in order to initiate and emphasise efforts that stem from the very culture a design is aimed at. A true and originally evolution of Arabic typography can not be achieved by forcing ideas and values of the Latin model on to it – it has to flourish in its own right.'[5]

Reflections on the status of Arabic type in the 21st century

One of the noteworthy results of the delocalisation of Arabic type-making is the noticeable paucity of functional Arabic typefaces.[6] As revealed by the statistical study of this research, a noticeably limited number of Arabic typefaces (or clones of them) form a large percentage of the typefaces used in Arabic books and newspapers. This paucity can be seen as a result of the insufficient support for Arabic typefaces by western manufacturers, where non-Latin fonts were treated as means to facilitate selling the machines. As Titus Nemeth points out, 'the fact that Arabic, as well as many other non-Latin scripts, were treated as one category speaks volumes about the issues'. As a result, a very limited range of functional Arabic typefaces was produced during this period. This paucity was further maintained by the fact that early local involvements in Arabic type design in the digital age showed a significant urge to explore novelties, which in many cases lacked balance with considerations of functionality. As a result, the Arabic type market is flooded with explorational typefaces that found their popularity among young designers for short typesetting purposes, while only a few functional typefaces serve extensive text settings.

The empirical study in this research also reveals other interesting situations concerning the development of Arabic type. For example, the Simplified Arabic type style, which can be considered a compromised representation of Arabic type, was highly favoured by almost all the participants. On the other hand, the sophisticated authentic representation of Arabic type took moderate ratings and was perceived as 'outdated' by many participants. This situation raises important questions concerning the current situation of Arabic type. For example,

4. See sections 4.2.1.
5. Nemeth, 2006. p.5.
6. Fiona Ross has pointed out to this paucity concerning non-Latin scripts stating that 'there remains a paucity of good quality functioning fonts in comparison to Latin typographic offerings'. Ross rightly points out that even at the start of this century 'digital composition has so far failed to redress the paucity of high quality non-Latin fonts'. See Clarke, 'A Conversation with Fiona Ross', 2020. https://femme-type.com/a-conversation-with-fiona-ross/ (accessed March 2022)

would it be valid to question the continuing use of the Simplified Arabic style for being a compromised representation or does the established popularity of the style support its use? Similarly, would it be feasible to try to restore the authentic representation of Arabic type that has become outmoded? The answer to these questions might not be simple; however, there is no doubt that understanding the factors and context that affected the emergence or replacement of typefaces is important to inform better design practices. As Fiona Ross points out:

> 'Whatever the brief, research into the origins of typeforms, the culture, politics, and indeed rationale behind the fonts that were significant signposts in the history of a script's typographic journey from metal to digital is highly informative to current practice. The tools of type-making, the technological and economic constraints, and the skills of the designer all contribute to the resulting typographic image.'[7]

Attempts at reviving previous typographic representations which already became perceived as outmoded seem impractical; however, a more reasonable aspiration might be to re-introduce design features that are worth maintaining through contemporary interpretations. Ahmed Ansari touches on these aspects in light of what he terms 'decolonisation of design':

> 'It is unlikely that the colonized subject today can go back to a prior, pre-modern state of being – for most kinds of subjects, those have been forever lost. However, one can reach back to both historical understandings of past being and their changed nature in the present to recover essential ontological features that would point to a new futural state.'[8]

Whether the near future would bring developments that shall allow redressing the issues of Arabic type is a situation that is difficult to predict. The development of Arabic type today still faces many challenges. The design and rendering of Arabic type is still largely pre-determined by Latin-centric tools and applications, a situation that complicates attempts at overcoming existing shortcomings. Moreover, the continuing and probably still increasing influence of Westernisation in the Arab region means that current practices of Latinisation are likely to remain trendy, at least for some years to come. However, despite these challenges, some aspects promise a positive change. As pointed out by John Berry:

> 'Today the tools of typographic development are widely distributed, and it is possible for individuals in far-flung locations to create their

7. Ross, 2012. pp. 129-130.
8. Ansari, 'What a Decolonisation of Design Involves: Two Programmes for Emancipation', 2018. https://www.decolonisingdesign.com/actions-and-interventions/publications/2018/what-a-decolonisation-of-design-involves-by-ahmed-ansari/ (accessed March 2022).

> own fonts and their own typesetting software, which, with luck, will come to be used across the world. Although there is still a preponderant weight of both technology and economic might in the Latin-reading West, the balance is shifting, and the power to shape typographic communication is spreading out across the whole complex, multilingual world. The exchange of ideas and collaboration between type designers in the Latin-reading world and the non-Latin-reading world is extremely fruitful and promising, both for creating better and more varied typefaces in non-Latin writing systems and for smoothing the hiccups and glitches that have, up till now, made writing across linguistic divides haphazard and prone to distortion.'[9]

Cultural contexts that have brought negative influences to Arabic type development are also due to change. As Graham Shaw points out:

> 'Global dominance by any one culture, language and script will always tend to be finite. If for the moment Latin script is 'king', then that is not surprising because of the global spread of English – initially due to British colonial expansion and now sustained largely due to the preeminent position of the United States as a world political, economic, scientific and technological superpower. Looking back in history, it may be timely to remember that in the 13th century the language of modernization, of innovation in science, technology and medicine, was not English but Arabic.[..] Looking to the future, economists are already talking of the end of the 'golden age' of European prosperity and a return to the historical norm where economic wealth is concentrated in Asia. What cultural changes may accompany that reversal it is impossible to predict.'[10]

Also, as modernity is currently widely seen as linked to Westernisation, the future can bring different notions of modernity. For example, 'decolonisation of design' started to be proposed as the future solution for global design issues. Within the right cultural contexts, this might become a future notion that reshapes trends in Arabic type design and use. Ahmed Ansari proposes that:

> 'We should aim to have many diverse forms of design practice in the world – each specific to its region and its biosphere, each rooted in the cosmologies and mythos of its culture, each concerned with defining its own aims and identifying and addressing its own problems and opportunities. We should aim to cultivate many different ways of thinking, being, and designing, derived from different artifices and worldviews, aimed at addressing many different needs and desires.'[11]

9. Berry, 'Afterword: the shapes of language' in *Non-Latin Scripts: from metal to digital type*. London: St. Bride Foundation, 2012. p. 156
10. Shaw p.13-14
11. Ansari, 2018.

While only time can show how Arabic type development will move forward, practical steps can be taken in contributing to knowledge that can inform designers and users about better typographic practices. Such changes are already taking place through a number of international and local type design courses. The effect of this increase in knowledge can already be sensed with an increasing number of well-educated and talented designers, both native and non-native, contributing to developed design solutions, and more is expected to come. May this research be a contribution to change in the right direction.

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Appendix A: List of included publishing houses, newspapers and websites

Publishing houses

Publisher's Name	Link
Egypt	
Al Dar Al Masriah Al Lubnaniah	https://almasriah.com/about/
Al Rewaq Publishing	https://alrewaqpublishing.com/
Books Juice	https://business.facebook.com/bookjuicestore/
Dar Al Aalam Al Arabi	https://www.facebook.com/-1596066323961484دار-العالم-العربي
Dar Al Karmah	https://www.facebook.com/alkarmabooks/
Dar Al Salam	https://www.daralsalam.com/
Dar Al Tanweer	https://dar-altanweer.com/
Dar Dawen Publisher	https://www.dardawen.com/
Dar El Maaref Printing and Publishing	http://daralmaref.com/من-نحن
Dar El-Shorouk	https://www.shorouk.com/about/
Dar Merit	https://www.darmerit.com/عن-دار-ميريت
El Masri Publishing	https://www.facebook.com/darelmasryy/
General Egyptian Book Organization	http://www.gebo.gov.eg/
Kayan Publishing	https://www.kayanpublish.com/
Nahdet Misr Group	https://www.nahdetmisr.com/about/
Noon Publishing	https://www.facebook.com/Dar.Noon.Publishing/
Jordan	
Al Ahlia	https://www.facebook.com/AlAhliaBookstore/
Dar Wael	https://www.darwael.com/
Kuwait	
CRSK	http://www.crsk.edu.kw/
Dream Book	https://dardreambook.com/
Kalemat	https://kalemat.com/ar
Nova Plus	https://novapluskw.com/

Lebanon	
Al Intishar Al Arabi	http://alintishar.com/
Al Markaz Al Thaqafi Al Arabi	https://www.facebook.com/MarkazThakafi/
Arab Institute for Research & Publishing	http://airpbooks.com/
Arab Network for Research & Publishing	https://www.arabiyanetwork.com/
Arab Scientific Publishers	http://asp.com.lb/
Bissan Bookshop	https://www.facebook.com/bookshopbissan/
Dar Al Adab	https://daraladab.com/
Dar Al Farabi	http://dar-alfarabi.com/
Dar Al Ilm Lil Malayin	http://www.malayin.com/
Dar Al Khayal	http://daralkhayal.com/
Dar Al Kotob Al Ilmiyah	http://www.al-ilmiyah.com/
Dar Al Saqi	https://www.alsaqibookshop.com/
Dar El Farasha	http://darelfarasha.com/
Dar El Marefah	https://www.marefah.com/
Dar Sader	https://www.facebook.com/DarSaderPublishers/
Dar wa Maktabat Al-Hilal	http://darelhilal.com/
Markaz Dirasat Al Wihda Al Arabiyah	http://caus.org.lb/
Namaa Centre	https://nama-center.com/
Oman	
Al Rewaq publishing	https://www.facebook.com/alwaraqoman1/
Ministry of Culture and Heritage	https://www.mhc.gov.om/
Qatar	
Arab Center for Research & Policy Studies	https://www.dohainstitute.org/
HBKU Press	https://hbkupress.com/en

Saudi Arabia	
Dar Al Hadara	https://daralhadarah.net/
Dar Athar	https://darathar.net/
Jarir Bookstore	https://www.jarir.com/
Madarek Publishing House	https://mdrek.com/
Obeikan Publishers	https://www.obeikan.com.sa/
Takween Studies and Research	http://www.takween-center.com/
Tashkeel Publishing and Distribution	https://www.tashkeell.sa/
Syria	
Al Mada Publishing Company	https://almadapaper.net/
Dar Al Fikr	http://fikr.com/
Dar Al Kitab Al Arabi	https://www.facebook.com/darelkitabelarabi/
Dar Al Qalam	https://www.facebook.com/DarAlQalam.sy/
Dar Ibn Katheer	http://www.ibn-katheer.com/
Dar Petra	http://darpetra.com/
Dar Saadeddin	--
UAE	
Medad	https://medadpublishing.com/
Molhimon	https://darmolhimon.com/

Newspapers

Newspaper title	Link
Al Ahram	http://www.ahram.org.eg
Al Akhbar	https://akhbarelyom.com/
Al Dostor	https://www.dostor.org/
Al Gomhouria	http://www.gom.com.eg
Al Masry Al Youm	http://www.almasryalyoum.com/
Al Wafd	https://alwafd.news/
Al Watan	https://www.elwatannews.com/
Al Youm Al Sabe'	https://www.youm7.com/

Ashorouk	http://www.shorouknews.com
Jordan	
Ad Dustour	http://www.addustour.com/
Al Anbat	https://alanbatnews.net/
Al Ghad	http://www.alghad.com/
Al Rai	http://alrai.com/
Kuwait	
Al Anba	http://www.alanba.com.kw/
Al Jarida	https://www.aljarida.com/
Al Qabas	https://www.alqabas.com/
Al Rai al Aam	http://www.alraimedia.com/Home
Al Seyassah	http://al-seyassah.com/
Al Watan	http://alwatan.kuwait.tt/
Lebanon	
Addiyar	https://addiyar.com/
Al Akhbar	https://www.al-akhbar.com/
Al Joumhouria	https://www.aljoumhouria.com/
An Nahar	https://www.annahar.com/
Assafir	http://assafir.com/
El Shark	https://www.elsharkonline.com/
Oman	
Al Roya	https://alroya.om/
Al Shabiba	https://shabiba.com/
Al Watan	http://alwatan.com/
Oman Daily	https://www.omandaily.om/
Qatar	
Al Araby Al Jadeed	https://www.alaraby.co.uk/
Al Raya	https://www.raya.com/
Al Sharq	https://al-sharq.com/

Al Watan	https://www.al-watan.com/
Saudi Arabia	
Al Bilad	https://albiladdaily.com/
Al Hayat	https://www.alhayat.com
Al Madina	https://www.al-madina.com/
Al Riyadh	http://www.alriyadh.com/
Al Sharq Al Awsat	https://aawsat.com/
Al Watan	https://www.alwatan.com.sa/
Al Yaum	http://www.alyaum.com/
Okaz	https://www.okaz.com.sa/
Um Al Qura	https://www.uqn.gov.sa/
Syria	
Al Thawra	http://archive.thawra.sy/
Al Watan	https://alwatan.sy/
Kassioun	https://kassioun.org/
Tishreen	http://tishreen.news.sy
UAE	
Al Bayan	https://www.albayan.ae/
Al Emarat Al youm	https://www.emaratalyoum.com/
Al Ittihad	http://www.alittihad.ae/
Al Khaleej	https://www.alkhaleej.ae/

Websites

URL	Countries of popularity	Category
aawsat.com	Saudi Arabia, Egypt	News & Media
ahlmasrnews.com	Egypt	News & Media
ahram.org.eg	Egypt	News & Media
ajel.sa	Saudi Arabia	News & Media
aksalser.com	Syria	News & Media
alanba.com.kw	Kuwait	News & Media

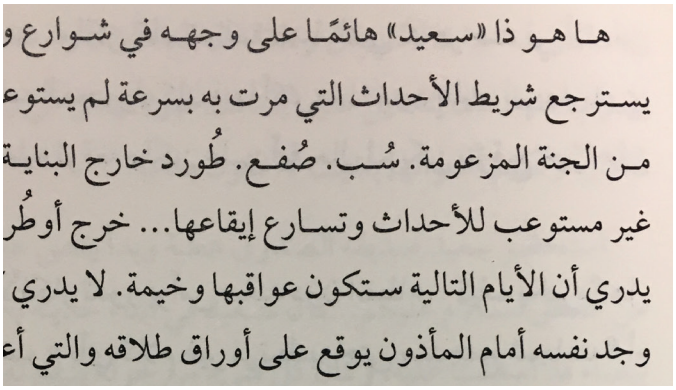
alarabiya.net	pan-Arab	News & Media
albayan.ae	UAE, Egypt, Saudi Arabia	News & Media
aleqt.com	Saudi Arabia	Finance
alghad.com	Jordan, Saudi Arabia, Egypt	News & Media
alittihad.ae	UAE, Egypt, Saudi Arabia	News & Media
aljazeera.net	pan-Arab	News & Media
almaany.com	pan-Arab	Dictionaries & Encyclopedia
almasryalyoum.com	Egypt	News & Media
alqabas.com	Kuwait, Saudi Arabia, Egypt	News & Media
alquds.co.uk	pan-Arab	News & Media
alrai.com	pan-Arab	News & Media
alraimedia.com	Kuwait	News & Media
alriyadh.com	Saudi Arabia	News & Media
alroya.om	Oman	News & Media
altibbi.com	pan-Arab	Health
alwatan.com	Oman, Egypt, Saudi Arabia	News & Media
ammonnews.net	Jordan	News & Media
annahar.com	Lebanon	News & Media
ar.islamway.net	pan-Arab	Faith And Beliefs
ar.wikipedia.org	pan-Arab	Dictionaries & Encyclopedia
arabic.rt.com	Egypt, Saudi Arabia, Syria	News & Media
argaam.com	Saudi Arabia	Finance
atyabtabkha.com	pan-Arab	Cooking & Recipies
bbc.com/arabic/sports	pan-Arab	Sports
binbaz.org.sa	Saudi Arabia, Egypt, UAE	Faith And Beliefs
elnashra.com	Lebanon	News & Media
elwatannews.com	Egypt	News & Media
emaratalyoum.com	UAE, Egypt, Saudi Arabia	News & Media
facebook.com	pan-Arab	Social Media
fatafeat.com	pan-Arab	Cooking & Recipies

islamqa.info	pan-Arab	Faith And Beliefs
islamweb.net	pan-Arab	Faith And Beliefs
khaberni.com	Jordan	News & Media
koora.com	pan-Arab	Sports
lebanondebate.com	Lebanon	News & Media
lebanonfiles.com	Lebanon	News & Media
masrawy.com	Egypt	News & Media
mawdoo3.com	pan-Arab	Dictionaries & Encyclopedia
moe.gov.jo	Jordan	Government
mumyazh.com	pan-Arab	Lifestyle
okaz.com.sa	Saudi Arabia	News & Media
orient-news.net	Syria	News & Media
raialyoum.com	Jordan	News & Media
rumonline.net	Jordan	News & Media
sabq.org	Saudi Arabia	News & Media
sarayanews.com	Jordan	News & Media
sayidaty.net	pan-Arab	Lifestyle
shaamtimes.net	Syria	News & Media
shabiba.com	Oman	News & Media
uaewomen.net	UAE	Lifestyle
yallakora.com	Egypt	Sports
youm7.com	Egypt	News & Media
yu.edu.jo	Jordan	Science & Education
zahratalkhaleej.ae	Egypt, Saudi Arabia, UAE	Arts & Entertainment

Appendix B: Sample of materials and identified typefaces*

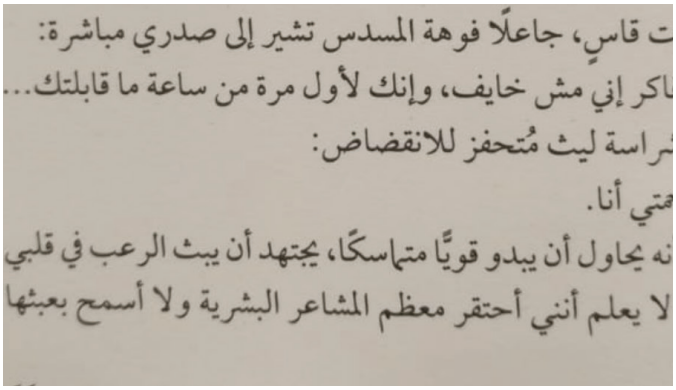
Genre: Books - Fiction
Publisher: Al Dar Al Masriah Al Lubnaniah
Country: Egypt
Title: حكاية سعيد المصري، شريف لطفي
Page: 13
Date: 2012
Typeface recognised: Lotus
Ligatures: Deactivated
Type category: Regular Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

ها هو ذا «سعيد» هائمًا على وجهه في شوارع



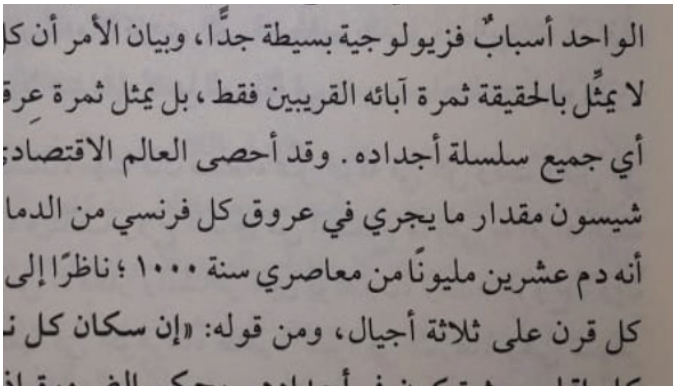
Genre: Books - Fiction
Publisher: Al Rewaq Publishing
Country: Egypt
Title: أنت: فليبدأ العبث، محمد صادق
Page: 7
Date: 2017
Typeface recognised: Lotus
Ligatures: Activated
Type category: Regular Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

قاسٍ، جاعلًا فوهة المسدس تشير إلى صدري مباشرة:



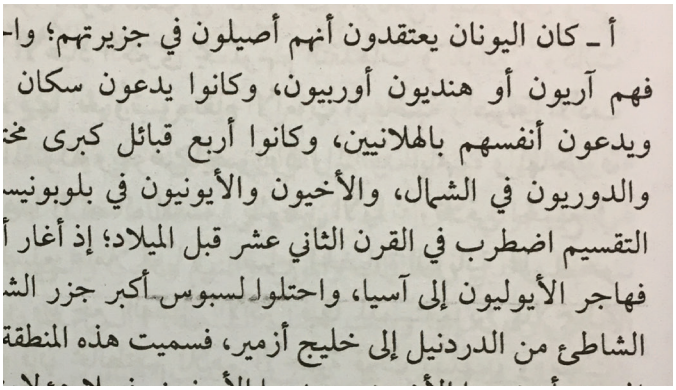
Genre: Books - Non-fiction
Publisher: Books Juice
Country: Egypt
Title: السنن النفسية لتطور الأمم، غوستاف لو بون
Page: 43
Date: 2018
Typeface recognised: Lotus
Ligatures: Activated
Type category: Regular Naskh
Notes: Linear Naskh (Muna and Sakkal Majalla) is also used in other examined materials by the same publisher

الواحد أسبابٌ فزيولوجية بسيطة جدًّا، وبيان الأمر أن



* The Appendix shows only one book from each publishing house to avoid unnecessarily extensive demonstration of the examined books. The "Notes" indicator mentions whether other categories of typefaces were used in other included materials by the same publisher. The line in red shows a sample of the identified typeface

أ ـ كان اليونان يعتقدون أنهم أصيلون في جزيرتهم


أ ـ كان اليونان يعتقدون أنهم أصيلون في جزيرتهم؛ وا-
فهم آريون أو هنديون أوربيون، وكانوا يدعون سكان
ويدعون أنفسهم بالهلانيين، وكانوا أربع قبائل كبرى مخ
والدوريون في الشمال، والأخيون والأيونيون في بلوبونيس
التقسيم اضطرب في القرن الثاني عشر قبل الميلاد؛ إذ أغار أ
فهاجر الأيوليون إلى آسيا، واحتلوا لسبوس أكبر جزر الش
الشاطئ من الدردنيل إلى خليج أزمير، فسميت هذه المنطقة

Genre: Books - Non-fiction
Publisher: Dar Al Aalam Al Arabi
Country: Egypt
Title: تاريخ الفلسفة اليونانية، يوسف كرم
Page: 13
Date: 2010
Typeface recognised: Lotus
Ligatures: Activated
Type category: Regular Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

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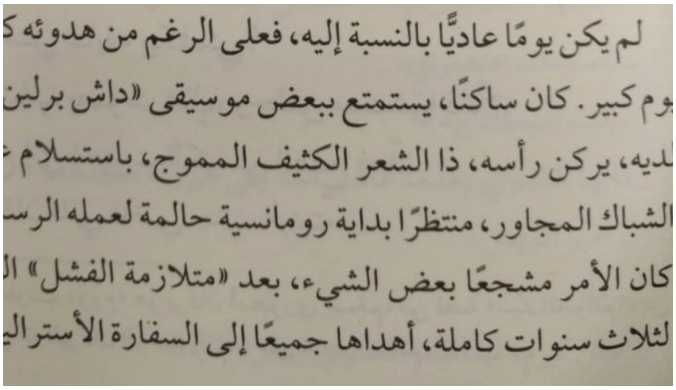
لم يكن يومًا عاديًّا بالنسبة إليه، فعلى الرغم من هدوئه


لم يكن يومًا عاديًّا بالنسبة إليه، فعلى الرغم من هدوئه ك
وم كبير. كان ساكنًا، يستمتع ببعض موسيقى «داش برلين
لديه، يركن رأسه، ذا الشعر الكثيف المموج، باستسلام
الشباك المجاور، منتظرًا بداية رومانسية حالمة لعمله الرس
كان الأمر مشجعًا بعض الشيء، بعد «متلازمة الفشل» ال
لثلاث سنوات كاملة، أهداها جميعًا إلى السفارة الأسترالي

Genre: Books - Fiction
Publisher: Dar Al Karmah (Al Karmah Books)
Country: Egypt
Title: للقتل اضغط واحد، أحمد حسين أبو الرجال
Page: 9
Date: 2017
Typeface recognised: Lotus
Ligatures: Deactivated
Type category: Regular Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

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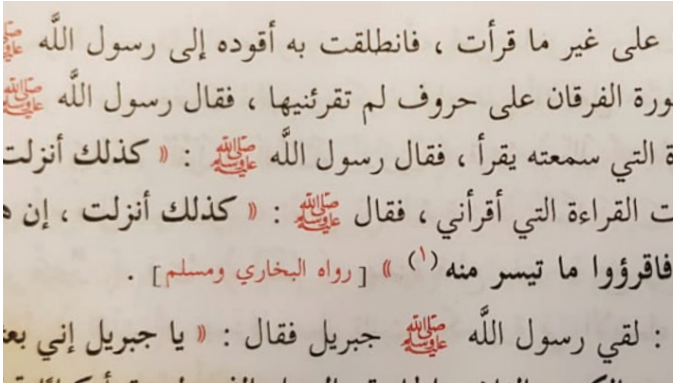
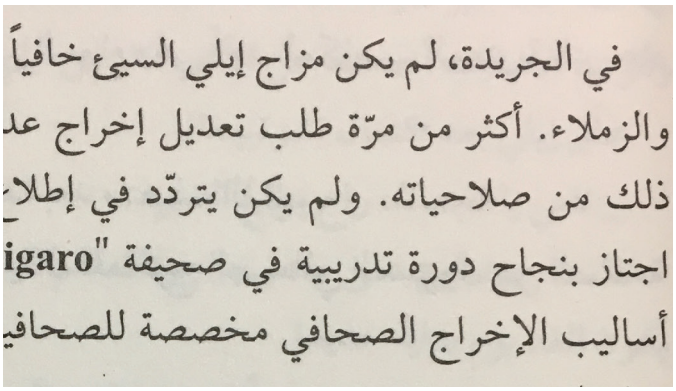
على غير ما قرأت ، فانطلقت به أقوده إلى رسول اللَّه


على غير ما قرأت ، فانطلقت به أقوده إلى رسول اللَّه
ورة الفرقان على حروف لم تقرئنيها ، فقال رسول اللَّه
ة التي سمعته يقرأ ، فقال رسول اللَّه : « كذلك أنزلت
ت القراءة التي أقرأني ، فقال : « كذلك أنزلت ، إن ه
فاقرؤوا ما تيسر منه (١) » [رواه البخاري ومسلم] .
: لقي رسول اللَّه جبريل فقال : « يا جبريل إني بع

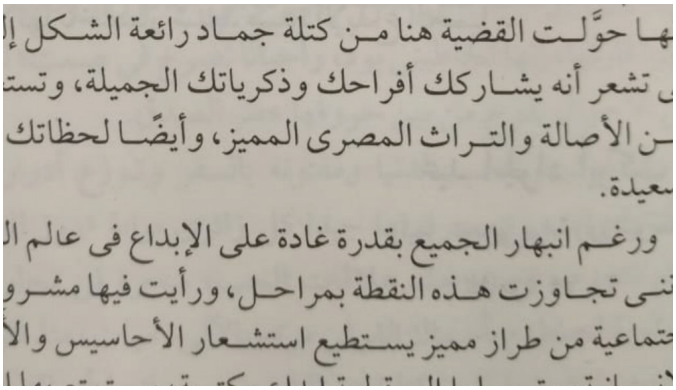
Genre: Books - Non-fiction
Publisher: Dar Al Salam
Country: Egypt
Title: الوافي في شرح الشاطبية، عبدالفتاح عبدالغني القاضي
Page: 5
Date: 2009
Typeface recognised: A_Nefel_Adeti
Ligatures: Deactivated
Type category: Regular Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

في الجريدة، لم يكن مزاج إيلي السيئ خافياً



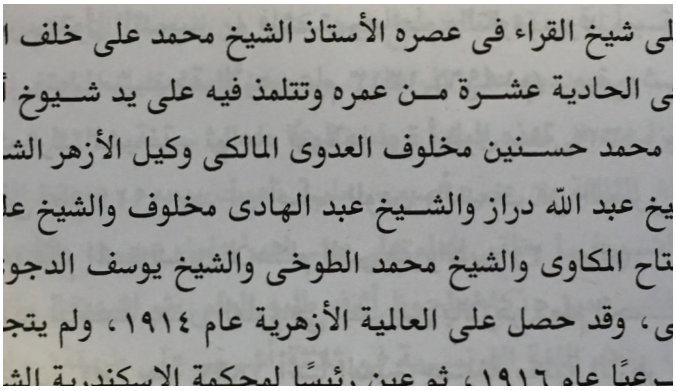
Genre: Books - Fiction
Publisher: Dar Al Tanweer
Country: Egypt
Title: تانغو الياسمين، جورج أبو زيد
Page: 17
Date: 2015
Typeface recognised: Lotus
Ligatures: Deactivated
Type category: Regular Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

حوَّلت القضية هنا من كتلة جماد رائعة الشكل



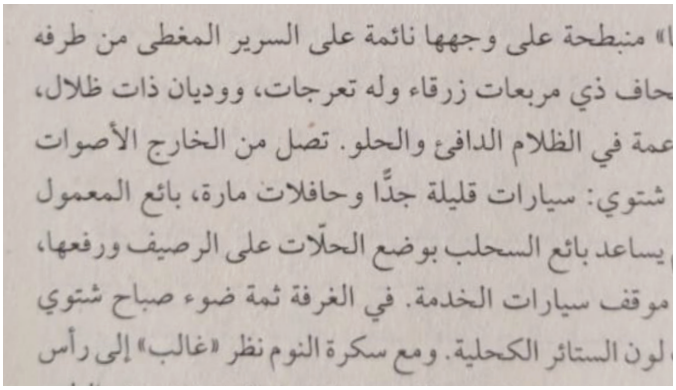
Genre: Books - Fiction
Publisher: Dar Dawen
Country: Egypt
Title: علامات الحب السبعة، غادة كريم
Page: 7
Date: 2016
Typeface recognised: Lotus
Ligatures: Deactivated
Type category: Regular Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

شيخ القراء فى عصره الأستاذ الشيخ محمد على



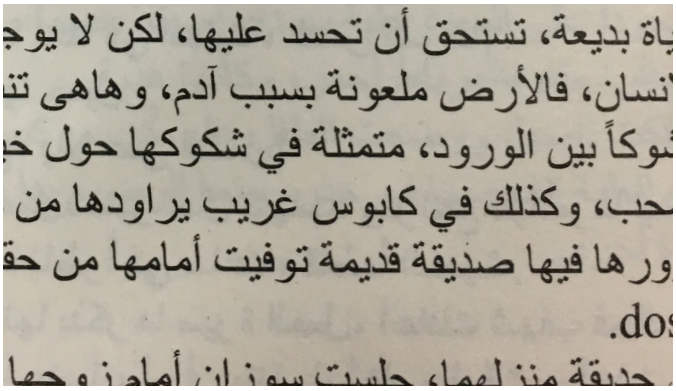
Genre: Books - Non-fiction
Publisher: Dar El Maaref Printing and Publishing
Country: Egypt
Title: أسلاك الجوهر، محيي الدين الطعمى
Page: 61
Date: 2013
Typeface recognised: Akhbar MT
Ligatures: NA
Type category: Regular Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

منبطحة على وجهها نائمة على السرير المغطى من طرفه


منبطحة على وجهها نائمة على السرير المغطى من طرفه
حاف ذي مربعات زرقاء وله تعرجات، ووديان ذات ظلال،
عمة في الظلام الدافئ والحلو. تصل من الخارج الأصوات
شتوي: سيارات قليلة جدًا وحافلات مارة، بائع المعمول
يساعد بائع السحلب بوضع الحلّات على الرصيف ورفعها،
موقف سيارات الخدمة. في الغرفة ثمة ضوء صباح شتوي
لون الستائر الكحلية. ومع سكرة النوم نظر «غالب» إلى رأس

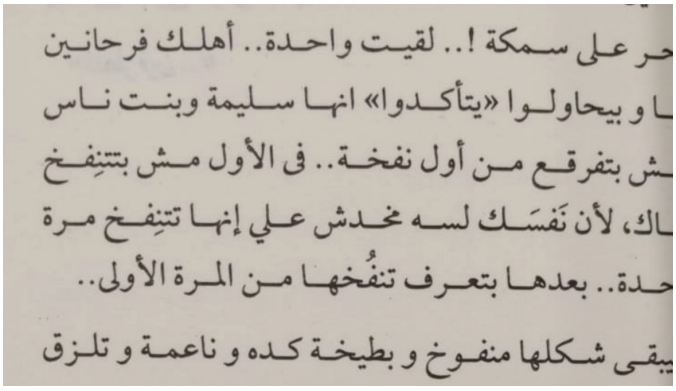
Genre: Books - Fiction
Publisher: Dar El-Shorouk
Country: Egypt
Title: الكتاب الأسود، أورهان باموق
Page: 13
Date: 2016
Typeface recognised: Lotus
Ligatures: Deactivated
Type category: Regular Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

بديعة، تستحق أن تحسد عليها، لكن لا


ياة بديعة، تستحق أن تحسد عليها، لكن لا يوج
نسان، فالأرض ملعونة بسبب آدم، وهاهى تن
شوكاً بين الورود، متمثلة في شكوكها حول خ
حب، وكذلك في كابوس غريب يراودها من
ورها فيها صديقة قديمة توفيت أمامها من حق
.dos
حديقة منذ لهما، جلست سوزان أمام زوجها

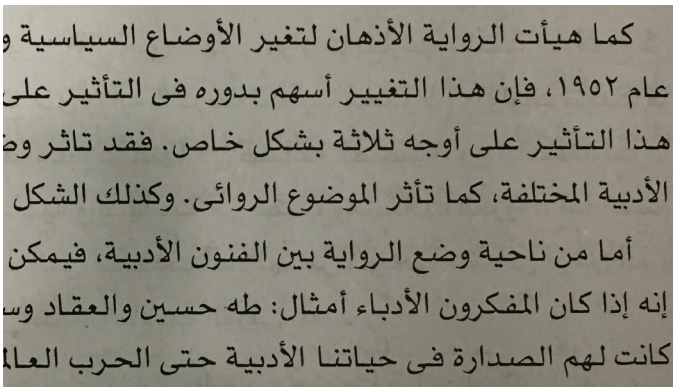
Genre: Books - Fiction
Publisher: Dar Merit (Merit Publishing House)
Country: Egypt
Title: دهّار، نبيل نزيه
Page: 9
Date: 2016
Typeface recognised: Lotus
Ligatures: NA
Type category: Regular Naskh
Notes: Simplified Arabic (Akhbar MT) is also used in other examined materials by the same publisher

عـلى سـمكة !.. لقيـت واحـدة.. أهلـك فرحانـين


حر على سمكة !.. لقيت واحدة.. أهلك فرحانين
ا و بيحاولوا «يتأكدوا» انها سليمة وبنت ناس
ش بتفرقع من أول نفخة.. فى الأول مش بتتنفخ
اك، لأن نَفَسَك لسه مخدش علي إنها تتنفخ مرة
حدة.. بعدها بتعرف تنفُخها من المرة الأولى..
يقى شكلها منفوخ و بطيخة كده و ناعمة و تلزق

Genre: Books - Fiction
Publisher: El Masri Publishing
Country: Egypt
Title: ٣٣ بلّونة حُب، إسماعيل عرفة
Page: 9
Date: 2018
Typeface recognised: Lotus
Ligatures: Activated
Type category: Regular Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

كما هيأت الرواية الأذهان لتغير الأوضاع السياسية


كما هيأت الرواية الأذهان لتغير الأوضاع السياسية و
عام ١٩٥٢، فإن هذا التغيير أسهم بدوره فى التأثير على
هذا التأثير على أوجه ثلاثة بشكل خاص. فقد تاثر وط
الأدبية المختلفة، كما تأثر الموضوع الروائى. وكذلك الشكل
أما من ناحية وضع الرواية بين الفنون الأدبية، فيمكن
إنه إذا كان المفكرون الأدباء أمثال: طه حسين والعقاد وس
كانت لهم الصدارة فى حياتنا الأدبية حتى الحرب العالم

Genre: Books - Non-fiction
Publisher: General Egyptian Book Organization
Country: Egypt
Title: رحيق الإبداع، يوسف الشارونى
Page: 13
Date: 2016
Typeface recognised: Muna
Ligatures: Deactivated
Type category: Linear Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

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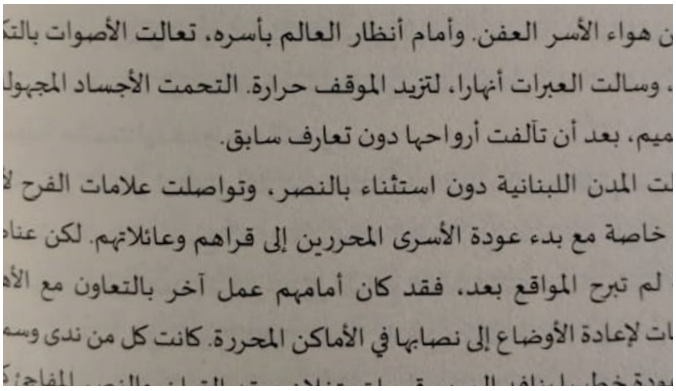
الأسر العفن. وأمام أنظار العالم بأسره، تعالت الأصوات


ن هواء الأسر العفن. وأمام أنظار العالم بأسره، تعالت الأصوات بالتك
، وسالت العبرات أنهارا، لتزيد الموقف حرارة. التحمت الأجساد المجهول
ميم، بعد أن تآلفت أرواحها دون تعارف سابق.
ت المدن اللبنانية دون استثناء بالنصر، وتواصلت علامات الفرح لا
خاصة مع بدء عودة الأسرى المحررين إلى قراهم وعائلاتهم. لكن عنا
لم تبرح المواقع بعد، فقد كان أمامهم عمل آخر بالتعاون مع الأه
ات لإعادة الأوضاع إلى نصابها في الأماكن المحررة. كانت كل من ندى وسم

Genre: Books - Fiction
Publisher: Kayan Publishing
Country: Egypt
Title: في قلبي أنثى عبرية، د.خولة حمدي
Page: 200
Date: 2013
Typeface recognised: Sakkal Majalla
Ligatures: Deactivated
Type category: Linear Naskh
Notes: Simplified Arabic (Arial Bold) and Modern Naskh (Myriad Arabic Light) are also used in other examined materials by the same publisher

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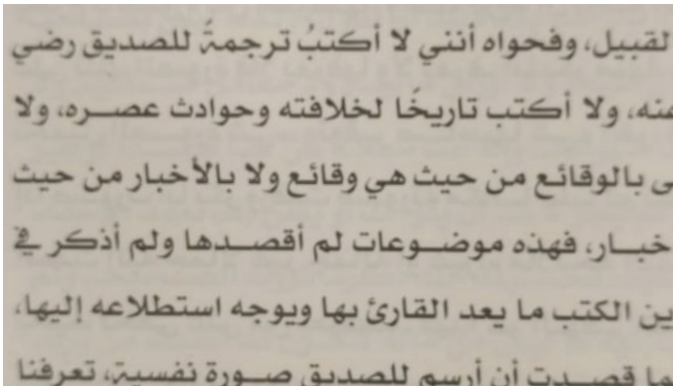
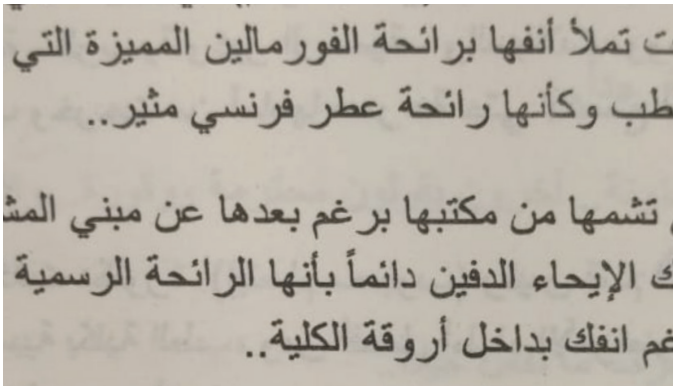
وفحواه أنني لا أكتبُ ترجمةً للصديق رضي


لقبيل، وفحواه أنني لا أكتبُ ترجمةً للصديق رضي
نه، ولا أكتب تاريخًا لخلافته وحوادث عصره، ولا
ى بالوقائع من حيث هي وقائع ولا بالأخبار من حيث
خبار، فهذه موضوعات لم أقصدها ولم أذكر في
ين الكتب ما يعد القارئ بها ويوجه استطلاعه إليها،
ما قصدت أن أرسم للصديق صورة نفسية، تعرفنا

Genre: Books - Non-fiction
Publisher: Nahdet Misr Group
Country: Egypt
Title: عبقرية الصديق، عباس محمود العقاد
Page: 3
Date: 2017
Typeface recognised: Harf Fannan
Ligatures: NA
Type category: Linear Naskh
Notes: Regular Naskh (Lotus and Al Nile) and Simplified Arabic (Geeza Pro and Arial) are also used in other examined materials by the same publisher

تملأ أنفها برائحة الفورمالين المميزة



Genre: Books - Fiction
Publisher: Noon Publishing
Country: Egypt
Title: برعاية دراكيولا
Page: 3
Date: 2018
Typeface recognised: Arial
Ligatures: NA
Type category: Simplified Arabic
Notes: Linear Naskh (Sakkal Majalla) is also used in other examined materials by the same publisher

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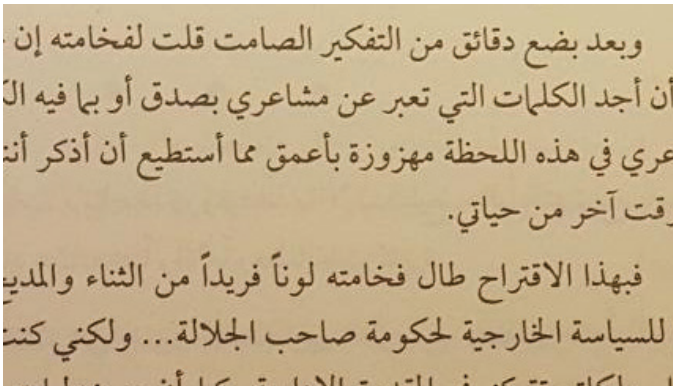
وبعد بضع دقائق من التفكير الصامت قلت لفخامته



Genre: Books - Non-fiction
Publisher: Al Ahlia
Country: Jordan
Title: الرجل الصنم مصطفى كمال أتاتورك، ضابط تركي سابق
Page: 5
Date: 2013
Typeface recognised: Lotus
Ligatures: Activated
Type category: Regular Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

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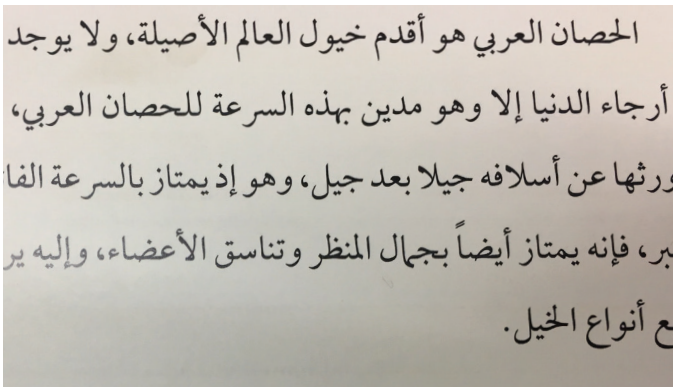
ان الاهتمام بحقل التربية بشكل عام والتربية

ان الاهتمام بحقل التربية بشكل عام والتربية الخاص
اً وثيقاً بدرجة الوعي والتحضر لأي بلد من البلدان.
عام كلما ازداد الاهتمام بحقل التربية بكل أشكالها.
وتعد التربية الورقة الرئيسية التي تراهن عليها جمي
يات لأنها تمثل العمود الفقري للبناء المستقبلي لأي دول
ان الاهتمام بالتربية الخاصة يجسد درجة الوعي و

Genre: Books - Non-fiction
Publisher: Dar Wael
Country: Jordan
Title: مدخل إلى التربية الخاصة، الدكتور قحطان أحمد الظاهر
Page: 15
Date: 2008
Typeface recognised: Times New Roman
Ligatures: NA
Type category: Simplified Arabic
Notes: Regular Naskh (Lotus) is also used in other examined materials by the same publisher

الحصان العربي هو أقدم خيول العالم الأصيلة، ولا يوجد



Genre: Books - Non-fiction
Publisher: CRSK
Country: Kuwait
Title: وثائق من تاريخ الخيول العربي الأصيلة في الكويت، عبدالله يوسف الغنيم
Page: 7
Date: 2016
Typeface recognised: Lotus
Ligatures: Activated
Type category: Regular Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

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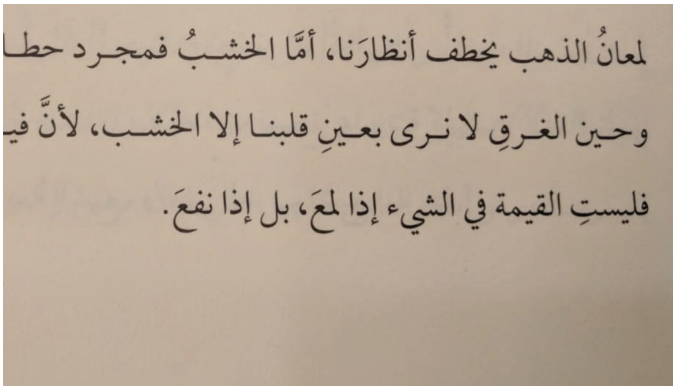
لمعانُ الذهب يخطف أنظارَنا، أمَّا الخشبُ فمجرد



Genre: Books - Non-fiction
Publisher: Dream Book
Country: Kuwait
Title: علمتني الحياة، فهد هيكل
Page: 5
Date: 2017
Typeface recognised: Lotus
Ligatures: Activated
Type category: Regular Naskh
Notes: Linear Naskh (Muna) is also used in other examined materials by the same publisher

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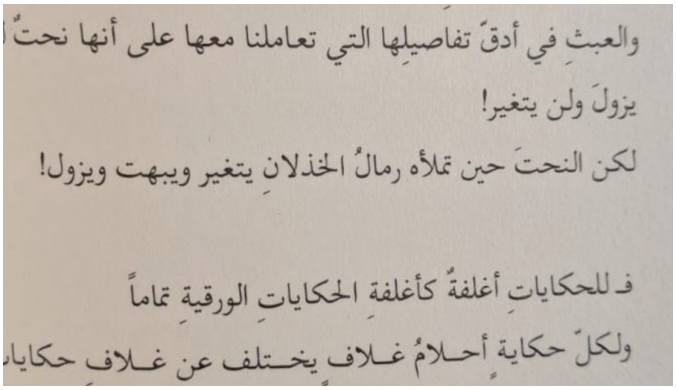
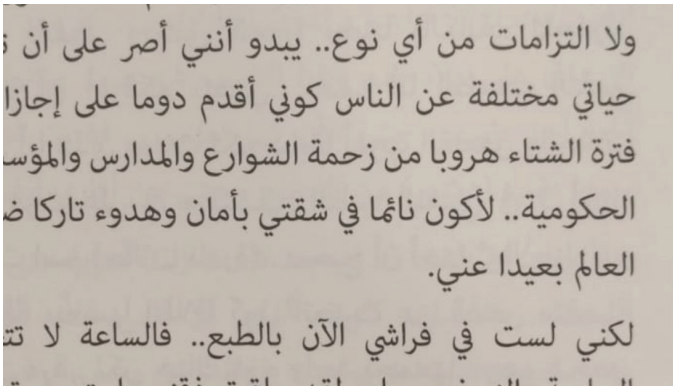
والعبث في أدق تفاصيلها التي تعاملنا معها على أنها



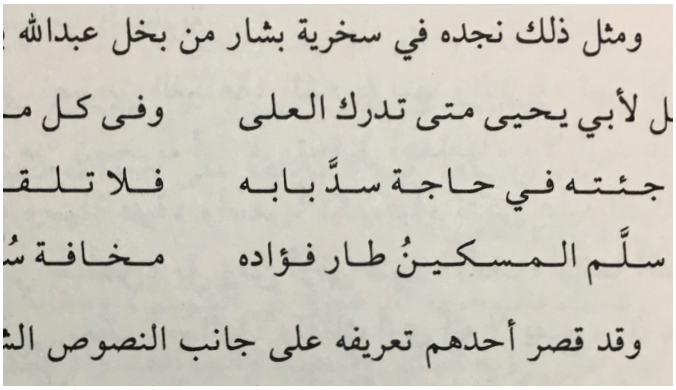
Genre: Books - Fiction
Publisher: Kalemat
Country: Kuwait
Title: الذين أحببناهم.. ولم!، شهرزاد
Page: 8
Date: 2015
Typeface recognised: Nile
Ligatures: NA
Type category: Regular Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

ولا التزامات من أي نوع.. يبدو أنني أصر على أن



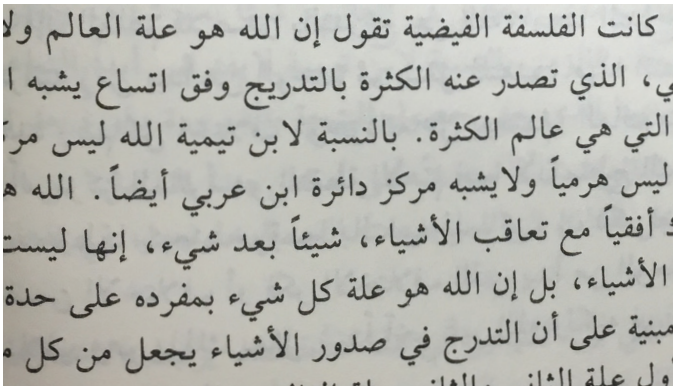
Genre: Books - Non-fiction
Publisher: Nova Plus
Country: Kuwait
Title: حالات نادرة ٤، م. عبدالوهاب السيد الرفاعي
Page: 5
Date: 2017
Typeface recognised: Adobe Arabic
Ligatures: Activated
Type category: Modern Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

ومثل ذلك نجده في سخرية بشار من بخل عبدالله



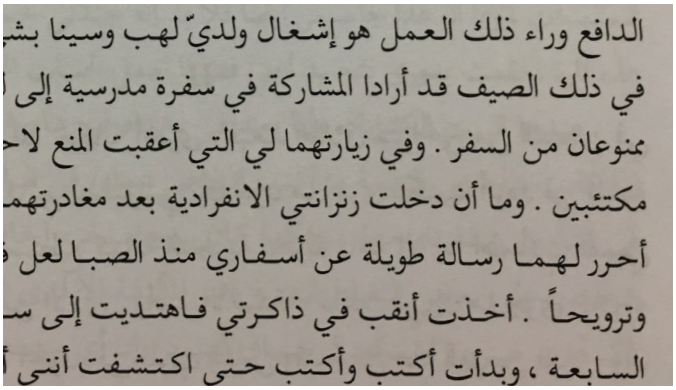
Genre: Books - Non-fiction
Publisher: Al Intishar Al Arabi
Country: Lebanon
Title: الفكاهة والسخرية في الشعر المصري، د. وئام أنس
Page: 29
Date: 2017
Typeface recognised: Lotus
Ligatures: Activated
Type category: Regular Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

كانت الفلسفة الفيضية تقول إن الله هو علة العالم



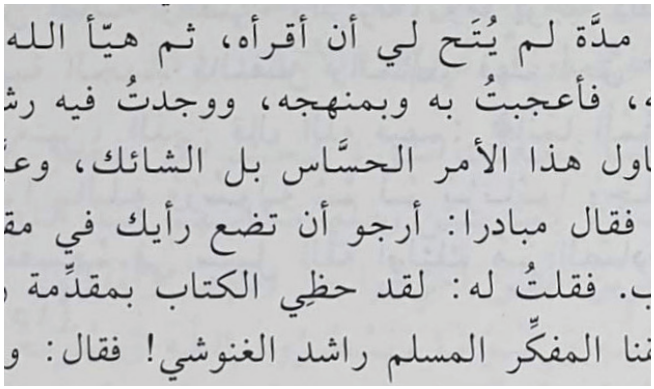
Genre: Books - Non-fiction
Publisher: Al Markaz Al Thaqafi Al Arabi
Country: Lebanon
Title: سؤال العالم، د.عبدالحكيم أجهر
Page: 8
Date: 2011
Typeface recognised: Lotus
Ligatures: Activated
Type category: Regular Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

الدافع وراء ذلك العمل هو إشغال ولديّ لهب وسينا


الدافع وراء ذلك العمل هو إشغال ولديّ لهب وسينا بش
في ذلك الصيف قد أرادا المشاركة في سفرة مدرسية إلى
ممنوعان من السفر . وفي زيارتهما لي التي أعقبت المنع لا
مكتئبين . وما أن دخلت زنزانتي الانفرادية بعد مغادرتهم
أحرر لهما رسالة طويلة عن أسفاري منذ الصبا لعل
وترويحاً . أخذت أنقب في ذاكرتي فاهتديت إلى س
السابعة ، وبدأت أكتب وأكتب حتى اكتشفت أنني

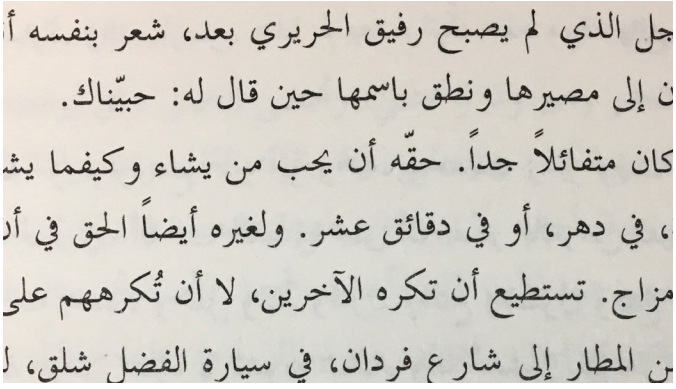
Genre: Books - Non-fiction
Publisher: Arab Institute for Research & Publishing
Country: Lebanon
Title: سلالة الطين، عطا عبدالوهاب
Page: 5
Date: 2004
Typeface recognised: Al Nile
Ligatures: NA
Type category: Regular Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

مدَّة لم يُتَح لي أن أقرأه، ثم هيّأ الله


مدَّة لم يُتَح لي أن أقرأه، ثم هيّأ الله
، فأعجبتُ به وبمنهجه، ووجدتُ فيه رش
اول هذا الأمر الحسَّاس بل الشائك، وع
فقال مبادرا: أرجو أن تضع رأيك في مق
ب. فقلتُ له: لقد حظِي الكتاب بمقدِّمة
نا المفكِّر المسلم راشد الغنوشي! فقال: و

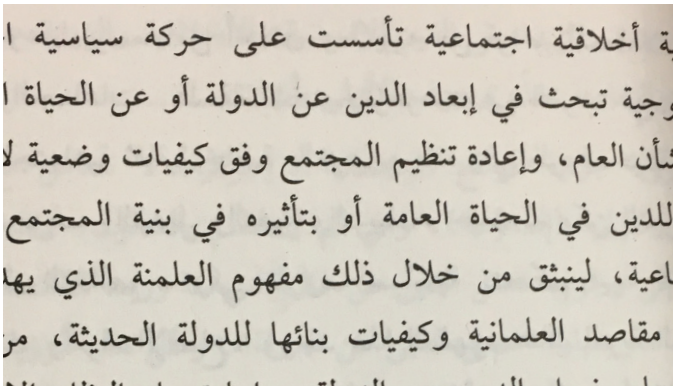
Genre: Books - Non-fiction
Publisher: Arab Network for Research and Publishing
Country: Lebanon
Title: الخلافات السياسية بين الصحابة، محمد بن مختار الشنقيطي
Page: 13
Date: 2015
Typeface recognised: Lotus
Ligatures: Deactivated
Type category: Regular Naskh
Notes: Linear Naskh (Muna) is also used in other examined materials by the same publisher

الذي لم يصبح رفيق الحريري بعد، شعر بنفسه


جل الذي لم يصبح رفيق الحريري بعد، شعر بنفسه أ
ن إلى مصيرها ونطق باسمها حين قال له: حبيّناك.
كان متفائلاً جداً. حقّه أن يحب من يشاء وكيفما يش
، في دهر، أو في دقائق عشر. ولغيره أيضاً الحق في أد
مزاج. تستطيع أن تكره الآخرين، لا أن تُكرههم على
ن المطار إلى شارع فردان، في سيارة الفضل شلق، ل

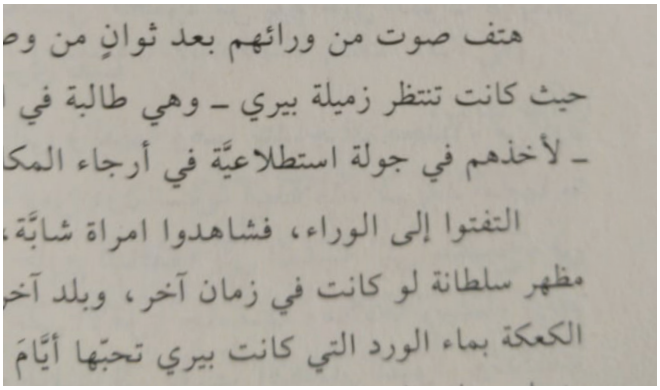
Genre: Books - Non-fiction
Publisher: Arab Scientific Publishers
Country: Lebanon
Title: الفضل شلق: تجربتي مع الحريري، جورج فرشخ
Page: 19
Date: 2006
Typeface recognised: Lotus
Ligatures: Activated
Type category: Regular Naskh
Notes: Simplified Arabic (Arial) is also used in other examined materials by the same publisher

أخلاقية اجتماعية تأسست على حركة سياسية


أخلاقية اجتماعية تأسست على حركة سياسية ا
وجية تبحث في إبعاد الدين عن الدولة أو عن الحياة ا
شأن العام، وإعادة تنظيم المجتمع وفق كيفيات وضعية لا
للدين في الحياة العامة أو بتأثيره في بنية المجتمع
اعية، لينبثق من خلال ذلك مفهوم العلمنة الذي يها
مقاصد العلمانية وكيفيات بنائها للدولة الحديثة، مر

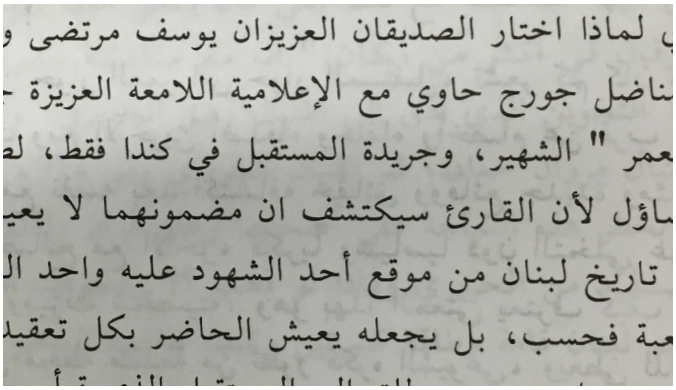
Genre: Books - Non-fiction
Publisher: Bissan Bookshop
Country: Lebanon
Title: قيام الحكم الإسلامي، سالم القمودي
Page: 27
Date: 2011
Typeface recognised: Lotus
Ligatures: Deactivated
Type category: Regular Naskh
Notes: Linear Naskh (Muna) is also used in other examined materials by the same publisher

هتف صوت من ورائهم بعد ثوانٍ من


هتف صوت من ورائهم بعد ثوانٍ من و
حيث كانت تنتظر زميلة بيري ـ وهي طالبة في
ـ لأخذهم في جولة استطلاعيَّة في أرجاء المك
التفتوا إلى الوراء، فشاهدوا امراة شابَّة
مظهر سلطانة لو كانت في زمان آخر، وبلد آخ
الكعكة بماء الورد التي كانت بيري تحبّها أيَّامَ

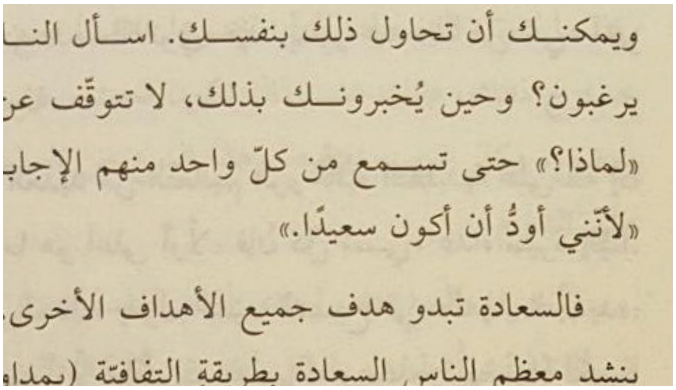
Genre: Books - Fiction
Publisher: Dar Al Adab
Country: Lebanon
Title: بنات حواء الثلاث، أليف شافاك
Page: 186
Date: 2017
Typeface recognised: Lotus
Ligatures: Deactivated
Type category: Regular Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

لماذا اختار الصديقان العزيزان يوسف مرتضى


لماذا اختار الصديقان العزيزان يوسف مرتضى و
ناضل جورج حاوي مع الإعلامية اللامعة العزيزة
عمر " الشهير، وجريدة المستقبل في كندا فقط، لـ
ساؤل لأن القارئ سيكتشف ان مضمونهما لا يعي
تاريخ لبنان من موقع أحد الشهود عليه واحد ال
عبة فحسب، بل يجعله يعيش الحاضر بكل تعقيد

Genre: Books - Non-fiction
Publisher: Dar Al Farabi
Country: Lebanon
Title: جورج حاوي في حوارات،يوسف مرتضى ومصطفى أحمد
Page: 8
Date: 2011
Typeface recognised: Lotus
Ligatures: Deactivated
Type category: Regular Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

ويمكنـــك أن تحاول ذلك بنفســك. اســأل



Genre: Books - Non-fiction
Publisher: Dar Al Ilm Lil Malayin
Country: Lebanon
Title: القوة والحرية والخير، ديباك تشوبرا
Page: 11
Date: 2015
Typeface recognised: Lotus
Ligatures: Deactivated
Type category: Regular Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

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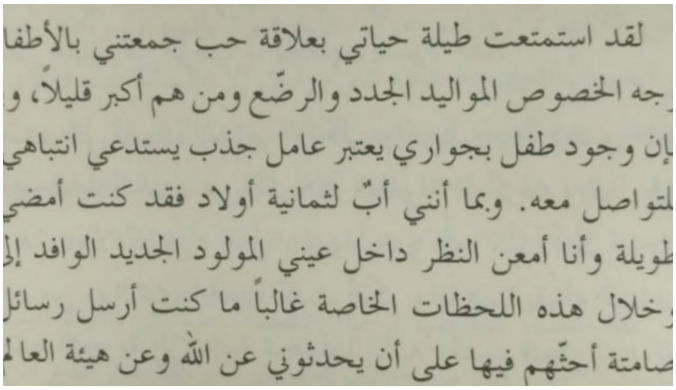
لقد استمتعت طيلة حياتي بعلاقة حب جمعتني



Genre: Books - Fiction
Publisher: Dar Al Khayal
Country: Lebanon
Title: ذكريات الجنة، د. واين داير و دي غارنيز
Page: 7
Date: 2017
Typeface recognised: Lotus
Ligatures: Activated
Type category: Regular Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

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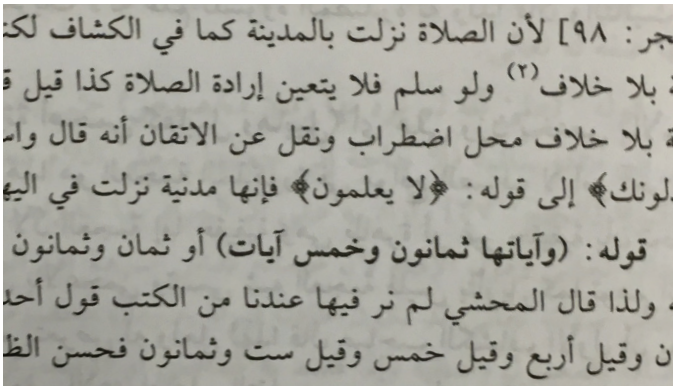
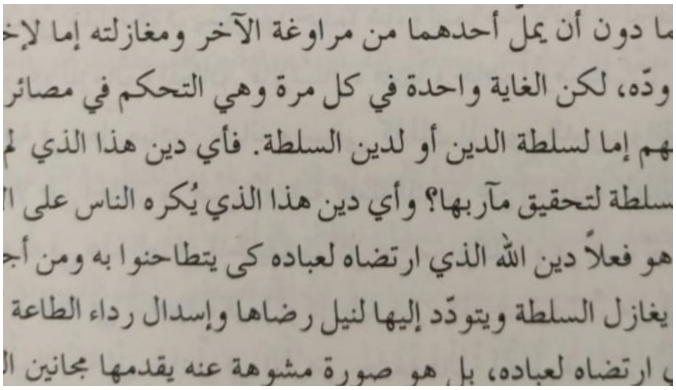
لأن الصلاة نزلت بالمدينة كما في الكشاف



Genre: Books - Non-fiction
Publisher: Dar Al Kotob Al Ilmiyah
Country: Lebanon
Title: حاشية القونوي، عصام الدين إسماعيل بن محمد الحنفي
Page: 3
Date: 2001
Typeface recognised: Lotus
Ligatures: Activated
Type category: Regular Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

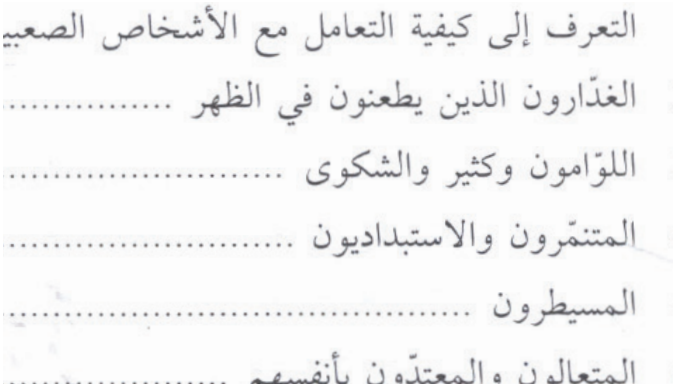
Genre: Books - Non-fiction
Publisher: Dar Al Saqi
Country: Lebanon
Title: الدين والسلطة، د.محمد شحرور
Page: 13
Date: 2014
Typeface recognised: A_Nefel_Adeti
Ligatures: NA
Type category: Regular Naskh
Notes: Linear Naskh (Muna) is also used in other examined materials by the same publisher

دون أن يملّ أحدهما من مراوغة الآخر ومغازلته



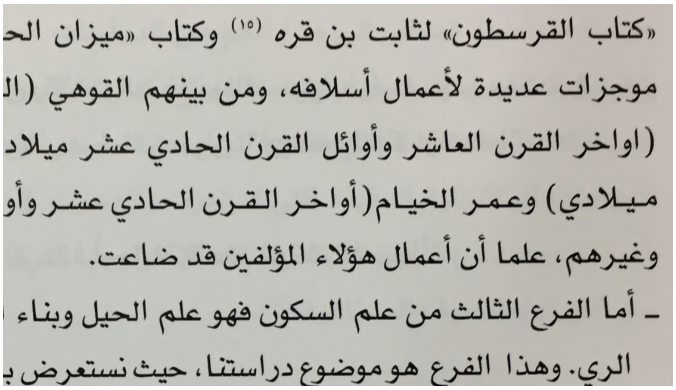
Genre: Books - Non-fiction
Publisher: Dar El Farasha
Country: Lebanon
Title: كلمات نقتل بها أولادنا، جوزيف وكارولين ميسينجر
Page: 3
Date: 2008
Typeface recognised: Lotus
Ligatures: Deactivated
Type category: Regular Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

التعرف إلى كيفية التعامل مع الأشخاص



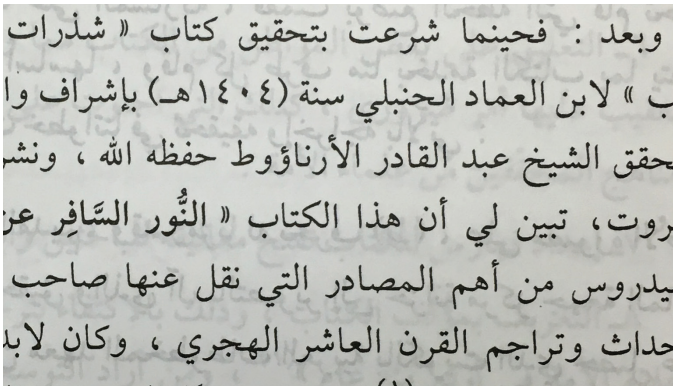
Genre: Books - Non-fiction
Publisher: Dar El Marefah
Country: Lebanon
Title: علوم الحديث الشريف، أ. د. يوسف المرعشلي
Page: 19
Date: 2011
Typeface recognised: Muna
Ligatures: Activated
Type category: Linear Naskh
Notes: Regular Naskh (Lotus) is also used in other examined materials by the same publisher

«كتاب القرسطون» لثابت بن قره [١٥] وكتاب «ميزان



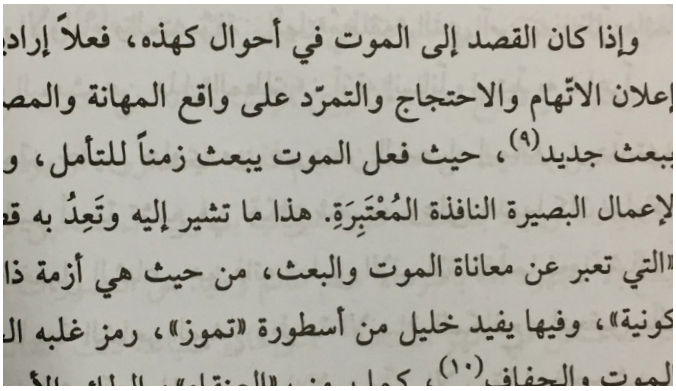
Genre: Books - Non-fiction
Publisher: Dar Sader
Country: Lebanon
Title: النور السافر، عبدالقادر العيدروس
Page: 7
Date: 2001
Typeface recognised: Lotus
Ligatures: Deactivated
Type category: Regular Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

وبعد : فحينما شرعت بتحقيق كتاب «شذرات


وبعد : فحينما شرعت بتحقيق كتاب « شذرات
ب » لابن العماد الحنبلي سنة (١٤٠٤هـ) بإشراف وا
حقق الشيخ عبد القادر الأرناؤوط حفظه الله ، ونش
روت، تبين لي أن هذا الكتاب « النُّور السَّافِر عن
يدروس من أهم المصادر التي نقل عنها صاحب
حداث وتراجم القرن العاشر الهجري ، وكان لابد

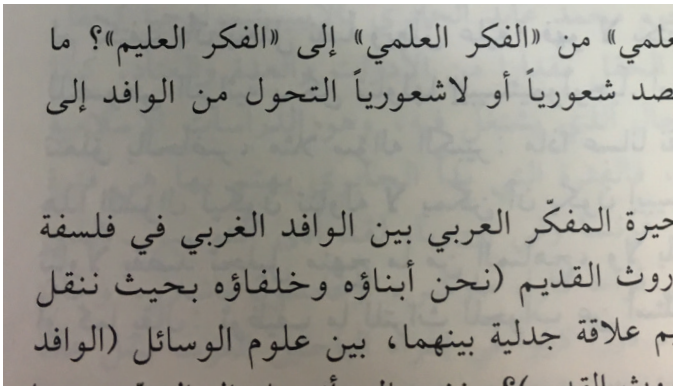
Genre: Books - Non-fiction
Publisher: Dar wa Maktabat Al-Hilal
Country: Lebanon
Title: في الأدب الحديث والثقافة، الدكتور حبيب يوسف مغنية
Page: 22
Date: 2010
Typeface recognised: Lotus
Ligatures: Deactivated
Type category: Regular Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

وإذا كان القصد إلى الموت في أحوال كهذه، فعلاً


وإذا كان القصد إلى الموت في أحوال كهذه، فعلاً إراد
إعلان الاتّهام والاحتجاج والتمرّد على واقع المهانة والمص
بعث جديد[٩]، حيث فعل الموت يبعث زمناً للتأمل، و
لإعمال البصيرة النافذة المُعْتَبِرَة. هذا ما تشير إليه وتَعِدُ به ق
«التي تعبر عن معاناة الموت والبعث، من حيث هي أزمة ذا
كونية»، وفيها يفيد خليل من أسطورة «تموز»، رمز غلبه ال
الموت والجفاف[١٠]، كما

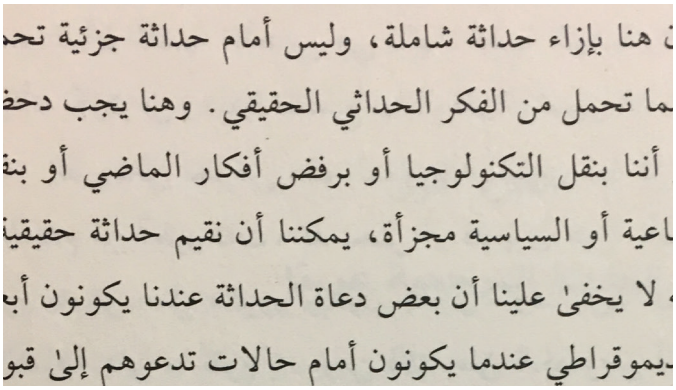
Genre: Books - Non-fiction
Publisher: Markaz Dirasat Al Wihda Al Arabiyah
Country: Lebanon
Title: العقلانية والنهضة، مركز دراسات الوحدة العربية
Page: 7
Date: 2012
Typeface recognised: Lotus
Ligatures: Deactivated
Type category: Regular Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

من «الفكر العلمي» إلى «الفكر العليم»؟ ما


علمي» من «الفكر العلمي» إلى «الفكر العليم»؟ ما
صد شعورياً أو لاشعورياً التحول من الوافد إلى

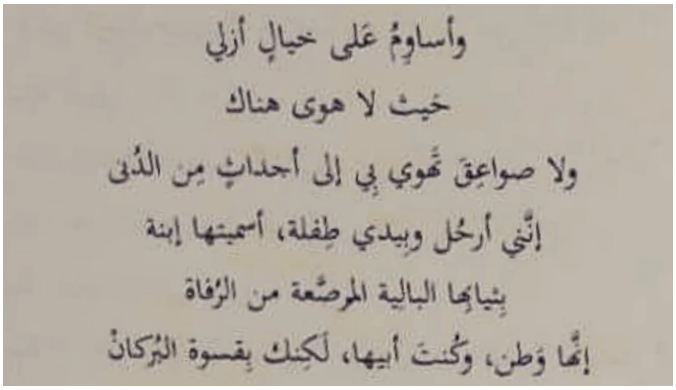
حيرة المفكّر العربي بين الوافد الغربي في فلسفة
روث القديم (نحن أبناؤه وخلفاؤه بحيث ننقل
م علاقة جدلية بينهما، بين علوم الوسائل (الوافد

هنا بإزاء حداثة شاملة، وليس أمام حداثة جزئية


هنا بإزاء حداثة شاملة، وليس أمام حداثة جزئية تحـ
ما تحمل من الفكر الحداثي الحقيقي. وهنا يجب دحـ
أننا بنقل التكنولوجيا أو برفض أفكار الماضي أو بنـ
اعية أو السياسية مجزأة، يمكننا أن نقيم حداثة حقيقيـ
لا يخفىٰ علينا أن بعض دعاة الحداثة عندنا يكونون أبـ
يموقراطي عندما يكونون أمام حالات تدعوهم إلىٰ قبو

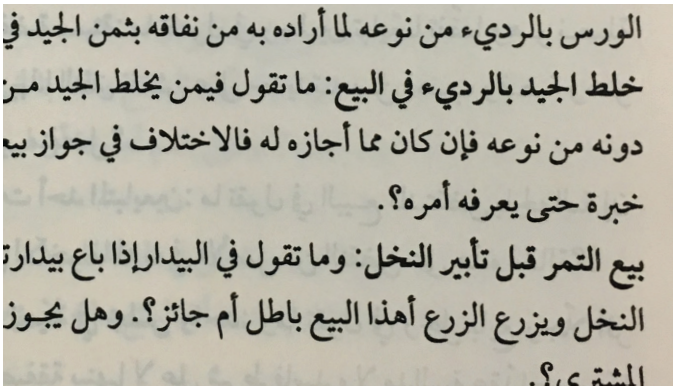
Genre: Books - Non-fiction
Publisher: Namaa Centre
Country: Lebanon
Title: الحداثة الفكرة في التأليف الفلسفي العربي المعاصر، محمد أركون -محمد الجابري- هشام جعيط
Page: 13
Date: 2014
Typeface recognised: Lotus
Ligatures: Deactivated
Type category: Regular Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

وأساوِمُ عَلى خيالٍ أزلي


وأساوِمُ عَلى خيالٍ أزلي
حَيث لا هوى هناك
ولا صواعِقَ تَهوي بِي إلى أحداثٍ مِن الدُّنى
إنَّني أرحُل وبيدي طِفلة، أسميتها إبنة
بِثيابِها البالية المرصَّعة من الرُّفاة
إنَّها وَطن، وكُنتَ أبيها، لَكِنك بِقسوة البُركانْ

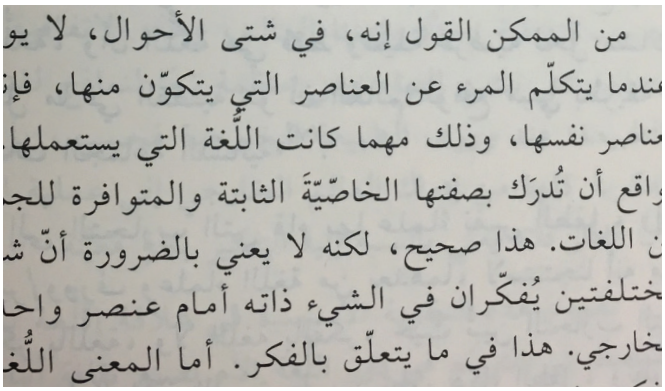
Genre: Books - Non-fiction
Publisher: Al Waraq
Country: Oman
Title: فيضان روح، علا طرابلسي
Page: 22
Date: 2018
Typeface recognised: Traditional Arabic
Ligatures: Activated
Type category: Regular Naskh
Notes: Linear Naskh (Muna) is also used in other examined materials by the same publisher

الورس بالرديء من نوعه لما أراده به من نفاقه


الورس بالرديء من نوعه لما أراده به من نفاقه بثمن الجيد في
خلط الجيد بالرديء في البيع: ما تقول فيمن يخلط الجيد مـ
دونه من نوعه فإن كان مما أجازه له فالاختلاف في جواز بيـ
خبرة حتى يعرفه أمره؟.
بيع التمر قبل تأبير النخل: وما تقول في البيدارإذا باع بيدارة
النخل ويزرع الزرع أهذا البيع باطل أم جائز؟. وهل يجـوز
المشتري؟.

Genre: Books - Non-fiction
Publisher: Ministry of Culture and Heritage
Country: Oman
Title: تمهيد قواعد الإيمان، الإمام سعيد بن خلفان الخليلي
Page: 65
Date: 2010
Typeface recognised: Lotus
Ligatures: Activated
Type category: Regular Naskh
Notes: Simplified Arabic (Unrecognised typeface) is also used in other examined materials by the same publisher

من الممكن القول إنه ، في شتى الأحوال ،


من الممكن القول إنه، في شتى الأحوال، لا يو
عندما يتكلّم المرء عن العناصر التي يتكوّن منها، فإ
عناصر نفسها، وذلك مهما كانت اللّغة التي يستعملها
واقع أن تُدرَك بصفتها الخاصّيّةَ الثابتة والمتوافرة للج
ن اللغات. هذا صحيح، لكنه لا يعني بالضرورة أنّ ش
ختلفتين يُفكّران في الشيء ذاته أمام عنصر واحـ
خارجي. هذا في ما يتعلّق بالفكر. أما المعنى اللُّغ

Genre: Books - Non-fiction
Publisher: Arab Center for Research & Policy Studies
Country: Qatar
Title: اللغة والهوية في الوطن العربي، المركز العربي للأبحاث ودراسات السياسيات
Page: 7
Date: 2012
Typeface recognised: Lotus
Ligatures: Deactivated
Type category: Regular Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

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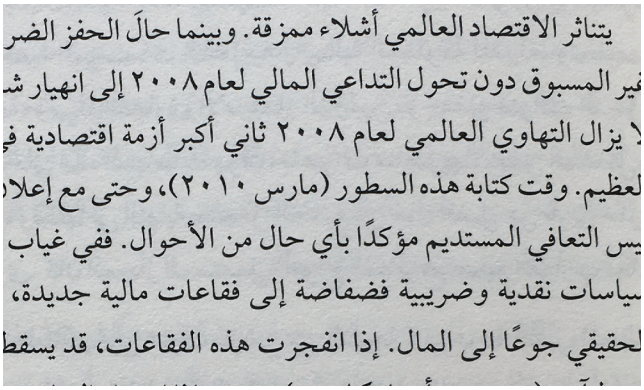
يتناثر الاقتصاد العالمي أشلاء ممزقة. وبينما حالَ الحفز


يتناثر الاقتصاد العالمي أشلاء ممزقة. وبينما حالَ الحفز الضر
غير المسبوق دون تحول التداعي المالي لعام ٢٠٠٨ إلى انهيار ش
لا يزال التهاوي العالمي لعام ٢٠٠٨ ثاني أكبر أزمة اقتصادية في
لعظيم. وقت كتابة هذه السطور (مارس ٢٠١٠)، وحتى مع إعلا
يس التعافي المستديم مؤكدًا بأي حال من الأحوال. ففي غياب
سياسات نقدية وضريبية فضفاضة إلى فقاعات مالية جديدة،
لحقيقي جوعًا إلى المال. إذا انفجرت هذه الفقاعات، قد يسقط

Genre: Books - Non-fiction
Publisher: Bloomsbury-Qatar Foundation
Country: Qatar
Title: ٢٣ حقيقة يخفونها عنك بخصوص الرأسمالية، ها-جوون تشانج
Page: 13
Date: 2013
Typeface recognised: Lotus
Ligatures: Deactivated
Type category: Regular Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

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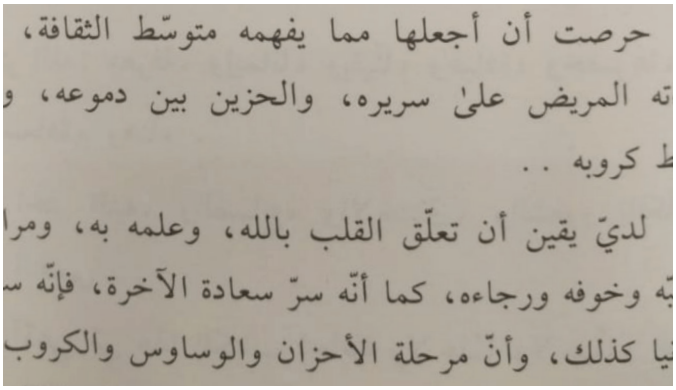
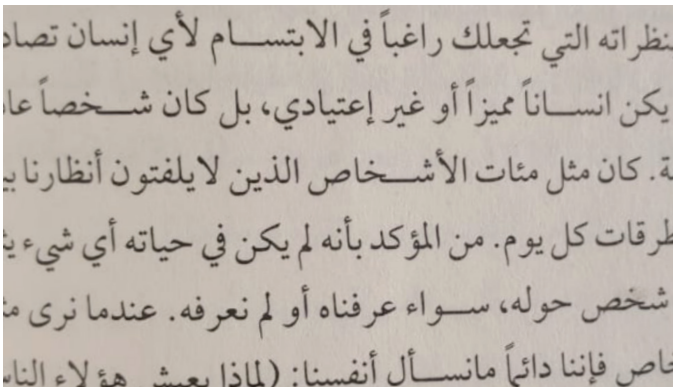
حرصت أن أجعلها مما يفهمه متوسّط الثقافة،


حرصت أن أجعلها مما يفهمه متوسّط الثقافة،
ته المريض علىٰ سريره، والحزين بين دموعه، و
ط كروبه . .
لديّ يقين أن تعلّق القلب بالله، وعلمه به، ومرا
به وخوفه ورجاءه، كما أنّه سرّ سعادة الآخرة، فإنّه س
نيا كذلك، وأنّ مرحلة الأحزان والوساوس والكروب

Genre: Books - Non-fiction
Publisher: Dar Al Hadara
Country: Saudi Arabia
Title: لأنك الله، علي بن جابر الفيفي
Page: 7
Date: 2019
Typeface recognised: Lotus
Ligatures: Dectivated
Type category: Regular Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

التي تجعلك راغباً في الابتسـام لأي إنسان



Genre: Books - Non-fiction
Publisher: Dar Athar
Country: Saudi Arabia
Title: مادونا صاحبة معطف الفرو، صباح الدين علي
Page: 8
Date: 2016
Typeface recognised: Lotus
Ligatures: Deactivated
Type category: Regular Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

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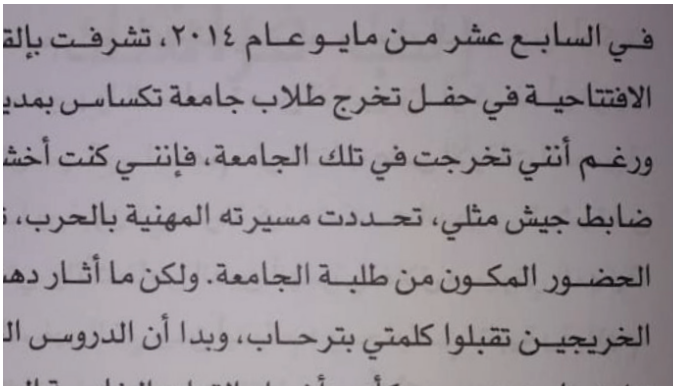
في السابع عشر من مايو عام ٢٠١٤، تشرفت



Genre: Books - Non-fiction
Publisher: Jarir Bookstore
Country: Saudi Arabia
Title: الحداثة الفكرية في التأليف الفلسفي العربي المعاصر، محمد أركون -محمد الجابري- هشام جعيط
Page: 13
Date: 2014
Typeface recognised: Muna
Ligatures: Deactivated
Type category: Linear Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

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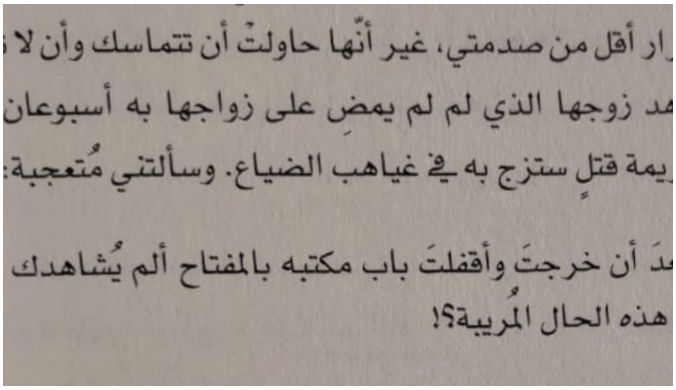
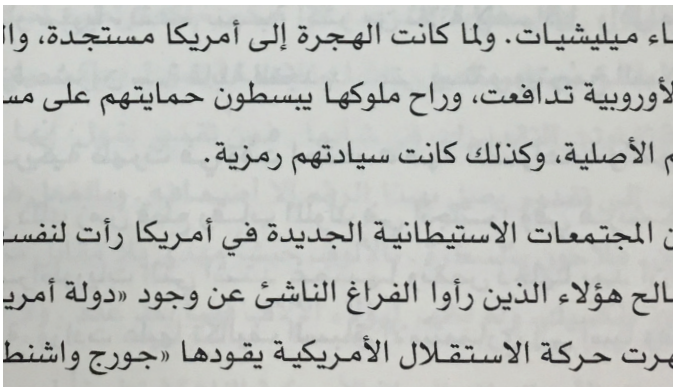
أقل من صدمتي، غير أنّها حاولتْ أن تتماسك وأن



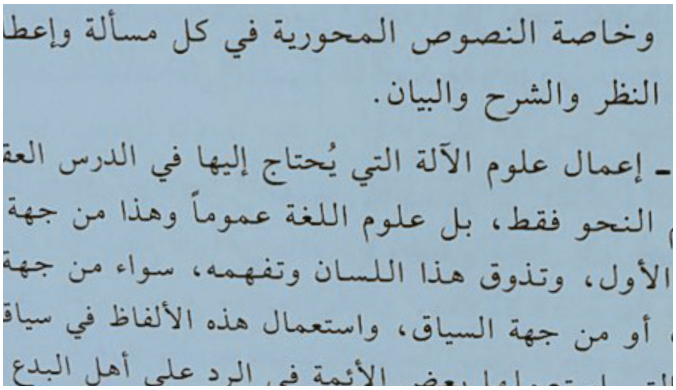
Genre: Books - Fiction
Publisher: Madarek Publishing House
Country: Saudi Arabia
Title: ثمانون عاما في انتظار الموت، عبدالمجيد الفياض
Page: 464
Date: 2017
Typeface recognised: Muna
Ligatures: Activated
Type category: Linear Naskh
Notes: Regular Naskh (Lotus) is also used in other examined materials by the same publisher

ميليشيات. ولما كانت الهجرة إلى أمريكا مستجدة،



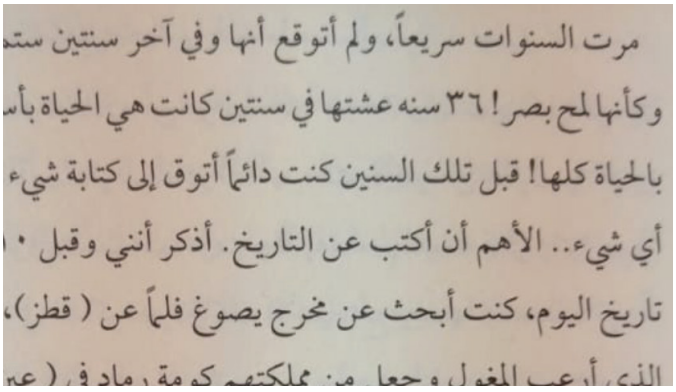
Genre: Books - Non-fiction
Publisher: Obeikan Publishers
Country: Saudi Arabia
Title: لماذا يكرهوننا؟، ناصر بن محمد الزمل
Page: 7
Date: 2004
Typeface recognised: Lotus
Ligatures: Deactivated
Type category: Linear Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

وخاصة النصوص المحورية في كل مسألة



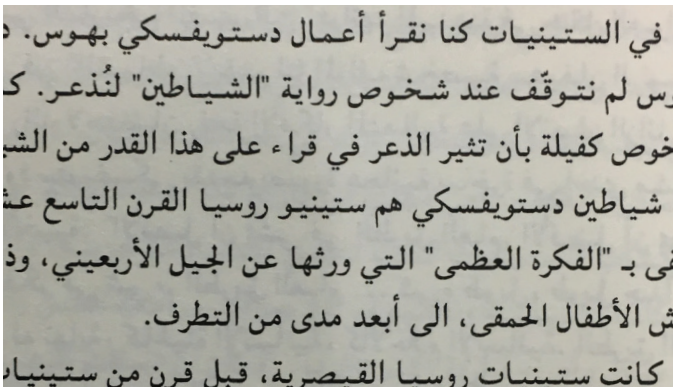
Genre: Books - Non-fiction
Publisher: Takween Studies and Research
Country: Saudi Arabia
Title: صناعة التفكير العقدي، سلطان العميري
Page: 517
Date: 2018
Typeface recognised: Lotus
Ligatures: Deactivated
Type category: Regular Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

مرت السنوات سريعاً، ولم أتوقع أنها وفي آخر سنتين



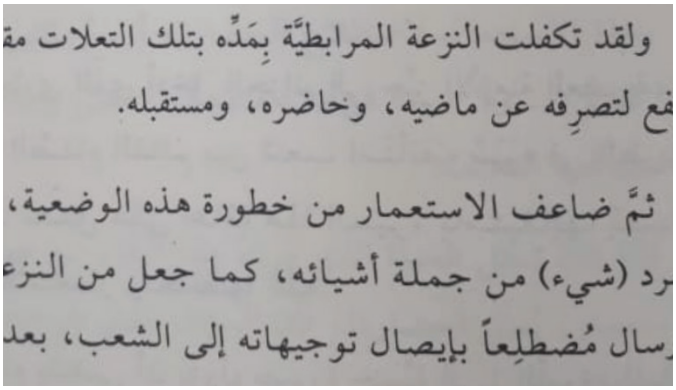
Genre: Books - Fiction
Publisher: Tashkeel Publishing and Distribution
Country: Saudi Arabia
Title: وبنين شهودا، بدر اللامي
Page: 7
Date: 2018
Typeface recognised: Lotus
Ligatures: Activated
Type category: Regular Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

في الستينيات كنا نقرأ أعمال دستويفسكي بهوس.


في الستينيات كنا نقرأ أعمال دستويفسكي بهوس.
س لم نتوقّف عند شخوص رواية "الشياطين" لنُذعر. ك
خوص كفيلة بأن تثير الذعر في قراء على هذا القدر من الش
شياطين دستويفسكي هم ستينيو روسيا القرن التاسع عش
ى بـ "الفكرة العظمى" التي ورثها عن الجيل الأربعيني، وذ
ش الأطفال الحمقى، الى أبعد مدى من التطرف.
كانت ستينات روسيا القيصرية، قبل قرن من ستينيا

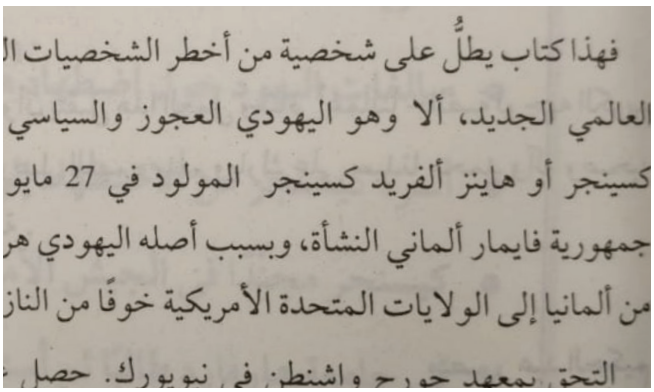
Genre: Books - Non-fiction
Publisher: Al Mada Publishing Company
Country: Syria
Title: العقلانية والنهضة، مركز دراسات الوحدة العربية
Page: 11
Date: 2006
Typeface recognised: Baghdad
Ligatures: NA
Type category: Regular Naskh
Notes: Linear Naskh (Muna) is also used in other examined materials by the same publisher

ولقد تكفلت النزعة المرابطيَّة بِمَدِّه بتلك التعلات


ولقد تكفلت النزعة المرابطيَّة بِمَدِّه بتلك التعلات مة
فع لتصرِفه عن ماضيه، وحاضره، ومستقبله.
ثمَّ ضاعف الاستعمار من خطورة هذه الوضعية،
رد (شيء) من جملة أشيائه، كما جعل من النزع
رسال مُضطلِعاً بإيصال توجيهاته إلى الشعب، بعد

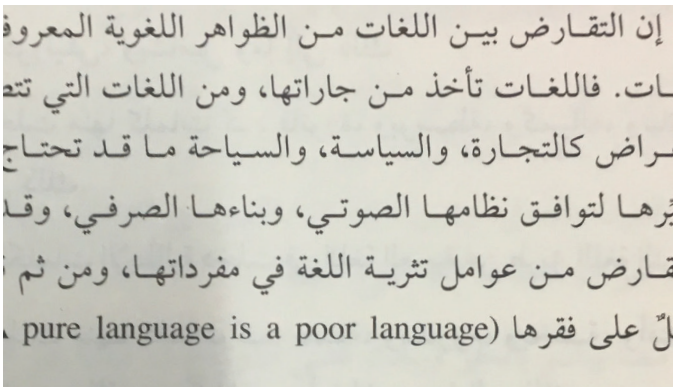
Genre: Books - Non-fiction
Publisher: Dar Al Fikr
Country: Syria
Title: القضايا الكبرى، مالك بن نبي
Page: 33
Date: 2017
Typeface recognised: Lotus
Ligatures: Deactivated
Type category: Regular Naskh
Notes: Linear Naskh (Muna) is also used in other examined materials by the same publisher

فهذا كتاب يطلُّ على شخصية من أخطر الشخصيات


فهذا كتاب يطلُّ على شخصية من أخطر الشخصيات ال
العالمي الجديد، ألا وهو اليهودي العجوز والسياسي
كسينجر أو هاينز ألفريد كسينجر المولود في 27 مايو
جمهورية فايمار ألماني النشأة، وبسبب أصله اليهودي هر
من ألمانيا إلى الولايات المتحدة الأمريكية خوفًا من النا
التحق بمعهد جورج واشنطن في نيويورك. حصل

Genre: Books - Non-fiction
Publisher: Dar Al Kitab Al Arabi
Country: Syria
Title: هنري كيسنجر، منصور عبدالحكيم
Page: 7
Date: 2018
Typeface recognised: Lotus
Ligatures: Deactivated
Type category: Regular Naskh
Notes: Linear Naskh (Muna) and Simplified Arabic (Geeza Pro) are also used in other examined materials by the same publisher

إن التقـارض بيـن اللغات مـن الـظواهر اللغوية



Genre: Books - Non-fiction
Publisher: Dar Al Qalam
Country: Syria
Title: معجم الدخيل، ف. عبدالرحيم
Page: 7
Date: 2011
Typeface recognised: Lotus
Ligatures: Deactivated
Type category: Regular Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

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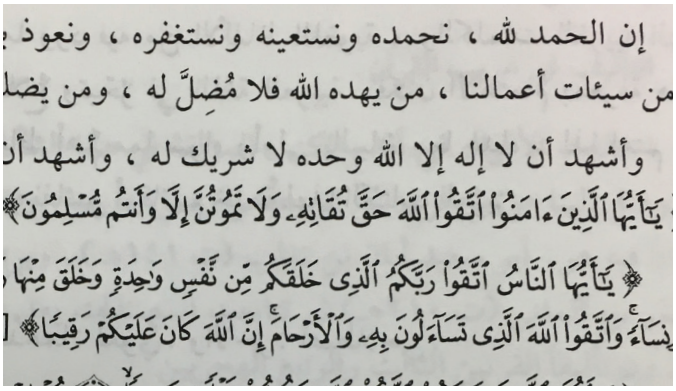
إن الحمد لله ، نحمده ونستعينه ونستغفره ،



Genre: Books - Non-fiction
Publisher: Dar Ibn Katheer
Country: Syria
Title: تفسير غريب القرآن، محمد بن إسماعيل الأمير الصنعاني
Page: 5
Date: 2000
Typeface recognised: Lotus
Ligatures: Deactivated
Type category: Regular Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

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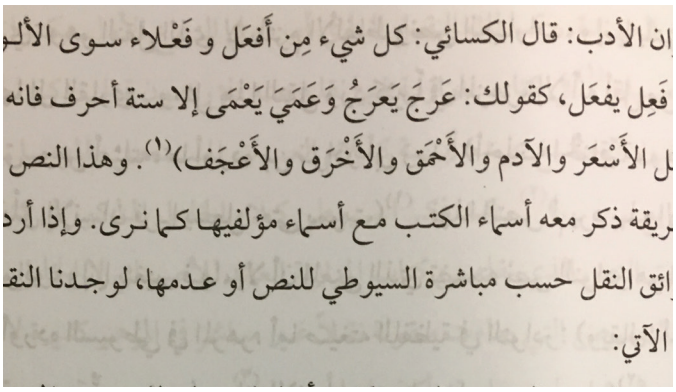
لم تكن ترجمة هذا النص عن الفرنسية بالهيِّنة.

لم تكن ترجمة هذا النص عن الفرنسية بالهيِّنة. فاللغة
بها ڤولتير هي لغة القرن الثامن عشر التي كانت تعتمد الصور
تعتمد المفاهيم، فضلاً عن أن قواعدها لم تكن قد تعقلنت تما
إلى ذلك أن ڤولتير يورد العديد من شواهده باللاتينية، وحتى
بدون ترجمة إلى الفرنسية. والنص حافل بأسماء الأعلام ا
تُشرح في الهامش استعصى فهم النص على القارئ. والأمر
يتعلق ببعض المفاهيم اللاهوتية وببعض المصطلحات الدينية

Genre: Books - Non-fiction
Publisher: Dar Petra
Country: Syria
Title: رسالة في التسامح، هنرييت عبودي
Page: 7
Date: 2009
Typeface recognised: Muna
Ligatures: Activated
Type category: Linear Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

الأدب: قال الكسائي: كل شيء مِن أَفعَل وفَعْلاء سوى


ان الأدب: قال الكسائي: كل شيء مِن أَفعَل و فَعْلاء سوى الألـ
فَعِل يفعَل، كقولك: عَرِجَ يَعرَجُ وَعَمِيَ يَعْمَى إلا ستة أحرف فانه
ل الأَسْعَر والآدم والأَحْمَق والأَخْرَق والأَعْجَف)[1]. وهذا النص
ريقة ذكر معه أسماء الكتب مع أسماء مؤلفيها كما نرى. وإذا أرد
ائق النقل حسب مباشرة السيوطي للنص أو عدمها، لوجدنا النق
الآتي:

Genre: Books - Non-fiction
Publisher: Dar Saadeddin
Country: Syria
Title: دراسة وصفية في كتاب المزهر للسيوطي، الدكتور خالد المشهداني
Page: 53
Date: 2010
Typeface recognised: Lotus
Ligatures: Activated
Type category: Regular Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

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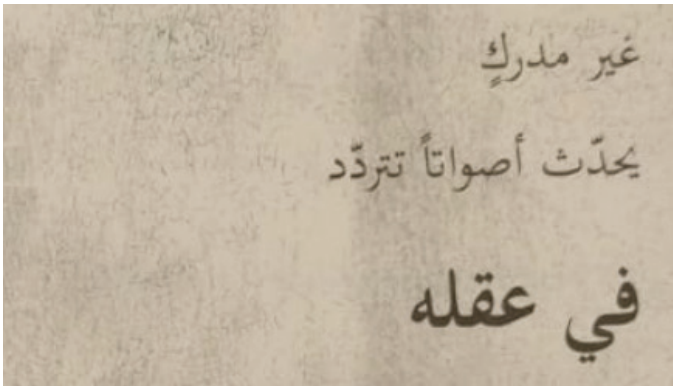
غير مدركٍ



Genre: Books - Non-fiction
Publisher: Medad
Country: UAE
Title: يسقط على غيمة، عبيد بو ملحه
Page: 13
Date: 2018
Typeface recognised: Traditional Arabic
Ligatures: Activated
Type category: Regular Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

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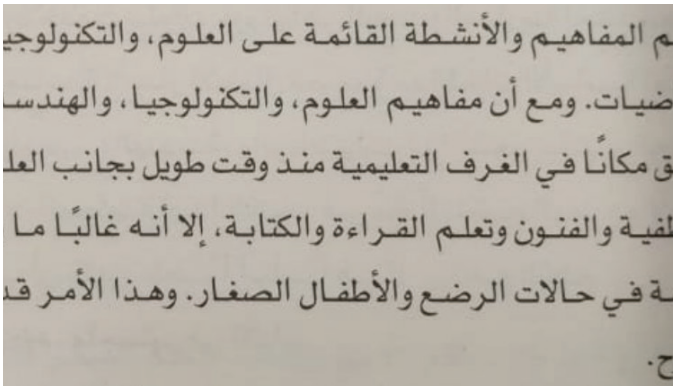
المفاهيم والأنشطة القائمة على العلوم،


م المفاهيم والأنشطة القائمة على العلوم، والتكنولوجيـ
ضيات. ومع أن مفاهيم العلوم، والتكنولوجيا، والهندسـ
ق مكانًا في الغرف التعليمية منذ وقت طويل بجانب العل
لفية والفنون وتعلم القراءة والكتابة، إلا أنه غالبًا ما
ـة في حالات الرضع والأطفال الصغار. وهذا الأمر قد
ح.

Genre: Books - Non-fiction
Publisher: Molhimon
Country: UAE
Title: خطوات الطفل نحو العلوم والتكنولوجيا والهندسة والرياضيات، جين بابر
Page: 15
Date: 2018
Typeface recognised: Muna
Ligatures: Deactivated
Type category: Linear Naskh
Notes: Examined materials by the same publisher indicate a consistent use of this type category

Genre: Newspaper
Publisher: Al Ahram
Country: Egypt
Page: 1
Date: 19 December 2018
Typeface recognised: Damascus
Ligatures: Activated
Type category: Simplified Arabic

يمر العالم بلحظة دراماتيكية كبري،حيث تتبدل



يمر العالم بلحظة دراماتيكية كبري،حيث تتبدل موازين القوي بين الشرق والغرب والجنوب والشمال، تلقي بظلالها علي دول التخوم والأطراف، ووسط هذه الأجواء يأتي عقد منتدي «إفريقيا – أوروبا» بالنمسا، بحضور زعماء ٤٩ دولة، تحت شعار «التعاون في العصر الرقمي»، محاولة لإعادة بناء علاقات شعوب القارتين، علي ركائز جديدة، ولعله من «يمن الطالع» أن تتفق نظرتا إفريقيا وأوروبا تجاه دور مصر وموقعها، باعتبارها جسر الاستقرار والتعاون والتنمية بين شمال المتوسط وجنوبه، فالفرصة سانحة لإقامة علاقات مغايرة

Genre: Newspaper
Publisher: Al Akhbar
Country: Egypt
Page: 20
Date: 19 December 2018
Typeface recognised: Muna
Ligatures: Activated
Type category: Linear Naskh

بعيداً عن التعريفات العلمية، أظن إن المرض المزمن يحترم

بعيداً عن التعريفات العلمية، أظن إن المرض المزمن يحترم «العشرة»، يسكن الجسد ولايبرحه حتى يرحل ضحيته، ولابديل عن علاج دائم للحفاظ على حياة المريض، والحد من الآثار الجانبية حال عدم توافر الدواء بصورة مستمرة.

ولاشك أن الطبيبة قبل الوزيرة د.هالة زايد تعلم تماماً، إن من يتعرض للكمات مرض مزمن يحتاج إلى علاج مستمر، وإلا لكانت القاضية من نصيبه.

الأدوية ليست «بونبون»، والعلاج ليس ترفاً، لهؤلاء الذين ابتلوا بأمراض مزمنة، من ثم فإن التعامل البيروقراطي مع مريض أضناه المرض المزمن، يعد قتلاً بطيئاً، ولكن للأسف فإن هناك

Genre: Newspaper
Publisher: Al Dostor
Country: Egypt
Page: 1
Date: 20 Novermber 2018
Typeface recognised: Muna
Ligatures: Deactivated
Type category: Linear Naskh

فى هذه الأيام يحتفل أكثر من مليار و٦٠٠ مليون

فى هذه الأيام يحتفل أكثر من مليار و٦٠٠ مليون مسلم بالمولد النبوى الشريف، أغلبهم سيحتفلون بالمولد النبوى بأكل حلوى من كل شىء ولون، وقليل منهم قد يصلون على النبى بعد أكل الحلوى أو قبلها، وأقل القليل سيقرأ أو يسمع بعضًا من سيرته، صلى الله عليه وسلم، ثم ينام الجميع ليلته قريرى العين على احتفالهم بمولد نبى الإسلام.

وهناك من المسلمين من سيشعلون الدنيا ذمًا وقدحًا فيمن سيحتفلون بالمولد ويعتبرونهم أصحاب بدع، وسيؤكدون أن الاحتفال بالمولد النبوى بدعة،

Genre: Newspaper
Publisher: Al Gomhouria
Country: Egypt
Page: 1
Date: 19 December 2018
Typeface recognised: Muna
Ligatures: Deactivated
Type category: Linear Naskh

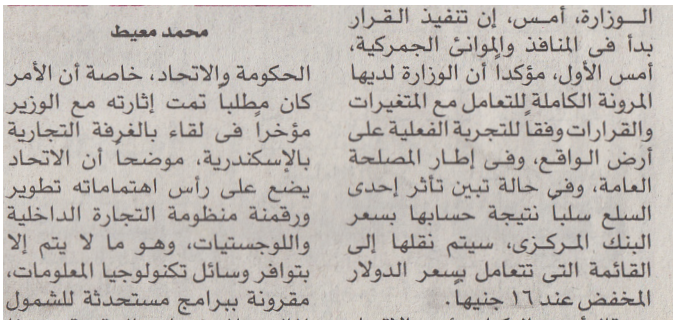
أكد الدكتور مصطفى مدبولى رئيس

أكد الدكتور مصطفى مدبولى رئيس الوزراء، وزير الإسكان على أن الرئيس عبدالفتاح السيسى يضع مشروع سد نهر روفيجى بتنزانيا، تحت رعايته الشخصية، ويتابعه مثلما يتابع المشروعات المنفذة فى مصر، كما أن المشروع سيفتح أبوابا أمام الشركات المصرية للعمل بالعديد من المشروعات سواء فى تنزانيا أو غيرها من الدول الأفريقية.

جاء ذلك خلال ترؤس د. مدبولى اجتماعا مع المهندس محسن صلاح رئيس شركة المقاولون العرب ضم عددا من مسئولى

Genre: Newspaper
Publisher: Al Masry Al Youm
Country: Egypt
Page: 1
Date: 19 December 2018
Typeface recognised: Muna
Ligatures: Deactivated
Type category: Linear Naskh

الــوزارة، أمــس، إن تنفيـذ القــرار



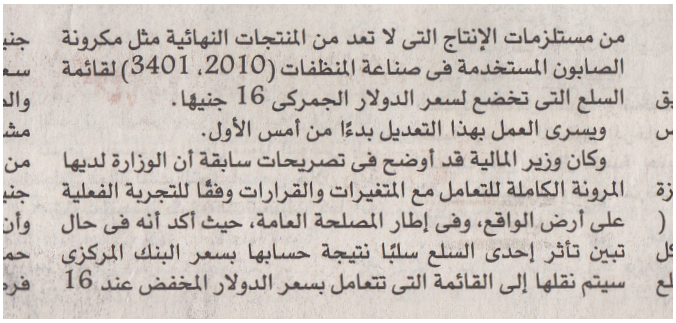
الــوزارة، أمــس، إن تنفيذ القــرار بدأ فى المنافذ والموانئ الجمركية، أمس الأول، مؤكدا أن الوزارة لديها المرونة الكاملة للتعامل مع المتغيرات والقرارات وفقا للتجربة الفعلية على أرض الـواقـع، وفـى إطـار المصلحة العامة، وفى حالة تبين تأثر إحدى السلع سلبا نتيجة حسابها بسعر البنك المـركـزى، سيتم نقلها إلى القائمة التى تتعامل بسعر الدولار المخفض عند ١٦ جنيها.

محمد معيط

الحكومة والاتحاد، خاصة أن الأمر كان مطلبا تمت إثارته مع الوزير مؤخرا فى لقاء بالغرفة التجارية بالإسكندرية، موضحا أن الاتحاد يضع على رأس اهتماماته تطوير ورقمنة منظومة التجارة الداخلية واللوجستيات، وهـو ما لا يتم إلا بتوافر وسائل تكنولوجيا المعلومات، مقرونة ببرامج مستحدثة للشمول

Genre: Newspaper
Publisher: Al Wafd
Country: Egypt
Page: 1
Date: 19 December 2018
Typeface recognised: Traditional Arabic
Ligatures: Activated
Type category: Linear Naskh

من مستلزمات الإنتاج التى لا تعد من المنتجات



من مستلزمات الإنتاج التى لا تعد من المنتجات النهائية مثل مكرونة الصابون المستخدمة فى صناعة المنظفات (2010، 3401) لقائمة السلع التى تخضع لسعر الدولار الجمركى 16 جنيها.

ويسرى العمل بهذا التعديل بدءًا من أمس الأول.

وكان وزير المالية قد أوضح فى تصريحات سابقة أن الوزارة لديها المرونة الكاملة للتعامل مع المتغيرات والقرارات وفقًا للتجربة الفعلية على أرض الواقع، وفى إطار المصلحة العامة، حيث أكد أنه فى حال تبين تأثر إحدى السلع سلبًا نتيجة حسابها بسعر البنك المركزى سيتم نقلها إلى القائمة التى تتعامل بسعر الدولار المخفض عند 16

Genre: Newspaper
Publisher: Al Watan
Country: Egypt
Page: 1
Date: 19 December 2018
Typeface recognised: Yakout
Ligatures: Activated
Type category: Simplified Arabic

على دعاوى الانغلاق والحماية من أهم التحديات

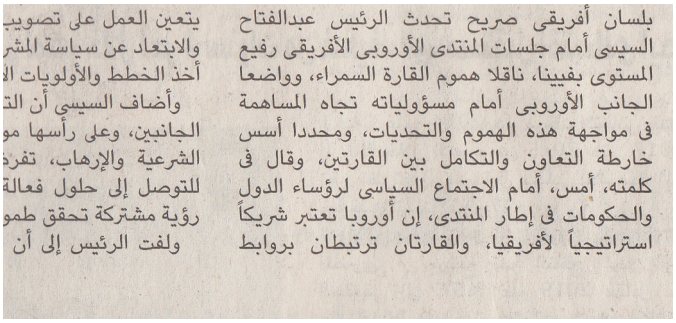


على دعاوى الانغلاق والحماية من أهم التحديات التى تواجه شعوبنا، كاشفاً عن سعى مصر لإنشاء شبكة كوابل ضوئية متطورة لربط الدول الأفريقية وتطوير كفاءة نقل البيانات بين الدول الأفريقية والأوروبية من خلال شبكة كوابل تمر بالأراضى والمياه الإقليمية المصرية.

أضاف «السيسى»، خلال كلمته فى مؤتمر «أفريقيا - أوروبا» أمس فى العاصمة النمساوية فيينا، إن التحول الرقمى وتكنولوجيا المعلومات تمثل بوابة ذهبية لتحقيق هدف النمو الاقتصادى، مؤكداً أن مصر قطعت مشواراً ملموساً فى طريق التحول الرقمى، وأنها وضعت خطة شاملة

Genre: Newspaper
Publisher: Al Youm Al Sabe'
Country: Egypt
Page: 1
Date: 19 December 2018
Typeface recognised: Yakout
Ligatures: Activated
Type category: Simplified Arabic

بلسان أفريقى صريح تحدث الرئيس عبدالفتاح



بلسان أفريقى صريح تحدث الرئيس عبدالفتاح السيسى أمام جلسات المنتدى الأوروبى الأفريقى رفيع المستوى بفيينا، ناقلا هموم القارة السمراء، وواضعا الجانب الأوروبى أمام مسؤولياته تجاه المساهمة فى مواجهة هذه الهموم والتحديات، ومحددا أسس خارطة التعاون والتكامل بين القارتين، وقال فى كلمته، أمس، أمام الاجتماع السياسى لرؤساء الدول والحكومات فى إطار المنتدى، إن أوروبا تعتبر شريكاً استراتيجياً لأفريقيا، والقارتان ترتبطان بروابط

يتعين العمل على تصويب
والابتعاد عن سياسة المشر
أخذ الخطط والأولويات ا
وأضاف السيسى أن الت
الجانبين، وعلى رأسها مو
الشرعية والإرهاب، تفرد
للتوصل إلى حلول فعالة
رؤية مشتركة تحقق طمو
ولفت الرئيس إلى أن

Genre: Newspaper
Publisher: Ashorouk
Country: Egypt
Page: 1
Date: 19 December 2018
Typeface recognised: Muna
Ligatures: Activated
Type category: Linear Naskh

قال الرئيس عبدالفتاح السيسى، إن مصر تسعى حاليا

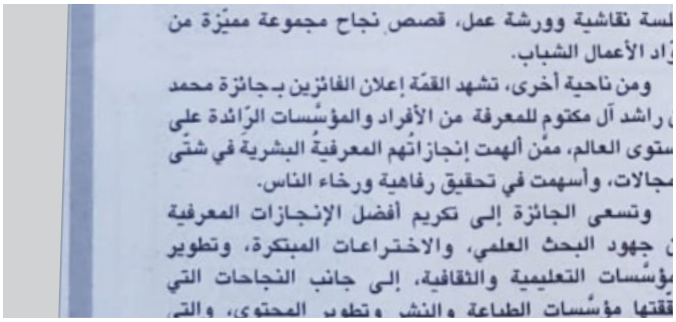


«أ. ش. أ»:
قال الرئيس عبدالفتاح السيسى، إن مصر تسعى حاليا لإقامة شبكة كوابل ألياف ضوئية متطورة لربط الدول الإفريقية ببعضها وتطوير كفاءة نقل البيانات مع أوروبا، من خلال شبكة كوابل تمر بالأراضى والمياه الإقليمية المصرية.
وأوضح الرئيس، فى كلمته أمام منتدى «إفريقيا - أوروبا» رفيع المستوى المنعقد بالعاصمة النمساوية فيينا، أمس، أن قضايا التحول الرقمى وتكنولوجيا المعلومات من أهم محفزات النمو الاقتصادى والتنمية المستدامة، وتابع: «تتطلع دولنا للمزيد من الاستثمارات الأجنبية فى مجال التحول الرقمى وتيسير شروط الائتمان الافريقية سواء

وتنمية دول القارة
فى الوقت نفسه
- المشاركون فى
الأوروبى» بالعاصمة
الاقتصادية لدعم ا
الشرعية من القارة
جاء ذلك فى
النمساوى سباستي
الإفريقى بول ك
والإفريقية، على ه

Genre: Newspaper
Publisher: Ad Dustour
Country: Jordan
Page: 1
Date: 9 December 2018
Typeface recognised: Geeza Pro (Bold)*
Ligatures: Deactivated
Type category: Simplified Arabic

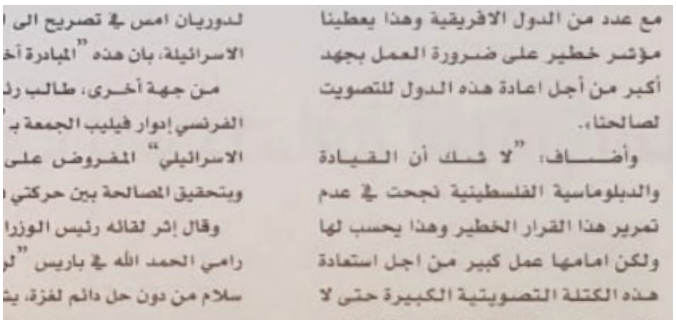
نقاشية وورشة عمل، قصص نجاح مجموعة مميّزة من



نقاشية وورشة عمل، قصص نجاح مجموعة مميّزة من
زاد الأعمال الشباب.
ومن ناحية أخرى، تشهد القمّة إعلان الفائزين بجائزة محمد
راشد آل مكتوم للمعرفة من الأفراد والمؤسّسات الرّائدة على
ستوى العالم، ممّن ألهمت إنجازاتهم المعرفيّة البشرية في شتّى
مجالات، وأسهمت في تحقيق رفاهية ورخاء الناس.
وتسعى الجائزة إلى تكريم أفضل الإنجازات المعرفية
ن جهود البحث العلمي، والاختراعات المبتكرة، وتطوير
مؤسّسات التعليمية والثقافية، إلى جانب النجاحات التي
قّقتها مؤسّسات الطباعة والنشر وتطوير المحتوى، والتي

Genre: Newspaper
Publisher: Al Anbat
Country: Jordan
Page: 1
Date: 7 December 2018
Typeface recognised: Muna (Bold)
Ligatures: Activated
Type category: Linear Naskh

مع عدد من الدول الافريقية وهذا يعطينا



مع عدد من الدول الافريقية وهذا يعطينا
مؤشر خطير على ضرورة العمل بجهد
أكبر من أجل اعادة هذه الدول للتصويت
لصالحنا».
وأضاف: "لا شك أن القيادة
والدبلوماسية الفلسطينية نجحت في عدم
تمرير هذا القرار الخطير وهذا يحسب لها
ولكن امامها عمل كبير من اجل استعادة
هذه الكتلة التصويتية الكبيرة حتى لا

لدوريان امس في تصريح الى
الاسرائيلة، بان هذه "المبادرة آخ
من جهة أخرى، طالب رئ
الفرنسي إدوار فيليب الجمعة ب
الاسرائيلي" المفروض على
وبتحقيق المصالحة بين حركتي
وقال إثر لقائه رئيس الوزرا
رامي الحمد الله في باريس "لم
سلام من دون حل دائم لغزة، يش

Genre: Newspaper
Publisher: Al Ghad
Country: Jordan
Page: 1
Date: 9 December 2018
Typeface recognised: Hacen Liner Printout
Ligatures: NA
Type category: Uncategorised typefaces

وعاصفاً وغائماً وماطراً في

وعاصفاً وغائماً وماطراً في شمال ووسط المملكة، فيما تكون غزيرة على فترات فيها، وتمتد الفعالية على فترات وبشكل أقل نحو البادية الشرقية، فيما دعت المديرية العامة للدفاع المدني، المواطنين للابتعاد عن جوانب الأودية وأماكن تشكل السيول.
(التفاصيل ص3)

Genre: Newspaper
Publisher: Al Rai
Country: Jordan
Page: 1
Date: 7 December 2018
Typeface recognised: AXT Manal Bold
Ligatures: Deactivated
Type category: Linear Naskh

قالت مندوبة رئيس الوزراء، وزيرة الدولة لشؤون الاعلام

قالت مندوبة رئيس الوزراء، وزيرة الدولة لشؤون الاعلام الناطقة باسم الحكومة جمانة غنيمات خلال افتتاح مؤتمر «نساء على خطوط المواجهة» امس بنسخته الثالثة الشرق اوسطية في فندق فور سيزن، بمشاركة ابرز النساء المؤثرات في مجال الاعلام والسياسة والاقتصاد على مستوى العالم إن رفد المجتمعات بالطاقات واستنهاض الطاقات الكامنة يتطلب اشراك جميع مكونات المجتمع بمن فيهم المراة كشريك اساسي وفعال في التنمية.
وبينت غنيمات بحضور وزيرة التخطيط والتعاون الدولي

الالياف
بدالها
ت أعلى
الشبكة
وسعتها.
انقطاع
مؤسسة
ولمدة
اعتباراً

Genre: Newspaper
Publisher: Al Anba
Country: Kuwait
Page: 1
Date: 03 December 2018
Typeface recognised: Geeza Pro (Bold)*
Ligatures: Activated
Type category: Simplified Arabic

مستدركة بأن هذه الخطوة تحتاج إلى

مستدركة بأن هذه الخطوة تحتاج إلى تشريع من مجلس الأمة». هذا، ورأت مصادر خاصة في تصريحات لـ«الأنباء» أهمية إنجاز الحكومة، ممثلة في وزير النفط ووزير الكهرباء والماء م.بخيت الرشيدي، موضوع طرح اكتتاب المواطنين بمحطة كهرباء الزور الشمالية والمحدد له قبل نهاية العام الحالي، حسب وعد الرشيدي، وذلك قبل البت في استقالته.
وقالت المصادر إن مجلس الوزراء شكل



سمو رئيس الوزراء الش
والسفير صالح اللوغاني

رئيس الوزراء: د

Genre: Newspaper
Publisher: Al Jarida
Country: Kuwait
Page: 1
Date: 03 December 2018
Typeface recognised: Geeza Pro (Bold)*
Ligatures: Dectivated
Type category: Simplified Arabic

عقب اجتماعه مع رؤساء

عقب اجتماعه مع رؤساء مجالس إدارات البنوك الكويتية، أكد محافظ بنك الكويت المركزي د. محمد الهاشل قوة أوضاع القطاع المصرفي في الكويت، ومتانة مؤشرات سلامته المالية، التي دعمتها سياسات التحوط الكلي التي انتهجها «المركزي»، والمتمثلة في جودة الأصول ومعايير كفاية رأس المال والرفع المالي والسيولة ومعدلات الربحية

أمس: «إلا أنه يتعين علينا جميعاً كبنوك وجهات رقابية أن نحافظ على هذه المنجزات، وألا يكون ذلك مدعاة للتراخي عن الاستمرار في أخذ المزيد من التحوط، بحيث نكون دائماً متيقظين وحذرين لتداعيات أي انتكاس في نمو الاقتصاد العالمي».
وأوضح أن الاجتماع شهد استعراض عدد من المواضيع المهمة، منها تطورات النمو في

Genre: Newspaper
Publisher: Al Qabas
Country: Kuwait
Page: 1
Date: 03 December 2018
Typeface recognised: Geeza Pro (Bold)*
Ligatures: Activated
Type category: Simplified Arabic

مشيرة إلى أن اللجنة ستراجع كل

مشيرة إلى أن اللجنة ستراجع كل الاستجوابات السابقة بشأن المعاقين لمعرفة أوجه القصور وردود الجهات، وما قدم من توصيات لتغطية هذا الجانب.
وفي اجتماع للجنة المالية البرلمانية، بحضور وزير الاشغال والبلدية حسام الرومي، أرجئ البت في مشروع القانون بشأن نزع الملكية والاستيلاء المؤقت للمنفعة العامة،



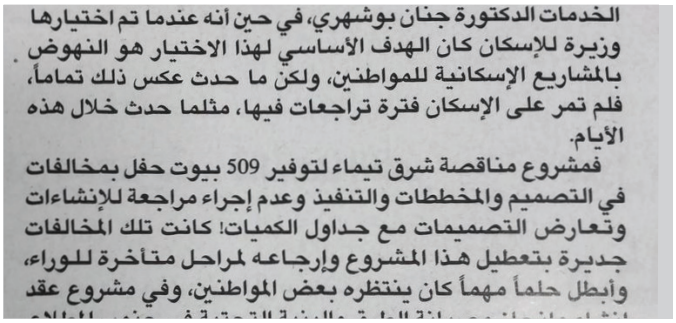
ازدحام مروري خانق في الاتجاه

المحرر الأمني

رغم أن الزحمة المرورية في بعض
الغزيرة زادت لتغلق الكثير من ا
الدوام.

Genre: Newspaper
Publisher: Al Rai al Aam
Country: Kuwait
Page: 1
Date: 03 December 2018
Typeface recognised: Geeza Pro (Bold)*
Ligatures: Activated
Type category: Simplified Arabic

الخدمات الدكتورة جنان بوشهري، في حين أنه عندما تم اختيارها


الخدمات الدكتورة جنان بوشهري، في حين أنه عندما تم اختيارها
وزيرة للإسكان كان الهدف الأساسي لهذا الاختيار هو النهوض بالمشاريع الإسكانية للمواطنين، ولكن ما حدث عكس ذلك تماماً، فلم تمر على الإسكان فترة تراجعات فيها، مثلما حدث خلال هذه الأيام.
فمشروع مناقصة شرق تيماء لتوفير 509 بيوت حفل بمخالفات في التصميم والمخططات والتنفيذ وعدم إجراء مراجعة للإنشاءات وتعارض التصميمات مع جداول الكميات! كانت تلك المخالفات جديرة بتعطيل هذا المشروع وإرجاعه لمراحل متأخرة للوراء، وأبطل حلماً مهماً كان ينتظره بعض المواطنين، وفي مشروع عقد

Genre: Newspaper
Publisher: Al Seyassah
Country: Kuwait
Page: 1
Date: 03 December 2018
Typeface recognised: Not identified
Ligatures: NA
Type category: Uncategorised typefaces

Font not available


تتجه الأنظار اليوم صوب اجتماع مجلس الوزراء بانتظار الاعلان عن قبول استقالة وزير الاشغال العامة وزير الدولة لشوون الإسكان حسام الرومي، رسمياً، وتكليف من يتولى حقيبته بالانابة الى حين انجلاء الموقف في شأن التعديل والتدوير الوزاري المرجح، فيما تزايدت حدة الضغوط التي تتعرض لها وزيرة الدولة
عقودها على تحريك دعاو
للمطالبة بتعويضات ما
لحقت بها نتيجة الغاء تلك
وقالذ
الشر
لخسا
جراء
غير
الاس
وما
الفضل: خمسة وزراء تعاقبوا على "تطاير الحصى" ولاتزال

Genre: Newspaper
Publisher: Al Watan
Country: Kuwait
Page: 1
Date: 2018
Typeface recognised: Geeza Pro
Ligatures: Deactivated
Type category: Simplified Arabic

عقب زيـــارة الـفـريـق الـركـن

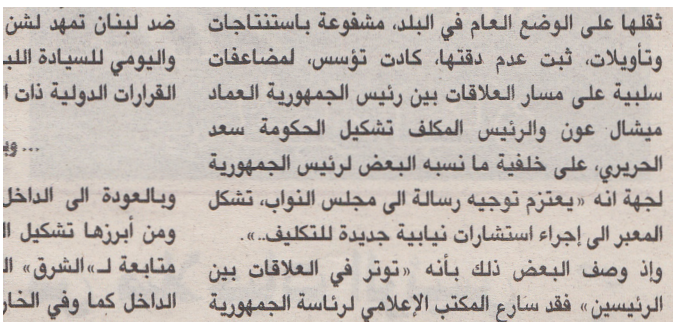

عقب زيـــارة الـفـريـق الـركـن الوطني وبالتعاون مع القوات تع
الرفاعي لمنطقة الاديرع المقام الفرنسية الصديقة خلال الفترة اله
بها التمرين الذي ينفذه الجيش من 11 الى 30 نوفمبر الحالي
الكويتي بمشاركة الحرس ان مثل هذه التمارين تعمل على تـ

المجلس

جسر مشاة يربط المست

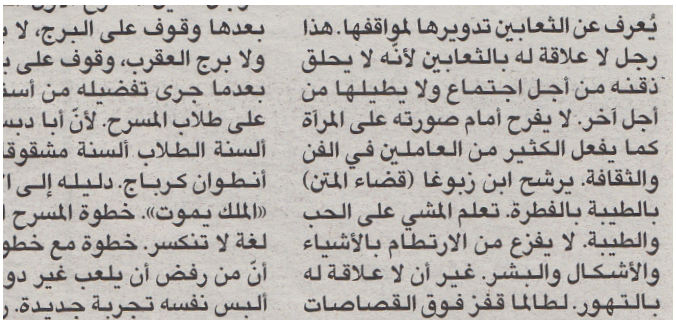
Genre: Newspaper
Publisher: El Shark
Country: Lebanon
Page: 2
Date: 08 December 2018
Typeface recognised: Geeza Pro (Bold)*
Ligatures: Deactivated
Type category: Simplified Arabic

ثقلها على الوضع العام في البلد، مشفوعة باستنتاجات


ثقلها على الوضع العام في البلد، مشفوعة باستنتاجات وتأويلات، ثبت عدم دقتها، كادت تؤسس، لمضاعفات سلبية على مسار العلاقات بين رئيس الجمهورية العماد ميشال عون والرئيس المكلف تشكيل الحكومة سعد الحريري، على خلفية ما نسبه البعض لرئيس الجمهورية لجهة انه «يعتزم توجيه رسالة الى مجلس النواب، تشكل المعبر الى إجراء استشارات نيابية جديدة للتكليف..».
واذ وصف البعض ذلك بأنه «توتر في العلاقات بين الرئيسين» فقد سارع المكتب الإعلامي لرئاسة الجمهورية
ضد لبنان تمهد لشن
واليومي للسيادة اللب
القرارات الدولية ذات ا
...
وبالعودة الى الداخل
ومن أبرزها تشكيل ا
متابعة لـ«الشرق» ال
الداخل كما وفي الخار

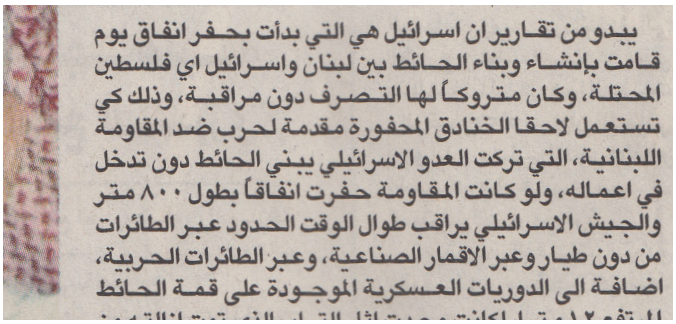
Genre: Newspaper
Publisher: Al Akhbar
Country: Lebanon
Page: 22
Date: 08 December 2018
Typeface recognised: Geeza Pro (Bold)*
Ligatures: Deactivated
Type category: Simplified Arabic

يُعرف عن الثعابين تدويرها لمواقفها. هذا


يُعرف عن الثعابين تدويرها لمواقفها. هذا
رجل لا علاقة له بالثعابين لأنّه لا يحلق
ذقنه من أجل اجتماع ولا يطيلها من
أجل آخر. لا يفرح أمام صورته على المرآة
كما يفعل الكثير من العاملين في الفن
والثقافة. يرشح ابن زبوغا (قضاء المتن)
بالطيبة بالفطرة. تعلم المشي على الحب
والطيبة. لا يفزع من الارتطام بالأشياء
والأشكال والبشر. غير أن لا علاقة له
بالتهور. لطالما قفز فوق القصاصات

Genre: Newspaper
Publisher: Addiyar
Country: Lebanon
Page: 1
Date: 08 December 2018
Typeface recognised: Geeza Pro (Bold)*
Ligatures: Deactivated
Type category: Simplified Arabic

يبدو من تقارير ان اسرائيل هي التي بدأت بحفر انفاق يوم


يبدو من تقارير ان اسرائيل هي التي بدأت بحفر انفاق يوم
قامت بإنشاء وبناء الحائط بين لبنان واسرائيل اي فلسطين
المحتلة، وكان متروكاً لها التصرف دون مراقبة، وذلك كي
تستعمل لاحقا الخنادق المحفورة مقدمة لحرب ضد المقاومة
اللبنانية، التي تركت العدو الاسرائيلي يبني الحائط دون تدخل
في اعماله، ولو كانت المقاومة حفرت انفاقاً بطول ٨٠٠ متر
والجيش الاسرائيلي يراقب طوال الوقت الحدود عبر الطائرات
من دون طيار وعبر الاقمار الصناعية، وعبر الطائرات الحربية،
اضافة الى الدوريات العسكرية الموجودة على قمة الحائط

Genre: Newspaper
Publisher: Assafir
Country: Lebanon
Page: 1
Date: 17 September 2015
Typeface recognised: Not identified
Ligatures: NA
Type category: Linear Naskh

Font not available

هذه البلاد على موعد مع ماذا؟ ليس عندها غير حاضرها. الغد لم يقطع بعد بطاقة قدومه، والماضي يتقدم بصفته المثل الشرعي للأزمنة العربية.

هنا زمن مقفل. البدائل تنسحب من التداول. البديل السلمي عن الحرب، سراب. البديل العلماني عن التوحش الديني، تيه. البديل الديموقراطي عن الاستبداد، غيمة صيف. البديل الحداثي عن التخلف، تخرُّص. البديل الوطني عن الطوائفية والمذهبية، فات أوانه. البديل التنموي العادل عن التخلف

Genre: Newspaper
Publisher: An Nahar
Country: Lebanon
Page: 1
Date: 06 December 2018
Typeface recognised: AXtFadeel
Ligatures: NA
Type category: Uncategorised typefaces

Font not available

برس" أن الرئيس قرر
سريبة، التي كانت سبباً
التي أسفرت عن مقتل
شكلت أكبر تحدٍ لرئاسة

وقال رئيس الوزراء إدوار فيليب أمام الجمعية الوطنية: "لقد تم التخلي عن الضريبة" في موازنة 2019، مشيراً الى أن الحكومة "مستعدة للحوار". واوضح أن الضريبة يمكن تعديلها أو التفاوض عليها.



Genre: Newspaper
Publisher: Al Joumhouria
Country: Lebanon
Page: 32
Date: 08 December 2018
Typeface recognised: AXtMarwan
Ligatures: NA
Type category: Uncategorised typefaces

Font not available



تحيي المغنية الأميركية الشهيرة بيونسيه حفلاً خاصاً في زفاف ابنة موكيش أمباني، أغنى رجل في الهند، وسط استعدادات باذخة وقائمة طويلة من المدعوين من الشخصيات البارزة والمشاهير ونجوم بوليوود الذين ستقلّهم 100 طائرة لحضور الزفاف.

وستُزف إيشا أمباني (27 عاماً) إلى أناند بيرامال (33 عاماً) في مومباي الثلاثاء، وستستمر الاحتفالات لثلاثة أيام. وسيحضر الزفاف عدد من نجوم بوليوود من بينهم بريانكا شوبرا. وتوقعت

Genre: Newspaper
Publisher: Al Roya
Country: Oman
Page: 1
Date: 18 December 2018
Typeface recognised: Adobe Arabic
Ligatures: Activated
Type category: Modern Naskh

ناصر المعولي رئيس جهـاز الرقابة المالية

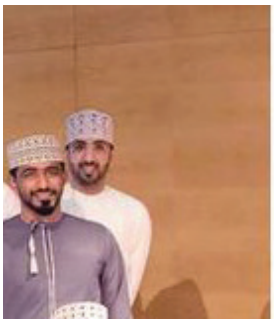
ناصر المعولي رئيس جهـاز الرقابة المالية والإدارية للدولة، برفع التقرير السـنويِّ للجهاز إلى المقام السامي لحضرة صاحب الجلالة السلطان قابوس بن سعيد المعظم

الجهود الممكنة لتحقيق أ
اختصاصاته.
وأرسل الجهاز نسخةً من ا
كل من مجلس الوزراء وه

الاحتفال بخروج «مسندم»

Genre: Newspaper
Publisher: Al Shabiba
Country: Oman
Page: 1
Date: 12 November 2018
Typeface recognised: Yakout
Ligatures: Activated
Type category: Simplified Arabic

بنك مسقط، المؤسسة المالية الرائدة



بنك مسقط، المؤسسة المالية الرائدة بالسلطنة، عن تنظيم بطولة بنك مسقط لكرة القدم وذلك بمشاركة 20 فريقاً، وبهذه المناسبة نظم البنك مؤخراً احتفالية بالمقر الرئيسي للبنك بمرتفعات المطار بحضور عدد من مسؤولي البنك وممثلي الفرق المشاركة في البطولة وعدد من الصحفيين والإعلاميين ولفيف من لاعبي المنتخبات الوطنية، حيث تم خلال الحفل إجراء مراسم قرعة البطولة والتي انطلقت يوم الأحد 11 نوفمبر وتستمر منافساتها

Genre: Newspaper
Publisher: Al Watan
Country: Oman
Page: 1
Date: 18 December 2018
Typeface recognised: Damascus (Bold)
Ligatures: Deactivated
Type category: Simplified Arabic

تفضل حضرة صاحب الجلالة السلطان قابوس بن سعيد



تفضل حضرة صاحب الجلالة السلطان قابوس بن سعيد المعظم القائد الأعلى للقوات المسلحة – حفظه الله ورعاه – فوجه بتكريم فريق قوات السلطان المسلحة للرماية، والفريق الوطني للرماية اللذين مثّلا السلطنة في عدد من المحافل الإقليمية والدولية في عام ٢٠١٨م، تقديرا للنتائج والإنجازات المشرفة التي حققها رماة الفريقين خلال مختلف البطولات والمسابقات، جاء ذلك في حفل نظمته رئاسة أركان قوات السلطان المسلحة بمبنى صندوق تقاعد وزارة الدفاع تحت رعاية معالي السيد

Genre: Newspaper
Publisher: Oman Daily
Country: Oman
Page: 1
Date: 18 December 2018
Typeface recognised: Muna (Bold)
Ligatures: Activated
Type category: Linear Naskh

رفع جهاز الرقابة المالية والإدارية للدولة

رفع جهاز الرقابة المالية والإدارية للدولة تقريره السنوي إلى المقام السامي لحضرة صاحب الجلالة السلطان قابوس بن سعيد المعظم - حفظه الله ورعاه - وذلك عن نتائج أعماله للعام ٢٠١٧م، كما أرسل الجهاز نسخةً من التقرير إلى كل من مجلس الوزراء ومجلسي الشورى والدولة، ويأتي ذلك إعمالاً لما نص عليه النظام الأساسي للدولة وقانون الرقابة المالية والإدارية للدولة.

عدد من المشاريع الاس
ستسهم في دفع عجلة التن
والاجتماعية مثل افتتاح
مسقط الدولي وصلالة،
الباطنة السريع، وتحقيق
في تقرير القدرة التنافس
٢٠١٨ بأربعة عشر مركز
وهو ما اعتبر الأعلى عالمياً
أما الظواهر القابلة للتطو
المناسبة لها، فقد تمخض
في عدة مجالات من أه

Genre: Newspaper
Publisher: Al Araby
Country: Qatar
Page: 1
Date: 20 December 2018
Typeface recognised: Damascus
Ligatures: Activated
Type category: Simplified Arabic

واصل الاحتلال الإسرائيلي، عبر تحركاته العسكرية والسياسية،

واصل الاحتلال الإسرائيلي، عبر تحركاته العسكرية والسياسية، ضغوطه على الضفة الغربية المحتلة، في محاولة لمنع أي عمليات فدائية جديدة، وذلك من خلال توسيع العقوبات الجماعية، بالتوازي مع استمرار الاعتقالات والحصار. وأقر الكنيست أمس بأغلبية 69 صوتاً مقابل 38 صوتاً، بالقراءة التمهيدية، قانوناً يقضي بطرد وترحيل عائلات منفذي العمليات الفدائية من منازلهم ونقلهم للعيش في مناطق أخرى من الضفة. ويقضي القانون بتخويل نائب قائد المنطقة الوسطى في جيش الاحتلال،

الإسرائيلي
لهذا الإجر
نداف أرغ
المنشود، ك
في العملي
يريف لفير
يمنع من ت
أن أهله أي
أن القانون

Genre: Newspaper
Publisher: Al Raya
Country: Qatar
Page: 9
Date: 12 December 2018
Typeface recognised: Raya Meten (Custom typeface)
Ligatures: NA
Type category: Linear Naskh

Font not available

كاتوفيتشي / بولندا - قنا: استعرضت دولة قطر خططها وبرامجها لتحقيق الأمن الغذائي ومبادراتها للتكيف مع التغير المناخي ضمن مشاركتها في مؤتمر التغير المناخي المنعقد حالياً في مدينة كاتوفيتشي

لجنة متابعة تنفيذ سياسات الأمن الغذائي في القطاعين الحكومي والخاص في المحاضرة التي قدّمها بعنوان "مبادرات الأمن الغذائي والتكيف مع التغير المناخي" إلى أهم التحديات التي تواجه إنتاج الغذاء في

مر
الم
في
كال
البي
على
وه

Genre: Newspaper
Publisher: Al Sharq
Country: Qatar
Page: 1
Date: 20 December 2018
Typeface recognised: Damascus (Bold)
Ligatures: Deactivated
Type category: Simplified Arabic

مليار دولار في نوفمبر . وعلى أساس شهري،



مليار دولار في نوفمبر 2017. وعلى أساس شهري، زادت أصول البنوك العاملة في قطر بنسبة 0.7%، علماً بأنها كانت تبلغ في أكتوبر السابق 1384.1 مليار ريال.ودعم الارتفاع الشهري للأصول، زيادة حجم التسهيلات الائتمانية الممنوحة في نوفمبر الماضي بنسبة 0.4% إلى 940.8 مليار ريال، مقابل 937.4 مليار ريال في أكتوبر السابق له.

تفاصيل ص 2

Genre: Newspaper
Publisher: Al Watan
Country: Qatar
Page: 6
Date: 12 December 2018
Typeface recognised: AXtTamim (Custom typeface)
Ligatures: NA
Type category: Uncategorised typefaces

Font not available

كاتوفيتشي-بولندا-قنا- استعرضت دولة قطر خططها وبرامجها لتحقيق الأمن الغذائي ومبادراتها للتكيف مع التغير المناخي ضمن مشاركتها في مؤتمر التغير المناخي المنعقد حاليا في مدينة كاتوفيتشي بجمهورية بولندا. وتطرق السيد مسعود جارالله المري، أمين سر لجنة متابعة تنفيذ سياسات الأمن الغذائي في القطاعين الحكومي والخاص في المحاضرة التي قدمها بعنوان «مبادرات الأمن الغذائي والتكيف مع التغير المناخي» إلى أهم التحديات التي تواجه إنتاج الغذاء في دولة قطر والمبادرات التي اتخذتها الدولة من أجل التكيف مع التغير

أهم الموارد الطبيعية وهي
أيضا إلى مبادرة تحويل
زراعة غير معتمدة على
على الزراعة بالمياه المعال
وفقا للمعايير العالمية،
الاستيراد والتخزين للأ
كما ألقت المحاضرة الض
في تحقيق الأمن الغذائ
الطبيعية غير المتجددة
السلع في مخازن استرا
أن دولة قطر تشارك في

Genre: Newspaper
Publisher: Al Bilad
Country: Saudi Arabia
Page: 1
Date: 14 November 2018
Typeface recognised: Geeza Pro*
Ligatures: Activated
Type category: Simplified Arabic

أعلنت مجموعة من المستثمرين بمشاركة

أعلنت مجموعة من المستثمرين بمشاركة صندوق الاستثمارات العامة السعودي إطلاق أكبر منصة للتجارة الإلكترونية في العالم العربي،وتم الإعلان امس عن هذه المنصة الضخمة، التي سيستثمر فيها صندوق الاستثمارات العامة بحصة ٥٠٪. وستباشر المنصة عملها في المملكة والإمارات في نفس الوقت، وستكون البداية من خلال عرض ٢٠ مليون منتج. وستمثل المنصة وجهة تسوق

وأشارت مصادر
الإلكتروني الجديد
تقنية ولوجستية
التطورات في قطاع
في ذلك عمليات الدف
من خلال تقديمها
عربية.
وقالت منصة (نون
إنها تعتبر وجهة بيع

Genre: Newspaper
Publisher: Al Hayat
Country: Saudi Arabia
Page: 1
Date: 7 December 2018
Typeface recognised: Damascus (Bold)
Ligatures: Deactivated
Type category: Simplified Arabic

طهـران - أ ب، رويتـرز، أ ف ب

■ طهـران - أ ب، رويتـرز، أ ف ب - اهتزّ الأمن في إيران مجدداً بعد مقتل شـرطيَين وجرح عشـرات الأشـخاص بهجوم انتحاري استهدف مقرّ الشرطة في مدينة جابهار جنوب شـرقي البلاد. وأعلـن تنظيـم سـنّي مسـؤوليته عن العملية، التـي اعتبر وزيـر الخارجية الإيراني محمد جواد ظريف أن منفذيها «مدعومون من الخارج».
وقال رحمـدل بامري، القائم بأعمال



Genre: Newspaper
Publisher: Al Madina
Country: Saudi Arabia
Page: 1
Date: 4 December 2018
Typeface recognised: Damascus (Bold)
Ligatures: Deactivated
Type category: Simplified Arabic

تستعد الدوائر الجزائية بمحاكم

تستعد الدوائر الجزائية بمحاكم وزارة العدل خلال الأسابيع المقبلة لمحاكمة ٧٣ متهمًا من بينهم رجال أعمال بالإضافة إلى وافدين يعملون في محلات تجارية على خلفية اتهامهم بالغش التجاري.
وبحسب لائحة الدعوى المرفوعة من النيابة العامة التي باشرت

للاستهلاك الآدمي من خلال التلاعب
تواريخ الإنتاج والانتهاء، بالإض
إلى بيع أدوات استهلاكية مقلدة
بينها إطارات سيارات ووسائل تد
شتوية وقضايا تتعلق بالتلاعب
أسعار وأوزان السلع والتي كان
بينها التلاعب بمضخات وقود البنز
وزيوت السيارات.

Genre: Newspaper
Publisher: Al Riyadh
Country: Saudi Arabia
Page: 1
Date: 4 December 2018
Typeface recognised: Damascus
Ligatures: Activated
Type category: Simplified Arabic

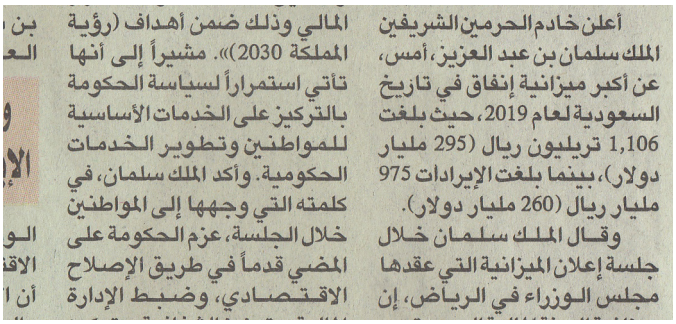
القطاع الخاص يمكن أن تنعكس على الاقتصاد المحلي



القطاع الخاص يمكن أن تنعكس على الاقتصاد المحلي بعوائد تصل إلى 175 مليار ريال؛ لذلك فالقطاع الخاص بعموم مكوناته يتأهب للقيام بدور محوري ورئيس في عملية التنمية الاقتصادية التي تعيشها البلاد، بالتزامن مع تطبيق خطط وبرامج رؤية المملكة 2030، ويعزز هذا الدور ويعلي من شأنه، الثقة الكبيرة التي توليها حكومة خادم الحرمين الشريفين للقطاع الخاص، والنظر إليه على أنه شريك حقيقي في أي نجاح يتم تحقيقه على أرض الواقع. الحكومة حريصة كل الحرص على دعم القطاع الخاص،

Genre: Newspaper
Publisher: Al Sharq Al Awsat
Country: Saudi Arabia
Page: 1
Date: 19 December 2018
Typeface recognised: Damascus
Ligatures: Activated
Type category: Simplified Arabic

أعلن خادم الحرمين الشريفين المالي وذلك ضمن أهداف (رؤية



أعلن خادم الحرمين الشريفين الملك سلمان بن عبد العزيز، أمس، عن أكبر ميزانية إنفاق في تاريخ السعودية لعام 2019، حيث بلغت 1,106 تريليون ريال (295 مليار دولار)، بينما بلغت الإيرادات 975 مليار ريال (260 مليار دولار).
وقال الملك سلمان خلال جلسة إعلان الميزانية التي عقدها مجلس الوزراء في الرياض، إن
المالي وذلك ضمن أهداف (رؤية المملكة 2030)». مشيراً إلى أنها تأتي استمراراً لسياسة الحكومة بالتركيز على الخدمات الأساسية للمواطنين وتطوير الخدمات الحكومية. وأكد الملك سلمان، في كلمته التي وجهها إلى المواطنين خلال الجلسة، عزم الحكومة على المضي قدماً في طريق الإصلاح الاقتصادي، وضبط الإدارة

Genre: Newspaper
Publisher: Al Watan
Country: Saudi Arabia
Page: 1
Date: 4 December 2018
Typeface recognised: Yakout
Ligatures: Activated
Type category: Simplified Arabic

طرحت وزارة النقل وظائف قيادية ضمن «برنامج اكتشاف

طرحت وزارة النقل وظائف قيادية ضمن «برنامج اكتشاف القادة»، أمس، بالتعاون مع وزارة الخدمة المدنية، لاستقطاب الكوادر الوطنية المؤهلة من الجنسين في إطار تحقيق أهداف رؤية 2030، نحو تمكين الشباب السعودي الطموح، مشيرة إلى أن المجال مفتوح لجميع المواطنين والمواطنات الذين ينطبق عليهم الوصف الوظيفي.

تفاصيل ص6

Genre: Newspaper
Publisher: Al Yaum
Country: Saudi Arabia
Page: 1
Date: 4 December 2018
Typeface recognised: Muna (Bold)
Ligatures: Activated
Type category: Linear Naskh

تمكنت قوات الشرعية اليمنية من استعادة السيطرة



تمكنت قوات الشرعية اليمنية من استعادة السيطرة على سلسلة جبال إستراتيجية في محافظة صعدة، أمس الإثنين.
وأكدت مصادر أن القوات اليمنية المشتركة استعادت السيطرة على سلسلة جبال الأزهور الإستراتيجية في مديرية رازح شمالي محافظة صعدة، معقل المتمردين الحوثيين.

19

Genre: Newspaper
Publisher: Okaz
Country: Saudi Arabia
Page: 1
Date: 4 December 2018
Typeface recognised: Damascus
Ligatures: Activated
Type category: Simplified Arabic

بعد مماطلة حوثية استمرت ساعات عدة، نقلت

بعد مماطلة حوثية استمرت ساعات عدة، نقلت الطائرة الأممية ٥٠ جريحاً من مليشيا الانقلاب مع مرافقيهم إلى مسقط أمس (الاثنين). وكشفت مصادر دبلوماسية في مطار صنعاء أن المبعوث الأممي مارتن غريفيث، الذي وصل العاصمة اليمنية مجدداً أمس، عبر عن استيائه من عدم إيفاء الانقلابيين بوعودهم، واصفاً المماطلة بأنها «تهرب» من مشاورات السويد. وقال مصدر حوثي وآخر من الأمم المتحدة إن غريفيث سيرافق مفاوضي الحوثي

اليوم (الثلاثاء) إلى السو
السلام المرجح أن تبدأ غداً (الأ
باسم التحالف العقيد تركي
بعرقلة دخول سفن الإغاثة مب
أيام، رغم إصدار ١٠٤ تصاري
لسفن تحمل مواد غذائية و
التحالف في بيان إنه وافق
«لدواع إنسانية وضمن إط
للمفاوضات».

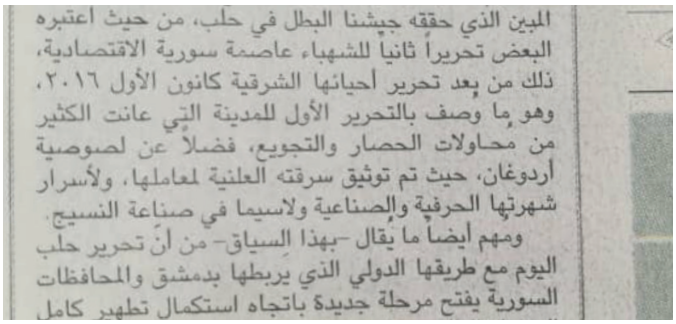
Genre: Newspaper
Publisher: Um Al Qura
Country: Saudi Arabia
Page: 1
Date: 30 November 2018
Typeface recognised: Damascus
Ligatures: Activated
Type category: Simplified Arabic

ونوه مجلس الوزراء بالزيارات الكريمة التي قام بها خادم الحرمين الشريفين

ونوه مجلس الوزراء بالزيارات الكريمة التي قام بها خادم الحرمين الشريفين إلى مناطق تبوك والجوف والحدود الشمالية، وتفضله أيده الله، خلالها بتفقد أحوال المواطنين، وتدشين وافتتاح ووضع حجر الأساس لعدد من المشروعات التنموية والتعدينية والصناعية، مما يعد دعما لمسيرة التنمية في المملكة ومواصلة تعزيز الاقتصاد الوطني وفق برامج رؤية المملكة ٢٠٣٠، وفتحاً جديداً لمزيدٍ من المشروعات العملاقة واستشراف المستقبل للإسهام في تحقيق تنمية شاملة ومتوازنة تستثمر موارد وإمكانات وثروات هذه البلاد المباركة ليعود نفعها للوطن والمواطن.

Genre: Newspaper
Publisher: Al Thawra
Country: Syria
Page: 18 February 2020
Date: 2018
Typeface recognised: Damascus
Ligatures: Activated
Type category: Simplified Arabic

المبين الذي حققه جيشنا البطل في حلب، من حيث اعتبره


المبين الذي حققه جيشنا البطل في حلب، من حيث اعتبره
البعض تحريراً ثانيا للشهباء عاصمة سورية الاقتصادية،
ذلك من بعد تحرير أحيائها الشرقية كانون الأول ٢٠١٦،
وهو ما وصف بالتحرير الأول للمدينة التي عانت الكثير
من محاولات الحصار والتجويع، فضلاً عن لصوصية
أردوغان، حيث تم توثيق سرقته العلنية لمعاملها، ولأسرار
شهرتها الحرفية والصناعية ولاسيما في صناعة النسيج.
ومهم أيضا ما يقال -بهذا السياق- من أن تحرير حلب
اليوم مع طريقها الدولي الذي يربطها بدمشق والمحافظات
السورية يفتح مرحلة جديدة باتجاه استكمال تطهير كامل

Genre: Newspaper
Publisher: Al Watan
Country: Syria
Page: 1
Date: 12 December 2018
Typeface recognised: Damascus
Ligatures: Activated
Type category: Simplified Arabic

تابعة لتنظيمه الإرهابي، أن الشمال

تابعة لتنظيمه الإرهابي، أن الشمال «يشهد حالة من الترقب والاستعداد» بعد ورود معلومات إليهم عن حشود للجيش والقوات الرديفة والحليفة على خطوط التماس في إدلب منذ قرابة الشهر ونصف الشهر تقريباً، لافتاً إلى استمرار التحشيد.
ولفت الشامي إلى أن الحشود أبرزها

الممر الإرهابي المراد تشكيله شرق

الممر الإرهابي المراد تشكيله شرق الفرات».
وأضاف: «ليس من الممكن بمكان أن نقف صامتين دون أن نبدي ردة فعل حيال أي تطورات بالعراق وسورية، اللتين تمتدان على طول كافة الحدود الجنوبية لتركيا.
على صعيد مواز، كثف الجيش

Genre: Newspaper
Publisher: Kassioun
Country: Syria
Page: 1
Date: 19 November 2018
Typeface recognised: Damascus (Bold)*
Ligatures: Deactivated
Type category: Simplified Arabic

أقرّت الجمعية العامة للأمم المتحدة، يوم السبت



أقرّت الجمعية العامة للأمم المتحدة، يوم السبت الفائت، قراراً يُعيد التأكيد على الهوية السورية للجولان المحتل، وذلك من بين تسعة قرارات جميعها تدين الكيان الصهيوني.
من المعروف أنّ قرارات الجمعية العامة للأمم المتحدة، هي قرارات غير ملزمة، وليس جديداً شبه الإجماع الذي يدين الكيان الصهيوني سنوياً عبر الجمعية العامة بما يخص احتلال الجولان، ولكن الجديد هذه المرة هو أنّ الولايات المتحدة بدّلت

Genre: Newspaper
Publisher: Tishreen
Country: Syria
Page: 1
Date: 12 December 2018
Typeface recognised: Geeza Pro (Bold)*
Ligatures: Deactivated
Type category: Simplified Arabic

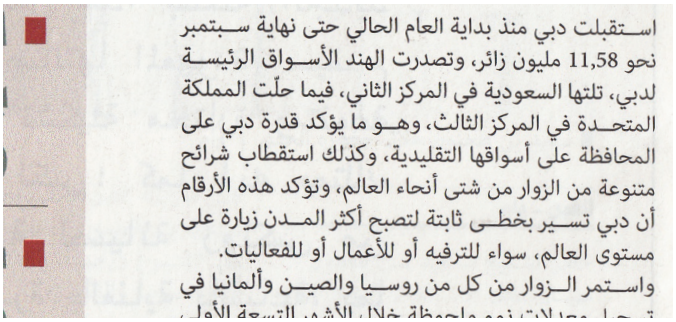
وتم قبل عام الانتهاء من إخراج جثامين الشهداء

وتم قبل عام الانتهاء من إخراج جثامين الشهداء المدنيين والعسكريين من إحدى المقابر الجماعية بريف الرقة ممن أقدم تنظيم «داعش» الإرهابي على إعدامهم خلال سيطرته على المنطقة، حيث تم آنذاك إخراج جثامين ١١٥ شهيداً من المقبرة الجماعية الواقعة قرب بلدة الواوي التابعة لناحية دبسي عفنان وجرى نقل الجثامين إلى المشفى العسكري بحلب لاستكمال الإجراءات القانونية وتم التعرف على أسماء عدد من الشهداء وتواصلت الجهود للتعرف على البقية.

الجيش متمركزة
الشمالي اشتبكت
إرهابية متسللة ع
مدينة اللطامنة وأ
وتتصدى وح
الشمالي لمحاولا
خرق اتفاق المنط
التسلل والاعتداء
العسكرية في المنط
وفي سياق

Genre: Newspaper
Publisher: Al Bayan
Country: UAE
Page: 1
Date: 10 December 2018
Typeface recognised: Adobe Arabic
Ligatures: Deactivated
Type category: Modern Naskh

اســتقبلت دبي منذ بداية العام الحالي حتى نهاية ســبتمبر



اســتقبلت دبي منذ بداية العام الحالي حتى نهاية ســبتمبر نحو 11,58 مليون زائر، وتصدرت الهند الأســواق الرئيســة لدبي، تلتها السعودية في المركز الثاني، فيما حلّت المملكة المتحــدة في المركز الثالث، وهــو ما يؤكد قدرة دبي على المحافظة على أسواقها التقليدية، وكذلك استقطاب شرائح متنوعة من الزوار من شتى أنحاء العالم، وتؤكد هذه الأرقام أن دبي تســير بخطــى ثابتة لتصبح أكثر المــدن زيارة على مستوى العالم، سواء للترفيه أو للأعمال أو للفعاليات.
واســتمر الــزوار من كل من روســيا والصيــن وألمانيا في

Genre: Newspaper
Publisher: Al Emarat Al youm
Country: UAE
Page: 1
Date: 2018
Typeface recognised: Greta Arabic
Ligatures: Activated
Type category: Modern Naskh

أفــادت دائــرة السياحة والتسويق والصين وألمانيا استمرت في تسجيل

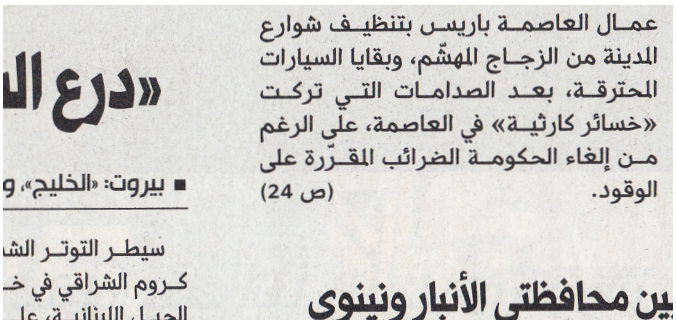
أفــادت دائــرة السياحة والتسويق التجاري في دبي، أمس، بأن الإمارة حافظت على عدد زوّارها خلال الأشهر التسعة الأولى من العام الجاري، باستقبالها 11,58 مليون زائر، مقارنة بالفترة نفسها من العام الماضي، مؤكدة أن دبي تسير بخُطى ثابتة لتصبح أكثر المدن زيارة في العالم، سواء للترفيه أو للأعمال أو للفعاليات.

والصين وألمانيا استمرت في تسجيل معدلات نمو ملحوظة، خلال الأشهر التسعة الأولى من عام 2018، مقارنة بالفترة ذاتها من عام 2017.

وقال المدير العام للدائرة، هلال سعيد المري، إن «الأشهر التسعة الأولى من العام الجاري، شهدت أداء ثابتاً في أسواقنا الرئيسة التقليدية، التي دعمها النمو القوي في المزيد من

Genre: Newspaper
Publisher: Al Khaleej
Country: UAE
Page: 1
Date: 10 December 2018
Typeface recognised: Al Khaleej (custom typeface)
Ligatures: NA
Type category: Uncategorised typefacse

Font not available


عمال العاصمة باريس بتنظيف شوارع المدينة من الزجاج المهشّم، وبقايا السيارات المحترقة، بعد الصدامات التي تركت «خسائر كارثية» في العاصمة، على الرغم من إلغاء الحكومة الضرائب المقرّرة على الوقود. (ص 24)

«درع ال

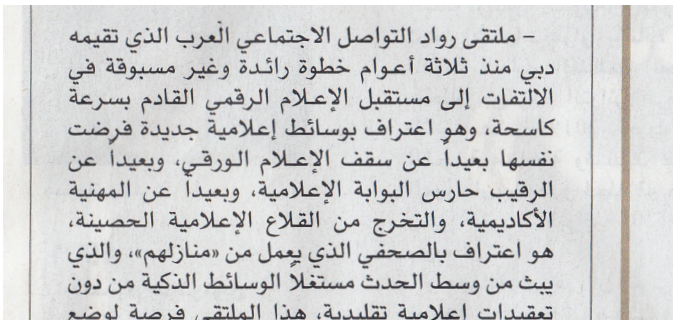
■ بيروت: «الخليج»، و

سيطر التوتر الش
كروم الشراقي في خ

ين محافظتي الأنبار ونينوى

Genre: Newspaper
Publisher: Al Ittihad
Country: UAE
Page: 44
Date: 10 December 2018
Typeface recognised: Muna
Ligatures: Deactivated
Type category: Linear Naskh

ملتقى رواد التواصل الاجتماعي العرب الذي تقيمه


– ملتقى رواد التواصل الاجتماعي العرب الذي تقيمه دبي منذ ثلاثة أعوام خطوة رائدة وغير مسبوقة في الالتفات إلى مستقبل الإعلام الرقمي القادم بسرعة كاسحة، وهو اعتراف بوسائط إعلامية جديدة فرضت نفسها بعيداً عن سقف الإعلام الورقي، وبعيداً عن الرقيب حارس البوابة الإعلامية، وبعيداً عن المهنية الأكاديمية، والتخرج من القلاع الإعلامية الحصينة، هو اعتراف بالصحفي الذي يعمل من «منازلهم»، والذي يبث من وسط الحدث مستغلاً الوسائط الذكية من دون تعقيدات إعلامية تقليدية، هذا الملتقى فرصة لوضع

Genre: Web - News & Media
Website: aawsat.com
Country: Saudi Arabia, Egypt
Date: 2018
Typeface recognised: Damascus*
Type category: Simplified Arabic

كلنا نفهم إيران، النظام الطموح للهيمنة والنفوذ، لكننا

كلنا نفهم إيران، النظام الطموح للهيمنة والنفوذ، لكننا في العملات، والمتاجرة بالمخدرات، وغسل الأموال. جمع وتوج الشركات في أفريقيا وأميركا اللاتينية وآسيا، من إرسال نشاطات الإمبراطورية الإيرانية التي لا تظهر على السطح وشبكات التهريب السرية، بنت مشروعها النووي ولا تزال

Genre: Web - News & Media
Website: ahlmasrnews.com
Country: Egypt
Date: 2018
Typeface recognised: Noto Naskh Arabic
Type category: Modern Naskh

ولقد اصبح خضوع إيران واستسلامها لإرادة المجتمع

ولقد اصبح خضوع إيران واستسلامها لإرادة المجتمع الدو الداخل الإيراني إلى مستوى ينذر بوقوع زلزال اقتصادي و لإيران، بالإضافة إلى العزلة السياسية والوهن الاستراتيجي للعقوبات والضغوطات الأميركية التي بدأت تتجه نحو الع العدائية وسلوكها التخريبي في المنطقة، وتهديدها لأمن و التجارة الدولية.

Genre: Web - News & Media
Website: ahram.org.eg
Country: Egypt
Date: 2018
Typeface recognised: Geeza Pro (Bold)
Type category: Simplified Arabic

فى إطار العلاقات المتميزة التى تربط بين مصر

فى إطار العلاقات المتميزة التى تربط بين مصر وفرن الفتاح السيسى اليوم زيارة مهمة الى باريس، تلبية الفرنسى إيمانويل ماكرون، وذلك فى إطار حرص الب العلاقات الثنائية الوثيقة والارتقاء بها خلال المرحلة

الزيارة تستمر لمدة أربعة أيام، ومن المقرر أن يلتقى الرئيس ماكرون، فى قمة مصرية فرنسية بالاليزيه غدا لبحث سبل ت

Genre: Web - News & Media
Website: ajel.sa
Country: Saudi Arabia
Date: 2018
Typeface recognised: Frutiger Arabic
Type category: Latinised Arabic

في خطوة جديدة على طريق التطوير الذي بدأته قبل

في خطوة جديدة على طريق التطوير الذي بدأته قبل د الخميس، هويتها الجديدة التي تشمل تغييرًا كليًا في تد تحديث كلي لتطبيقاتها في الهواتف الذكية.



* Websites which show various system fonts Based on the operating system are followed by ** after the URL. The demonstrated screenshots are taken on MacOS system

Genre: Web - News & Media
Website: aksalser.com
Country: Syria
Date: 2018
Typeface recognised: Noto Naskh Arabic
Type category: Modern Naskh

قال مستشار الأمن القومي الأمريكي جون بولتون، إنه يجب

قال مستشار الأمن القومي الأمريكي جون بولتون، إنه يجب إ
الإرهاب، في إشارة إلى إعلان قيام الجمهورية الإسلامية في إيران
له على تويتر أن الرئيس الأمريكي دونالد ترامب منح إيران الفرصة



Genre: Web - News & Media
Website: alanba.com.kw
Country: Kuwait
Date: 2018
Typeface recognised: Noto Naskh Arabic
Type category: Modern Naskh

أكد رئيس مجلس الأمة مرزوق الغانم أنه "لا حل لمجلس الأمة"



أكد رئيس مجلس الأمة مرزوق الغانم أنه "لا حل لمجلس الأمة"
معربا عن اعتقاده أن "الحكومة لن تحضر الجلسة المقبلة"،
مطالبا الجميع "بالتركيز على الأولويات في ظل الحاجة لتثبيت
دعائم الاستقرار محليا". وقال الغانم في تصريح للصحافيين
بمجلس الأمة "تشرفت بزيارة صاحب السمو الأمير لأشكره على

Genre: Web - News & Media
Website: alarabiya.net
Country: pan-Arab
Date: 2018
Typeface recognised: Noto Naskh Arabic (Bold)
Type category: Modern Naskh

ونشبت بينهما مشادة كلامية تطورت

ونشبت بينهما مشادة كلامية تطورت أنفاسه في الحال.

ونقلت الجثة إلى مستشفى بنها العام،

Genre: Web - News & Media
Website: albayan.ae
Country: UAE, Egypt, Saudi Arabia
Date: 2018
Typeface recognised: Dubai
Type category: Modern Naskh

هنأ صاحب السمو الشيخ محمد بن راشد آل مكتوم،

هنأ صاحب السمو الشيخ محمد بن راشد آل مكتوم،
الوزراء، حاكم دبي، رعاه الله، شعب الإمارات وجميع ال
عيد الأضحى المبارك.

وقال سموه على حسابه في "تويتر": "في هذا اليوم الم
صالح الأعمال.. كما نهنئ شعب دولة الإمارات وجميع

Genre: Web - Finance
Website: aleqt.com
Country: Saudi Arabia
Date: 2018
Typeface recognised: Noto Naskh Arabic
Type category: Modern Naskh

سجلت الاستثمارات الأجنبية في السعودية ارتفاعا بنهاية الربع



طلال الصياح من الرياض

سجلت الاستثمارات الأجنبية في السعودية ارتفاعا بنهاية الربع الثا
يعادل 119 مليار ﷼ إلى 1.33 تريليون ﷼ مقارنة بالفترة نفسها من
ومقارنة بـ 1.29 تريليون ﷼ بنهاية الربع الأول 2017.

Genre: Web - News & Media
Website: alghad.com**
Country: Jordan, Saudi Arabia, Egypt
Date: 2018
Typeface recognised: Arial
Type category: Simplified Arabic

كشف مصدر مطلع أن وزارة الزراعة والنقابة العامة لأصحاب المعاصر ومنتجي

الثلاثاء 24 تشرين الأول / أكتوبر 2017. 12:00 صباحاً
كشف مصدر مطلع أن وزارة الزراعة والنقابة العامة لأصحاب المعاصر ومنتجي الزي
وإغلاق المعاصر إلى الأول من تشرين الثاني (نوفمبر) المقبل، وذلك بعد أن كان الطر
الحالي. التأجيل جاء بسبب انخفاض نسب السيلان بثمار الزيتون مع بداية الموسم إلى أ
بسبب موجات الحر المتلاحقة.

الثلاثاء 24 تشرين الأول / أكتوبر 2017. 12:00 صباحاً
توفي أمس طفل (8 سنوات) إثر سقوطه في بركة مائية تابعة لأحد محلات مناشير الحـ
وقامت كوادر الدفاع المدني بانتشال جثة الطفل من البركة وباشرت الجهات الأمنية تحـ

Genre: Web - News & Media
Website: alittihad.ae
Country: UAE, Egypt, Saudi Arabia
Date: 2018
Typeface recognised: Din Next LT Arabic
Type category: Latinised Arabic

أعلن صاحب السمو الشيخ محمد بن راشد آل مكتوم نائب

محمد بن راشد آل مكتوم

محمد بن راشد | الإمارات | دبي | مطار دبي الدولي

أعلن صاحب السمو الشيخ محمد بن راشد آل مكتوم نائب رئيس
مطار دبي الدولي استقبل اليوم المسافر رقم مليار، مؤكداً

Genre: Web - News & Media
Website: aljazeera.net
Country: pan-Arab
Date: 2018
Typeface recognised: Greta Arabic
Type category: Modern Naskh

وطلبت السلطات الإيطالية من نحو 60 مليون مواطن

وطلبت السلطات الإيطالية من نحو 60 مليون مواطن الـ
إجراءات غير مسبوقة في العالم لوقف انتشار الفيروس،
الصحي لتشمل كافة أنحاء البلاد.
وأقرت منظمة الصحة العالمية بأن المرض الذي أودى بحيا
من أن يصبح وباء عالميا.

Genre: Web - Dictionaries & Encyclopedia
Website: almaany.com
Country: pan-Arab
Date: 2018
Typeface recognised: Amiri (Bold)
Type category: Classical Naskh

جلَسَ / جلَسَ على يَجلِس ، جُلوسًا ، فهو جالِس وجليس ،

- جلَسَ / جلَسَ على يَجلِس ، جُلوسًا ، فهو جالِس وجليس ، والمفعو
- جلس على النار: جلَس إليها ليستدفئ،
- جَلَسَ الوَاقِفُ : قَعَدَ
- جَلَسَ الطَّائِرُ : جَثَمَ

Genre: Web - News & Media
Website: almasryalyoum.com
Country: Egypt
Date: 2018
Typeface recognised: Noto Naskh Arabic (Bold)
Type category: Modern Naskh

تفاصيل 120 دقيقة «عتاب



Genre: Web - News & Media
Website: alqabas.com
Country: Kuwait, Saudi Arabia, Egypt
Date: 2018
Typeface recognised: Al Qabas
Type category: Latinised Arabic

(كونا)- أكدت الكويت أنه لا يمكن القضاء على الجريمة

(كونا)- أكدت الكويت أنه لا يمكن القضاء على الجريمة الـ
والشمول، وقائم على أساس مشاركة جميع الدول والم
بفعالية.
جاء ذلك في كلمة الكويت التي ألقاها مندوبها الدائم ل
في جلسة مجلس الأمن حول «الجريمة المنظمة عبر الو
الكاريبي كتهديد للاستقرار الدولي».

Genre: Web - News & Media
Website: alquds.co.uk
Country: pan-Arab
Date: 2018
Typeface recognised: Greta Arabic
Type category: Modern Naskh

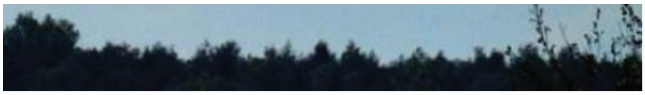
ونقلت القناة التلفزيونية الثانية الدنماركية عن المحرر

ونقلت القناة التلفزيونية الثانية الدنماركية عن المحرر ا
فيسترجارد، فيما نقلت الإذاعة العامة الدنماركية "دي أر" ال

وأشتهر فيسترجارد عالميا في عام 2005 عندما تسببت سلس
نُشرت في صحيفة يولاندس بوستن، في اشتعال أكبر أزمة لل
الثانية.

Genre: Web - News & Media
Website: alrai.com
Country: pan-Arab
Date: 2018
Typeface recognised: GE SS
Type category: Latinised Arabic

قالت صحيفة "ذي تايمز" البريطانية إن الجيش



A+ A A–

قالت صحيفة "ذي تايمز" البريطانية إن الجيش ال
للقارات، وهو سلاح تصفه موسكو بأنه "قادر على

Genre: Web - News & Media
Website: alraimedia.com
Country: Kuwait
Date: 2018
Typeface recognised: Helvetica Neue Arabic
Type category: Latinised Arabic

كشف نائب وزير الخارجية خالد الجارالله أن الوفد الحوثي

03 ديسمبر 2018 07:52 م | الكاتب: خالد السرماوي

كشف نائب وزير الخارجية خالد الجارالله أن الوفد الحوثي سيغ
السفير الكويتي في صنعاء سيكون معهم على متن طائرة كويتية.

وأعرب الجارالله في تصريحات للصحافيين على هامش مشاركة
الوطني، اليوم الاثنين، عن اطيب امنياته بنجاح هذه الجولة من ال

Genre: Web - News & Media
Website: alriyadh.com
Country: Saudi Arabia
Date: 2018
Typeface recognised: Nassim Arabic Pro
Type category: Modern Naskh

ينظم النادي الأدبي الثقافي بحائل دورة تدريبية بعنوان "مبادئ

ينظم النادي الأدبي الثقافي بحائل دورة تدريبية بعنوان "مبادئ في
اليوسف على مسرح النادي.

وأوضح رئيس لجنة التدريب بالنادي الدكتور مفرح الرشيدي أن الدو
المتدرب ثم ينطلق منها إلى تطبيقها على سائر البحور، وأهم هذه الأ
البوابة الرئيسة له، وصقل المواهب الإبداعية الشابة، وتمكينها من فه
كما سيتم تدريب أذن المتدرب على التمييز السمعي لموسيقى الش

Genre: Web - News & Media
Website: alroya.om
Country: Oman
Date: 2018
Typeface recognised: Greta Arabic
Type category: Modern Naskh

أعلَن مجلسُ البحث العلمي أنَّ غدًا الخميس آخر مَوعد

أعلَن مجلسُ البحث العلمي أنَّ غدًا الخميس آخر مَوعد للتس
الثالثة، والتي ينظمها المجلس ومركز السلطان قابوس العالي للثقا

وكان المجلس قد أعلن في نهاية ديسمبر الماضي تمديد فترة الترشح
الكبير من مختلف فئات المجتمع للمشاركة، وسعيا من المنظمي
الجائزة عبر الموقع الإلكتروني لمجلس البحث العلمي (trc.gov.om.

Genre: Web - Health
Website: altibbi.com
Country: pan-Arab
Date: 2018
Typeface recognised: Noto Kufic Arabic
Type category: Latinised Arabic

ستساعد هذه الشراكة على تمكين 3000 من الشباب

ستساعد هذه الشراكة على تمكين 3000 من الشباب م
أخصائيين طبيين دون تكلفة، حيث تعتبر الرعاية الصحية
في المستقبل لتحسين فرص الحصول على رعاية صحية
الذين يعيشون في مناطق نائية لا يتوفر بها خدمات ط

صرح **السيد جليل اللبادي، الرئيس التنفيذي في من**
اليونيسف في تمكين الشباب من الوصول إلى شبكة م

Genre: Web - News & Media
Website: alwatan.com
Country: Oman, Egypt, Saudi Arabia
Date: 2018
Typeface recognised: Helvetica Neue Arabic
Type category: Latinised Arabic

استقبل معالى الفريق أول سلطان بن محمد

استقبل معالي الفريق أول سلطان بن محمد النعم
الشؤون الخارجية والتعاون الدولي بالمملكة المغربي
في بداية المقابلة رحب معالي الفريق أول وزير الم
المقابلة تبادل الأحاديث الودية واستعراض العلاقا
وسبل تطويرها بما يحقق مصالح البلدين الشقيقي
سفير المملكة المغربية المعتمد لدى السلطنة.

Genre: Web - News & Media
Website: ammonnews.net
Country: Jordan
Date: 2018
Typeface recognised: Amiri (Bold)
Type category: Classical Naskh

واستهجن الناطق الإعلامي هذه الادعاءات العارية عن الصحة

واستهجن الناطق الإعلامي هذه الادعاءات العارية عن الصحة
تعكس مستوى المسؤولية المنشودة في هذا الظرف الصحي الدق

مؤكدا انه سيتم احالة السيدة للقضاء لاتخاذ الاجراء القانوني بحة
وأخبار كاذبة تمس بالأمن المجتمعي وتبث القلق والهلع في نفو

Genre: Web - News & Media
Website: annahar.com
Country: Lebanon
Date: 2018
Typeface recognised: Noto Kufic Arabic
Type category: Latinised Arabic

دعت أكثر من عشر #بعثات ديبلوماسية في أفغانستان،

دعت أكثر من عشر #بعثات ديبلوماسية في أفغانستان، الإ
على أنه يتعارض مع ما تعلنه لجهة نيتها التوصل إلى اتف

البيان الذي وقعته الولايات المتحدة والاتحاد الأوروبي وأ
مفاوضات جديدة غير مثمرة في الدوحة نهاية الأسبوع بير
مسار السلام المتعثر.

Genre: Web - Faith And Beliefs
Website: ar.islamway.net
Country: pan-Arab
Date: 2018
Typeface recognised: Noto Naskh Arabic
Type category: Modern Naskh

فإنَّ الأنبياءَ عليهم السلام يتعبَّدون اللهَ تعالى

فإنَّ الأنبياءَ عليهم السلام يتعبَّدون اللهَ تعالى ويدع
خيرُ الدُّعاءِ وأفضلُه في أفضلِ أيَّام السَّنة؛ وهو يوم
الدُّعَاءِ دُعَاءُ يَوْمِ عَرَفَةَ، وَخَيْرُ مَا قُلْتُ أَنَا وَالنَّبِيُّونَ مِنْ
وَهُوَ عَلَى كُلِّ شَيْءٍ قَدِيرٌ» (حسن، رواه الترمذي).

Genre: Web - Dictionaries & Encyclopedia
Website: ar.wikipedia.org**
Country: pan-Arab
Date: 2018
Typeface recognised: Arial
Type category: Simplified Arabic

والنزاعات بين عدد من البلدان العربية وإسرائيل. إن جذور

والنزاعات بين عدد من البلدان العربية وإسرائيل. إن جذور الـ
العربية قرب نهاية القرن التاسع عشر. وينظر الفلسطينيين إلى ا
المقابل يعتبر اليهود بأنهم وعدوا بهذه الأرض وفقًا لنصوص في
الصراع الطائفي بين اليهود والعرب الفلسطينيين في أوائل القرن
تخلله حملة تطهير عرقي وتهجير كبرى للفلسطينيين من قراهم
1948 عقب إعلان قيام دولة إسرائيل.

Genre: Web - News & Media
Website: arabic.rt.com**
Country: Egypt, Saudi Arabia, Syria
Date: 2018
Typeface recognised: Arial
Type category: Simplified Arabic

وقال الوزير لوكالة "شانا" الإخبارية الإيرانية: "لدينا مبيعات

وقال الوزير لوكالة "شانا" الإخبارية الإيرانية: "لدينا مبيعات غير
لأن الولايات المتحدة ستوقفها إن علمت بها".

وامتنع زنغنة عن إعطاء مزيد من التفاصيل بشأن الصادرات النفط
أرقام إلى أن تُرفع العقوبات.

وقال إن الولايات المتحدة تشدد الخناق على الاقتصاد الإيراني بوا
"أقسى العقوبات في التاريخ تفرض على إيران".

Genre: Web - Finance
Website: argaam.com
Country: Saudi Arabia
Date: 2018
Typeface recognised: Greta Arabic
Type category: Modern Naskh

شعار شركة الدريس للخدمات البترولية والنقليات "الدريس"

شعار شركة الدريس للخدمات البترولية والنقليات "الدريس"

كشفت شركة "الدريس" للخدمات البترولية والنقليات، عن تـ
محطات في السوق المصري بغرض الاستحواذ، إلا أنها لم تحصل ع

وأشارت الشركة في تواصلها مع "أرقام"، إلى استهدافها افتتاح 60
ليصل عدد محطات الشركة بنهاية العام إلى 644 محطة

Genre: Web - Cooking & Recipies
Website: atyabtabkha.com
Country: pan-Arab
Date: 2018
Typeface recognised: Noto Kufic Arabic
Type category: Latinised Arabic

1- لتحضير العجينة، ضعي الدقيق والملح والسكر والزبدة في وعاء

1- لتحضير العجينة، ضعي الدقيق والملح والسكر والزبدة في وعاء ال
منخفضة حتى الحصول على مزيج يشبه فتات الخبز.
2- أضيفي البيضة والماء وخلطي المزيج حتى الحصول على عجينة مت
3- أخرجي العجينة من وعاء الخلاط وادعكيها حتى تصبح مثل الكرة.
4- لفي العجينة بورق نيلون لاصق وضعيها في الفريزر لمدة 30 دقية
5- لتحضير الحشوة: ضعي ملعقتين من الزيت في وعاء وأضيفي شرائ
6- حمّى الشواية حتى تسخن جيداً ثم اطهى شرائح الباذنجان والكوس

Genre: Web - Sports
Website: bbc.com/arabic/sports
Country: pan-Arab
Date: 2018
Typeface recognised: BBC Nassim-EX
Type category: Modern Naskh

دافع رئيس الوزراء العراقي حيدر العبادي عن "الميليشيات"

**دافع رئيس الوزراء العراقي حيدر العبادي عن "الميليشيات" المد
وزير الخارجية الأمريكي ريكس تيلرسون .**

وكان تيلرسون قد انتقد دور تلك "الميليشيات"، في إشارة إلى **الحشد ا**

وخلال زيارة تيلرسون لبغداد، وصف العبادي مقاتلي الحشد الشعبي ب

وقال وزير الخارجية الأمريكية إنه من **الضروري تفكيك تلك** ، خاصة

Genre: Web - Faith And Beliefs
Website: binbaz.org.sa
Country: Saudi Arabia, Egypt, UAE
Date: 2018
Typeface recognised: Noto Naskh Arabic
Type category: Modern Naskh

السنة لمن أتى مصلى العيد لصلاة العيد، أو الاستسقاء أن

ج: السنة لمن أتى مصلى العيد لصلاة العيد، أو الاستسقاء أن ي
ﷺ فيما نعلم إلا إذا كانت الصلاة في المسجد فإنه يصلي تحيا
يصلي ركعتين» متفق على صحته.
والمشروع لمن جلس ينتظر صلاة العيد أن يكثر من التهليل وا
حتى تنتهي الخطبة. ومن اشتغل بقراءة القرآن فلا بأس. والله و

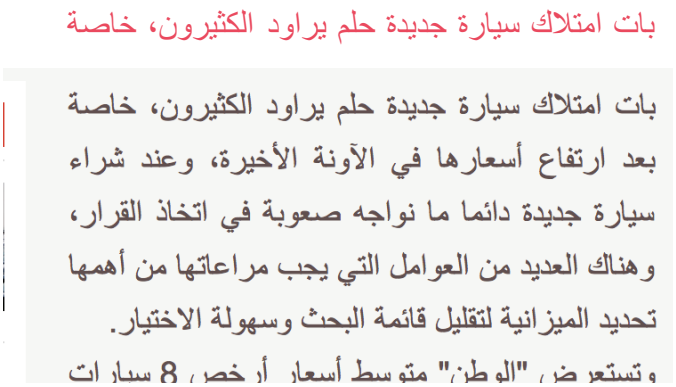
Genre: Web - News & Media
Website: elnashra.com
Country: Lebanon
Date: 2018
Typeface recognised: Geeza Pro
Type category: Simplified Arabic

أفادت معلومات صحفية بأن "حبات برد بحجم كرات

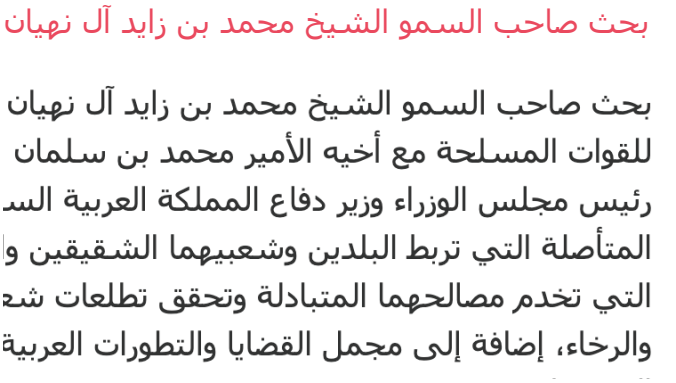


أفادت معلومات **صحفية** بأن "حبات برد بحجم كرات صغير
تسببت بأضرار جسيمة في الأشجار التي تساقطت ثمارها
الخضراوات، إضافة إلى تكسر زجاج سيارات ونوافذ عدد مر
وأشاتر إلى أن "**تساقط البرد** استمر بشكل متتابع ما بين 5
أمطار، ناقلا عن عدد من أبناء المنطقة، أنهم لم يعهدوا هذا ا

Genre: Web - News & Media
Website: elwatannews.com**
Country: Egypt
Date: 2018
Typeface recognised: Arial
Type category: Simplified Arabic



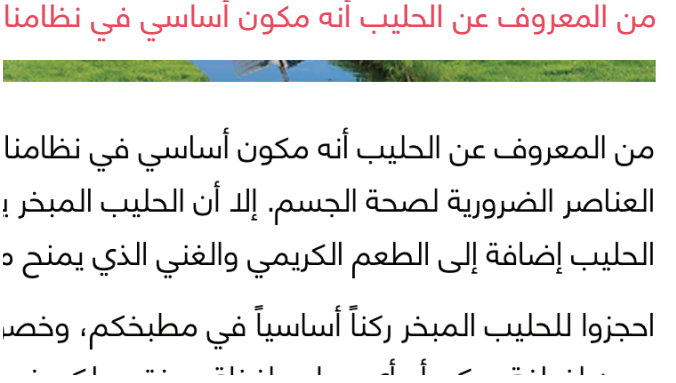
Genre: Web - News & Media
Website: emaratalyoum.com**
Country: UAE, Egypt, Saudi Arabia
Date: 2018
Typeface recognised: Tahoma
Type category: Uncategorised typefaces



Genre: Web - Social Media
Website: facebook.com**
Country: pan-Arab
Date: 2018
Typeface recognised: Geeza Pro
Type category: Simplified Arabic



Genre: Web - Cooking & Recipies
Website: fatafeat.com
Country: pan-Arab
Date: 2018
Typeface recognised: Helvetica Neue Arabic*
Type category: Latinised Arabic



Genre: Web - Faith And Beliefs
Website: islamqa.info
Country: pan-Arab
Date: 2018
Typeface recognised: Noto Naskh Arabic
Type category: Modern Naskh

أوحى الله إلى موسى ابن عمران عليه الصلاة

- أوحى الله إلى موسى ابن عمران عليه الصلاة والسا
قومك من الظلمات إلى النور وذكرهم بأيام الله) إبراهي
- وهارون عليه السلام أخو موسى من النسب أرسله ا
أخاه هارون نبياً) مريم/53.

- وكان بنوا إسرائيل حينذاك فى مصر تحت حكم فرعو

Genre: Web - Faith And Beliefs
Website: islamweb.net**
Country: pan-Arab
Date: 2018
Typeface recognised: Geeza Pro
Type category: Simplified Arabic

وراجع لمزيد الفائدة عن هذا المعنى الفتوى رقم:

معًا, وراجع لمزيد الفائدة عن هذا المعنى الفتوى رقم: 4295
ثم ننبه على أن السلطة المطلقة التي صدر بها السائل كلا
اليوم بالدستور، الذي يلزم الجميع ـ رؤساء ومرؤوسين ـ الخ
لأحد في معصية الله تعالى، كما قال رسول الله صلى الله ع
عليه وسلم: لا طاعة لمن عصى الله. رواه ابن ماجه وأحمد، وه

Genre: Web - News & Media
Website: khaberni.com
Country: Jordan
Date: 2018
Typeface recognised: Geeza Pro (Bold)
Type category: Simplified Arabic

الذي ينفذ بتمويل من الصندوق السعودي للتنمية

**الذي ينفذ بتمويل من الصندوق السعودي للتنمية بـ
على المشروع ضرورة الاخذ بعين الاعتبار اهمية الط
يشهده من كثافة مرورية وتعزيز عناصر السلامة المر
الطريق.**

**واشار العموش إلى أنه تم التنسيق مع امانة عمان الك
المرورية حيث تم الانتهاء من ازالة العوائق، بحيث يغل**

Genre: Web - Sports
Website: koora.com**
Country: pan-Arab
Date: 2018
Typeface recognised: Arial
Type category: Simplified Arabic

ركزت الصحافة الألمانية على رحيل مدير الكرة بنادي كولون

ركزت الصحافة الألمانية على رحيل مدير الكرة بنادي كولون ي
شماتكه من منصبه بعد سوء نتائج الفريق هذا الموسم، متجاهلة
كريستيانو رونالدو، نجم ريال مدريد الإسباني، بجائزة أفضل لاع
في العالم لعام 2017.

Genre: Web - News & Media
Website: lebanondebate.com
Country: Lebanon
Date: 2018
Typeface recognised: Tajawal
Type category: Latinised Arabic

منذ خروجه من مقرّ وزارة الداخلية في الصنائع التزم

منذ خروجه من مقرّ وزارة الداخلية في الصنائع التزم وزير
الصمت السياسي الذي كَسَره من خلال بعض المواقف
على التسوية الرئاسية بسبب ما أحدثته من اختلال في ال
مواقفه المعلنة كانت تقرأ رسائل الاعتراض على الطريق
الحريري المسار "المنحرف" للتسوية. لكن رغم ذلك، وحتـ
أطلقها المشنوق بعيد الانتخابات النيابية وكان لا يزال

Genre: Web - News & Media
Website: lebanonfiles.com**
Country: Lebanon
Date: 2018
Typeface recognised: Tahoma
Type category: Non-categorised typefaces

نفى رئيس مطار رفيق الحريري الدولي- بيروت المهندس

نفى رئيس مطار رفيق الحريري الدولي- بيروت المهندس فا
الأميركية العسكرية التي هبطت قبل ظهر اليوم في المطار
ل"الوكالة الوطنية للإعلام" إن الطائرة المذكورة "حصلت عل
الديبلوماسية"، وإن "مصدر اقلاعها كان من مدينة الكويت م
والقبرصية، ثم حطت في مطار حامات وبعده في مطار رفيق

وأشار إلى أن رئاسة المطار قامت باعادة تسجيلات مسار ال

Genre: Web - News & Media
Website: masrawy.com
Country: Egypt
Date: 2018
Typeface recognised: Noto Kufi Arabic
Type category: Latinised Arabic

توصل مهندسون معماريون إلى فكرة غير مألوفة لمنزل

توصل مهندسون معماريون إلى فكرة غير مألوفة لمنزل، ه
أساسات له مثل بقية المنازل التقليدية، حسب موقع "سكا

والغريب في الأمر، بحسب ما أوردت صحيفة "الصن" البريطا
يقع في مكان يثير خوف الكثيرين، وهو المنحدرات الصخرية
البحار.

Genre: Web - Dictionaries & Encyclopedia
Website: mawdoo3.com
Country: pan-Arab
Date: 2018
Typeface recognised: Noto Kufi Arabic
Type category: Latinised Arabic

يُعدّ الدّجاج من المُكوّنات الأساسيّة لإعداد مختلف

يُعدّ الدّجاج من المُكوّنات الأساسيّة لإعداد مختلف الأط
المميّزة؛ حيث يعتبر من اللحوم المفضّلة لدى الجميع ف
أنحاء العالم، ويمكن طهيه بالعديد من الطرق؛ كالقلي
والسلق، كما يمكن إضافة الخضار إليه للحصول على و
تشمل جميع العناصر الغذائية. ويعد الدجاج المشوي عا
من أكثر المأكولات انتشاراً في جميع أنحاء العالم، وتختـ

Genre: Web - Government
Website: moi.gov.jo
Country: Jordan
Date: 2018
Typeface recognised: Noto Kufi Arabic
Type category: Latinised Arabic

وطلب الوزير من الحكام الإداريين ضرورة العمل

وطلب الوزير من الحكام الإداريين ضرورة العمل على حل ا
التطوير الرئيسية في منطقته انطلاقا من مبدأ التشاركية ال
ونوه الوزير الفرايه إلى ضرورة التصدي لبعض الممارسات الس
الاستمرار في التنسيق المشترك مع الاجهزة الامنية ، ووضع
واستمع الفرايه لآراء وملحوظات المحافظين، والتي تركزت حو
وفي نهاية الاجتماع ، وجه وزير الداخلية الحكام الاداريين لات

Genre: Web - Lifestyle
Website: mumyazh.com
Country: pan-Arab
Date: 2018
Typeface recognised: Noto Naskh Arabic
Type category: Modern Naskh

اختلفت معايير وسامة الرجل عند المرأة العربية بشكل كبير

اختلفت معايير وسامة الرجل عند المرأة العربية بشكل كبير خلا
مواصفات معينة كمعايير لوسامة الرجل عند المرأة وذلك بسبب
ثقافات المجتمعات الأخرى من خلال وسائل التواصل الاجتماعي
عند كلا الطرفين. ومع ذلك ما زال هناك بعض المعايير الثابتة الم
على ذكرها في هذا المقال.

الشعر واللحية:

Genre: Web - News & Media
Website: okaz.com.sa
Country: Saudi Arabia
Date: 2018
Typeface recognised: Noto Kufi Arabic
Type category: Latinised Arabic

شهدت الرياض قبل أمس حدثاً في غاية الأهمية من حيث

شهدت الرياض قبل أمس حدثاً في غاية الأهمية من حيث توق
في محيطنا، فقد تم عقد الاجتماع الأول لمجلس التنسيق الس
ورئيس الوزراء العراقي الدكتور حيدر العبادي بحضور وزير الخارج
لكنها بالغة الأهمية في إشاراتها إلى طبيعة العلاقات بين ال
الخارجية السعودي مؤتمرا مع نظيره الأمريكي وصرح بعده تص
المستمرة وإصرارها على التواجد العلني التخريبي في أكثر من

Genre: Web - News & Media
Website: orient-news.net
Country: Syria
Date: 2018
Typeface recognised: Geeza Pro
Type category: Simplified Arabic

وقال المراسل، إن السيارة المفخخة انفجرت اليوم السبت

وقال المراسل، إن السيارة المفخخة انفجرت اليوم السبت في إحدى
قتلى وجرحى في صفوف الميليشيا، غير أنه لم يتم إحصاء عددهم ح

وأضاف، أنه شوهد العديد من عناصر ميليشيا الأسد يهربون من نق

اشتباكات عنيفة

وتشهد قرية الجلمة في عمق خطوط دفاع ميليشيا أسد اشتباكات
على حساب الميليشيا في عدة قرى وبلدات بريف حماة الغربي كبلد

Genre: Web - News & Media
Website: raialyoum.com
Country: Jordan
Date: 2018
Typeface recognised: Geeza Pro
Type category: Simplified Arabic

أمن منطقة الشرق الأوسط من المقرّر أن يُعقد في القدس

أمن منطقة الشرق الأوسط من المقرّر أن يُعقد في القدس المَ
وروسيا ودولة الاحتلال الإسرائيلي، عندما أكّد اليوم الخميس
هذا المنحى يصُب في خانة "المُتاجرة" وروسيا لا تُتاجر في

نائب الوزير فيرشينين اضطرّ للإدلاء بهذا النّفي بعد أن بالغ
ومن العرب خاصّةً، على هذا المُؤتمر من حيثُ كونه سيقر "ص
سورية مُقابل اعتراف الولايات المتحدة ببقاء الرئيس بشار الا

Genre: Web - News & Media
Website: rumonline.net
Country: Jordan
Date: 2018
Typeface recognised: Tahoma
Type category: Uncategorised typefaces

تلقى جلالة الملك عبدالله الثاني، برقيات تهنئة بمناسبة الذكرى

- تلقى جلالة الملك عبدالله الثاني، برقيات تهنئة بمناسبة الذكرى العـ
د من قادة الدول العربية والصديقة، عبروا فيها عن أصدق التهاني وخالـ
دير أن يعيدها على جلالته بالصحة والسعادة والبركات، وعلى الشعب

ا تلقى جلالته برقيات تهنئة بهذه المناسبة الوطنية وبمناسبة ذكرى الـ
زراء، ورئيس مجلس الأعيان بالإنابة، ورئيس مجلس النواب، ورئيس المـ
يس الديوان الملكي الهاشمي، ورئيس مجلس مفوضي الهيئة المستـ
ملكة، وأمين عمان، ورئيس هيئة الأركان المشتركة، ومدراء المخابرات

Genre: Web - News & Media
Website: sabq.org
Country: Saudi Arabia
Date: 2018
Typeface recognised: Nassim Arabic Pro
Type category: Modern Naskh

أقر وزير العمل والتنمية الاجتماعية أعداد المستفيدين

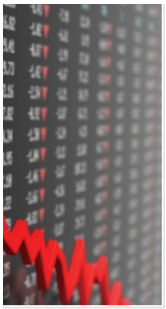
أقر وزير العمل والتنمية الاجتماعية أعداد المستفيدين والمبالغ ال

وتوقعت مصادر مطلعة أن يبدأ صرف الدفعة الأولى للمستحقين نه

يشار إلى أنه يتوقع أن تقر سياسات البرنامج وتعلن تفاصيله بش
الدفعات.

Genre: Web - News & Media
Website: sarayanews.com
Country: Jordan
Date: 2018
Typeface recognised: Arial (Bold)
Type category: Simplified Arabic

سرايا - كشف خبير مالي، أن هناك عاملا



تعديل حجم الخط: ح ح

سرايا - كشف خبير مالي، أن هناك عاملا مشتركا بين الأزمات المالية الضخمة التي عاشها العالم، وهو الزيادة الكبيرة في حجم القروض الخاصة، مقارنة مع إجمالي الناتج المحلي، محذرا من أن العالم يعيش حاليا زيادة جديدة فيها، مما قد يشكل مؤشرا قويا على احتمال حدوث أزمة مالية كبيرة.

وكان الأمير وليام قد أطلق هذا اللقب على زوجته عام

وكان الأمير وليام قد أطلق هذا اللقب على زوجته عام ٢٠١٣، ع
شارلوت Princess Charlotte البالغة من العمر ٣ أعوام، خلال
وكانت شارلوت تجلس على الأرض برفقة شقيقها الأمير جور
"Poppet" وطلبت منها النهوض.

فيديو: روح الميلاد في قصر كنسينغتو

Genre: Web - Lifestyle
Website: sayidaty.net
Country: pan-Arab
Date: 2018
Typeface recognised: GE Dinar One
Type category: Latinised Arabic

يُواجه الرئيس التركي رجب طيّب أردوغان اختبارين، أو تحدّيين،

يُواجه الرئيس التركي رجب طيّب أردوغان اختبارين، أو تحدّيين، على
السّبعة المُقبلة، الأوّل يتمثّل في جولة الإعادة لانتخابات بلديّة إسطنبول يو
الأمريكيّ الذي صدر أمس بضرورة التخلّي عن شراء صفقة منظومة د
لأنّها تتعارض مع أسرار طائرة الشّبح الأمريكيّة "إف 35" ومنظومات
مُهلةً حتّى أواخر شهر تموز (يوليو) وإلا عليه مُواجهة عواقب وخيمة من
في تقديرنا أنّ الخِناق بشقّيه الداخليّ (الانتخابات)، والخارجيّ (الإنذار الا

Genre: Web - News & Media
Website: shaamtimes.net
Country: Syria
Date: 2018
Typeface recognised: Arial
Type category: Simplified Arabic

بلغ عدد الزوار الذين زاروا معرض المشاريع الصغيرة والمتوسطة

بلغ عدد الزوار الذين زاروا معرض المشاريع الصغيرة والمتوسطة «عط
إلى 25 مايو الجاري حوالي 7168 زائرا وتجولوا في أروقة المعرض. وت
أروقته سلع مختلفة تنوعت بين الأزياء والعطور والبخور والمجوهرات

ويعتبر ملتقى المشاريع الصغيرة والمتوسطة من الفعاليات السنوية
بالإضافة إلى إقامته قبل عيد الأضحى في بعض الأحيان، وتخصص

Genre: Web - News & Media
Website: shabiba.com
Country: Oman
Date: 2018
Typeface recognised: Helvetica Neue Arabic
Type category: Latinised Arabic

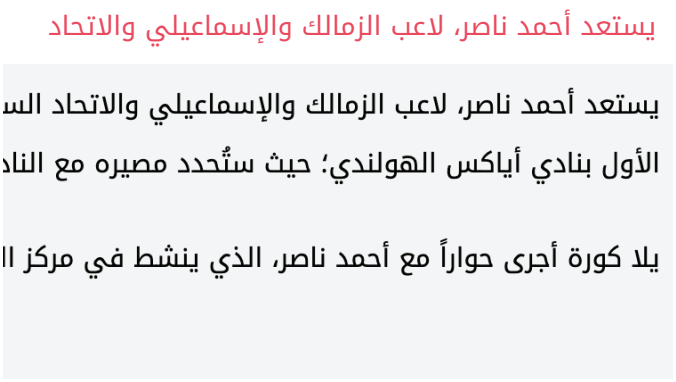
لا تتخلى المرأة الشرقية عن العباية التي تعتبر من القطع الأساسية

لا تتخلى المرأة الشرقية عن العباية التي تعتبر من القطع الأساسية في خ
والاحتشام، حيث ازداد اهتمام أغلب الدور العالمية بتطوير هذه القطعة .
ذوق المرأة العصرية التي تبحث عن الأناقة والتغيير بكل أشكاله.

ولأننا في أيام الاحتفال بعيد الفطر قد تفكرين سيدتي في إطلالة تليق ب
وتمنحك مظهرا لائقا، لذلك سنقدم مقال اليوم أجمل تصاميم العبايات با
أحد أبرز الألوان التي سترافقنا طيلة موسم صيف 2019 فتابعينا لتستلهـ
الفطر دون عناء البحث والحيرة.

Genre: Web - Lifestyle
Website: uaewomen.net
Country: UAE
Date: 2018
Typeface recognised: Noto Naskh Arabic
Type category: Modern Naskh

Genre: Web - Sports
Website: yallakora.com
Country: Egypt
Date: 2018
Typeface recognised: Noto Kufi Arabic
Type category: Latinised Arabic



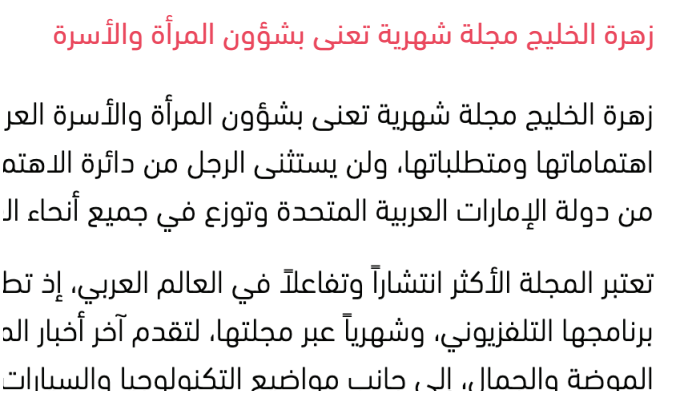
Genre: Web - News & Media
Website: youm7.com
Country: Egypt
Date: 2018
Typeface recognised: Arial (Bold)
Type category: Simplified Arabic



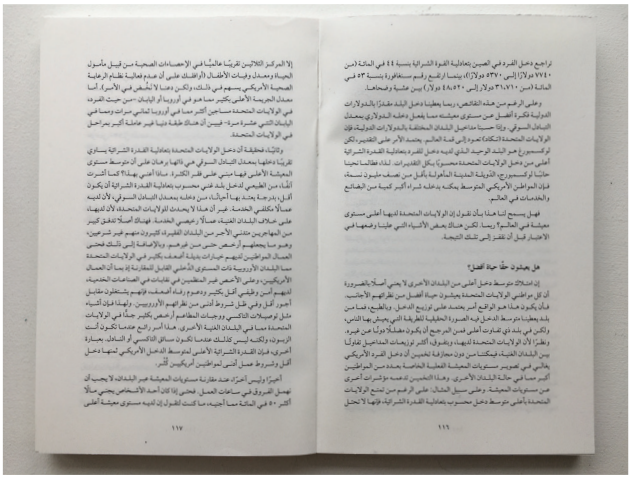
Genre: Web - Science & Education
Website: yu.edu.jo
Country: Jordan
Date: 2018
Typeface recognised: Cairo
Type category: Latinised Arabic

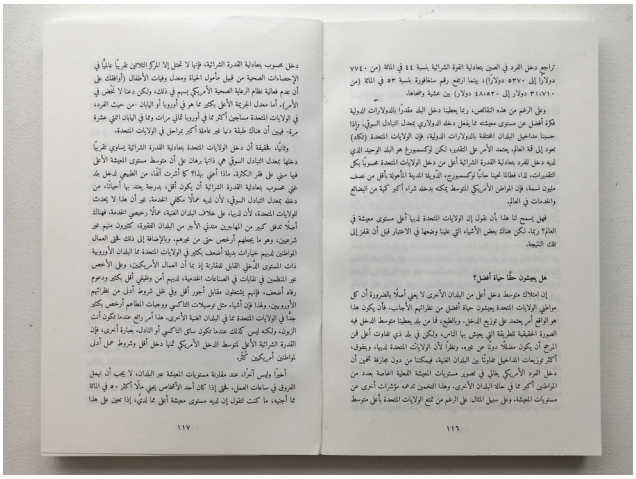


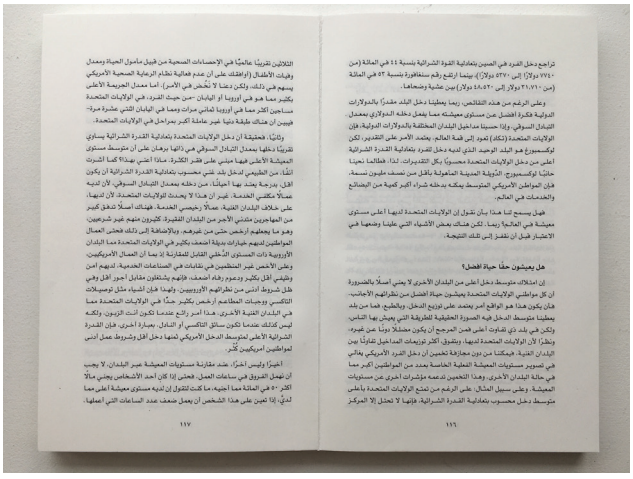
Genre: Web - Arts & Entertainment
Website: zahratalkhaleej.ae
Country: Egypt, Saudi Arabia, UAE
Date: 2018
Typeface recognised: Din Next LT Arabic
Type category: Latinised Arabic

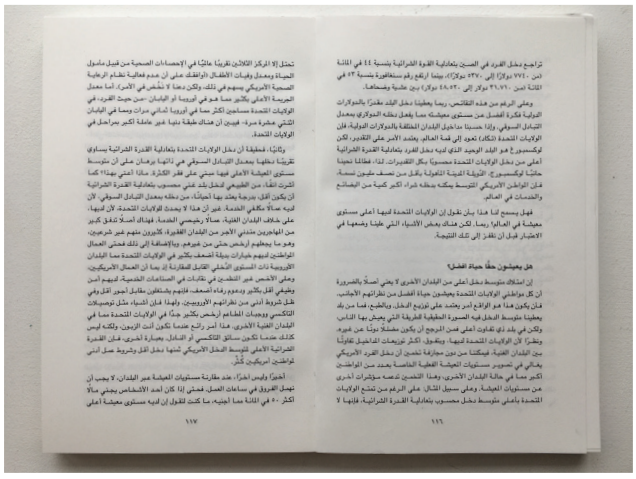


Appendix C: Empirical study mockups
Book mockups (all models) at 25% of actual size

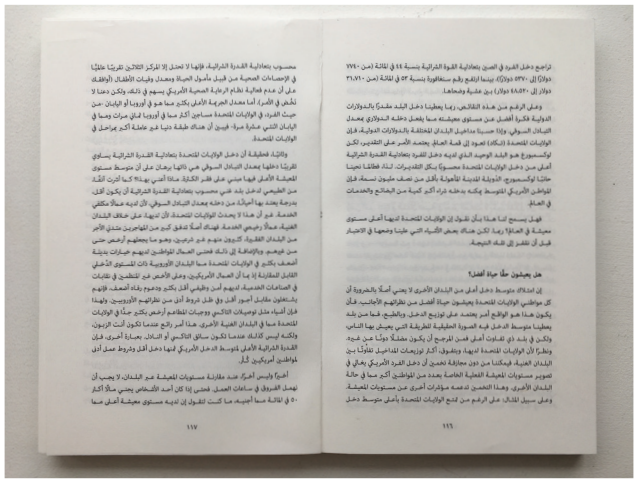












Book mockup (Classical Naskh)

تراجع دخل الفرد في الصين بتعادلية القوة الشرائية بنسبة ٤٤ في المائة (من ٧٧٤٠ دولارًا إلى ٥٣٧٠ دولارًا)، بينما ارتفع رقم سنغافورة بنسبة ٥٣ في المائة (من ٣١،٧١٠ دولار إلى ٤٨،٥٢٠ دولار) بين عشية وضحاها.

وعلى الرغم من هذه النقائص، ربما يعطينا دخل البلد مقدرًا بالدولارات الدولية فكرة أفضل عن مستوى معيشته مما يفعل دخله الدولاري بمعدل التبادل السوقي. وإذا حسبنا مداخيل البلدان المختلفة بالدولارات الدولية، فإن الولايات المتحدة (تكاد) تعود إلى قمة العالم. يعتمد الأمر على التقدير، لكن لوكسمبورغ هو البلد الوحيد الذي لديه دخل للفرد بتعادلية القدرة الشرائية أعلى من دخل الولايات المتحدة محسوبًا بكل التقديرات. لذا، فطالما نحينا جانبًا لوكسمبورج، الدّويلة المدينة المأهولة بأقل من نصف مليون نسمة، فإن المواطن الأمريكي المتوسط يمكنه بدخله شراء أكبر كمية من البضائع والخدمات في العالم.

فهل يسمح لنا هذا بأن نقول إن الولايات المتحدة لديها أعلى مستوى معيشة في العالم؟ ربما. لكن هناك بعض الأشياء التي علينا وضعها في الاعتبار قبل أن نقفز إلى تلك النتيجة.

هل يعيشون حقًّا حياة أفضل؟

إن امتلاك متوسط دخل أعلى من البلدان الأخرى لا يعني أصلًا بالضرورة أن كل مواطني الولايات المتحدة يعيشون حياة أفضل من نظرائهم الأجانب. فأن يكون هذا هو الواقع أمر يعتمد على توزيع الدخل. وبالطبع، فما من بلد يعطينا متوسط الدخل فيه الصورة الحقيقية للطريقة التي يعيش بها الناس، ولكن في بلد ذي تفاوت أعلى فمن المرجح أن يكون مضللًا دونًا عن غيره. ونظرًا لأن الولايات المتحدة لديها، وبتفوق، أكثر توزيعات المداخيل تفاوتًا بين البلدان الغنية، فيمكننا من دون مجازفة تخمين أن دخل الفرد الأمريكي يغالي في تصوير مستويات المعيشة الفعلية الخاصة بعدد من المواطنين أكبر مما في حالة البلدان الأخرى. وهذا التخمين تدعمه مؤشرات أخرى عن مستويات المعيشة. وعلى سبيل المثال: على الرغم من تمتع الولايات المتحدة بأعلى متوسط

Book mockup (Regular Naskh)

تراجع دخل الفرد في الصين بتعادلية القوة الشرائية بنسبة ٤٤ في المائة (من ٧٧٤٠ دولارًا إلى ٥٣٧٠ دولارًا)، بينما ارتفع رقم سنغافورة بنسبة ٥٣ في المائة (من ٣١،٧١٠ دولار إلى ٤٨،٥٢٠ دولار) بين عشية وضحاها.

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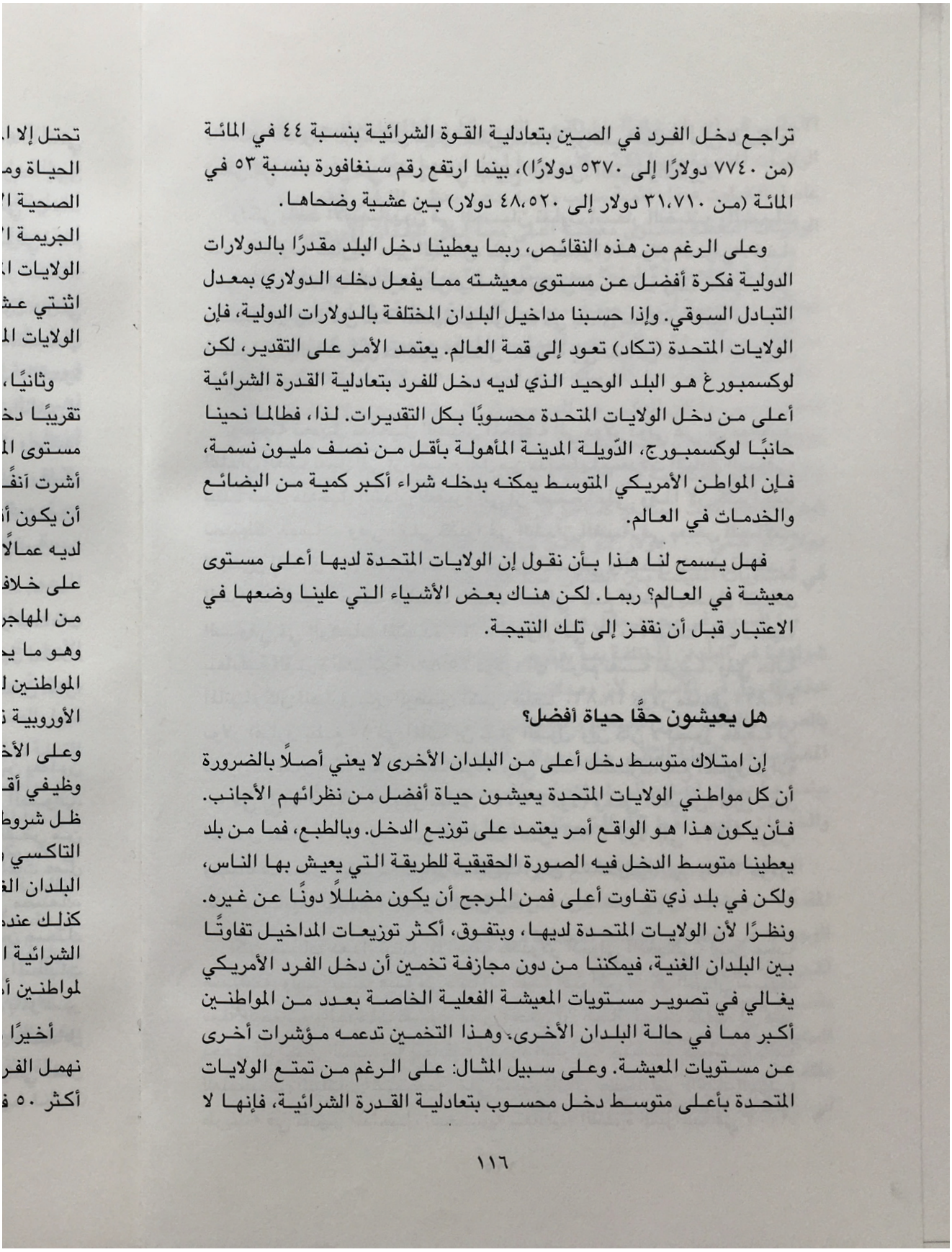
Book mockup (Simplified Arabic)



تراجع دخل الفرد في الصين بتعادلية القوة الشرائية بنسبة ٤٤ في المائة (من ٧٧٤٠ دولارًا إلى ٥٣٧٠ دولارًا)، بينما ارتفع رقم سنغافورة بنسبة ٥٣ في المائة (من ٣١،٧١٠ دولار إلى ٤٨،٥٢٠ دولار) بين عشية وضحاها.

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فهل يسمح لنا هذا بأن نقول إن الولايات المتحدة لديها أعلى مستوى معيشة في العالم؟ ربما. لكن هناك بعض الأشياء التي علينا وضعها في الاعتبار قبل أن نقفز إلى تلك النتيجة.

هل يعيشون حقًّا حياة أفضل؟

إن امتلاك متوسط دخل أعلى من البلدان الأخرى لا يعني أصلًا بالضرورة أن كل مواطني الولايات المتحدة يعيشون حياة أفضل من نظرائهم الأجانب. فأن يكون هذا هو الواقع أمر يعتمد على توزيع الدخل. وبالطبع، فما من بلد يعطينا متوسط الدخل فيه الصورة الحقيقية للطريقة التي يعيش بها الناس، ولكن في بلد ذي تفاوت أعلى فمن المرجح أن يكون مضللًا دونًا عن غيره. ونظرًا لأن الولايات المتحدة لديها، وبتفوق، أكثر توزيعات المداخيل تفاوتًا بين البلدان الغنية، فيمكننا من دون مجازفة تخمين أن دخل الفرد الأمريكي يغالي في تصوير مستويات المعيشة الفعلية الخاصة بعدد من المواطنين أكبر مما في حالة البلدان الأخرى. وهذا التخمين تدعمه مؤشرات أخرى عن مستويات المعيشة. وعلى سبيل المثال: على الرغم من تمتع الولايات المتحدة بأعلى متوسط دخل محسوب بتعادلية القدرة الشرائية، فإنها لا

Book mockup (Linear Naskh)

تراجع دخل الفرد في الصين بتعادلية القوة الشرائية بنسبة ٤٤ في المائة (من ٧٧٤٠ دولارًا إلى ٥٣٧٠ دولارًا)، بينما ارتفع رقم سنغافورة بنسبة ٥٣ في المائة (من ٣١،٧١٠ دولار إلى ٤٨،٥٢٠ دولار) بين عشية وضحاها.

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Book mockup (Modern Naskh)

تراجع دخل الفرد في الصين بتعادلية القوة الشرائية بنسبة ٤٤ في المائة (من ٧٧٤٠ دولارًا إلى ٥٣٧٠ دولارًا)، بينما ارتفع رقم سنغافورة بنسبة ٥٣ في المائة (من ٣١،٧١٠ دولار إلى ٤٨،٥٢٠ دولار) بين عشية وضحاها.

وعلى الرغم من هذه النقائص، ربما يعطينا دخل البلد مقدرًا بالدولارات الدولية فكرة أفضل عن مستوى معيشته مما يفعل دخله الدولاري بمعدل التبادل السوقي. وإذا حسبنا مداخيل البلدان المختلفة بالدولارات الدولية، فإن الولايات المتحدة (تكاد) تعود إلى قمة العالم. يعتمد الأمر على التقدير، لكن لوكسمبورغ هو البلد الوحيد الذي لديه دخل للفرد بتعادلية القدرة الشرائية أعلى من دخل الولايات المتحدة محسوبًا بكل التقديرات. لذا، فطالما نحينا جانبًا لوكسمبورج، الدّويلة المدينة المأهولة بأقل من نصف مليون نسمة، فإن المواطن الأمريكي المتوسط يمكنه بدخله شراء أكبر كمية من البضائع والخدمات في العالم.

فهل يسمح لنا هذا بأن نقول إن الولايات المتحدة لديها أعلى مستوى معيشة في العالم؟ ربما. لكن هناك بعض الأشياء التي علينا وضعها في الاعتبار قبل أن نقفز إلى تلك النتيجة.

هل يعيشون حقًّا حياة أفضل؟

إن امتلاك متوسط دخل أعلى من البلدان الأخرى لا يعني أصلًا بالضرورة أن كل مواطني الولايات المتحدة يعيشون حياة أفضل من نظرائهم الأجانب. فأن يكون هذا هو الواقع أمر يعتمد على توزيع الدخل. وبالطبع، فما من بلد يعطينا متوسط الدخل فيه الصورة الحقيقية للطريقة التي يعيش بها الناس، ولكن في بلد ذي تفاوت أعلى فمن المرجح أن يكون مضللًا دونًا عن غيره. ونظرًا لأن الولايات المتحدة لديها، وبتفوق، أكثر توزيعات المداخيل تفاوتًا بين البلدان الغنية، فيمكننا من دون مجازفة تخمين أن دخل الفرد الأمريكي يغالي في تصوير مستويات المعيشة الفعلية الخاصة بعدد من المواطنين أكبر مما في حالة البلدان الأخرى. وهذا التخمين تدعمه مؤشرات أخرى عن مستويات المعيشة. وعلى سبيل المثال: على الرغم من تمتع الولايات المتحدة بأعلى متوسط دخل

Book mockup (Latinised Arabic)

تراجع دخل الفرد في الصين بتعادلية القوة الشرائية بنسبة ٤٤ في المائة (من ٧٧٤٠ دولارًا إلى ٥٣٧٠ دولارًا)، بينما ارتفع رقم سنغافورة بنسبة ٥٣ في المائة (من ٣١،٧١٠ دولار إلى ٤٨،٥٢٠ دولار) بين عشية وضحاها.

وعلى الرغم من هذه النقائص، ربما يعطينا دخل البلد مقدرًا بالدولارات الدولية فكرة أفضل عن مستوى معيشته مما يفعل دخله الدولاري بمعدل التبادل السوقي. وإذا حسبنا مداخيل البلدان المختلفة بالدولارات الدولية، فإن الولايات المتحدة (تكاد) تعود إلى قمة العالم. يعتمد الأمر على التقدير، لكن لوكسمبورغ هو البلد الوحيد الذي لديه دخل للفرد بتعادلية القدرة الشرائية أعلى من دخل الولايات المتحدة محسوبًا بكل التقديرات. لذا، فطالما نحينا جانبًا لوكسمبورج، الدّويلة المدينة المأهولة بأقل من نصف مليون نسمة، فإن المواطن الأمريكي المتوسط يمكنه بدخله شراء أكبر كمية من البضائع والخدمات في العالم.

فهل يسمح لنا هذا بأن نقول إن الولايات المتحدة لديها أعلى مستوى معيشة في العالم؟ ربما. لكن هناك بعض الأشياء التي علينا وضعها في الاعتبار قبل أن نقفز إلى تلك النتيجة.

هل يعيشون حقًّا حياة أفضل؟

إن امتلاك متوسط دخل أعلى من البلدان الأخرى لا يعني أصلًا بالضرورة أن كل مواطني الولايات المتحدة يعيشون حياة أفضل من نظرائهم الأجانب. فأن يكون هذا هو الواقع أمر يعتمد على توزيع الدخل. وبالطبع، فما من بلد يعطينا متوسط الدخل فيه الصورة الحقيقية للطريقة التي يعيش بها الناس، ولكن في بلد ذي تفاوت أعلى فمن المرجح أن يكون مضللًا دونًا عن غيره. ونظرًا لأن الولايات المتحدة لديها، وبتفوق، أكثر توزيعات المداخيل تفاوتًا بين البلدان الغنية، فيمكننا من دون مجازفة تخمين أن دخل الفرد الأمريكي يغالي في تصوير مستويات المعيشة الفعلية الخاصة بعدد من المواطنين أكبر مما في حالة البلدان الأخرى. وهذا التخمين تدعمه مؤشرات أخرى عن مستويات المعيشة. وعلى سبيل المثال: على الرغم من تمتع الولايات المتحدة بأعلى متوسط دخل محسوب بتعادلية القدرة الشرائية، فإنها لا تحتل إلا المركز الثلاثين

Newspaper mockups (all models) at 25% of actual size







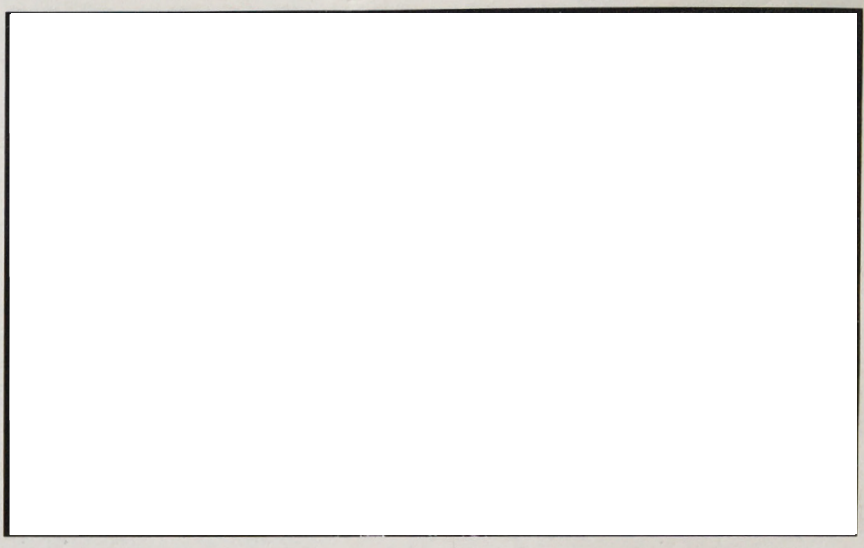






Newspaper mockup (Classical Naskh)

بـ٣٥٠٠ دولار.. مايكروسوفت تطلق نظارة الواقع المعزز «هولولينس ٢»



نظارة هولولينس ٢ الجديدة تدعم استخدام النظارات الطبية (رويترز)

برشلونة - تكنولوجيا

كشفت شركة مايكروسوفت، في حدث خاص أقامته بمدينة برشلونة الإسبانية على هامش مؤتمر الجوال العالمي (MWC ٢٠١٩)، عن الجيل الثاني من نظارتها للواقع المعزز «هولولينس».

والواقع المعزز هو إسقاط أجسام وهمية ثلاثية الأبعاد على الواقع الحقيقي لتعزيزه بمعلومات أو رسومات. ولتوضيح ذلك تخيل وجود أسهم تظهر أمامك لترشدك إلى الطريق أثناء السير، أو تعليمات طفو أمامك أثناء إصلاح آلة ما.

وتحمل النظارة الجديدة اسم هولولينس ٢، وستطرحها الشركة في وقت لاحق هذا العام مقابل ٣٥٠٠ دولار، علما أن الطلب المسبق عليها بدأ اليوم الأحد.

وتؤكد الشركة أن نظارة هولولينس ما تزال غير جاهزة للاستخدام في المنزل، ولذلك هي تركز على عمال التصنيع والمصممين الصناعيين والجيش كزبائن محتملين.

وتأتي النظارة الجديدة بحجم أصغر من الجيل السابق، مع وجود حشوة إضافية في مقدمة الجهاز، ومفتاح ضبط خلفي للحفاظ على النظارة في مكانها.

وتتضمن النظارة مستشعرات لتتبع حركة العينين تقع قرب تجويف الأنف في النظارة، وستستخدم هذه المستشعرات لتسجيل الدخول في الجهاز، حفاظا على إعدادات المستخدم الخاصة في حال كان يشارك النظارة مع زميل أو صديق.

كما تتضمن النظارة نظام التعرف على قزحية العين، الذي يعمل مع تقنية «ويندوز هللو» لتسجيل الدخول في نظارة هولولينس ٢.

تُميز نظارة هولولينس الأولى إيماءات النقر والحركات الهوائية الأساسية، لكن هذه النظارة الجديدة تُميز ٢١ نقطة من التعبيرات لكل يد؛ مما يتيح حركات يد أكثر واقعية.

إلى جانب ذلك، حسنت الشركة «مجال الرؤية» (FoV) في هولولينس ٢، أي مقدار الأجسام الوهمية ثلاثية الأبعاد التي يمكنك رؤيتها في وقت معين. ويبلغ مقدار مجال الرؤية في النظارة الجديدة ٥٢ درجة، تقريبا ضعف ما كان متاحا في الجيل منها (٣٠ درجة).

وتدعم النظارة الجديدة استخدام ال الطبية أثناء ارتدائها، مما تعد ميزة لها أ النظارات المنافسة، مثل نظارة «ماجي التي لا تعمل مع النظارات الطبية.

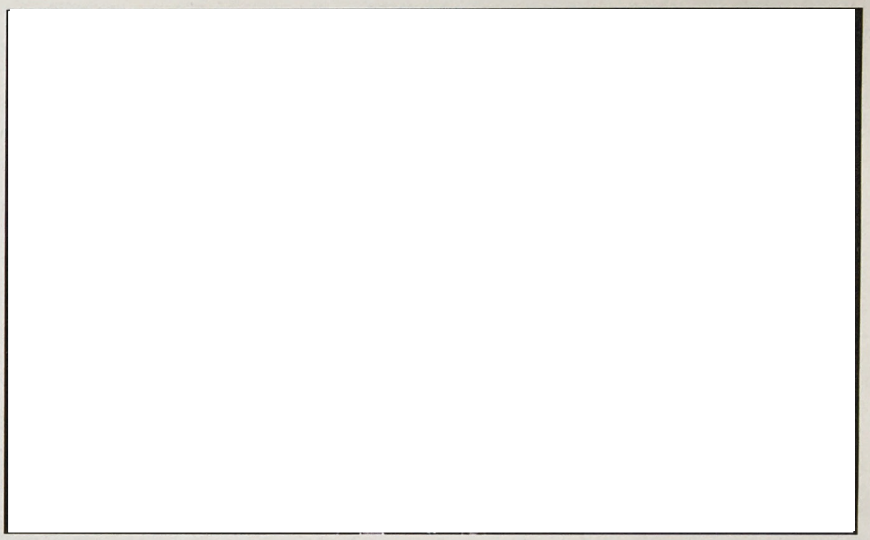
وقد أعلنت الشركة عن تطبيقات ه جديدة تعتقد أن معظم الشركات ستـ منها، مثل تطبيق «دايناميكس ٣٦٥ الذي يتيح للشركات وضع إرشادات في الواقع المعزز، مثل إرشادات توجي ما لإصلاح آلة مكسورة.

وهناك أيضا تطبيق «دايناميكس ٥ لي آوت»، الذي ينشئ خرائط للمبنى تتواجد فيه، ويخزنها لدى مايكروسوفت يتيح مثلا للمستخدم إحلال جسم وه



Newspaper mockup (Regular Naskh)

بـ٣٥٠٠ دولار.. مايكروسـوفت تطلق نظـارة الواقع المعـزز «هولولينس ٢»



نظارة هولولينس ٢ الجديدة تدعم استخدام النظارات الطبية (رويترز)

برشلونة – تكنولوجيا

كشفت شركة مايكروسوفت، في حدث خاص أقامته بمدينة برشلونة الإسبانية على هامش مؤتمر الجوال العالمي (MWC ٢٠١٩)، عن الجيل الثاني من نظارتها للواقع المعزز «هولولينس».

والواقع المعزز هو إسقاط أجسام وهمية ثلاثية الأبعاد على الواقع الحقيقي لتعزيزه بمعلومات أو رسومات. ولتوضيح ذلك تخيل وجود أسهم تظهر أمامك لترشدك إلى الطريق أثناء السير، أو تعليمات طفو أمامك أثناء إصلاح آلة ما.

وتحمل النظارة الجديدة اسم هولولينس ٢، وستطرحها الشركة في وقت لاحق هذا العام مقابل ٣٥٠٠ دولار، علما أن الطلب المسبق عليها بدأ اليوم الأحد.

وتؤكد الشركة أن نظارة هولولينس ما تزال غير جاهزة للاستخدام في المنزل، ولذلك هي تركز على عمال التصنيع والمصممين الصناعيين والجيش كزبائن محتملين.

وتأتي النظارة الجديدة بحجم أصغر من الجيل السابق، مع وجود حشوة إضافية في مقدمة الجهاز، ومفتاح ضبط خلفي للحفاظ على النظارة في مكانها.

وتتضمن النظارة مستشعرات لتتبع حركة العينين تقع قرب تجويف الأنف في النظارة، وستستخدم هذه المستشعرات لتسجيل الدخول في الجهاز، حفاظا على إعدادات المستخدم الخاصة في حال كان يشارك النظارة مع زميل أو صديق.

كما تتضمن النظارة نظام التعرف على قزحية العين، الذي يعمل مع تقنية «ويندوز هللو» لتسجيل الدخول في نظارة هولولينس.

تُميز نظارة هولولينس الأولى إيماءات النقر والحركات الهوائية الأساسية، لكن هذه النظارة الجديدة تُميز ٢١ نقطة من التعبيرات لكل يد؛ مما يتيح حركات يد أكثر واقعية.

إلى جانب ذلك، حسنت الشركة «مجال الرؤية» (FoV) في هولولينس ٢، أي مقدار الأجسام الوهمية ثلاثية الأبعد التي يمكنك رؤيتها في وقت معين. ويبلغ مقدار مجال الرؤية في النظارة الجديدة ٥٢ درجة، وهو

تقريبا ضعف ما كان متاحا في الجي
منها (٣٠ درجة).

وتدعم النظارة الجديدة استخدا
النظارات الطبية أثناء ارتدائها، مما
ميزة لها أمام النظارات المنافسة، م
«ماجيك ليب» التي لا تعمل مع الن
الطبية.

وأعلنت الشركة عن تطبيقات هو
جديدة تعتقد أن معظم الشركات س
منها، مثل تطبيق «دايناميكس ٣٦٥
الذي يتيح للشركات وضع إرشادا
في الواقع المعزز، مثل إرشادات تو
عامل ما لإصلاح آلة مكسورة.

وهناك أيضا تطبيق «دايناميكس
لي آوت»، الذي ينشئ خرائط للمب
تتواجد فيه، ويخزنها لدى مايكروس
وهذا يتيح مثلا للمستخدم إحلال
وهمي ثلاثي الأبعاد على طاولة في



Newspaper mockup (Simplified Arabic)

بـ٣٥٠٠ دولار.. مايكروسوفت تطلق نظارة الواقع المعزز «هولولينس ٢»



نظارة هولولينس ٢ الجديدة تدعم استخدام النظارات الطبية (رويترز)

برشلونة - تكنولوجيا

كشفت شركة مايكروسوفت، في حدث خاص أقامته بمدينة برشلونة الإسبانية على هامش مؤتمر الجوال العالمي (MWC ٢٠١٩)، عن الجيل الثاني من نظارتها للواقع المعزز «هولولينس».

والواقع المعزز هو إسقاط أجسام وهمية ثلاثية الأبعاد على الواقع الحقيقي لتعزيزه بمعلومات أو رسومات. ولتوضيح ذلك تخيل وجود أسهم تظهر أمامك لترشدك إلى الطريق أثناء السير، أو تعليمات طفو أمامك أثناء إصلاح آلة ما.

وتحمل النظارة الجديدة اسم هولولينس ٢، وستطرحها الشركة في وقت لاحق هذا العام مقابل ٣٥٠٠ دولار، علما أن الطلب المسبق عليها بدأ اليوم الأحد.

وتؤكد الشركة أن نظارة هولولينس ما تزال غير جاهزة للاستخدام في المنزل، ولذلك هي تركز على عمال التصنيع والمصممين الصناعيين والجيش كزبائن محتملين.

وتأتي النظارة الجديدة بحجم أصغر من الجيل السابق، مع وجود حشوة إضافية في مقدمة الجهاز، ومفتاح ضبط خلفي للحفاظ على النظارة في مكانها.

وتتضمن النظارة مستشعرات لتتبع حركة العينين تقع قرب تجويف الأنف في النظارة، وستستخدم هذه المستشعرات لتسجيل الدخول في الجهاز، حفاظا على إعدادات المستخدم الخاصة في حال كان يشارك النظارة مع زميل أو صديق.

كما تتضمن النظارة نظام التعرف على قزحية العين، الذي يعمل مع تقنية «ويندوز هللو» لتسجيل الدخول في نظارة هولولينس.

تُميز نظارة هولولينس الأولى إيماءات النقر والحركات الهوائية الأساسية، لكن هذه النظارة الجديدة تُميز ٢١ نقطة من التعبيرات لكل يد؛ مما يتيح حركات يد أكثر واقعية.

إلى جانب ذلك، حسنت الشركة «مجال الرؤية» (FoV) في هولولينس ٢، أي مقدار الأجسام الوهمية ثلاثية الأبعد التي يمكنك رؤيتها في وقت معين. ويبلغ مقدار مجال الرؤية في النظارة الجديدة ٥٢ درجة، وهو تقريبا ضعف ما كان متاحا في ال منها (٣٠ درجة).

وتدعم النظارة الجديدة استخدا النظارات الطبية أثناء ارتدائها، مم ميزة لها أمام النظارات المنافسة، « «ماجيك ليب» التي لا تعمل مع النظ الطبية.

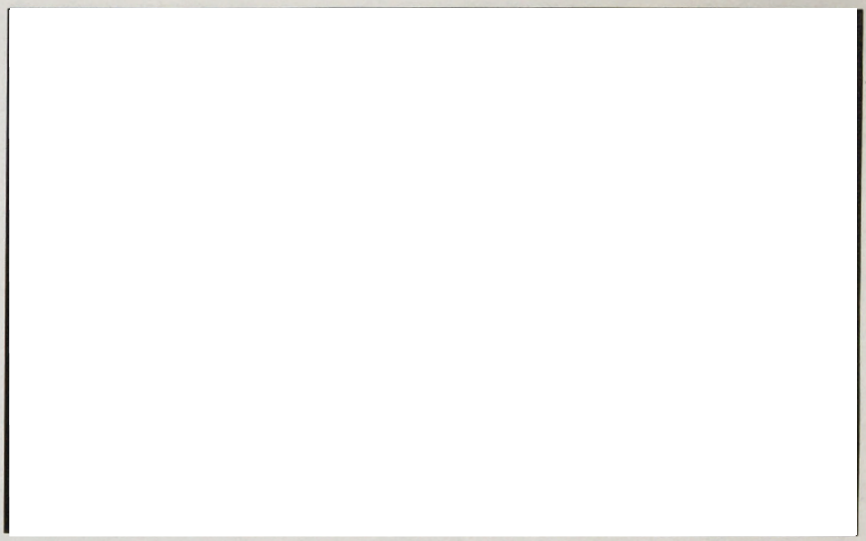
وأعلنت الشركة عن تطبيقات هو جديدة تعتقد أن معظم الشركات س منها، مثل تطبيق «دايناميكس ٣٦٥ الذي يتيح للشركات وضع إرشادا في الواقع المعزز، مثل إرشادات تو ما لإصلاح آلة مكسورة.

وهناك أيضا تطبيق «دايناميكس لي آوت»، الذي ينشئ خرائط للمبن تتواجد فيه، ويخزنها لدى مايكروس وهذا يتيح مثلا للمستخدم إحلال ج وهمي ثلاثي الأبعاد على طاولة في



Newspaper mockup (Linear Naskh)

بـ٣٥٠٠ دولار.. مايكروسوفت تطلق نظارة الواقع المعزز «هولولينس ٢»



نظارة هولولينس ٢ الجديدة تدعم استخدام النظارات الطبية (رويترز)

برشلونة - تكنولوجيا

كشفت شركة مايكروسوفت، في حدث خاص أقامته بمدينة برشلونة الإسبانية على هامش مؤتمر الجوال العالمي (MWC ٢٠١٩)، عن الجيل الثاني من نظارتها للواقع المعزز «هولولينس».

والواقع المعزز هو إسقاط أجسام وهمية ثلاثية الأبعاد على الواقع الحقيقي لتعزيزه بمعلومات أو رسومات. ولتوضيح ذلك تخيل وجود أسهم تظهر أمامك لترشدك إلى الطريق أثناء السير، أو تعليمات طفو أمامك أثناء إصلاح آلة ما.

وتحمل النظارة الجديدة اسم هولولينس ٢، وستطرحها الشركة في وقت لاحق هذا العام مقابل ٣٥٠٠ دولار، علما أن الطلب المسبق عليها بدأ اليوم الأحد.

وتؤكد الشركة أن نظارة هولولينس ما تزال غير جاهزة للاستخدام في المنزل، ولذلك هي تركز على عمال التصنيع والمصممين الصناعيين والجيش كزبائن محتملين.

وتأتي النظارة الجديدة بحجم أصغر من الجيل السابق، مع وجود حشوة إضافية في مقدمة الجهاز، ومفتاح ضبط خلفي للحفاظ على النظارة في مكانها.

وتتضمن النظارة مستشعرات لتتبع حركة العينين تقع قرب تجويف الأنف في النظارة، وستستخدم هذه المستشعرات لتسجيل الدخول في الجهاز، حفاظا على إعدادات المستخدم الخاصة في حال كان يشارك النظارة مع زميل أو صديق.

كما تتضمن النظارة نظام التعرف على قزحية العين، الذي يعمل مع تقنية «ويندوز هللو» لتسجيل الدخول في نظارة هولولينس.

تُميز نظارة هولولينس الأولى إيماءات النقر والحركات الهوائية الأساسية، لكن هذه النظارة الجديدة تُميز ٢١ نقطة من التعبيرات لكل يد؛ مما يتيح حركات يد أكثر واقعية.

إلى جانب ذلك، حسنت الشركة «مجال الرؤية» (FoV) في هولولينس ٢، أي مقدار الأجسام الوهمية ثلاثية الأبعد التي يمكنك رؤيتها في وقت معين. ويبلغ مقدار مجال الرؤية في النظارة الجديدة ٥٢ درج
تقريبا ضعف ما كان متاحا في الجي
منها (٣٠ درجة).

تدعم النظارة الجديدة استخدام
الطبية أثناء ارتدائها، مما تعد ميزة
النظارات المنافسة، مثل نظارة «ما
التي لا تعمل مع النظارات الطبية.

وأعلنت الشركة عن تطبيقات هو
جديدة تعتقد أن معظم الشركات س
منها، مثل تطبيق «دايناميكس ٣٦٥
الذي يتيح للشركات وضع إرشادات
في الواقع المعزز، مثل إرشادات تو
ما لإصلاح آلة مكسورة.

وهناك أيضا تطبيق «دايناميكس
لي آوت»، الذي ينشئ خرائط للمبن
تتواجد فيه، ويخزنها لدى مايكروس
وهذا يتيح مثلا للمستخدم إحلال
وهمي ثلاثي الأبعاد على طاولة في



Newspaper mockup (Modern Naskh)

بـ٣٥٠٠ دولار.. مايكروسوفت تطلق نظارة الواقع المعزز «هولولينس ٢»

نظارة هولولينس ٢ الجديدة تدعم استخدام النظارات الطبية (رويترز)

برشلونة - تكنولوجيا

كشفت شركة مايكروسوفت، في حدث خاص أقامته بمدينة برشلونة الإسبانية على هامش مؤتمر الجوال العالمي (MWC ٢٠١٩)، عن الجيل الثاني من نظارتها للواقع المعزز «هولولينس».

والواقع المعزز هو إسقاط أجسام وهمية ثلاثية الأبعاد على الواقع الحقيقي لتعزيزه بمعلومات أو رسومات. ولتوضيح ذلك تخيل وجود أسهم تظهر أمامك لترشدك إلى الطريق أثناء السير، أو تعليمات طفو أمامك أثناء إصلاح آلة ما.

وتحمل النظارة الجديدة اسم هولولينس ٢، وستطرحها الشركة في وقت لاحق هذا العام مقابل ٣٥٠٠ دولار، علما أن الطلب المسبق عليها بدأ اليوم الأحد.

وتؤكد الشركة أن نظارة هولولينس ما تزال غير جاهزة للاستخدام في المنزل، ولذلك هي تركز على عمال التصنيع والمصممين الصناعيين والجيش كزبائن محتملين.

وتأتي النظارة الجديدة بحجم أصغر من الجيل السابق، مع وجود حشوة إضافية في مقدمة الجهاز، ومفتاح ضبط خلفي للحفاظ على النظارة في مكانها.

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كما تتضمن النظارة نظام التعرف على قزحية العين، الذي يعمل مع تقنية «ويندوز هللو» لتسجيل الدخول في نظارة هولولينس ٢.

تُميز نظارة هولولينس الأولى إيماءات النقر والحركات الهوائية الأساسية، لكن هذه النظارة الجديدة تُميز ٢١ نقطة من التعبيرات لكل يد؛ مما يتيح حركات يد أكثر واقعية.

إلى جانب ذلك، حسنت الشركة «مجال الرؤية» (FoV) في هولولينس ٢، أي مقدار الأجسام الوهمية ثلاثية الأبعد التي يمكنك رؤيتها في وقت معين. ويبلغ مقدار مجال الرؤية في النظارة الجديدة ٥٢ درجة تقريبا ضعف ما كان متاحا في الجيل (٣٠ درجة).

وتدعم النظارة الجديدة استخدا الطبية أثناء ارتدائها، مما تعد ميزة النظارات المنافسة، مثل نظارة «ماج التي لا تعمل مع النظارات الطبية.

وأعلنت الشركة عن تطبيقات هو جديدة تعتقد أن معظم الشركات س منها، مثل تطبيق «دايناميكس ٣٦٥ الذي يتيح للشركات وضع إرشادات الواقع المعزز، مثل إرشادات توجيه لإصلاح آلة مكسورة.

وهناك أيضا تطبيق «دايناميكس لي آوت»، الذي ينشئ خرائط للمبنى تتواجد فيه، ويخزنها لدى مايكروسو يتيح مثلا للمستخدم إحلال جسم و



Newspaper mockup (Latinised Arabic)

بـ٣٥٠٠ دولار.. مايكروسوفت تطلق نظارة الواقع المعزز هولولينس ٢



نظارة هولولينس ٢ الجديدة تدعم استخدام النظارات الطبية (رويترز)

برشلونة - تكنولوجيا

كشفت شركة مايكروسوفت، في حدث خاص أقامته بمدينة برشلونة الإسبانية على هامش مؤتمر الجوال العالمي (MWC ٢)، عن الجيل الثاني من نظارتها للواقع المعزز هولولينس.

والواقع المعزز هو إسقاط أجسام وهمية ثلاثية الأبعاد على الواقع الحقيقي لتعزيزه بمعلومات أو رسومات. ولتوضيح ذلك تخيل وجود أسهم تظهر أمامك لترشدك إلى الطريق أثناء السير، أو تعليمات طفو أمامك أثناء إصلاح آلة ما.

وتحمل النظارة الجديدة اسم هولولينس٢، وستطرحها الشركة في وقت لاحق هذا العام مقابل ٣٥٠٠ دولار، علما أن الطلب المسبق عليها بدأ اليوم الأحد.

وتؤكد الشركة أن نظارة هولولينس ٢ ما تزال غير جاهزة للاستخدام في المنزل، ولذلك هي تركز على عمال التصنيع والمصممين الهندسيين والصناعيين والجيش كزبائن محتملين.

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تُميز نظارة هولولينس الأولى إيماءات النقر والحركات الهوائية الأساسية، لكن هذه النظارة الجديدة تُميز ٢١ نقطة من التعبيرات لكل يد؛ مما يتيح حركات يد أكثر واقعية.

إلى جانب ذلك، حسنت الشركة «مجال الرؤية» (FoV) في هولولينس ٢، أي مقدار الأجسام الوهمية ثلاثية الأبعد التي يمكنك رؤيتها في وقت معين. ويبلغ مقدار مجال الرؤية في النظارة الجديدة ٥٢ درجة تقريبا ضعف ما كان متاحا في الجيل منها (٣٠ درجة).

وتدعم النظارة الجديدة استخدام النظارات الطبية أثناء ارتدائها، مما ميزة لها أمام النظارات المنافسة، نظارة «ماجيك ليب» التي لا تعمل مع النظارات الطبية.

وأعلنت الشركة عن تطبيقات هول جديدة تعتقد أن معظم الشركات ستستفيد منها. علي سبيل المثال تطبيق «داينامكس ٣٦٥ غايدز»، الذ للشركات وضع إرشادات موجهة في المعزز، مثل إرشادات توجيه عامل م آلة مكسورة.

وهناك أيضا تطبيق «داينامكس لي آوت»، الذي ينشئ خرائط للمبنى تتواجد فيه، ويخزنها لدى مايكروس وهذا يتيح مثلا للمستخدم إحلال ج

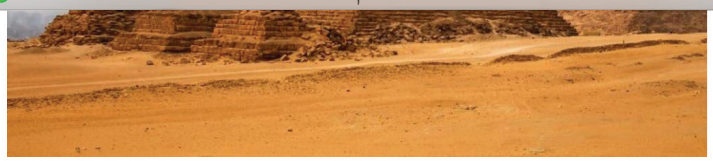


Digital mockups (all models) at 50% of actual size



Digital mockups (Classical Naskh)

أ



ثلاثة من أكبر الأهرامات المصرية اثنان بالجيزة والآخر في دهشور ترتصف بشكل مميز (ساينس ألرت)

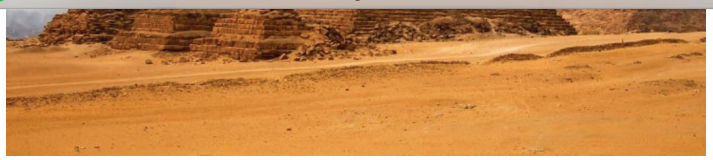
أذهلت أهرامات الجيزة الباحثين قرونا عديدة لم تكن فيها الفراغات الغامضة والغرف المخفية وحدها مدعاة للتساؤل، فقد تمحور اللغز المحير حول تقنيات البناء التي استخدمها المصريون القدماء لإقامة هذه البنايات المتناسقة الرائعة بدون تكنولوجيا حديثة.

ومع انحرافه الطفيف فإن الجوانب مربعة الشكل لقاعدة هرم خوفو الأكبر البالغ ارتفاعه ١٣٨,٨ مترا (٤٥٥ قدمًا) تبدو مستقيمة ومتناسقة تماما على امتداد الجهات الرئيسية شرقا وغربا شمالا وجنوبا بدقة تصل إلى ١٥/١ من الدرجة.

ورغم ظهور العديد من النظريات -كالاعتماد على نجم القطب أو ظل الشمس في محاولة لتفسير ذلك التراصف غير المألوف- فإنه لم

Digital mockups (Regular Naskh)

و



ثلاثة من أكبر الأهرامات المصرية اثنان بالجيزة والآخر في دهشور ترتصف بشكل مميز (ساينس ألرت)

أذهلت أهرامات الجيزة الباحثين قرونا عديدة لم تكن فيها الفراغات الغامضة والغرف المخفية وحدها مدعاة للتساؤل، فقد تمحور اللغز المحير حول تقنيات البناء التي استخدمها المصريون القدماء لإقامة هذه البنايات المتناسقة الرائعة بدون تكنولوجيا حديثة.

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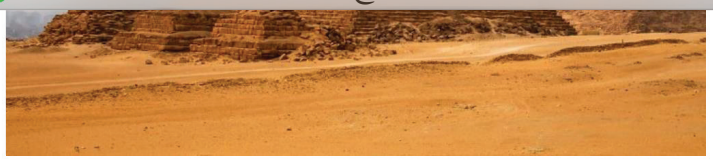
ورغم ظهور العديد من النظريات -كالاعتماد على نجم القطب أو ظل الشمس في محاولة لتفسير ذلك التراصف غير المألوف- فإنه لم يتمكن أحد من أن يدلل بدقة على كيفية إنجاز ذلك التناسق.

Digital mockups (Simplified Arabic)

ج



ثلاثة من أكبر الأهرامات المصرية اثنان بالجيزة والآخر في دهشور ترتصف بشكل مميز (ساينس ألرت)

أذهلت أهرامات الجيزة الباحثين قرونا عديدة لم تكن فيها الفراغات الغامضة والغرف المخفية وحدها مدعاة للتساؤل، فقد تمحور اللغز المحير حول تقنيات البناء التي استخدمها المصريون القدماء لإقامة هذه البنايات المتناسقة الرائعة بدون تكنولوجيا حديثة.

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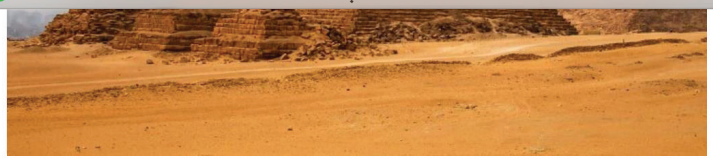
Digital mockups (Linear Naskh)

ب



ثلاثة من أكبر الأهرامات المصرية اثنان بالجيزة والآخر في دهشور ترتصف بشكل مميز (ساينس ألرت)

أذهلت أهرامات الجيزة الباحثين قرونا عديدة لم تكن فيها الفراغات الغامضة والغرف المخفية وحدها مدعاة للتساؤل، فقد تمحور اللغز المحير حول تقنيات البناء التي استخدمها المصريون القدماء لإقامة هذه البنايات المتناسقة الرائعة بدون تكنولوجيا حديثة.

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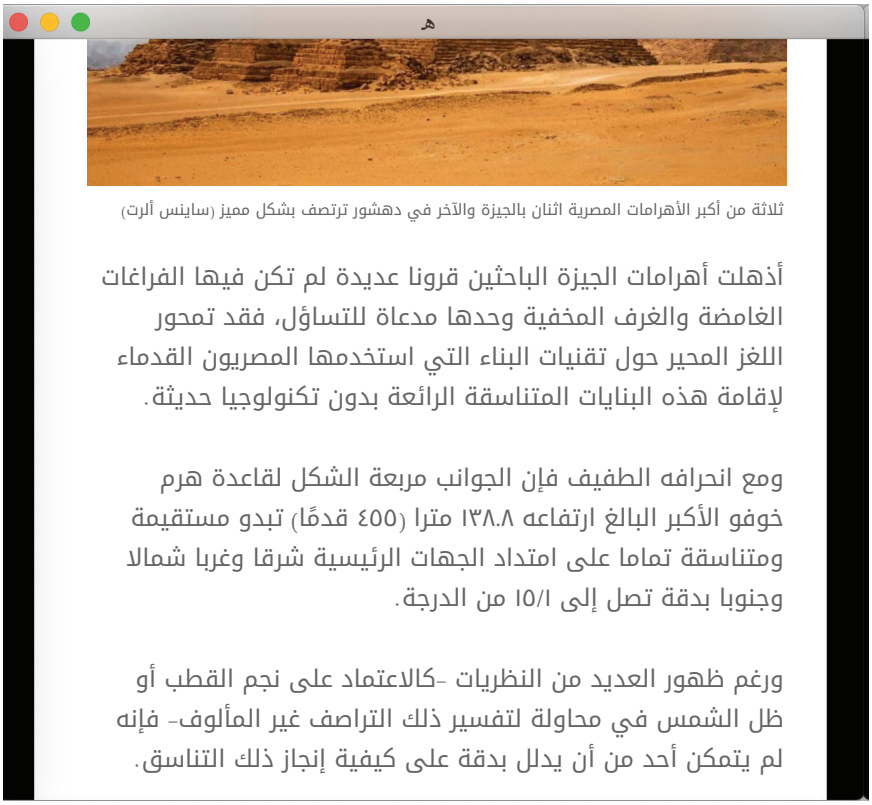
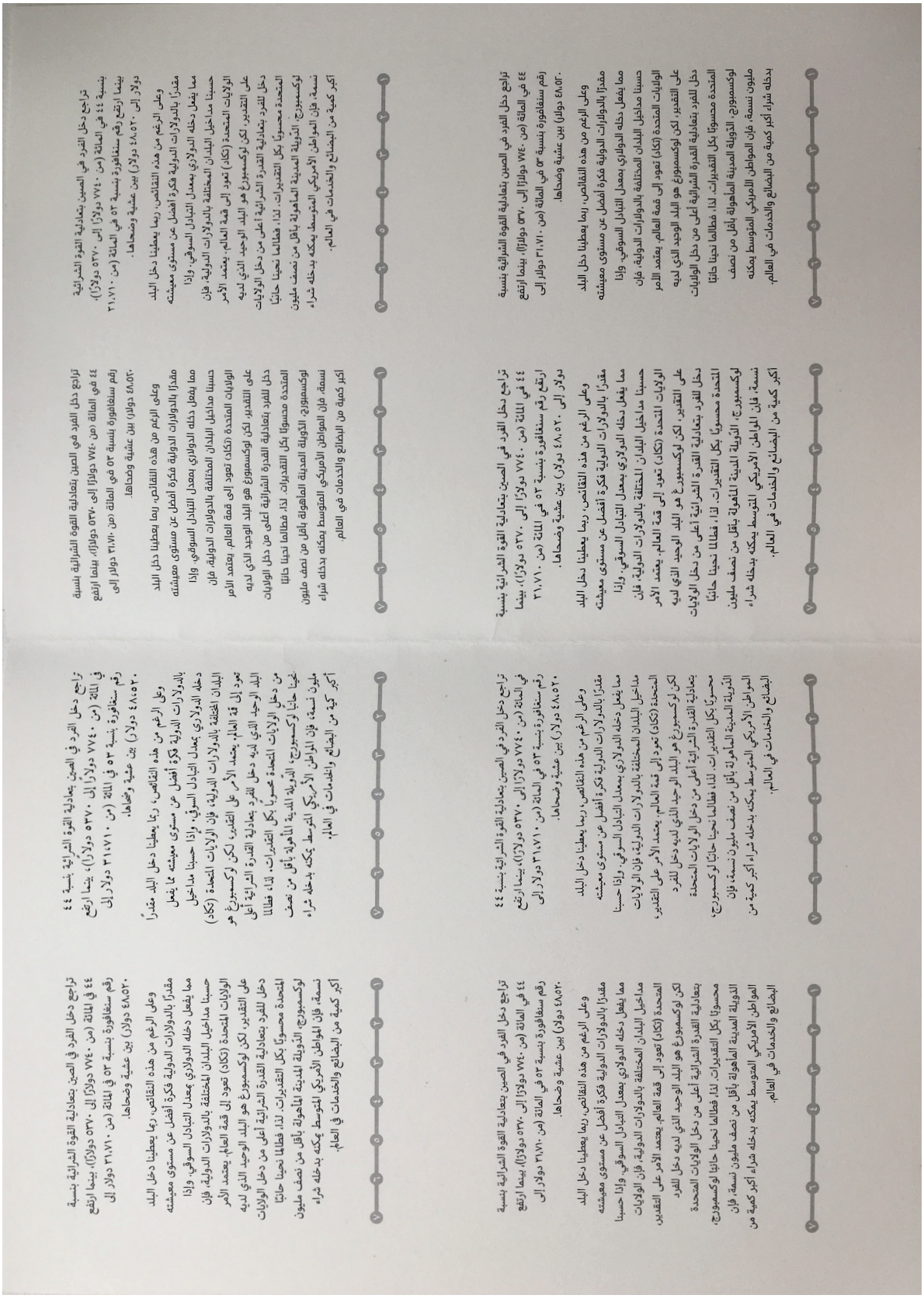
Digital mockups (Latinised Arabic)



Digital mockups (Modern Naskh)



Secondary rating task board*



* To randomise the order of the models across participants, three boards with different sequencing of the models were used throughout the study.

Appendix D: Users' interviews transcription[1]

Interviewee 1: Pascale Kahwagi
Hachette-Antoine/Nawfal publishing, Lebanon
14 November 2019 (interview through email in English language)

Pascale Kahwaji is the Editorial Director of the Trade Department at Hachette Antoine (as opposed to the Schoolbooks Department). Pascale is 51 years old. She studied translation at Saint-Joseph University then spent a few years in Paris studying and working –first in a bookshop, then in a small publishing company. She has been working in the publishing field (book layout and editing) ever since, mainly with universities, museums, NGOs and UN agencies. Kahwaji joined Hachette Antoine in October 2010.

1. What is the typeface that you use for long text in your books?
Nassim Arabic designed by Titus Nemeth and Greta Arabic designed by Kristyan Sarkis.

2. Do you use one typeface or a set of typefaces?
We use different typefaces for the covers.

3. How were the typefaces chosen?
By our designers, while working on our visual identity.

4. What software do you use for designing the book?
Adobe InDesign

5. What is the process you apply for designing the book? Are there guidelines that need to be followed? What are the main considerations? (Especially in relation to typesetting)
We defined templates for each series (fiction/non-fiction/classics, etc.) and follow relatively strict guidelines except when it comes to layouts adapted from foreign languages like in children's books or in very rare special cases. We want the reader to be comfortable and our books to look neat and modern.

6. Can you please elaborate on the use of Nassim and Greta? For example, do you use each for specific book genres (fiction/non-fiction/classics, etc,.) or how does it go?
We tend to use Nassim for fiction/non-fiction and classics and keep Greta for more elaborate projects such as coffee table books. These are not the only

1. The interviews are transcribed in the English language as it was found more practical to do so for the purpose of consistency and clarity. The first interview was performed in English, therefore, the text is kept as it is, except for minor typographical edits. Interviews 2 and 3 were performed in local dialects while interviews 4 and 5 included lots of English terms and expressions, therefore, the English transcription probably better serves their clarity.

typefaces we use but I consider them as corporate ones along with Kufam by Wael Morcos which I forgot to mention. We use Kufam in our fiction covers mainly. We also bought typefaces from Pascal Zoghbi, Khajag Apelian and other talented type designers.

7. How has the design of the books changed over time? Have other typefaces been used for text?
The new designs were implemented 2 years after the establishment of the company (founded in 2010). The books were typeset in a classical old-fashioned way.

8. From the provided samples, how would you rate these typefaces with regard to their suitability for setting text in books (from 7 being the most suitable to 1 being not at all suitable)?[1]
Modern Naskh: 7
Regular Naskh: 6
Classical Naskh: 5
Simplified Arabic: 4
Linear Naskh: 4
Latinised Arabic: 3

9. Please provide a brief rationale behind your rating
Regular Naskh and Classical Naskh [rated 6 and 5] are legible but too old-fashioned in my opinion. I wouldn't use them. Simplified Arabic and Linear Naskh [both rated 4] are not nice nor elegant. Modern Naskh [rated 7] is legible and could be a nice option for classical texts. Latinised Arabic [rated 3] is not suitable for long text. I might use it for headings.

1. As previously demonstrated in the mockups, the models were not mentioned by their names during the interviews but rather referred to by initials or numerals. The author replaced the initials/numerals by the names of the models during the transcription.

Interview 2: Hassan Younes
Dar Al Watan, Qatar
8th September 2019 (interview through phone in Arabic language, edited and translated by the author)

Hassan Younes is the chief consultant of editing of *Al Watan* newspaper in Qatar. He was born in 1953, studied Arabic Literature at Damascus University and graduated in 1978. He worked for 3 years as a News Editor with *Al Thawra* newspaper in Syria. He moved in 1980 to *Al Arab* newspaper, where he started as a News Editor and later got promoted to be a Managing Editor. In 1995, *Al Arab* newspaper was sold and temporarily closed. Consequently, Younes moved to *Al Watan* newspaper and worked there until the present day [at least the date of the interview]. Younes worked directly with the design team at the different newspapers and has a close observation of the design process and type-use practices.

1. What is the typeface that you use for text in your printed newspaper? And how was it chosen?
We use AXT Tamim for texts. We commissioned a Lebanese type designer (couldn't remember his name) to design the typeface. We shared our preferences with him as a reference for the design direction.

2. What are the main considerations for choosing the text typeface in a newspaper?
The typeface has to be comfortable for reading. Newspapers are text-heavy. There are usually 8 columns of text on each page; sometimes there are 6. So, with this extensive texts, the reader should get a typeface that is comfortable to read.

Text typefaces in newspapers are expected to be similar. Newspapers show their unique visual identity through the headlines typefaces. There are newspapers that use a variety of typefaces for headlines, but I don't think this is a professional practice. We use a unified typeface for our headlines.

3. What software do you use for designing the newspaper?
InDesign –it's the best software for this type of documents. We used to work with Quark XPress before that. Before Quark, we used Al-Nashir Al-Sahafi which was introduced with the beginning of desktop publishing applications. There were different machines for typesetting before that. *Al Watan* newspaper started in 1995 so it used desktop publishing applications from the beginning.

4. Did your text typeface change with the change of the typesetting technologies?
The typeface remained very similar. It is the same style used by other Arabic newspapers. The noticeable difference is only in the typefaces used for headlines.

5. What is the process you apply for designing the newspaper? Are there guidelines that need to be followed? What are the main considerations?
There are different design considerations for different sections of the newspaper. For example, there are pages with fixed designs where only the new text replaces the older one. On other pages, the layout is decided by the length or importance of the article/piece of news. For example, if a piece of news is given 2 columns, the title would extend over the top of these two columns. In other cases, a very important piece of news can occupy the full 8 columns and the title will automatically extend over those. In other cases, it could be 5 columns for one piece of news while another piece occupies the remaining 3 columns.

6. How has the design of the newspaper changed over time? Have other typefaces been used for text?
The layout has not changed a lot. If you look at our first issue and our recent issues, you wouldn't find many differences. The text typeface has not changed a lot as well. We've requested a couple of sets of refinements on the same typefaces since 1995 but these changes are almost unnoticeable.

7. Why does your newspaper website use a different typeface from the one used in your printed newspaper? How was the typeface in your website chosen?
When we worked on the website, we nominated several typefaces. We reviewed what other newspapers use, defined our preferences and then narrowed down the choices. We were left with Greta Text and Noto Naskh which we thought were the most suitable. I voted for Greta but more opinions supported Noto Naskh.

8. From the provided samples, how would you rate the typefaces with regard to their suitability for setting text in printed newspaper on a scale of 7 (from 7 being the most suitable to 1 being not at all suitable)?
Simplified Arabic, Linear Naskh, Modern Naskh 7
Regular Naskh 6
Classical Naskh 4
Latinised Arabic 3

9. Please provide a brief rationale behind your rating
Simplified Arabic and Linear Naskh [rated 7] are very suitable for typesetting a newspaper. They are the easiest to read and skim through. They are not tiring. Linear Naskh and Simplified Arabic are slightly better than Modern Naskh [also rated 7] because they would look more clear in a small size. Regular Naskh [rated 6] is also easy to read. Classical Naskh [rated 4] is a bit tiring, although it might be acceptable in printed books. Latinised Arabic [rated 3] is tiring for the eye.

10. Can you tell me more about your experience with previous typesetting technologies? Can you share any observations on the way they affected the use of Arabic type?
During my previous work experiences, I saw all types of typesetting technologies. During my earliest years in the field, Linotype machines were used for text setting. Then came machines that used perforated tape-paper (cannot recall its name). After that, we switched to using the application Al Nashir Al Sahafi by Diwan. I remember that, in the 1980s, I was nominated by the manager at our newspaper to attend an exhibition in Dubai on newspapers devices. There, the application Al Nashir Al Sahafi by Diwan was exhibited. I was offered an introduction to the new application. I recall that they opened a page, inserted a bulk of text then added an image and gave an order to wrap the text around the image. This felt like if someone from the village travelled from to the city to see the car for the first time! Using the previous methods, if we needed to insert an image within a text, it would be a long and complicated process.

11. Throughout my research on Arabic type, I found that the Simplified Arabic approach, which is the most popular in Arabic newspapers, emerged due to technical limitations. Based on your experience, do you have any comments or observations concerning the continued use of this approach until today?
I think that, sometimes, we can get used to shortcomings –our eyes become accustomed to them. Until now, many newspapers use these typefaces. Also, nowadays, a younger generation of designers is getting more involved in newspaper design so, if there was a need for change, we would have seen it. In my opinion, the continued use of these typefaces shows that they are still very suitable for newspapers.

12. I also found throughout my research that the Simplified Arabic approach is not as popular in Arabic books as it is in newspapers. Do you probably have any comments on this interesting pattern of type use?
In the newspaper printing press where I used to work, book typesetting jobs also used to take place. I recall that book publishers used to disfavour using the Linotype machines for their books. They would consider it of lower quality. Publishers would rather prefer manual typesetting. Somehow, there used to be an appreciation for the more traditional technique. This is how books are usually done and there remained an attachment to that. The book has a personal value, therefore, it had to be done properly. There was value in the craftsmanship. Also, the typeface could have played a role in that preference. The way letters connected was considerably different between Linotype and manual typesetting. In newspapers, however, the Simplified approach was usual. Also, at a certain size, this typeface would be the most readable compared to other typefaces.

13. Until which year the headlines of the newspapers kept being produced through handwriting?
At *Al Arab* newspaper, this practice remained in use until around 1986 when digital typefaces on desktop publishing applications replaced the handwritten headlines.

Interview 3: Rabie Salmo,
Dar Al Khaleej, UAE
19th September 2019 (interview through voice messages in the Arabic language, edited and translated by the author)

Rabie Hamza Salmo is the Art Director of *Al Khaleej* newspaper in the UAE. He was born in 1977. He started his work at *Al Baʿth* newspaper in Syria since he was 17 years old. During his work at the newspaper, he also studied at the Faculty of Education at Damascus University and specialised in Psychology. In 2011, after around 17 years of work at *Al Baʿth* newspaper, he move to the UAE to join *Al Khaleej* newspaper and work there until the present-day [at least the date of the interview].

1. What is the typeface that you use for text in your printed newspaper? And how was it chosen?
Our text typeface is named Al Khaleej. It is a custom design for our Newspaper which has been already in use before I joined *Al Khaleej* newspaper. I think that its design is not completely unique but rather a mix of some popular typefaces such as Damascus and Salwa.[2] It also includes a display style for headlines.

2. What are the main considerations for choosing the text typeface in a newspaper?
In a text-heavy document such as a newspaper, it is important to have a typeface that is clear and easily readable. Al Khaleej typeface is slightly bold, which makes it clear enough. Also, the font size that we chose is slightly larger compared to other newspapers to enhance clarity. The typeface was already in use when I joined the newspaper so I am not fully aware of the process of designing the typeface. People have varying opinions about it –some like it; some do not, but these are personal preferences. The main point of using the typeface is that its readability.

3. What software do you use for designing the newspaper?
InDesign.

4. Did your text typeface change with the change of the typesetting technologies?
I joined *Al Khaleej* newspaper in 2012. There have been earlier changes in text typefaces which I am not fully aware about their details and reasons.

2. Damascus and AXt Salwa typefaces are similar to the Simplified Arabic and Regular Naskh models respectively.

5. What is the process you apply for designing the newspaper? Are there guidelines that need to be followed? What are the main considerations?
When we receive the edited news, it first goes to the art direction team who decided the layout of the pages. After that, the artwork team applies the texts and images to the pages and make other refinements. After this stage, the paper goes through further checks and text refinements by editors. Once it gets the final approval, the artwork team can send the paper to the printing press.

6. Why does your newspaper website use a different typeface from the one used in your printed newspaper? How was the text typeface in your website chosen?
I have no involvement in the design of the website, although this is an not ideal situation. I personally prefer a consistent use of typefaces. Even if it was in small design work such as a poster, one typeface or two by maximum should be enough (of course, with different weights and sizes). On the other hand, a large mix of typefaces in a design or project is not correct aesthetically. So I think that the website should follow the same typeface that is used in the printed newspaper, however, this is not under my professional scope.

7. From the provided samples, how would you rate the typefaces with regard to their suitability for setting text in printed newspaper on a scale of 7 (from 7 being the most suitable to 1 being not at all suitable)?
Classical Naskh 7
Modern Naskh 6
Simplified Arabic 5
Linear Naskh 5
Regular Naskh 4
Latinised Arabic 1

8. Please provide a brief rationale behind your rating
Classical Naskh [rated 7] is the most suitable compared to the rest of the typefaces because it helps to save space by fitting a larger amount of text in a given space. One of the main priorities in a newspaper is to give more space to the advertisements. Therefore, a text typeface that allows fitting the text in a smaller space can be very useful. The tight spacing between letters in this typeface makes it very practical, especially since there is no apparent distortion in the lettershapes despite the mentioned tight spacing. Moreover, the typeface is slightly bolder than the rest of the typefaces which makes it more clear. So I think it properly suits the newspaper. However, maybe applying vocalisation marks might change my judgement. We occasionally need vocalisation marks in our texts so I would need to double-check that this would not make any issues.

The rest of the typefaces are more suitable for books than newspapers in my opinion because they take more space. For example, although the Linear Naskh model is my favourite typeface, I gave it a slightly lower rating because it has wide spacing. Otherwise, I think it is very clear, pleasant to look at and highly readable –you do not face any features that are not comfortable to look at.

The Latinised Arabic model [rated 1] is not at all suitable for newspapers. I might use it in a small brochure though.

9. Can you tell me more about your experience with previous typesetting technologies? Can you share any observations on the way they affected the use of Arabic type?

During the early years of my work in Syria, we used to go through a complex process to print the newspaper. This included pasting columns of texts on a large sheet of paper, photographing the paper, producing a large film for it then taking it through other steps until it reaches the press. After that, desktop publishing applications were introduced. Al Nashir Al Sahafi was the first application I worked on. The application significantly simplified the printing process and eliminated the whole process of having to cut columns of texts and paste them on a large sheet of paper. However, we used to struggle a lot while dealing with Arabic fonts, especially when printing. For example, when we used to print from Al Nashir Al Sahafi to the ImageSetter machine, we would often face incompatibilities between the fonts on the computer and the printing machine. The company Diwan used to contribute to solving this incompatibility. After Al Nashir Al Sahafi, we used Quark XPress. Quark was a big move at that time, although we later saw it as a very basic application. But we used to struggle with Arabic fonts even with Quark XPress. We used to get an external device (something like a USB) that had to be attached to the computer so that we can use the fonts properly. Most of the available fonts used to be similar to Manal, Muna and such.[3] I think Muna and Manal used to be the most popular typefaces during that time. After Quark XPress, InDesign was introduced. InDesign made many things much easier and we still use in *Al Khaleej* until today.

3. AXt Manal typeface is identical to Muna, the Linear Naskh model in this research.

Interview 4: Aladdin Dabbagh
Select Creatives, UAE
25 November 2021 (interviewed through phone in Arabic language, edited and translated by the author)

Aladdin Dabbagh is a founder at Select Creatives, a company specialised in web development, in Dubai. He worked for more than 15 years in information technology and web development in the Arab region. His work experience includes graphic design, IT management and web application. Dabbagh was born in 1983. He studied Computer Engineering at the University of Aleppo in Syria. He on many websites and web application projects for clients in the Arab region, especially in Saudi Arabia and the UAE.

1. What are the Arabic typefaces that you usually use on your websites?
I prefer the typefaces GE SS and Tajawal. I like them because they are clear in all sizes. They also look modern, which is a priority for me. GE SS is also very popular among clients. Some clients also prefer the font Dubai. But, frankly, I don't think that there is a good reason to use it other than its name. I personally don't like it. I do not feel that it looks modern nor elegant. But I used it in some projects where clients asked for it. I also like to use the font Adobe Arabic. I think it looks elegant.

2. Who usually chooses the fonts for the websites, you or the client?
I choose the typeface in most cases. Clients might, in some cases, ask for a specific typeface; however, this is rarely the case. Also, in other cases, clients might have their visual identity guideline that already specifies their typeface. In such cases, I would stick to their guidelines. But, in summary, I am the one who chooses the font in most cases.

3. What is the source of your fonts?
GE SS comes among the GE fonts collection; Tajawal is available from Google Fonts; Dubai font is also available for free on their website; Adobe Arabic comes as part of the Adobe Creative Cloud subscription. It is worth pointing out that, while some Arabic fonts might be copyrighted, they are widely used as free fonts. The issue of piracy widely affects Arabic fonts. Clients would rarely pay for a font unless they are large companies. The majority of fonts used in Arabic websites are used for free, whether they are actually free or pirated.

4. Does the source of font affect its usability for you as a web developer?
Absolutely! If the font is not practically available for web use, I'll have to look it up, download it, convert it to a web font and upload it to the website server, which can take a lot of time and effort. On the other hand, Google Fonts, for example, offer their fonts through CDN (Content Delivery Network).[4] This allows the website to download the font directly from the CDN, making the download process much faster. Otherwise, if you choose to add a custom font to your website, it will be an added resource that slows down the website. You would also need to go through extra steps of programming by adding the font in the CSS rule. Some web developers would even prefer to avoid this method altogether because they do not know how to do it properly.

5. Are there other sources of fonts that provide the same efficiency as Google Fonts?
Adobe Fonts offer their fonts through the same method; however, Google Fonts is still much more efficient. For Adobe fonts, you first need an Adobe account and you also need to go through a process of activating the fonts that you need for your website. There are also other technical complications in the process. Google Fonts, on the other hand, provides a much more straightforward method, which is also completely free.

6. Can you think of other reasons for using Google Fonts?
Yes, the big majority of website builders (which are efficient tools to construct a website) offer Google fonts by default. This allows the developer to easily access and apply Google fonts through the website builder.

One more reason that I can think of is the score of the website on Google SEO (Search Engine Optimisation). A higher score for a website means that your website is more likely to show up in relevant searches. The fonts used on a website can contribute to higher/lower SEO scores. For example, if you are using custom fonts that are slowing down your website, this negatively affects the performance of your website and consequently decreases its SEO score. This issue can get more critical if the website is not properly programmed to download the custom font. On the other hand, using fonts that are available on a CDN (e.g., Google Fonts) will enhance the performance of the website and give it a higher SEO score.

4. A content delivery network (CDN) refers to a geographically distributed group of servers that work together to provide fast delivery of Internet content. See 'What is a CDN? | How do CDNs work?'. https://www.cloudflare.com/en-gb/learning/cdn/what-is-a-cdn/ (accessed 26 Nov 2021)

7. From the provided samples, how would you rate the typefaces with regard to their suitability for setting text on web (from 7 being most suitable to 1 being not at all suitable)?
Modern Naskh 7
Simplified Arabic 7
Linear Naskh 6
Classical Naskh 5
Regular Naskh 5
Latinised Arabic 3

8. Please provide a brief rationale behind your rating
First, I have to explain that I gave my rating is based on the fact that the text in your mockups is extensive. In this a case, it is very important to have a readable typeface. The Latinised Arabic model [rated 3] distracts my vision. The extreme angularity of the font makes it tiring to look at and makes the text look crowded. On the other hand, the Modern Naskh and the Simplified Arabic models [rated 7] are the easiest to read. They both allow a smooth reading. The Modern Naskh model has less contrast, which makes it better for screens. The Simplified Arabic model has more contrast but it is still good. The Linear Naskh model [rated 6] is comfortable to read and so is the Regular Naskh [rated 5]. The Classical Naskh model [rated 5] is also comfortable to read but the issue is that lines of text are more likely to collide with this typeface, which requires more care with typesetting.

7. During my research, I noticed that the Regular Naskh and Linear Naskh models are rarely used on the web despite their popularity in other document genres such as printed books and newspapers. Can you think of any explanations for this lack of use on the web?
I think a general explanation why some fonts are used more than others on the web is that they come as default fonts on the operating system. For example, there is a font called Tahoma, which comes as a default font on Windows operating system. I remember that during my early years in web development, our use of Arabic fonts was limited to either Tahoma or Arial. These two fonts were the only two options. The two typefaces that you are referring to [The Regular Naskh and the Linear Naskh models] surely were not on the list of default fonts.

8-Based on your experience in web development in the Arab region, do you think that you can specify an average age of professionals in the field? Or is this probably an irrelevant question?

I think this would have been a difficult question if you were asking about the profession universally as the range of age can be very wide. However, in the Arab region, this is surely a relevant question. The majority of web developers are below 30 years old. After this age, they would either seek managerial positions or change their profession. Unfortunately, in the Arab World, working in web development is not profitable. The salary range is very low. Also, clients still do not consider websites as an essential part of their business but rather look at them as something complementary. Consequently, the budgets that are given to the building of the websites are usually very low. Many clients would prefer to pay for a cheap remote freelancer to design and build their websites. These aspects collectively make it very difficult to get a proper and stable income from web development. As a result, most web developers are young practitioners who initially have high hopes about the job until they experience the reality of the market in a few years and then switch to different jobs. I know many colleagues who used to work in web development and now work in completely different areas because they saw no financial stability in their previous job.

Interview 5: Zaid Adi
Maxima Group, UAE
1 December 2021 (interviewed through phone in Arabic language, edited and translated by the author)

Zaid Adi is a project manager and UI/UX designer at Maxima Group, UAE. He started to specialise in UI/UX design in 2014. His work experience also includes graphic design, branding, information design and copywriting. Adi graduated from the University of Sharjah in 2013 with BA in Graphic & Multimedia Design. Through his experience as UI/UX designer, he is directly involved in type-use decisions. Also, his position as a project manager provides him with a close view of the clients' preferences and common type-use practices in his area.

1. What are the Arabic typefaces that you usually use for text on websites?
Just to clarify, my work does not only include websites but also extends to web applications and web platforms. Also, you specify the typefaces used for text but I think it is very important to speak about the typefaces used in the interface (i.e., buttons and menus) as well because these are important elements in UI/UX design.

The question about the typefaces is not simple to me because there is a difference between the typefaces I would prefer to use and the typefaces that I have to use. In order to explain the case, I think I need to start with a brief introduction about the trends in the market here in the UAE (which I assume is also relevant in other Arab countries). In general, there is a high preference for typefaces that are considered/referred to by clients and designers as 'modern' such as Droid Kufic, Cairo and Tajawal. For me as a designer, I hate how these typefaces look. However, I also can partially justify why clients prefer these fonts. In an interface, you need a font that, in my own terms, I would refer to as 'blocky' or 'steady'. In other words, you need the word to take a solid and well-defined outline. Also, the straight line on the baseline is important to achieve this steadiness. These features are important not only for the intended purpose of use but also for design considerations. When you look at Latin words, for example, you notice that a word naturally takes a solid structure. In other words, it works as a visual element. On the other hand, Arabic typefaces that have a natural look or maintain calligraphic values would usually look unsteady. I guarantee that if I use a font like Noto Naskh, for example, most of our clients will ask to change it. I am, of course, speaking about the typeface used in the interface here and not necessarily in text. In UI/UX design, there are numerous considerations to worry about when dealing with both the design and the programming of the interface. Therefore, the designer/programmer needs a typeface that works well within

all these complexities. You want to avoid something that might disarrange the composition by looking irregular.

However, influenced by the trends mentioned above, some clients would ask to use these typefaces even in texts. I personally try to treat this as a red line by strongly discouraging them to do so because the text will be hardly readable. But this is a practice that you would often see. Check, for example, the website Mawdoo3.com. It is a text-heavy website that uses Droid Kufic as a text typeface. When I need any information from the website, I will try to quickly find the relevant information and then immediately quit the website!

So, in brief, I think it is important to differentiate between the interface (i.e., buttons and menus) and the content. For the interface, I will prefer a 'blocky' typeface, but, for the content, I will look for something readable.

2. Do you think that the trend of using 'modern' typefaces is driven by clients or designers/developers?

It is the same thing! As an experienced designer, you would know in advance what the clients want to see and what they would be comparing their websites/applications with. You would also know that, if you use typefaces that are out of the trend, they will return to you later asking to change them. As a result, it would be smarter to avoid these amends and provide what you know the client will ask for from the beginning. Also, using what clients see as 'modern' typefaces gives a good impression that you are 'up-to-date'. Otherwise, proposing good typefaces which clients would most likely perceive as 'outdated', might give a negative impression about you as a company or UI/UX designer. So, even if the tendency to use these typefaces comes initially from the clients, the designers/developers eventually become contributors to these type-use practices because they know it is the trend.

3. Do you think that this trend is influenced by Latin-based websites?

I think that the case in UI/UX design is a bit different than the trends in branding, where the Latin design often directs the design of the Arabic counterpart. In UI/UX design, the nature of the Latin script actually has a functional advantage. The visual structure of the Latin script serves UI/UX design in a way that is not similarly achieved by the structure of the Arabic. In other words, I would say that Arabic typefaces still need a lot of development until they do so. You need something in the 'blocky' nature of Droid Kufic, for example, that is also easy to read. This balance is not easy to achieve though. Instead, the geometric structure of the typefaces often takes priority over their readability.

4. So, from your own point of view, what are the Arabic typefaces that you prefer most?
I personally like the typefaces that balance steadiness with readability. I consider the typeface Muna as the most successful in achieving that balance. It gives a very nice structure for single words but it is also ideal for long text. There is also the typeface used by Al Jazeera. I think it achieves a similar balance.

5. You referred more than once to the typeface Noto Naskh, is there a reason for that? And how do you perceive the typeface?
I referred to Noto Naskh because it is a dominant typeface, especially being the default typeface for Android devices. But I think it represents a group of similar typefaces.

Personally, I do not like Noto Naskh because I feel that it is neither on the side that is considered 'modern' by clients nor on the side that I consider 'conventional'. I would rather prefer typefaces such as Muna or Al Jazeera.

6. What are the sources of your fonts? Are there usual sources?
Mainly Google Fonts. This has to do with programming considerations. In UI/UX design, you need easily applicable fonts. Otherwise, you will be giving unnecessary complications to the UI/UX designer. Google Fonts provide ready-to-use font formats for the web. I would go for the font library of Google Fonts because they are hassle-free for the programmer. Another important aspect is licensing. Companies want to reduce extra costs so you need to avoid the extra headache of trying to convince the client of purchasing custom fonts. Moreover, you do not often face high artistic expectations from the clients so the options provided by Google Fonts are usually good enough. In rare cases where the clients require more unique fonts, we might suggest fonts from 29lt.com. Otherwise, the font Cairo is usually acceptable by the clients.

7. What about Adobe Fonts?
Adobe Fonts are not very practical. You first need to have a subscription to their applications. Then, you also need to go and activate the font on your library before you are able to use it. Graphic designers might be OK with this process but, for UI/UX designers, this is an impractical method.

8. So do you think that the efficiency of using Google Fonts contributes to the type-use trends on the web?
Absolutely. I think Google Fonts provides its service in a way that suits all the involved parties. Clients have different fonts to choose from, developers can very easily access and use the fonts and also the companies or UI/UX designers do not need to go through any hassle with regard to licensing.

7. From the provided samples, how would you rate the typefaces with regard to their suitability for setting text on the web (from 7 being most suitable to 1 being not at all suitable)?
Again this is a complex question for me because I would rate them in a different way considering how much I personally like them in comparison to how much I think they would please my clients and therefore, how likely I am going to use them.

8. Let's rate them based on how you like them then you can comment based on how the market trends/clients' preferences would affect your choice.
Linear Naskh 7
Simplified Arabic 6
Regular Naskh 5
Modern Naskh 4
Classical Arabic 3
Latinised Arabic 1

9. Can you provide a brief rationale behind your rating?
Linear Naskh [rated 7] I already explained above why I prefer it most. Simplified Arabic [rated 6] is very easy to read. It will be conventional for readers. I gave it a slightly lower rating compared to Linear Naskh because I feel that Linear Naskh has a more pleasant look and also looks more 'steady'. Regular Naskh [rated 5] is a conventional typeface. In UI/UX design, conventionality is very important. When I use a conventional typeface for text, I would be confident that I took the right choice. Users would read it with no struggle. But I rated it slightly less than the previous two because those have more linearity at the baseline. Modern Naskh [rated 4]: I feel that its proportions are a bit unnatural. Classical Naskh [rated 3]: I gave it a lower rating because I think it goes a bit too far with the artistic features. There are unusual features such as the dot placements and the shape of the Raa'. Also, the lines might collide due to the long ascenders and descenders. It suits more traditional purposes. In other words, it puts beauty over functionality. Latinised Arabic [rated 1] has unnatural proportions. Notice, for example, the shape of the Raa' which looks like a Latin j. In general, it is not a natural Arabic typeface that is comfortable to read. For a button, it would be OK, but for a paragraph, it is not comfortable to read at all.

It is important to mention, however, that my rating would differ if I considered them for an interface. In that case, for example, I might rate both the Linear Naskh and the Latinised Arabic at 7. This rating is also putting aside other technical aspects such as accessibility that can affect the use of some of these typefaces.

From my research, I noticed that the Linear Naskh and the Regular Naskh models are rarely used on Arabic websites despite their high popularity in Arabic printed books and newspapers. Do you have any comments on this interesting lack of use on the web?
I think the clients' mindsets and trends play an important role. It is important to point out that, type use in our field is way far from the norms in printed materials. Clients would usually disfavour standard fonts that are overused in everyday life to be used on their websites.

Also, it is worth considering that not all UI/UX designers would hold the same views that I have. Many designers will simply follow the trends. The typefaces that you pointed to [the Linear Naskh and the Modern Naskh models] will only be preferred by a UI/UX designer who is also well-informed in Arabic typography. I think this is rarely the case among Arab developers. I say that based on many projects that I come across where it is obvious that either the designers have no typographic awareness or are simply following the clients' requests.

From your career experience, do you think it would be valid to inquire about the average age of UI/UX designers in the region? Or do you think this is not a valid question?
This is surely valid. UI/UX design can be considered a young field in the region. I think the age would not exceed 40 or mid-30s. There are many reasons for this. First, it is a new field. The importance it started to take in the market started only in recent years. Therefore, you would rarely find a senior UI/UX designer. Also, an experienced UI/UX designer would seek managerial positions. This is what happened to me after working for around 7 years in the field. Nowadays, I would rarely do design work myself. I might do it only to cover someone else's place or in case someone needs advice on something they cannot do.

Another factor that affects this situation is that the IT world is a constantly-changing field. So it needs someone who is ready to keep chasing new updates, tools, applications, ways of achieving things, etc. This is more expected from younger people. For example, in our company, I would give direction to my team on design aspects but I might not know the exact method that they use to programme it. So, in brief, I can safely say that the average age of UI/UX designers in our region is below 35 years old.