

Saudi women driving: images, stereotyping and digital media

Article

Accepted Version

Albawardi, A. and Jones, R. H. ORCID: <https://orcid.org/0000-0002-9426-727X> (2023) Saudi women driving: images, stereotyping and digital media. *Visual Communication*, 22 (1). pp. 96-127. ISSN 1741-3214 doi: <https://doi.org/10.1177/14703572211040851> Available at <https://centaur.reading.ac.uk/98621/>

It is advisable to refer to the publisher's version if you intend to cite from the work. See [Guidance on citing](#).

To link to this article DOI: <http://dx.doi.org/10.1177/14703572211040851>

Publisher: Sage

All outputs in CentAUR are protected by Intellectual Property Rights law, including copyright law. Copyright and IPR is retained by the creators or other copyright holders. Terms and conditions for use of this material are defined in the [End User Agreement](#).

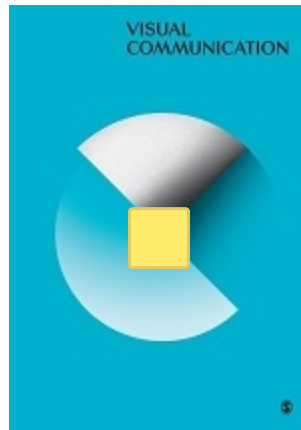
www.reading.ac.uk/centaur

CentAUR

Central Archive at the University of Reading

Reading's research outputs online





Saudi Women Driving: Images, Stereotyping and Digital Media

Journal:	<i>Visual Communication</i>
Manuscript ID	VC-20-0040.R3
Manuscript Type:	Article
Keywords:	Discourse Analysis, Visual representation, Google Images, Stock Photography, Stereotyping
Abstract:	<p>This paper examines the representations of Saudi women driving that circulated shortly after the lifting of the ban and considers the social, commercial and technological forces that helped to shape those representations . A corpus of images was collected from two international image banks -- Getty and Shutterstock—as well as from a Google Image search. The images were using van Leeuwen’s (2008) visual representation framework, with particular attention to the similarities and differences between the images available in the image banks and those that were made prominent in the Google search . In addition, semantic metadata accompanying these images were also analysed in order to understand the linguistic constraints that had put on searches for these images and the ontologies of the issue that they promoted. Finally, a more detailed analysis was performed on images that had been appropriated into different contexts such as news stories and advertisements to investigate how these images were adapted to support different political, cultural and commercial agendas. Findings suggest that images of Saudi women that circulated online internationally shortly after the lifting of the ban were mostly generic and decontextualized, creating simplified and trivialized depictions of gender relations and social change in the Kingdom. The analysis shows how commercial concerns which influence both the creation of stock images and the way they are taken up by news organizations and advertisers can sometimes have the effect of erasing the complexity of political events and reinforcing the very stereotypes they seem to be challenging.</p>

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60



1
2
3
4
5
6
7
8
9

Saudi Women Driving: Images, Stereotyping and Digital Media

Abstract

10 This paper examines the representations of Saudi women driving that circulated shortly after
11 the lifting of the ban and considers the social, commercial and technological forces that helped
12 to shape those representations . A corpus of images was collected from two international image
13 banks -- Getty and Shutterstock—as well as from a Google Image search. The images were
14 using van Leeuwen’s (2008) visual representation framework, with particular attention to the
15 similarities and differences between the images available in the image banks and those that
16 were made prominent in the Google search . In addition, semantic metadata accompanying
17 these images were also analysed in order to understand the linguistic constraints that had put
18 on searches for these images and the ontologies of the issue that they promoted. Finally, a more
19 detailed analysis was performed on images that had been appropriated into different contexts
20 such as news stories and advertisements to investigate how these images were adapted to
21 support different political, cultural and commercial agendas. Findings suggest that images of
22 Saudi women that circulated online internationally shortly after the lifting of the ban were
23 mostly generic and decontextualized, creating simplified and trivialized depictions of gender
24 relations and social change in the Kingdom. The analysis shows how commercial concerns
25 which influence both the creation of stock images and the way they are taken up by news
26 organizations and advertisers can sometimes have the effect of erasing the complexity of
27 political events and reinforcing the very stereotypes they seem to be challenging.
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50

51
52
53
54
55
56
57
58
59
60

Keywords: *Discourse Analysis, Visual representation, Google Images, Stock Photography, Stereotyping*

Introduction

On September 26, 2017, a Saudi royal decree announced the lifting of the 27-year old ban on women driving in the Kingdom. The decree was part of a larger package of reforms known as *Vision 2030*, spearheaded by the current King's son and Crown Prince, Mohammed bin Salman. Specifically, lifting the ban on women driving was seen as part of a larger goal to increase the number of Saudi women in the workforce.

Minutes after the royal announcement, hundreds of internet users began exchanging texts, images, videos and memes to congratulate or criticize the Saudi women drivers-to-be. Several hashtags such as '#Women2drive' and '#SaudiWomenDrive' began trending locally and internationally. On the day that the ban was actually lifted and for some weeks afterwards, national and international news outlets widely reported the historical event.

The coverage of the lifting of the ban on Saudi women driving came in the context of a complex history of representations of women in the media. In the past, representations of women in Saudi media were characterised by what Sakr (2008: 385) calls 'rigid essentialist rhetoric about "women's nature"'. More recently, however, representations of women in non-traditional roles in domains such as sport and business has been growing, in parallel with an increased number of Saudi women using the internet (Jarbou, 2018) and a growth in women working in the media (Sakr, 2008). Al-Malki and her colleagues, (2012), for example found that that women in Arab media were generally portrayed in more agentive positions than were Arab women in Western media.

Meanwhile, the representation of Arab women in non-Arab, especially Western, media has been marked by a persistent 'Orientalism' (Said, 1979), which often leads them to be depicted as exoticized, oppressed, powerless and silent (Al-Malki et.al., 2012; Eltantawy 2013; Macdonald, 2006). A key feature of such imagery over the past two centuries has been the veil (Behdad & Gartlan, 2013). As Eltantawy (2013: 765) notes, '[v]eiling intensifies the image of

1
2
3 supposed powerlessness, creating the stereotype of a helpless, imprisoned woman in desperate
4 need of Western liberation' (see also Martin Munoz, 2010).
5
6

7
8 Media images, however, are not static, and stereotypical portrayals of women in Arab
9 countries and of Arab women in other countries circulate beyond national boundaries. Beaulieu
10 & Roberts (2002), for example, have examined how indigenous Arab and diaspora visual
11 cultures have adapted and reworked European conventions of representing Arab women as a
12 way of resisting the marginalization of voices and subjectivities in Western Orientalism. Such
13 studies suggest that understanding representations of Saudi women both inside and outside of
14 the Kingdom requires attention not just to representations themselves, but also to the ways
15 these representations circulate and interact with one another, and of the local and global
16 discourse processes that go into their production and circulation.
17
18
19
20
21
22
23
24
25
26
27

28 The aim of this paper is to understand something about these local and global discourse
29 processes by examining how the lifting of the ban on women driving in Saudi Arabia was
30 communicated *visually* to international audiences online in the weeks after it occurred, and
31 particularly how it was mediated through technologies such as stock photography and internet
32 search engines. It seeks to interrogate the role of commercialized images in both challenging
33 and reinforcing stereotypes and to explore how the visual culture of the internet affects how
34 different kinds of people and practices are represented.
35
36
37
38
39
40
41
42
43
44
45
46

47 **Visual Representation and Stereotyping**

48
49 For the past two centuries, the development of visual technologies, from photography to digital
50 media, have dramatically altered the way journalists represent people and events and the way
51 audiences understand the world (Chouliaraki, 2009; Newton, 2013; Zelizer, 2005). At the same
52 time, the increasing centrality of photographic images in journalism has highlighted the
53 potential for visual communication to reinforce stereotypes (Ross & Lester, 2003). Frosh (2002:
54
55
56
57
58
59
60

1
2
3 176) explains how photography facilitates ‘a classificatory dynamic whose goal is the mapping
4 and ordering of the social and natural worlds,’ and Sekula (1989) discusses the early role of
5 photography, especially as it was utilised in law enforcement, in defining and classifying
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

176) explains how photography facilitates ‘a classificatory dynamic whose goal is the mapping and ordering of the social and natural worlds,’ and Sekula (1989) discusses the early role of photography, especially as it was utilised in law enforcement, in defining and classifying ‘deviant’ bodies and distinguishing them from the bodies of imagined viewers. Since then, there have been numerous studies of the way media images present stereotyped portrayals of a range of social groups including African Americans (Abraham and Appiah, 2006; Poindexter, 2011), Middle Easterners (Jackson, 2011; Kamalipour & Gerbner, 1997), and women (Kitch, 2009; Otterbacher, et al., 2017). More recently, however, scholars such as Sakr (2008: 387), have highlighted the need to look at the ‘practices and processes behind media portrayals’ (387) which can often affect the ways images are created, circulated and taken up by the public.

Meanwhile, there has also been increased attention to the way globalization and digital media have led to a homogenization of representations, especially in the news media. Knox (2007) has noted that online news sites are becoming increasingly similar in their visual-verbal structures, adopting conventions that result in an increased ‘atomization’ of news texts and decontextualization of the images that accompany them. Similarly, Frosh (2001: 626) points to a ‘systematic industrialization’ of visual culture brought about by the internet. Most images appearing in news texts today, he observes, are ‘stock images that are not designed for specific texts’ but rather for commercial purposes. Related to the commercialization of digital images is their searchability, the fact that news outlets seeking a suitable image for a story can find it by typing descriptors into search engines that are then matched with metadata attached to the images. Such changes, Frosh (2001: 267) argues, have led to a ‘standardization and systematization of photographic practices on quasi-industrial lines and an abstraction of photographic images as exchangeable signs and cultural commodities’ (267).

Approaching the issue of stock photography from a more social semiotic perspective, based on Kress and van Leeuwen’s ground-breaking application of principles of systemic-

1
2
3 functional linguistics to the analysis of images, Machin and Van Leeuwen's (2007) observe
4 how stock photographs in corporate image banks such as Getty Images take on strikingly
5
6 standardised meanings across different contexts, with certain kinds of images coming to serve
7
8 as widely recognised symbols of things like 'success', and 'freedom' (Machin and van
9
10 Leeuwen, 2007). At the same time, however, such images also depend on a certain amount of
11
12 semantic ambiguity (Frosh 2001; Ward, 2007), which enables them to be appropriated into
13
14 multiple different contexts. The way stock images simultaneously produce both *fixity* and
15
16 *flexibility* in meaning potential, they argue, has enabled image banks, to act as mediators
17
18 between local and global cultures and, in so doing, become 'a leading force in building the
19
20 world's visual language' (Machin, 2004: 334), a 'language' that is 'demonstrably more
21
22 homogenized, generic and limited in its iconography.'

23
24
25
26
27
28 Both Machin and van Leeuwen (2007) and Frosh (2001) point out a number of key
29
30 features of stock images that contribute their promotion of visual stereotypes by simultaneously
31
32 creating a stable visual lexicon (Barthes, 1977: 22), and creating ambiguity sufficient to
33
34 facilitate their recontextualization. First is the use of 'generic' content and styles, including
35
36 models whose appearance, clothing and behaviours are neither striking nor unusual (Frosh,
37
38 2002: 175; Machin & van Leeuwen, 2007: 155). Of course, what is regarded as generic tends
39
40 to reproduce the cultural values and conditions of the image producers. Second is a frequent
41
42 backgrounding of the physical contexts in which the models are photographed by placing them
43
44 in neutral, nondescript environments or by blurring the surroundings. Finally, there is the
45
46 highlighting of *attributes* that *index* social identities and social practices—such as hard hats,
47
48 white coats, and headscarves, thereby 'reducing the individual to the general, and the concrete
49
50 to its essential qualities' (Kress and van Leeuwen, 2007: 170 see also Frosh, 2001; Ward, 2007).
51
52
53
54
55

56 Thurlow and his colleagues (2020) offer a slightly different perspective on the
57
58 ideological dimensions of stock photography, focusing on the metadiscursive framing of
59
60

1
2
3 images. In their exploration of the dominant conventions in stock images that visually represent
4 young people and their digital practices they draw on Irvine and Gal's (2000) work on language
5 ideologies, pointing out that processes of 'iconization', 'erasure' and 'recursivity' are also
6 evident in the 'language' of stock photography, resulting in 'reductionistic' representations
7 which, in the case of their data, also promote class and gender stereotypes.
8
9

10
11
12
13
14
15 When it comes to politics, the 'homogenization' and 'standardization' associated with
16 stock images, however, does not necessarily result in ideological homogenization or the erasure
17 of alternate perspectives. Aiello and Woodhouse (2016), for instance, have pointed out how
18 platforms such as Getty Images have made an effort to promote more diverse and inclusive
19 representations. Getty's Genderblend trend, for example, is framed by the company as a
20 socially conscious attempt to portray gender as 'a nuanced spectrum' and to challenge
21 'previously fixed ideas of what it is to be male and female' (Grossman nd). Despite this
22 ostensible attempt to challenge stereotypes, Aiello and Woodhouse point out that the processes
23 of 'typing' these image employ, which highlight bodily attributes decontextualized from the
24 social world, are not that different from those used in more conventional representations, and
25 that processes of 'juxtaposition' used to highlight deviations from the norm can sometimes
26 work to reinforce visual clichés. Rather than challenging stereotypes, then, attempts to produce
27 more 'alternative' or 'authentic' stock images end up 'reinscribing ... "trailblazing" imagery
28 into easily grasped clichés' in order to serve the agenda of consumer capitalism.
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46

47 Few scholars have looked explicitly at how stock images are circulated and
48 appropriated by different kinds of content producers into different contexts. One study by
49 Aiello and her colleagues (2016) used Google Reverse Image Scraper to explore how images
50 in Getty's 'Lean-In' collection (made up of images of 'empowered women) circulated online
51 and the kinds of sites they were recontextualized into. They found that although images from
52 this collection appeared on multiple kinds of websites (blogs, news websites, social media),
53
54
55
56
57
58
59
60

1
2
3 fewer than a third of the images in the collection were found by the image scraper, with the
4 same images tending to be used on multiple websites. They also found that images with
5 different metadata 'tags' tended to appear on different kinds of websites, with, for example,
6 tags for ethnicity popular on business related sites, and tags related to children and childhood
7 popular on blog sites.
8
9

10
11
12
13
14
15 This study builds on many of the insights from the scholars cited above, combining a
16 focus on how stereotypes are reinforced within the visual regimes of stock images with
17 attention to how such images are made available to users through search engines and how they
18 are adapted to different rhetorical and cultural contexts (for example, news sites and
19 advertisements in different countries). Particularly of issue is the degree to which the
20 ideological effects of such images are a result not just of the ways the images themselves are
21 composed, but also of the affordances and constraints of the technical and *metatextual* means
22 through which they are circulated and the social and professional practices these means give
23 rise to and support, particularly the professional practices of journalists and those in the field
24 of advertising. In such fields, images are increasingly chosen for news stories not just based on
25 how well they represent or compliment the accompanying text, but also based on financial,
26 technical and design considerations. Stock images often present the most convenient and
27 economical solution for addressing these issues, allowing media producers to quickly search
28 through image banks based on a range of criteria, avoiding the expense of having to produce
29 images themselves. These images then become available to the general public through image
30 searches based on the textual content accompanying their use. In this way, image banks, media
31 producers, developers of search engines (and their algorithms), and internet users themselves
32 all play a part in determining how stock images and the stereotypes they reproduce are
33 circulated.
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

1
2
3 The searchability of digital images is governed by two key techno-discursive processes:
4 the association of *metadata*, in the form of semantic ‘tags’ with different pieces of content, and
5
6 the use of *algorithms* to dynamically organize search parameters around references and cross-
7
8 references based on the way existing content is organized and on the past behaviour of users
9
10 interacting with this content (Jones, 2021). Both of these processes work to construct
11
12 *ontologies* of people and practices that come to dictate promote certain ‘version of reality’.
13
14 These processes have important consequences for understanding the role of images in the
15
16 promotion of cultural stereotypes, since the ‘meaning potential’ of digital images is not
17
18 determined solely by the ‘indexical singularity’ (Frosh 2002: 638) of shared cultural
19
20 assumptions, but also by ‘algorithmic logics’ which are able to detect associations between
21
22 seemingly disparate content and amplify stereotypical assumptions of users based on how they
23
24 search for and use that content (Jones, 2020). Kay, Matuszek and Munson (2015), for example,
25
26 have noted how gender bias and stereotypes tend to be exaggerated in image searches, and that
27
28 exaggerated search results also have the power to shift people's perceptions about real-world
29
30 distributions, affecting or reinforcing their biases. The tendency of search algorithms to amplify
31
32 social biases has been noted by a range of scholars (Introna and Nissenbaum,2000; Pariser.
33
34 2011).

35
36 Our focus in this paper, then, is to explore the way the lifting of the ban on Saudi women
37
38 driving was represented in international banks of stock images in 2018, the way some of these
39
40 images were further circulated, becoming prominent results in Google Image searches, and
41
42 finally, how selected images were actually used in the context of news stories and
43
44 advertisements.

45
46 The data for the study is limited to the images that were available in the period immediately
47
48 after the lifting of the ban when so many news outlets were searching for images to accompany
49
50 stories about the policy changes and the events surrounding it. Since that time, of course, many
51
52
53
54
55
56
57
58
59
60

1
2
3 more images have been produced and circulated, and an interesting focus of future research
4
5 would be how these images might (or might not) have changed in the subsequent months.
6
7

8 The study was guided by the following questions:
9

- 10 1. How did images that circulated over the internet of Saudi women driving immediately
11 after the lifting of the ban reinforce or challenge stereotypes around gender and culture?
12
- 13 2. How were these stereotypes constructed or challenged through the ways these images
14 represented personhood and agency and the interpersonal relationships they established
15 with viewers?
16
- 17 3. How did the meaning and function of such images change as they are embedded into
18 different textual and cultural contexts?
19
- 20 4. How might the affordances of digital media (such as metadata attached to the images
21 or the way they were made prominent by search engines) have affected the kinds of
22 images that circulated, how they were used, and how they came to reinforce certain
23 *ontologies* of Saudi womanhood?
24
25
26
27
28
29
30
31
32
33
34

35 36 **Methodology** 37

38 142 images and 4477 metadata tags were collected from Shutterstock, Getty Images and
39 Goggle Images from 2 August to 28, August, 2018 using the search term ‘Saudi women
40 driving’. The rationale for choosing these sources of data involved their prominence.
41
42

43 Shutterstock is the number one image bank in the world, and Getty Images was one of the
44 first image banks to go online (currently 8th in market share) (Datanyze, 2020). Google, of
45 course, dominates the search engine market, with over 90% of worldwide market share
46 (Oberlo 2019). Of course, there are other image banks, including regional image banks such
47 as Gulf Images and FotoArabia +. Our focus, however, was on images that were available to
48 a more global audience. Interestingly, even search results from Google Images conducted in
49
50
51
52
53
54
55
56
57
58
59
60

1
2
3 Saudi Arabia tended to feature images from these international sources rather than regional
4
5 ones.
6

7
8 Searches in image banks such as Getty Images and Shutterstock are based on *metadata*
9
10 assigned to the pictures by these companies based on a particular taxonomy of conceptual
11
12 terms, and so collecting these metadata along with the images is useful both for
13
14 understanding the kinds of ontologies around Saudi womanhood promoted by the companies,
15
16 and the kinds of terms users would have had to type in to access particular kinds of images.
17
18 Other factors governing search results in these image banks are recency and popularity. In
19
20 Shutterstock, customers can filter search results to order the images returned based on the
21
22 categories ‘Most Relevant’ and ‘Fresh Content’. The default choice –‘Most Relevant’¹—was
23
24 used for our search. Getty Images similarly allows users to sort result based on the categories
25
26 “Most Popular”, ‘Newest’, ‘Best Match’. In this case the default choice ‘Most Popular’ was
27
28 used. The searches of Getty Images and Shutterstock took place on August 27, 2018. In the
29
30 case of Shutterstock, the first 50 images returned were collected. In the case of Getty Images,
31
32 only 42 images were returned, and they were all collected for analysis.
33
34
35
36

37
38 Google images is a content-based retrieval system (Datta, Joshi and Li & Wang 2008)
39
40 which searches for images based not just on metadata associated with the images but also on
41
42 the textual content of the pages in which they appear. The prominence of images in searchers
43
44 is influenced by Google's *PageRank* algorithm (Google, n.d.), which considers how many ‘hits’
45
46 and links the pages on which these images appear have, as well as other factors such as recency
47
48 and the geographical location of searchers. Based on these factors, the images retrieved from
49
50 Google Image searches reflect the degree to which particular images are circulated and
51
52 accessed and the popularity of the pages that they appear on. The search of Google Images was
53
54
55

56
57
58 ¹ ‘Relevance’ in Shutterstock is based on a machine learning algorithm which, according to the company, over
59
60 time, ‘rewards images with accurate keywords’ (though the exact formulae for this algorithm is not available to
the public). See <https://www.shutterstock.com/blog/shutterstock-new-search-order>

1
2
3 done by one of the authors based in Saudi Arabia. To control for possible effects of Google's
4 personalization algorithm which sometimes delivers different search results to different users,
5 an identical search was conducted by four other users based in Saudi Arabia, the US, the UK
6 and Turkey. The results of these searches by different users were largely identical, although
7 the order of the pictures returned varied slightly. The first 50 images returned were selected for
8 analysis.
9

10
11
12 In the results of the Google search 64% of the images were from Western (US, UK,
13 European and Australian) websites, mostly large news outlets such as BBC, CNN, *Fortune*
14 *Magazine* and *Time*. Only 16% appeared on Arab webpages, the rest appearing on Asian and
15 African websites. In other words, most of the images returned from searches conducted in
16 Saudi Arabia were not from Arab sources.² Of these images over a quarter were attributed to
17 image banks such as Google or Shutterstock. Around half were attributed to news services such
18 as AP and Reuters, and the remaining images had no attribution (though most of them
19 resembled photos available on image banks. In three quarters of the uses, the figure in the
20 images was not named either in the caption or the story. Unsurprisingly, this was true for 100%
21 of the images attributed to image banks.
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39

40 The images and the metadata associated with those taken from image banks were imported
41 into the qualitative analysis software Max QDA (VERBI Software, 2019) and analysed based
42 on codes generated from the analytical framework described below. 15 images were chosen
43 for closer analysis on the basis that they appeared in multiple contexts (such as news stories
44 and advertisements). This analysis focused on how images from image banks were
45 recontextualized to serve different communicative purposes.
46
47
48
49
50
51
52
53
54
55
56
57
58

59 ² Google (known in Saudi Arabia as 'Uncle Google') occupies 98.25% of the market in search. There are no
60 native Arab search engines of any note in use in the country.

1
2
3 The coding of the images was based on principles of multimodal representation laid out
4 van Leeuwen (2008), as described below. At the same time, the analysis was informed by
5 Goffman's (1987) work on representation as social ritual. In his analysis of representations of
6 gender in advertisements, Goffman argues that commercial images often constitute a type of
7 'social portraiture' in which figures are arranged 'microecologically to depict what is taken as
8 their place in the wider social frame' (6). Norms of interaction and aspects of social identity
9 are communicated through such features as the actions that depicted figures perform, the
10 physical positions they take up in relation to others, and their gestures, facial expressions, and
11 clothing. Interestingly, Goffman makes a point about advertising images that is similar to that
12 made by Frosh (2002) and Machin and van Leeuwen (2007) about stock images -- that the
13 generic styling and arrangement of figures creates 'elaborations of human action that can be
14 displayed across many social settings, in each case drawing on local resources to tell stories of
15 very wide appeal' (6).
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32

33 In his more social semiotic approach to the analysis of images, van Leeuwen (2008)
34 advances a model of representation which in many ways echoes Goffman's notion of social
35 portraiture, seeing discursive representations as a form of 'recontextualized social practice.'
36 Van Leeuwen's model, like Goffman's, also takes into account both the ways figures within
37 the images interact with one another, displaying identity related attributes and behaviours, *and*
38 the way they interact with viewers of the images. The model focuses on a number of key
39 dimension, including what sorts of figures are 'included' and 'excluded', the different 'roles'
40 they play, whether or not they are depicted as 'specific' or 'generic', as 'individual' or in
41 'groups', and the attributes they have that allow them to be 'categorized' into different social
42 groups. *Exclusion* indicates the choice of not including particular people or kinds of people,
43 which may reflect practices of 'social exclusion' within the societies in which representations
44 appear (142). *Roles* in visual representation refers chiefly to the roles people take *visa vie* some
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

1
2
3 action or *process* as either ‘agents’, i.e. performing the action, or ‘patients’, i.e. receiving the
4
5 action. People in images can also be visually represented as *specific or generic*, that is, either
6
7 their status as unique individuals or representative ‘types’ of people can be highlighted, and
8
9 they can also be represented singly or as members of groups. When they are depicted in groups,
10
11 they can be depicted as similar to other group members (*homogenization*) or as different
12
13 (*differentiation*).
14
15

16
17 The dimension of representation van Leeuwen discusses that is most relevant to our
18
19 analysis is that of *categorization* (or stereotyping). Social categories can be visually signalled
20
21 by means of various ‘cultural’ or ‘biological’ characteristics. Biological characteristics include
22
23 things like sex, race/ethnicity, height, and body shape. Cultural categorization, as van Leeuwen
24
25 (2008: 145-6) explains is ‘signified by means of ... attributes commonly used to categorize
26
27 these groups such as hairdo, headscarf and hijabs which ... connote the positive or negative
28
29 connotations attached to that group by the group for whom the representations were produced.’
30
31

32
33 The second aspect of visual representation that van Leeuwen’s model accounts for is
34
35 related to how the represented actors in the images interact with viewers. Such interaction is
36
37 normally accomplished either through technical aspects of photography (such as camera angles
38
39 and framing) or through the actions of the depicted figure (such as whether or not she looks at
40
41 the camera and the kind of facial expression she wears). This aspect is divided into three
42
43 dimensions: *Distance* (reflected in the choice of close, medium or long shots), the kind of
44
45 *relations* depicted between the actor/s in the image and the viewer (indicated by camera angle
46
47 – whether it is frontal, high, eye level, or low), and the way the depicted figure *interacts* with
48
49 the viewer (indicated by looking at the viewer or not).
50
51

52
53 Finally, our analysis draws on principles from mediated discourse analysis (Norris &
54
55 Jones, 2005; Scollon, 2001) focusing on how various mediational means: software interfaces
56
57 algorithms, and metadata -- influence what kinds of images are available to different kinds of
58
59
60

viewers and, the contexts in which they appear. In this regard, the inclusion of data from both image banks and from Google images allows us to consider not just what kinds of representations of Saudi women driving are available commercially, but how certain kinds of representations are amplified by Google's search engine, which makes images that have been used more frequently as well as those that have been used on more popular websites (such as those of national newspapers or popular magazines) more prominent. The addition of the Google images search, in other words, provides a perspective on how images on particular topics circulate and are taken up. Finally, closer analysis of actual webpages on which these images appear sheds light on how the 'generic' is rendered more 'specific' through the framing and anchoring (Barthes, 1977) actions of the accompanying text as well as the wider social, cultural or political contexts of which these websites are part.

Multimodal Representation

Categorization

The coding of the visual data aimed to reveal how social actors in the images were represented and the kind of relationships that were established between these social actors and viewers. Table 1 summarizes the number of figures appearing in each image, and the kinds of attributes the figures exhibited.

Table 1 Summary of social actor representation

Social actor representation		Google (n=50)	Getty (n=42)	Shutterstock (n=50)	Total (n=142)
		Number of human figures	1	42 (84%)	41 (97.6%)
	2	6 (12%)	1 (2.4%)	3 (6%)	10 (7.04%)
	3 or more	2 (4%)	0	0	2 (1.4%)
	Body Part Only	0	0	15 (30%)	15 (10.5%)
Images	Female(s)	50	42 (100%)	50 (100%)	142

containing figures or body parts with female and/or male traits		(100%)			(100%)
	Male	3 (6%)	1 (2%)	2 (children) (4%)	6 (3%)
Cultural categorization (Clothing worn in images)	Clothing not visible/recognizable	0	0	15 (30%)	15 (10.5%)
	(e.g. images of just body parts)				
	Traditional Islamic clothing of any kind	50 (100%)	42 (100%)	35 (70%)	127 (89.5%)
	Black abaya	36 (72%)	39 (92%)	31 (62%)	106 (74%)
	Other colour abaya	14 (28%)	3 (7%)	4 (8%)	21 (14%)
	Head covering of any kind	50 (100%)	42 (100%)	35 (70%)	127 (89%)
	Hair covered only	40 (80%)	19 (45%)	20 (40%)	79 (55%)
	(hijab)				
Hair and face covered (niqab)	10 (20%)	23 (54%)	15 (30%)	48 (33%)	

Not surprisingly, all of the images returned in our searches for ‘Saudi Women Driving’ include women along with objects associated with the action of driving. What tends to be excluded in these images are men and children: men appeared only in 4 images, and children, in only 2. In all of these cases, however, the men and children appear to have been included mainly to emphasize the roles of the women pictured as wives and/or mothers. Two of the images depict two women. In all of the rest of the images, the women appear singly. The Google search returned slightly more images of accompanied women than appeared in the Getty image search. Interestingly, almost a third of the images in the Shutterstock corpus depicted

1
2
3 only body parts of women --for example, a hand grasping a steering wheel-- yet *none* of these
4
5 images appeared in the top 50 results returned by Google Images.
6
7

8 The figures in the images from image banks appear mostly to be models, based on the
9
10 fact that, in the image banks they often appear in multiple images striking various poses, and
11
12 when they are used on webpages the identity of the figure is not included. These ‘generic
13
14 models’ (Machin and van Leeuwen, 2007: 152) are all conventionally attractive and lack
15
16 particularly striking physical characteristics. While about a third of the images returned by the
17
18 Google search contain named figures, none of them are recognisable public figures such as
19
20 politicians, legislators, government officials or activists who played a role in the lifting of the
21
22 driving ban. Rather they are meant to represent ‘typical’ Saudi women, and the captions that
23
24 accompany such images usually say something like:
25
26

27
28 *Razan, right, sits for the first time in the driver’s seat, with her trainer.*

29
30 *Daniah al-Ghalbi, a newly-licensed Saudi woman driver, during a test-drive in the Red*
31
32 *Sea resort of Jeddah.*
33
34

35 These ‘typical’ female drivers are all posed in the same way as models in the image
36
37 banks photos, offering an uncomplicatedly positive depiction of Saudi women driving. The
38
39 lack of identifiable individuals in both the image bank data and the Google search demonstrates
40
41 how conventions of stock images meant to depict generic figures can affect even genuine
42
43 photojournalism, crowding out images of actual newsmakers and facilitating the
44
45 depoliticization of the reporting of events.
46
47
48

49 As anticipated in van Leeuwen’s visual social actor network discussed above, the
50
51 ‘generic’ identities of these figures are communicated through biological and cultural
52
53 categorization. Table 1 summarizes the traits associated with this categorization.
54
55

56 The most salient biological characteristic, of course, is sex. Even in images that just include
57
58 body parts, the gender of the figure is clearly signalled through characteristics that traditionally
59
60

index femininity (long nails, nail polish, jewellery). Another important set of biological characteristics are those indexing race or ethnicity. The models in all of the images (in which the model's face is visible) have biological features associated with Arabs (dark hair, brown eyes, and medium light skin). Notably, although there are a variety of ethnic groups and a range of skin pigmentations represented, none of the figures are of dark-skinned Arabs or ethnic minorities (e.g. Afro-Asians).

Cultural categorization is primarily communicated through dress. Features of Islamic female dress are present in all of the Google, and Getty images, and in 100% of the Shutterstock images in which the clothing of the figures is discernible. As shown in Table 1 above, the *abaya* and some kind of head covering (either *hijab* or *niqab*) is found in all images in which the clothing of the figures is visible. Interestingly, in our data, the image banks contain a greater number of images depicting more traditional head covering in which both the hair and the face is covered (see Figure 1) (54% in Getty Images and 30% in Shutterstock), whereas only 20% of images returned in the Google search featured this kind of head covering, with the less conservative *hijab* (covering only the hair) (see Figure 2) much more prominent.



Despite the biological and cultural markers intended to signal 'Saudiess', the question remains whether or not the models in the images appear Saudi to actual Saudi viewers; some

1
2
3 of the models have ethnic characteristics not typical of Saudi women or wear their head covering
4 in a style not typical of Saudis. To test this, representative pictures of the 5 models in the Getty
5 image data were shown to 497 Saudi respondents via an online questionnaire (See Figure 3
6
7
8 image data were shown to 497 Saudi respondents via an online questionnaire (See Figure 3
9
10 below):
11
12
13
14

15 Can you guess the nationality of the
16 lady in the photo? هل ممكن ان تتوقع جنسية
17 المرأة في الصور؟
18
19 إكتب نوع الجنسية في الفراغ
Please write the nationality in the given space

20 *Required

21 Q1 *



30 Your answer

31 Q2 *



40 Your answer

41 Q3 *



48 Figure 3. *Guess the nationality questionnaire*

49
50 As can be seen in table 2, *none* of the models were identified as Saudi by a majority of
51 respondents, and two of them, model 1 and model 5 were overwhelmingly deemed not to
52 resemble Saudi women. Respondents assigned a range of other nationalities to models such as
53 Egyptian, Syrian, Kuwaiti, Pakistani and Jordanian.
54
55
56
57
58
59
60

Table 2 'Guess of models' nationality' survey results

'Can you guess the nationality of the lady in the photo?'	Saudi	Non-Saudi
Model 1 	6 (1.5%)	98.5% (Egyptian, Syrian, Iraqi)
Model 2 	107 (20.5%)	79.5% (Bahraini, Emarati, Kuwaiti, Moroccan)
Model 3 	169 (33.8%)	66.2% (Egyptian, Syrian, Yemani, Pakistani)
Model 4 	143 (28.7%)	71.3% (Kuwaiti, Iranian, Pakistani)
Model 5 	1 (0.2%)	99.8% (Jordanian, Turkish, Pakistani)

Figure 4: Online survey

Although it is difficult to say why respondents made these judgements, the most important thing to note is that the generic features of ethnicity and dress which are intended to communicate 'Saudiness' do not necessarily communicate this to actual Saudis. Rather, what seems to be depicted are 'generic Arabs' with little or no sensitivity to the sometimes-subtle differences in facial features and clothing style that may distinguish different kinds of Arab women from one another. In other words, these images show a kind of erasure of subtle regional/national differences in ethnicity and dress, lumping all Islamic and/or Arab women into one category. Interestingly, the figures who were considered 'Saudi-looking' by most

1
2
3 respondents were those wearing *niqab* (models 3 and 4), while the Google search suggests that
4
5 journalists and content designers looking for images of Saudi women driving were *less* likely
6
7 to choose figures dressed in this way, even when they were amply represented in the image
8
9 banks (see above), perhaps because they contradicted the preconceived notions of more
10
11 ‘emancipated’ Saudi women that they brought to their choices.
12
13

14 *Agency/Transitivity*

15
16 The degree of agency assigned to figures in images, communicated through pictorial resources
17
18 that signal *transitivity* (Kress and van Leeuwen, 2006), is an important issue when analysing
19
20 depictions of Arab women. As noted above, for example, Al-Malki et al. (2012), found that
21
22 women in Arab media were generally portrayed in more agentive positions than were Arab
23
24 women in Western media.
25
26
27

28
29 Kress and van Leeuwen divide images into two types based on the kinds of processes
30
31 they depict. What they call *narrative images* depict material or action processes, whereas
32
33 *analytic images* depict relational or behavioural processes. Obviously, however, many images
34
35 depict a combination of processes. For example, an image may depict a woman grasping the
36
37 steering wheel of a car (a material process), sitting next to a driving instructor (a relational
38
39 process) and smiling (a behavioural process). In our corpus, 88% of the images count as
40
41 narrative images, that is, they depict a woman performing some kind of material process *vis-*
42
43 *à-vis* an object (such as pressing an ignition button, applying lipstick, getting into a car). Most
44
45 of these actions, however, are rather mundane, and some are only peripherally related to the
46
47 action of driving (see below). None of the images depict the woman visibly interacting with
48
49 another human. 11.9% of the images depict *relational* processes, for example, a woman
50
51 standing next to a car but not performing any visible material action. In addition to material
52
53 and relational processes found in the collected data, there are also behavioural processes.
54
55 Behavioural processes refer to “physiological and psychological behaviour, like breathing,
56
57
58
59
60

dreaming, smiling, coughing.” (Halliday, 1985: 128). 42% of the images depict agents performing clear behavioural processes such as smiling and gesturing ‘thumbs up’. Such processes might also constitute types of ‘non-verbal verbal’ processes when perceived as being directed towards the viewer with a communicative intention (see Table 3 below).

Table 3: *Types of processes*

Type of Process	Number of images			Total (n=142)
	Google (n=50)	Getty (n=42)	Shutterstock (n=50)	
Material	41 (82%)	39 (92.8 %)	45 (90%)	125 (88.02%)
Relational	9 (8%)	3 (7.14%)	5 (10%)	17 (11.9%)
Behavioural	24 (48%)	18 (42.8%)	18 (36%)	60 (42.2 %)

All of the narrative images depict women in agentic positions, conforming to the idea of female ‘empowerment’ emphasized throughout the corpus. Interestingly, however, none of the pictures actually shows a woman driving, that is, the car in all instances is stationary which might be due to the technical constraints of producing highly quality photographs in a moving vehicle. Rather, the *idea* of driving is portrayed through other actions, mostly the action of holding a steering wheel, which is depicted in 52% of the images. In fact, apart from these ‘performances’ of driving, the women in the images engage in a rather narrow range of actions, and sometimes these non-driving related actions undercut the message of female empowerment (e.g. putting on lipstick with the aid of the rear-view mirror). The following is a list of all the material processes found in the data and the number of occurrences:

Table 4: *Social actors representation as agents*

Type of action	Google	Getty (42)	Shutterstock	Total
Holding the steering wheel	34 (68%)	16(38%)	25 (50%)	75 (52%)
Pressing a button	2 (4%)	0	6 (12%)	8 (5%)
Using a phone	0	3 (7%)	0	3
Holding car keys	0	0	2 (4%)	2
Applying lipstick	0	0	1 (2%)	1
Looking over shoulder	1 (2%)	0	0	1
Holding and looking at papers	1 (2%)	0	0	1
Fastening seat belt	1 (2%)	0	0	1
Getting into a car	0	0	1 (2%)	1
Holding a sign	0	0	1 (2%)	1

Relationship with viewers

Apart from agency, the status of the women in the images is also affected by the kinds of relationships they establish with viewers. As explained above, van Leeuwen (2008: 141) operationalizes the relationship between viewers and the social actors depicted in images in terms of distance (close or far), relation (power and involvement) and interaction (direct or indirect address, usually indicated by gaze). Table 5 summarizes these dimensions:

Table 5: Representation of viewer relationship in Google, Getty and Shutterstock

Representation of Relationship		Google	Getty (42)	Shutterstock	Total
Distance	Close	49 (98%)	42 (100%)	49 (98%)	140 (98.5%)
	Far	1 (2%)	0	1 (2%)	2 (1.4%)
Involvement	Front view	8 (16%)	24 (57%)	20 (40%)	52 (37%)
	Side view	42 (84%)	18 (42%)	30 (60%)	90 (63%)
Power	From above -	0	0	6 (12%)	6 (4%)
	From below +	9 (18%)	16 (38%)	6 (12%)	31 (21%)
	Eye-level (equality)	41 (82%)	26 (61%)	38 (76%)	105 (73%)
Interaction	Indirect address	24 (48%)	25 (59.6%)	19 (38%)	68 (47%)
	Direct address	26 (52%)	17 (40.4%)	17 (34%)	60 (42%)

As the table shows, the majority of images were taken at a close range and position the depicted actor and the viewer on an equal level. Images depict social actors from both front and side views, though the proportion of side-view images returned in the Google search exceeds considerably the proportion of side-view images available in the image banks. Kress and van Leeuwen (2006) argue that the difference between the oblique and the frontal angle is the difference between detachment and involvement, and so the prevalence of side-view images, even those in which the figure turns her head to gaze at the viewer, might create more of a sense of the woman as a *spectacle*. In other words, while images which created more involvement with the viewer through use of the frontal angle were amply available in both image banks, images that actually appeared on websites tended to be those which created a slightly more distant relationship between the viewer and the woman depicted.

1
2
3 At the same time, slightly more than half of the pictures returned in the Google image
4 search depict the social actor gazing at the viewer. Whereas the angle from which the figure is
5 depicted has to do with involvement, gaze has to do with *interaction*. A figure in an image
6 gazing at the viewer demands that the viewer establish some kind of relationship, the kind of
7 relationship often clarified by the expression on the figure's face. In the case of these images,
8 the figure gazing is almost always smiling, inviting a rather uncomplicated relationship of
9 affinity or appreciation from the viewer, saying, in effect, 'I'm happy; be happy for me.'

10
11
12
13
14
15
16
17
18
19 Another aspect that is relevant to the establishment of relationships with viewers has to
20 do with the *modality* of the images. Kress and van Leeuwen (2006: 154) define visual modality
21 as a function of cues that signal whether viewers should regard what is depicted as "true, factual,
22 real, or [...] a lie, a fiction, something outside reality." All of the images in the corpus depict
23 social actors sharply, with high colour saturation, communicating 'realism'. In some of the
24 images, however, the sharp focus of the social actor is set against an out of focus background.
25 This strategy is typical of stock images, and, according to Machin and van Leeuwen (2007)
26 helps give such images a 'timeless' and 'generic' quality. In most of the images, because of
27 the focus on the figure and the blurring of the background, although the women are portrayed
28 as 'performing' the act of driving, there is no sense of where they are or where they are going.
29 According to Kress and van Leeuwen (1996: 165) 'by being decontextualized, shown in a void,
30 represented participants become generic, a "typical example", rather than particular, and
31 connected with a particular location and a specific moment in time'.

51 **Metadata**

52
53
54 What is important about stock images in digital environments is not just the
55 representations themselves, but also how they are made searchable to those who might want to
56 use them. Typically, searchability in such contexts is the result of *metadata* being appended to
57
58
59
60

1
2
3 an image. Metadata can help to reveal constellations of concepts associated with Saudi women
4
5 in the image banks, concepts which invariably reflect cultural (as well as commercial)
6
7 assumption about things such as gender, ethnicity, and place, as well as more abstract concepts
8
9 such as ‘happiness’. This metadata also has an inevitable impact on how images are ultimately
10
11 recontextualized into different discursive environments, since they govern the results
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

journalists and other content creators get when they search for certain types of images.

The metadata associated with these images consists of both *categorical terms*, words associated with particular types of objects people or actions, such as ‘Saudi’, ‘women’ and ‘driving’, and *conceptual terms*, words associated with abstract ideas or emotions such as ‘happiness’, ‘power’ and ‘independence’. Conceptual terms refer to broader evaluative and ideological frameworks through which the images are meant to be read.

To analyse the metadata attached to images, we categorized the words we found into eighteen *semantic fields* such as ‘automobile-related’, ‘gender related’ ‘affect/emotion related’ and ‘education related’. Coding into semantic fields was done independently by each author and results were discussed and reconciled. Number of types, tokens of words from each semantic field were calculated. Figure 5 presents the number of tokens in each semantic field from the Shutterstock and Getty corpora.

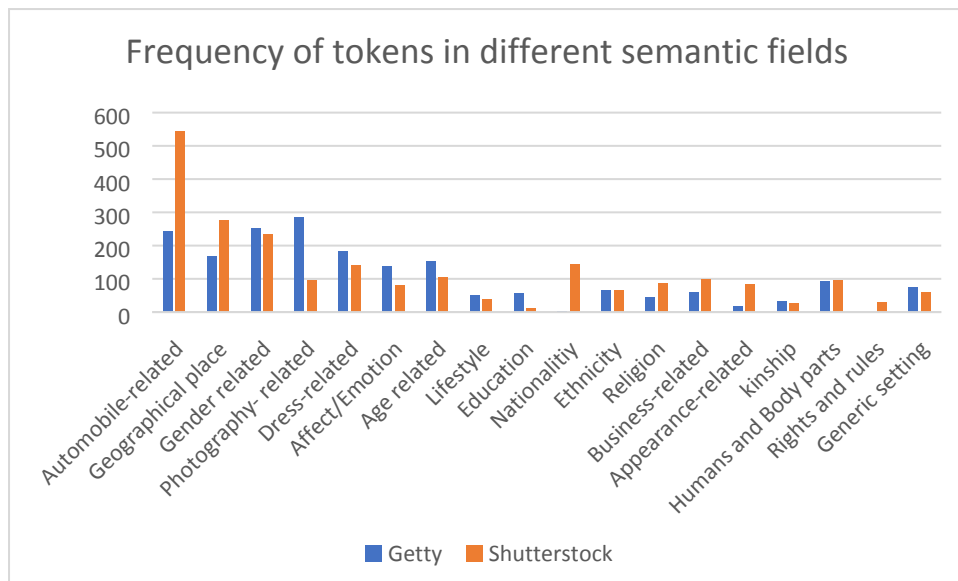


Figure 5. Frequency of tokens in different semantic fields

Our analysis of the semantic fields represented in the metadata reveals that words related to some fields are more frequent than others. It is not surprising that the three most dominant semantic fields represented in the metadata for images found with the search term ‘Saudi women driving’ are ‘automobile-related’ (e.g. *car*, *vehicle*, *driver*), words denoting geographical places (e.g. Saudi Arabia, Gulf Countries, Riyadh), and ‘gender-related’ words (e.g. *woman*, *women*, *female*). It is also not surprising that a large number of images taken from image banks are tagged with photography-related terms such as *portrait*, *horizontal*, *inside*, *close-up*, *color image*. What is more interesting is the frequency of other semantic fields having to do with dress, affect and age. ‘Dress-related words’ constitute the fifth most frequent semantic field in the metadata, and, importantly, *all* of the words used refer to items of clothing associated with Arab women such as (in order of frequency) scarf, hijab, niqab, religious dress, veil, modest clothing, and headscarf. ‘Affect/emotion-related’ words make up the sixth most frequent semantic field, and *all* of these denote positive emotions (e.g. *happy*, *happiness*, *smiling*, *excited*). Finally, the fifth most common semantic field is ‘age-related’ words such as *adult*, *young adult*, and *young*. There are no references to old age in the metadata, reflecting the fact that there are no elderly women depicted in any of the images. Other semantic fields

1
2
3 represented in the data include words having to do with lifestyle (e.g. city life, modern, luxury,
4 wealth), education (e.g. learning, student, learning to drive), religion (Islam, Muslim, Islamic)
5 and appearance (e.g. beauty, beautiful, attractive pretty).
6
7
8
9

10 What an analysis of the metadata can add to our previous analysis of the images is both
11 a clearer understanding of how social reality is construed in the images (and which aspects of
12 that reality are made salient) and an understanding of the kinds of terms the owners of the
13 image banks anticipate customers will use when searching— that is how they believe users
14 themselves divide up and label things in the world. In this case, the *ontology* presented divides
15 social actors along the lines of gender and nationality, and, more importantly, stereotypically
16 construes *dress* as a salient marker of gender and nationality. It also, in this context, construes
17 women in subordinate positions in terms of knowledge (with tags such as learner and learning
18 to drive), and reinforces stereotypical associations between women and appearance (with tags
19 such as beautiful and pretty). Finally, it presents an image of Saudi women driving that is
20 almost universally associated with positive affect, physical attractiveness and/or a wealthy
21 urban lifestyle. In this regard, the metadata analysis also highlights affective aspects of Saudi
22 women driving that are *not* present in the images, such as, for example, concern, hesitancy or
23 apprehension. What is presented is uncomplicated version of joyful, liberated ‘Arabicity’ that
24 fits in with dominant Western interpretations of the new policy as well as the more general
25 commercial tendency towards affect: the representation of ‘happy people’ (Thurlow, Aiello &
26 Portmann, 2020).
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50

51 **Recontextualization**

52 This section examines how images of Saudi women available from image banks are
53 *appropriated* into different contexts such as advertisements and news stories. This analysis was
54
55
56
57
58
59
60

1
2
3 conducted by matching images from the Getty and Shutterstock corpora to images found via
4
5 Google Images.
6

7
8 The following image (Figure 6) is a Shutterstock photo labelled with the metadata
9
10 ‘arab-woman-driving-car’. The Google image search for ‘Saudi women driving’ detected that
11
12 this image had been used in at least three different contexts.
13



30
31 *Figure 6. A photo from Shutterstock under ‘arab-women-driving-car’*
32

33
34 One was a story about events sponsored by municipal governments in Saudi Arabia to
35
36 mark the lifting of the ban on women driving published in *Al-Arabiya* on June 21, 2018 three
37
38 days before women were actually permitted to drive (Figure 7). In other words, rather than
39
40 depicting an actual woman driving, this stock photo – along with the caption ‘Women will be
41
42 allowed to start driving in Saudi Arabia starting from June 24’ -- was chosen to depict an
43
44 idealized image of the future of Saudi women driving. The contents of the article are generally
45
46 celebratory, commensurate with the positive affect displayed on the model’s face.
47
48
49
50
51
52
53
54
55
56
57
58
59
60

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

العربية NEWS FEATURES BUSINESS OPINION LIFESTYLE VARIETY S

Saudi cities launch community driving events for women

Women will be allowed to start driving in Saudi Arabia starting from June 24. (Shutterstock)

Staff writer, Al Arabiya English
Thursday, 21 June 2018

Text size A A A

ping? mencing on Thursday and for three consecutive days, and in preparation for the implementation of the decision to allow Saudi women to drive, a number of community

Ad closed by Google

Report this ad

Figure 7. A Shutterstock image used in Al Arabiya news

Interestingly, this is not the first time this photo had been used by this news outlet. On the previous day, June 20, 2018, it accompanied an article with the headline ‘How Saudi Women driving has changed gender discourse in the West’ and the caption ‘ Many Saudi women don’t want to lose the guardianship rule because they feel safety being cared for’ (Figure 8). Here, the image is recontextualized within events on a wider ‘scale’: rather than the local scale of municipal celebrations, it is meant to be interpreted on the scale of international relations and intercultural difference, On this scale the smile the woman’s face takes on a very different meaning, becoming a challenge to Western discourses that portray Saudi women as oppressed. The caption re-orientes the way viewers might interpret the smile, suggesting that it might partly be due to the fact that the figure can now drive, but to her feeling of ‘being cared for’ in the context of the guardianship system (under which Saudi women need the permission of a male guardian to leave their homes).



23
24
25

Figure 8. Different context, same photo

26
27
28
29
30
31
32
33
34

Another example of an image that shows up in different contexts is the Shutterstock image below (Figure 9). In the Google images search, this image was found on the website for the Montenegrin version of the international fashion magazine *Cosmopolitan* (Figure 10).



53
54
55
56
57
58
59
60

Figure 9. Shutterstock image 'Arab-woman-driving-car'

Saudi Lifts Ban On Female Drivers

Yesterday's "pivotal" announcement follows the right to vote, which was granted in 2015



Figure 10. A Shutterstock image used by Cosmopolitan

<https://www.cosmopolitanme.com/content/4883-saudi-lifts-ban-on-female-drivers>

This article reports on an interview with Manal al-Sharif, a Saudi women's rights activist who was instrumental in starting the women's right to drive campaign in 2011 (and later faced arrest). The article is unreservedly celebratory in tone, including screenshots of the congratulatory tweets from a range of mostly Western celebrities such as Ivanka Trump and Kardashian mother Kris Jenner. What is interesting is that rather than including a picture of al-Sharif herself, the publication chose to use this stock image, eschewing the opportunity to particularize and politicize their depiction of the event.

The fashion magazine *Marie Claire*, used a photo of the same model, this one with the woman tilting her face slightly towards the camera (Figure 11), to express a similar celebratory attitude and also including screenshots of tweets. The headline, however – 'Saudi Women can *Finally* Drive Themselves Around'—imbues the article with a kind of 'snarky' edge which simultaneously celebrates the change and belittles it.



Figure 11. Saudi Women Can *Finally* Drive

<https://marieclaire.com.my/latest-news/saudi-womens-travel-ban-lifted/>

At the same time, this is not the only ‘spin’ that an image like this makes possible. The same picture also appeared in a story on the website Asia Media International which comes with the more sceptical headline: ‘Women driving in Saudi: Women’s right’s victory or economic ploy?’ The article is sharply critical of the Saudi regime, and suggests that lifting the ban on women driving might have more to do with a desire to boost oil prices than to advance women’s rights.



Figure 12. ‘Victory or Economic Ploy?’

<http://mediarusejournal.com/>

<https://asiamedia.lmu.edu/2018/01/31/saudi-arabia-women-driving-in-saudi-womens-rights-victory-or-economic-ploy/>

Finally, the image also appears in an article from the Indian website *The Indian Awaaz* (Figure 13). This article, however, although it mentions the lifting of the ban on women driving, is not centrally about this topic, sporting the headline ‘Saudi Arabia names first woman to senior government post’. One effect of the use of this picture is to suggest a relationship between this high-level appointment and the decree to end the ban on women drivers, though there no clear connection between these two events. Another possible effect is to suggest that the model pictured in the photo is actually the newly appointed assistant mayor of Al Khubar governorate, Eman Al-Ghamidi. She is not. Really what you have here is a kind of *iconization* of Saudi women diving to communicate the generic idea of the advancement of women’s rights in Saudi Arabia and the Middle East more broadly.



Figure 13. Saudi Arabia names first woman to senior government post

What is clear from this analysis is that in the context of news reporting stock images of Saudi women driving have been appropriated into a wide range of social, political and ideological contexts, the same image, for instance, being used to promote the official voice of

1
2
3 the Saudi government, to champion global feminist discourses, and even to criticise Saudi
4
5 leaders and cast doubt on their motivations for lifting the ban. The ideological ‘flexibility’ of
6
7 these images is perhaps not surprising given their generic nature; none of the images we
8
9 collected actually have any strong political or ideological message. What is perhaps more
10
11 interesting is the way recontextualized images of Saudi women driving become unmoored from
12
13 the concrete policy and the events surrounding it, becoming associated with other events, such
14
15 as the promotion of a woman politician to a senior post, and with broader tropes about women’s
16
17 rights and cultural differences.
18
19

20
21 Another way stock images of Saudi women driving are recontextualized is in
22
23 advertisements. Here, generic images of Saudi women driving are used for commercial
24
25 purposes, to ‘cash in’ on this ‘historical event’ by associating with a particular product.
26
27

28
29 In Figure 14, a stock image from Shutterstock showing a woman in a niqab looking out
30
31 of the windscreen of a car is used to advertise a restaurant offering free lunch to the first woman
32
33 who drives herself to the restaurant. In this case, the advertiser benefits both from the generic
34
35 nature of the image, and from a particularization of the action portrayed by deploying it in the
36
37 service of its own narrative – the woman pictured, it is suggested, is actually driving to the
38
39 restaurant, whose name is superimposed onto the windscreen as if it were part of the
40
41 environment. Other elements in the stock photo are also exploited; for example, the phone
42
43 number and directions to the restaurant are printed just below the sat-nav screen in the car and
44
45 a map to the restaurant is photoshopped onto the screen.
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60



Figure 14. Free lunch

The same stock image was also used to advertise an auto repair company, which offered free services for the first 100 women who crashed their car. Here again, advertising elements are strategically superimposed on the image so that they interact with elements in the picture. The blue rectangle in which the offer is communicated, for instance, almost totally covers the windscreen, obscuring the driver's view (making a car crash more likely!). More importantly, the offer itself and the condescending way it is expressed reinforces stereotypes about women being poor drivers. Notably, the offer applies to the first 100 'girls' (بنت) , as opposed to the word 'woman' (امراة) which was used in the previous advertisement, who have crashed their cars, the agency for the 'crashing' (تصدم) being attributed to the 'girls' (rather than saying something like 'girls who have been involved in an accident').



Figure 15. Free service for first 100 girls crashing

1
2
3 Obviously, the aim of appropriating images into advertising is different from that of
4 appropriating them into news reports, depending more on eliciting positive associations from
5 viewers which can then be transferred to the advertised product. One way this is done is through
6 creatively repurposing of the images in order to recruit the figures into the storylines of brand
7 narratives. The generic women in the photos become characters in stories told by the
8 advertisers. What is important to note is that many of these advertisements, while exploiting
9 the trope of female empowerment that underlies these images, actually end up undermining
10 this trope by promoting stereotypes of female helplessness or making light of the historical
11 nature of the policy.
12
13
14
15
16
17
18
19
20
21
22
23
24
25

26 **Discussion and Conclusion**

27
28 Scholars such as Goffman (1987) and Machin and van Leeuwen (2007) have pointed out the
29 role of images in print media in reproducing stereotypes, especially around gender. Goffman
30 links the effects of images to the way they reinforce 'micro-ecological' norms governing social
31 interaction. Machin and van Leeuwen expand this perspective to consider the economic forces
32 of globalization and the ways gender ideologies travel across global and local contexts. What
33 we have attempted to add to this discussion is a more focused discussion of the role of
34 mediation in the reproduction of stereotypes, exploring how technological tools affect the ways
35 images are circulated, recontextualized, and the kinds of representations that get seen or do not
36 get seen.
37
38
39
40
41
42
43
44
45
46
47
48

49 Many of the observations made by Goffman, and Machin and van Leeuwen can also
50 apply to the images that we have analysed. The figures in the images in our corpora are generic
51 Arab women whose cultural identity is reduced to a few discrete characteristics (such as head
52 scarves). The contexts of the images are more or less erased, and the mood they create is
53 unproblematically positive. While most of the images depict the women in agentive positions,
54
55
56
57
58
59
60

1
2
3 performing actions such as grasping the steering wheel of a car, what these actions really depict
4
5 is a kind of ‘pseudo’ agency: none of the women are actually driving, and none of their actions
6
7 are depicted as affecting other social actors.
8
9

10 At the same time, the particular affordances of digital media, coupled with the
11
12 economic forces that drive the use and reuse of digital content, introduce new variables into
13
14 this dynamic. One specific insight gained from comparing the Google image data with the data
15
16 from images banks is that, as restrictive as the representations of Saudi women in the image
17
18 banks are, representations that are actually taken up and circulated by newspapers, advertisers
19
20 and other content creators appear to be even more restrictive. Although, for example, many of
21
22 the images in the images banks are shot from frontal angles, most of the images that are
23
24 returned by the Google search are shot from the side, making the figures seem more like
25
26 *specimens* of Saudi women driving rather than actual women driving. Similarly, while the
27
28 image banks include images of women with different kinds of head covering, including the
29
30 more conservative *niqab*, most of those chosen by content producers favour the *hijab*, which
31
32 makes the face of the model visible, a representation that likely is more palatable to Western
33
34 viewers.
35
36
37
38
39

40 The reason for this is likely that the same commercial incentives that compel image
41
42 banks to produce generic images that are able to be exported into multiple textual contexts
43
44 also guide those who use these images, causing them to choose images that most efficiently
45
46 index what they believe to be readers’ stereotypes about the way Saudi women are supposed
47
48 to look and how they are supposed to feel about *Finally* being able to drive. This narrowing
49
50 of the range of ways particular kinds of people and particular kinds of ideas get represented
51
52 based on these commercial incentives is further amplified by the speed and efficiency by which
53
54 such images circulate online governed by the operations of algorithms. Google’s algorithm, for
55
56 instance, is designed to make images that appear on websites of larger international media
57
58
59
60

1
2
3 outlets (such as *Cosmopolitan* and *Marie Claire*) more prominent. The consequence, at least
4
5 in the case of Saudi women driving, is that more generic representations tend to crowd out
6
7 specific representations of particular Saudi women driving in particular places for particular
8
9 reasons, images which would help to open up space for a more nuanced and situated
10
11 understandings of the situation of Saudi women.
12
13

14
15 Finally, as we have shown through our analysis of the metadata associated with these
16
17 images in the image banks, the ways the images are made searchable can further reinforce
18
19 stereotyped associated between Saudi women driving and certain conceptual categories, thus
20
21 subjecting these representations to increasingly rigid *ontologies* having to do not just with
22
23 social actors and the actions they are engaged in but also conceptual categories around topics
24
25 like class, education and affect.
26
27

28
29 As a result, the world that people are exposed to (particularly people who are *not* Saudi
30
31 women) comes to ‘resemble the limited world of the image bank,’ an ‘ideologically pre-
32
33 structured world which is in harmony with consumerism’ Machin (2004: 316) but abstracted
34
35 from politics and everyday life.
36
37

38
39 There is nothing explicitly ‘offensive’ (‘sexist’, ‘racist’) about these images. What is
40
41 troubling about them is the homogenous, unproblematically cheerful way they present the issue,
42
43 erasing the complex social and historical conflicts surrounding it. The actual struggles and
44
45 triumphs of Saudi women and the reality of the world in which they operate is never formulated.
46
47

48
49 The problem with these images is that they are disconnected from the real world. Due to
50
51 the commercial incentives governing their production and consumption, , consequential events
52
53 -- such as lifting the ban on Saudi women driving in Saudi Arabia – and important debates
54
55 around issues like gender, culture and human rights themselves become commodities, limiting
56
57 opportunities to engage in serious discussion of such matters and for the actual experiences of
58
59 actual Saudi women to be part of that discussion.
60

References

- 1
2
3
4
5
6
7
8
9
10
11
12 Abraham L and Appiah O (2006) *Framing news stories: The role of visual imagery in*
13 *priming racial stereotypes*. *Howard Journal of Communications*, 17(3): 183–203.
14
15
16
17 Aiello G and Woodhouse A (2016) When corporations come to define the visual politics of
18 gender: The case of Getty images. *Journal of Language and Politics*, 15(3): 352-368.
19
20
21 doi:10.1075/jlp.15.3.08aie
22
23
24 Aiello et al. (2016) A critical genealogy of the Getty Images Lean In Collection: Researching
25 the feminist politics of stock photography across representation, circulation
26 and recontextualization. Digital Methods Winter School 2016. Digital Methods
27 Initiative, University of Amsterdam. Retrived from
28
29 [https://wiki.digitalmethods.net/Dmi/WinterSchool2016CriticalGenealogyGettyImages](https://wiki.digitalmethods.net/Dmi/WinterSchool2016CriticalGenealogyGettyImagesLeanIn#Initial_Data_Sets)
30
31
32
33
34
35
36
37
38
39 Al-Malki A, David K, Suguru I and Kira D (2012) *Arab Women in Arab News. Old*
40 *Stereotypes and New Media*. Doha, Qatar: Bloomsbury Qatar Foundation Publishing.
41
42
43
44 Barthes R (1977) *Image, Music, Text*, London, Fontana.
45
46 Beaulieu J and Roberts M (Eds.) (2002) *Orientalism's interlocutors: Painting, architecture,*
47 *photography*. Durham: Duke University Press Books.
48
49
50 Behdad A and Gartlan L (Eds.) (2013) *Photography's orientalism: New essays on colonial*
51 *representation*. Los Angeles: Getty Research Institute.
52
53
54 Chasejarvis (2018) Getty images changes the stock photo game, again . From:
55
56
57 <https://www.chasejarvis.com/blog/getty-images-changes-the-stock-photo-game-again/>
58
59
60

1
2
3 Chouliaraki L (2009) Journalism and the visual politics of war and conflict, In A. Stuart, (ed.)
4
5 *Routledge companion to news and journalism*. London: Routledge, pp. 520-533.
6

7
8 Datta R, Joshi D, Li J and Wang J (2008) Image retrieval: Ideas, influences, and trends of the
9
10 new age. *ACM Computing Surveys (CSUR)* 40(2):1-60.
11
12 doi:10.1145/1348246.1348248
13

14
15 Datanyze (2020, Feb 23) Getty images vs. Shutterstock. Datanyze.

16
17 [https://www.datanyze.com/market-share/stock-images-providers/getty-images-vs-](https://www.datanyze.com/market-share/stock-images-providers/getty-images-vs-shutterstock)
18
19 [shutterstock](https://www.datanyze.com/market-share/stock-images-providers/getty-images-vs-shutterstock)
20

21
22 Eltantawy N (2013) From veiling to blogging: Women and media in the Middle East.

23
24 *Feminist Media Studies* 13(5), 765–769.
25

26
27 Frosh P (2001) Inside the image factory: stock photography and cultural production. *Media,*
28
29 *Culture & Society* 23(5): 625–646.
30

31
32 Frosh P (2002) Rhetorics of the overlooked: On the communicative modes of stock
33
34 advertising images. *Journal of Consumer Culture* 2(2): 171–196.
35

36
37 Frosh P (2003) *The image factory: Consumer culture, photography and the visual content*
38
39 *Industry*. Oxford: Berg Publishers.
40

41
42 Goffman E (1987) *Gender advertisements*. New York ; Cambridge: Harper & Row.
43

44
45 Google (n.d.) How Search algorithms work. Google search.

46
47 https://www.google.com/intl/en_uk/search/howsearchworks/algorithms/
48

49
50 Grossman P (n.d.) Genderblend. In *Creative in Focus*, Getty Images iBook. Retrieved from:

51
52 <http://stories.gettyimages.com/creative-focus-2015-visual-trends/>
53

54
55 Halliday M A K (1985) Introduction to Functional Grammar, 1st Edition. London: Edward
56
57 Arnold.
58
59
60

- 1
2
3 Introna L and Nissenbaum H (2000) Defining the web: The politics of search
4 engines. *Computer*, 33(1): 54-62. DOI:10.1109/2.816269
5
6
7
8 Jackson N B (2011) Gulf Arabs: From caricatures to image managers. In S.D. Ross and P.M.
9 Lester (ed.) *Images that injure pictorial stereotypes in the media*. Santa Barbara, CA:
10 Praeger, pp. 337-349.
11
12
13
14 Jarbou, R. (2018). Know your enemy: the Saudi women's driving campaign from flyers and
15 faxes to Youtube and hashtags. *Feminist Media Studies*, 18(2), 321-325.
16
17
18
19 Jones R H (2020) The rise of the pragmatic web: Implications for rethinking meaning and
20 interaction. In C. Tagg & M. Evans (Eds.), *Message and medium: English language*
21 *practices across old and new media*. Amsterdam: De Gruyter Mouton, pp. 17–37
22
23
24
25 Jones R H (2021) The text is reading you: Teaching language in the age of the algorithm.
26 *Linguistics and Education*, 62, 100750. <https://doi.org/10.1016/j.linged.2019.100750>
27
28
29
30 Kamalipour Y R and Gerbner G (1997) *The U.S. media and the Middle East: image and*
31 *perception*. Westport, CT: Praeger.
32
33
34
35 Kay M, Matuszek C and Munson S A (2015) Unequal Representation and Gender
36 Stereotypes in Image Search Results for Occupations. In Proceedings of the 33rd
37 Annual ACM Conference on Human Factors in Computing Systems (CHI '15). ACM,
38 New York, NY, USA, 3819-3828. DOI: <https://doi.org/10.1145/2702123.2702520>
39
40
41
42
43
44 Kitch C (2009) *The girl on the magazine cover: The origins of visual stereotypes in American*
45 *mass media*. Chapel Hill, NC: University of North Carolina Press.
46
47
48
49 Knox J (2007) Visual-verbal communication on online newspaper home pages. *Visual*
50 *Communication* 6(1): 19–53.
51
52
53
54 Kress G (2003) *Literacy in the New Media Age*. London ; New York: Routledge.
55
56
57 Kress G and van Leeuwen T (2001) *Multimodal Discourse*. Bloomsbury USA.
58
59
60

- 1
2
3 Kress G R and Van Leeuwen T (2006) *Reading images : the grammar of visual design* (2nd
4 ed. ed.). London: Routledge.
5
6
7
8 MacDonald M (2006) Muslim women and the veil, *Feminist Media Studies*, 6 (1), 7–23.
9
10 Machin D (2004) Building the World’s visual language: The increasing global importance of
11 image banks in corporate media. *Visual Communication* 3(3): 316-336.
12
13 doi:10.1177/1470357204045785
14
15
16
17 Machin D and Leeuwen T V(2007) *Global media discourse: A critical introduction*. London:
18 Routledge.
19
20
21 Martin-Munoz G (2010) The Arab world’s silent feminist revolution, *Project Syndicate*, 9
22 Dec. Available at: [http://www.project-syndicate.org/commentary/the-arab-world-s-](http://www.project-syndicate.org/commentary/the-arab-world-s-silent-feminist-revolution)
23 [silent-feminist-revolution](http://www.project-syndicate.org/commentary/the-arab-world-s-silent-feminist-revolution) (17 Dec. 2012).
24
25
26
27
28 Mitchell W J (1994) *The Reconfigured Eye: Visual Truth in the Post-photographic Era*.
29 Cambridge MA: MIT Press.
30
31
32
33 Newton J (2013) *The Burden of Visual Truth : The Role of Photojournalism in Mediating*
34 *Reality*. London: Routledge.
35
36
37
38 Norris S and Jones R H (2005) *Discourse in action: Introducing mediated discourse*
39 *analysis* Taylor and Francis.
40
41
42
43 Pariser E (2011) *The filter bubble: What the internet is hiding from you*. New York: Penguin
44 Press.
45
46
47 Poindexter P M (2011) African-American images in the news: Understanding the past to
48 improve future portrayals. In S.D. Ross and P.M. Lester (ed.) *Images that injure*
49 *pictorial stereotypes in the media*. Santa Barbara, Calif: Praeger, pp. 107-120
50
51
52
53
54 Oberlo (2019) *Search Engine Market Share in 2019*. Oberlo.
55
56 <https://www.oberlo.co.uk/statistics/search-engine-market-share>
57
58
59
60

- 1
2
3 Otterbacher J, Bates J and D. Clough P (2017) Competent men and warm women: Gender
4 stereotypes and backlash in image search results. In Proceedings of the 2017 CHI
5 Conference on Human Factors in Computing Systems, CHI 2017. 6620–6631.
6
7
8
9
10 Ross S D and Lester P M (2003) *Images that injure: Pictorial stereotypes in the media* (2nd
11 edition). Westport, Conn: Praeger Publishers Inc.
12
13
14 Said E W (1979) *Orientalism*. New York: Vintage.
15
16
17 Sakr N (2008) Women and Media in Saudi Arabia: Rhetoric, Reductionism and Realities.
18
19 *British Journal of Middle Eastern Studies* 35(3): 385–404.
20
21
22 Sekula A (1989) 'The Body and the Archive', in R. Bolton (ed.) *The contest of meaning:*
23 *Critical histories of photography*, pp. 342–88. Cambridge, MA: MIT Press.
24
25
26 Scollon R (2001) *Mediated discourse: The nexus of practice*. London: Routledge Ltd.
27
28 doi:10.4324/9780203420065
29
30
31 Scollon R (2008) Discourse itineraries: Nine processes of resemiotization. In V.K. Bhatia, J.
32 Flowerdew, & R.H. Jones (eds.) *Advances in discourse studies*. London: Routledge,
33 pp. 243-254.
34
35
36
37
38 Thelwall M and Vaughan L (2004) Search engine coverage bias: Evidence and possible
39 causes. *Information Processing and Management* 40(4): 693-707.
40
41
42
43 Thurlow C, Aiello G and Portmann L (2020) Visualizing teens and technology: A social
44 semiotic analysis of stock photography and news media imagery. *New Media &*
45 *Society* 22(3): 528-549. doi:10.1177/1461444819867318
46
47
48
49 Van Leeuwen T (2008) *Discourse and practice: New tools for critical analysis*. New York:
50 Oxford University Press.
51
52
53
54 VERBI Software (2019) MAXQDA 2020 [computer software]. Berlin, Germany: VERBI
55 Software. Available from maxqda.com.
56
57
58
59
60

1
2
3 Ward C G (2007) Stock images, filler content and the ambiguous corporate message. *M/C*
4
5 *Journal* 10(5). Retrieved from [http://www.journal.media-culture.org.au/0710/04-](http://www.journal.media-culture.org.au/0710/04-ward.php)
6
7 [ward.php](http://www.journal.media-culture.org.au/0710/04-ward.php)
8
9

10 Zelizer B (2005) Journalism through the camera's eye. In S. Allen (ed.) *Journalism: Critical*
11
12 *issues*. Milton Keynes: Open University Press, pp. 167-176.
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

For Peer Review