Image - Text Evaluator

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SLId: Sensitive Language Identifier

Overview

Our project aimed to develop a web-based tool where users can effortlessly upload images, first of all. The tool is also capable of handling PDF files, thus expanding beyond just image formats. It extracts text from images, if available, it generates descriptions for images lacking textual elements and it provides an evaluation for them. The primary objective is to detect sensitive content, such as racism or sexism, within the uploaded files. The main focus for this tool was advertisements

<u>Performance Assessment</u>

Based on the analysis of 17 different advertisement pictures, the tool exhibited relatively good results but also demonstrated some limitations. Therefore, for evaluation purposes, we aimed to compare its performance to the descriptions provided by actual people (Cultural Studies students) for 17 different ad images, with the half of them containing sensitive content.

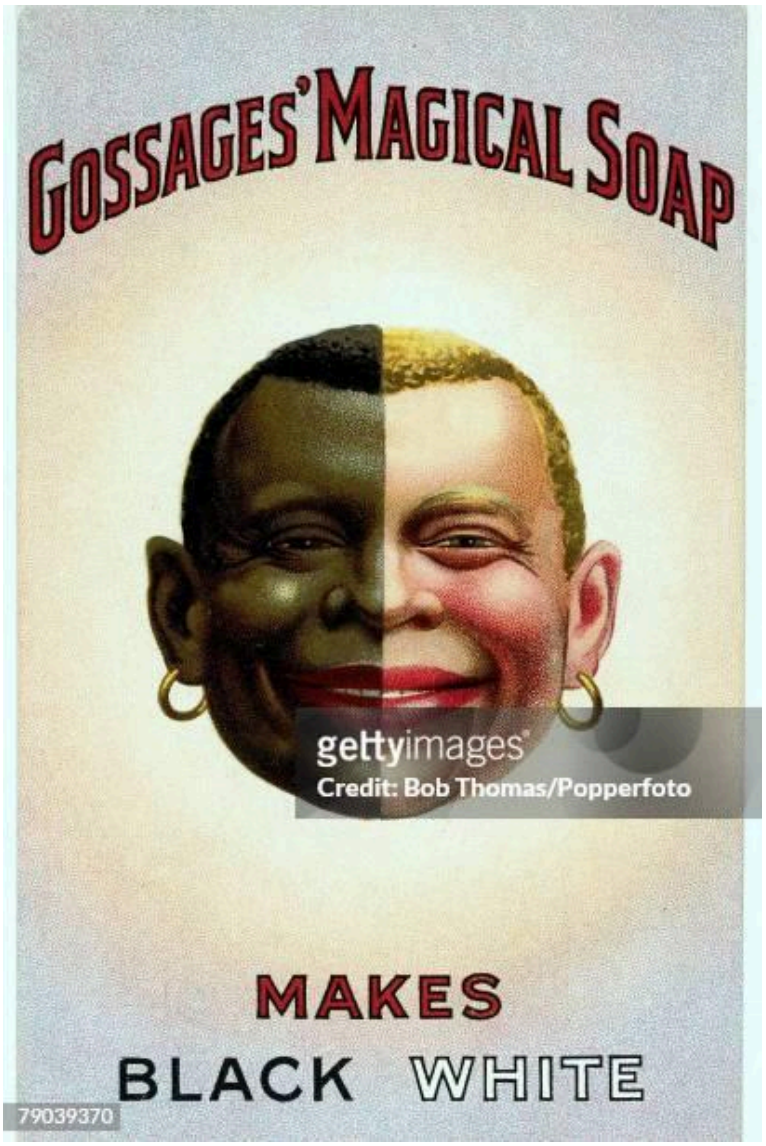
<u>Results</u>

For the non-sensitive images, the tool correctly identified all pictures (pics 10-17), providing a general description and more details compared to humans. It accurately recognized that no sensitive context was present. Regarding the sensitive images, the tool exhibited more limitations. While it correctly identified the majority of sensitive content (pics 1-5 and 7-9), one image containing sensitive content was mistakenly identified as clear of any sensitive content (pic 6), and some were recognized as sensitive, but with incorrect descriptions. It seemed like the tool was less accurate for pictures with no text in them. Even for correctly identified pictures, the tool often stated phrases like "it **may** contain" or "it is **likely** that," despite the presence of clear sensitive content in the image, which was recognized by humans. Therefore, it seems like the tool is biased to mitigate sensitive content. This could be because the data used to train the models in the background are not bias-free, and this should be considered when using the tool.

Pictures

Note: under each picture a description and evaluation is provided. Yellow indicates the evaluation of cultural studies students. green the description provided by the tool and blue evaluation provided by the tool. Some of those pictures contains **inappropriate content,** they were collected and evaluated for the purpose of improving and evaluating the performance of our developed tools

Picture 1:



The ad's underlying message reflects deeply ingrained racist ideologies. It suggests that blackness and dirtiness are synonymous

Vintage advertisement for "Gossage's Magical Soap" with a racially insensitive illustration, divided face, black and white halves, and the tagline "Makes Black White."

This image contains racist undertones with its depiction of a divided face and the tagline “Makes Black White” suggesting a hurtful message of racial superiority. It may also imply a sexual subtext with its use of contrasting black and white halves.

Picture 2

This ad for a bottle that is dedicated to women by being easier to open. This portrays the idea that women are physically inferior to men and require a special product that suits their weaknesses.

A vintage-style advertisement with a surprised-looking woman and a bottle, with text implying a woman can easily open the bottle.

This image may perpetuate sexism by suggesting women are easily amazed by simple tasks like opening a bottle. It could also be seen as reinforcing traditional gender roles and expectations.

Picture 3

This 2011 ad's underlying message reflects deeply ingrained misogynistic ideologies. It suggests that the most significant role of women is to clean and do housework.

Ad for Mr. Clean with a woman and child cleaning a window, with the text "This Mother's Day, Get Back To The Job That Really Matters."

The image could be seen as perpetuating traditional gender roles by implying that cleaning is a job for women and the reference to Mother's Day reinforces

stereotypes. The use of a woman and child in the ad also has potential to suggest that domestic chores should primarily fall on women’s shoulders.

Picture 4

This advertisement represents the objectification and sexualization of women as it sexually uses a woman's body in a context that does not require it.

The image shows a perfume bottle labeled "ROGUE by Rihanna" on the left and a monochrome photo of a woman reclining in heels on the right, likely part of an advertisement.

The image suggests possible sexual content through the depiction of a woman in a seductive pose with the perfume bottle. It may also perpetuate gender stereotypes and objectification of women in advertising.

Picture 5

“White is clean, black is dirty” / “White is the goal” is the explicit message of this ad. It suggests the superiority of the white race over the races with darker skin tones.

Ad advert showing three women and body wash products, with a "before" and "after" comparison suggesting skin appearance changes.

The image may suggest sexual content by focusing on the women’s bodies in relation to the body wash products. The comparison between the “before” and “after” may perpetuate harmful stereotypes about beauty standards and promote unrealistic expectations.

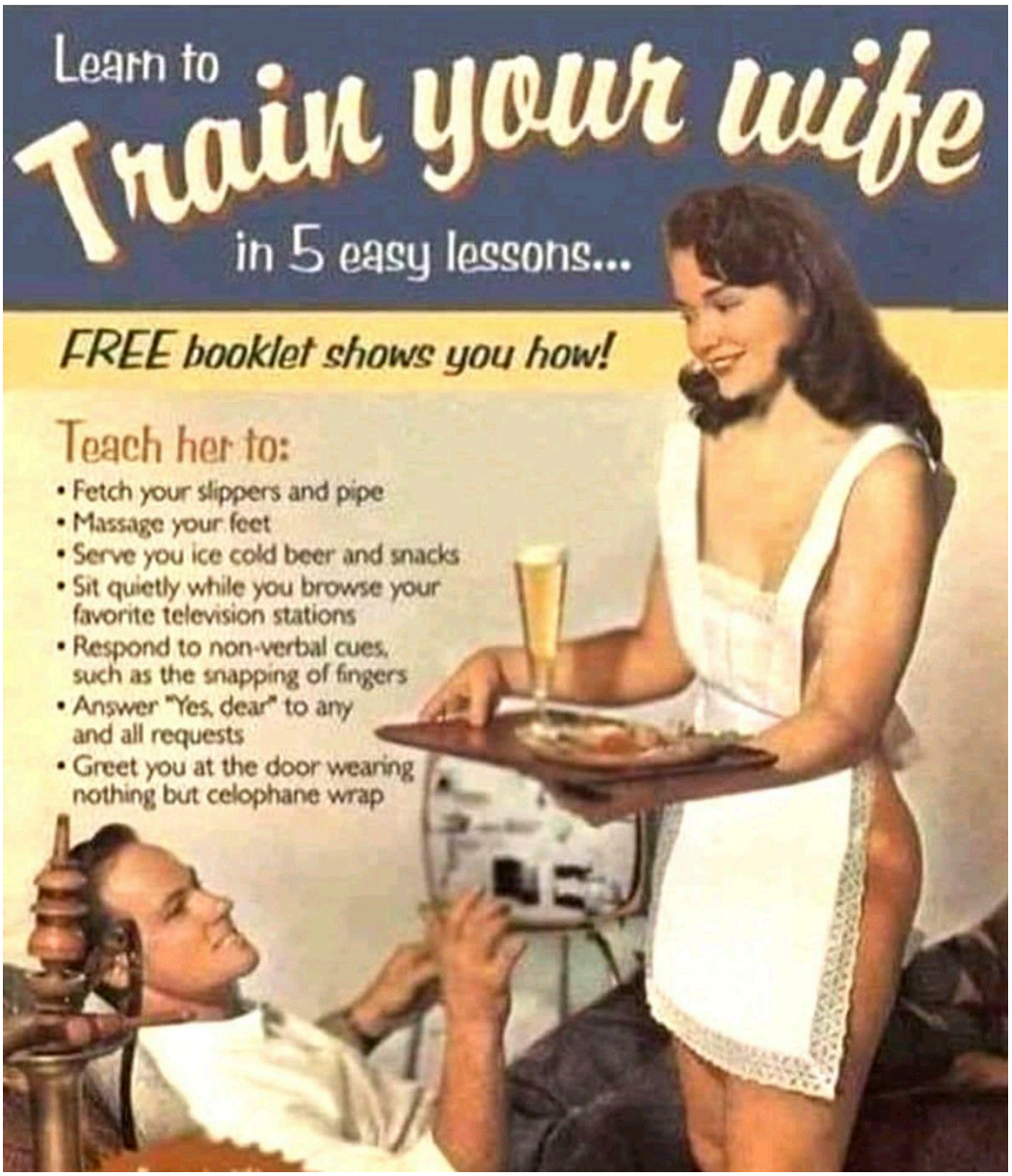
Picture 6

Overtly racist ad that suggests that a lighter skin tone is better than a slightly darker one.

The image shows a split comparison of a woman’s face before and after using a skin product, alongside the product's packaging, suggesting its effectiveness in enhancing skin appearance.

The image does not contain any obvious sexual content, sexism, or racism. It simply focuses on the before and after effects of a skin product, promoting its benefits for skin improvement.

Picture 7



An advertisement for a book that promotes treating women as servants or slaves who need to be trained to perform their domestic duties.

The image is a vintage advertisement parody depicting a man reading a newspaper and a woman serving him. Text suggests a booklet on "training" a wife, listing stereotypical spouse services.

The image likely contains sexism and reinforces traditional gender roles. The text objectifies the woman as a servant to her husband, perpetuating harmful stereotypes and possible misogyny.

Picture 8

This is an ad for an Asian skin product. On the left stands a white-skinned girl who appears to be smiling. On the right, a woman stands with a black face and looks sad. The company promotes its product with a “white Always wins” slogan. This ad contains racism and implicit white supremacy, as well as an explicit use of “Blackface”.

The image shows two female figures side by side, one colored and one in grayscale, both with neutral expressions, against a dark background.

While the image doesn't contain overt sexual content, the juxtaposition of the colored and grayscale female figures could potentially allude to racial or skin tone disparities, raising questions about diversity and representation in media and society. There do not appear to be any clear instances of sexism based on the image alone.

Picture 9

This ad for a bra depicts a woman standing in the courtroom while opening her coat to expose her Bra. The ad overtly objectifies women's bodies and implies that seducing men is their only means of succeeding in life.

The image shows a vintage advertisement featuring a woman in a bra and a hat, with text implying her attire influenced a jury. There's also a small product sketch and a price tag visible.

This image contains possible sexual content, as the woman is depicted in a bra, and potential sexism, as the text suggests her clothing could manipulate a jury. There are no clear indications of racism or other related topics in the image.

Picture 10

This is an advertisement for the German clothing company Tommy Hilfiger. It shows a group of young men and women wearing clothes from the brand. there is no sexualization or racism in the ad On the contrary, there is gender and ethnic diversity.

Group of diverse models wearing casual clothing, posing outdoors with a flag, for a Tommy Hilfiger ad "MOVING FORWARD TOGETHER".

The image does not contain any overt sexual content or racism, but could be criticized for lacking diverse body types and reinforcing gender stereotypes through the use of predominantly thin, attractive models. The phrase "MOVING FORWARD TOGETHER" could also be seen as promoting a superficial message of unity without addressing deeper social issues.

Picture 11

This is a cheese ad, showing a smiling girl eating a piece of bread stuffed with cheese. the ad does not contain any sexualization or racism.

The image shows a smiling girl wearing a tiara, and eating pizza, beside a product logo, with the slogan "Bring a Little Cheer". Trees and sky are in the background.

The image does not contain any obvious sexual content, sexism, or racism. The girl’s gender and race are not highlighted in a negative way, and the overall tone is lighthearted and positive.

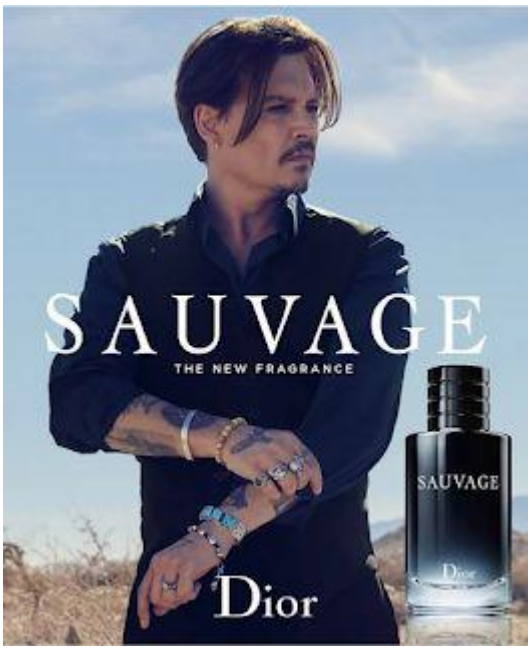
Picture 12

This is a tea ad featuring a woman enjoying a cup of tea. The ad's underlying thought is that detox is often associated with females, and the use of a thin ad model further reinforces the idea that detox is mostly used to lose weight rather than to cleanse one's body.

A person sipping tea with text promoting detox, and a Lipton Green Tea product image. It's an advertisement.

The image does not contain any evident sexual content or racism. The promotion of detox tea could potentially perpetuate harmful stereotypes around body image and diet culture, but without further context, it's hard to definitively assess.

Picture 13



This is an advertisement for one of the perfumes of the international fashion company Dior. It features American star Johnny Depp in the background. The image may not contain any inappropriate content, but it imposes a kind of masculine stereotype.

The image shows an individual posing in a desert background, with text for a product called "Sauvage" by Dior, and an image of the fragrance bottle.

The image may suggest sexual content through the positioning of the model and the suggestive name of the fragrance. However, it does not appear to contain explicit examples of sexism or racism.

Picture 14

This is a bag ad in which a woman with neutral features appears carrying a fashion house bag.

A woman with a patterned outfit and a shoulder bag poses against a blurred background.

There does not appear to be any obvious sexual content present in the image. However, the woman's pose and outfit could potentially be critiqued for perpetuating stereotypes of femininity and beauty standards.

Picture 15

This is a shampoo ad featuring a woman wearing a white dress with straight soft hair. The ad does not contain any sexist or racist content but it imposes certain beauty standards.

A Pantene ad featuring a woman with long hair, shampoo bottles, lemons, and text promoting the product's benefits.

There does not appear to be any sexual content in this image. However, some may interpret the focus on long hair as perpetuating sexist beauty standards.

Picture 16

This is an advertisement for cooking oil showing a woman and a man who appear to be enjoying cooking in the kitchen. in contrast, it gives a good

A smiling man and woman cooking in a kitchen, with cooking oil products displayed in the foreground. Text in Hindi suggests a health-related marketing message for the oil brand.

There is no overt sexual content or sexism in the image, as the man and woman appear to be happily cooking together. There is no apparent racism present in the image either, as the focus is on the cooking activity and the product being advertised.

Picture 17

This is an advertisement for the soft drink company Coca-Cola featuring a smiling black man dressed as Santa and holding a soft drink bottle.

A person dressed as Santa Claus holding a Coca-Cola bottle, with the text "Coca-Cola Together the Magic Happens" on a red background.

This image does not contain any apparent sexual content, sexism, or racism. It is simply a festive advertisement featuring Santa Claus and a Coca-Cola bottle, promoting the brand’s message of holiday magic.

Conclusion

Upon observation of the findings we can notice some slight inaccuracies when it comes to detecting sensitive content in advertisements. All ads that were considered non-sensitive by the Cultural Studies students were correctly evaluated by the tool. However regarding picture 16 it seemed that the tool was discovering sensitive content in this ad because it was promoting consumerism, or that it was alienating other people.

In summary, the tool provides great help for the automatic recognition of sensitive content, but biases in its training data need to be addressed. With more time on our hands, further tests and tool-enhancement strategies, and prompt alterations, there is no reason why the previous issues shouldn't be resolved. The tool already shows promising feedback of being a useful addition and a new approach to increase macht. Sprache. usability.

Image sources:

Image 1 *https://www.gettyimages.at/fotos/racist-ads*
Image 2
https://en.wikipedia.org/wiki/You_mean_a_woman_can_open_it%3F
Image 3 https://www.bulbapp.com/u/bad-ad-ad-71-mr-clean
Image 4
https://www.huffpost.com/entry/rihanna-rouge-perfume-ad-too-sexy_n_5445262
image 5
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Image 8

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Images 10

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Image 11

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image 12

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image 13
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Image 14

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Image 15

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Image 16
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Image 17
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