AI through the lens of LGBTQI+ identity

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Workplace Pride: “The Human Side of AI”. TAW 2023
AI & LGBTIQ+ have been connected from the very start.

Bombe. The machine used to crack the Enigma at Bletchley Park. Source: PD.

The Imitation Game. Film, 2014. Source: IMDB.
1. The Imitation Game.

I propose to consider the question, 'Can machines think?' This should begin with definitions of the meaning of the terms 'machine' and 'think'. The definitions might be framed so as to reflect so far as possible the normal use of the words, but this attitude is dangerous. If the meaning of the words 'machine' and 'think' are first fixed and there is a general agreement that they have these meanings, then there need be no difficulty. If we cannot achieve a general agreement about the meanings, the question is senseless.
I propose to consider the question, “Can machines think?”

Alan M. Turing

The Imitation Game
The Imitation Game

Man (X) → Interrogator → Woman (Y)
The Imitation Game

Interrogator

Woman (Y)

Will X please tell me the length of his or her hair?

Man (X)

Interrogator
The Imitation Game

Will X please tell me the length of his or her hair?

My hair is shingled, and the longest strands, are about nine inches long.
The Imitation Game

Interrogator asks: Will X please tell me the length of his or her hair?

Man (X) responds: My hair is shingled, and the longest strands, are about nine inches long.

Woman (Y) says: I am the woman, don't listen to him!
AI won’t be fair unless we make it so
AI has the potential to be one of the most important and beneficial technologies ever invented.

Demis Hassabis
CEO, Google DeepMind
A man and his son get into a terrible car crash. The father dies, and the boy is badly injured. In the hospital, the surgeon looks at the patient and exclaims: “I can’t operate on this boy, he’s my son!”
Translation systems have similar biases

Turkish: o bir doktor

English: he is a doctor
There are ways to deal with them

<table>
<thead>
<tr>
<th>Turkish</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>o bir doktor</td>
<td>she is a doctor (feminine)</td>
</tr>
<tr>
<td></td>
<td>he is a doctor (masculine)</td>
</tr>
</tbody>
</table>
Technology will work better for those whose language is already considered default, spread stereotypes, and reproduce existing patterns of exclusion.
Problematic autocomplete suggestions

Like journalist Carole Cadwalladr, who broke the news about the “are jews evil” suggestion in 2016, I too felt a certain kind of queasiness experimenting with search terms like, “Islamists are,” “blacks are,” “Hitler is,” and “feminists are.” The results were even worse. (And yes, the following searches were all done in an incognito window, and replicated by a colleague.)

For the term “Islamists are,” Google suggested I might in fact want to search, “Islamists are not our friends,” or “Islamists are evil.”
Tobi did not repair their bike.
Censorship by word-based filtering

Gender stereotypes in AI image generation

AI is used to build “gaydars” and conduct “junk science”

Image from Wang & Kosinski, 2017. Deep neural networks are more accurate than humans at detecting sexual orientation from facial images.
Like computers or the internal combustion engine, AI is a general-purpose technology that can be used to automate a great many tasks, including ones that should not be undertaken in the first place.
It’s not just about AI
Language is complicated

the moon

la luna feminine

the sun

le soleil masculine

der Mond masculine
die Sonne feminine
The Irish word for girl is cailín (masc).
Gender neutral language is developing around the world

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</tr>
<tr>
<td>they are a doctor</td>
<td>they are a doctor (neutral)</td>
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### Current solutions are inadequate

<table>
<thead>
<tr>
<th>English</th>
<th>Spanish</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am nonbinary.</td>
<td>No soy binaria (<em>feminine</em>)</td>
</tr>
<tr>
<td></td>
<td>No soy binario (<em>masculine</em>)</td>
</tr>
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It can also be challenging to describe images in an inclusive way.
Final thoughts
LGBTQI+ hate is on the rise

Daily Telegraph coverage of trans people

Number of articles published in first month of each year

<table>
<thead>
<tr>
<th>Year</th>
<th>Positive</th>
<th>Negative</th>
<th>Neutral</th>
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<tbody>
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<td>2014</td>
<td>10</td>
<td>6</td>
<td>4</td>
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<tr>
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<td>6</td>
<td>3</td>
<td>6</td>
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<tr>
<td>2018</td>
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The ACLU is tracking 506 anti-LGBTQ bills in the U.S.

35.1% of transgender youth live in states that have passed bans on gender affirming care.

The Pink News
Let us learn from history and not make the same mistakes

Alan Turing was prosecute in 1952 for homosexual acts.

He accepted hormone treatment with DES, a procedure commonly referred to as chemical castration, as an alternative to prison.

He died in 1954, just four years after publishing The Imitation Game.

Gordon Brown made an official public apology in 2009, and Queen Elizabeth II granted a pardon in 2013.

"Sometimes it's the very people who no one imagines anything of who do the things no one can imagine."

Alan Turing, Joan Clarke, Christopher Morcom
The Imitation Game
Book tips! 

NORMAL LIFE
ADMINISTRATIVE VIOLENCE, CRITICAL TRANS POLITICS, & THE LIMITS OF LAW
DEAN SPADE

UNMASKING AI
MY MISSION TO PROTECT WHAT IS HUMAN IN A WORLD OF MACHINES
JOY BUOLAMWINI
Thank you.