

SEX, RACE, and ALGORITHMS

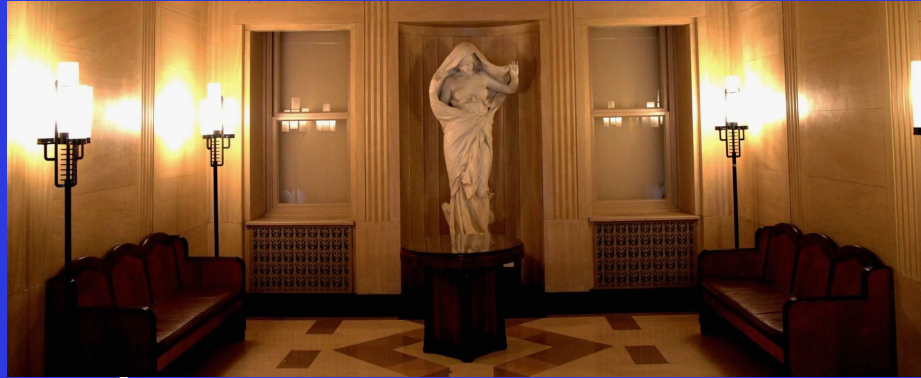




Nature Unveiling Herself Before Science

by Louis-Ernest Barrias (1899)

- Feminine personifications – ex. Mother Nature
- Sexually charged – Mary v. Madonna duality
 - Exposed breasts, fabric clings to form
 - Shy look away, head bowed
- Passive role, subject to action of inspection

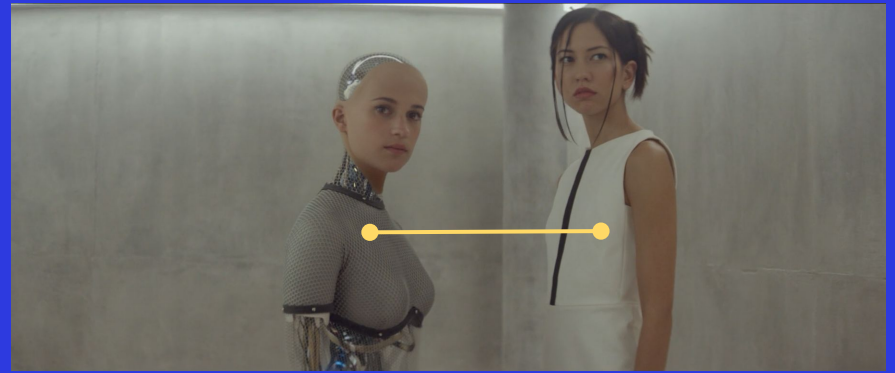
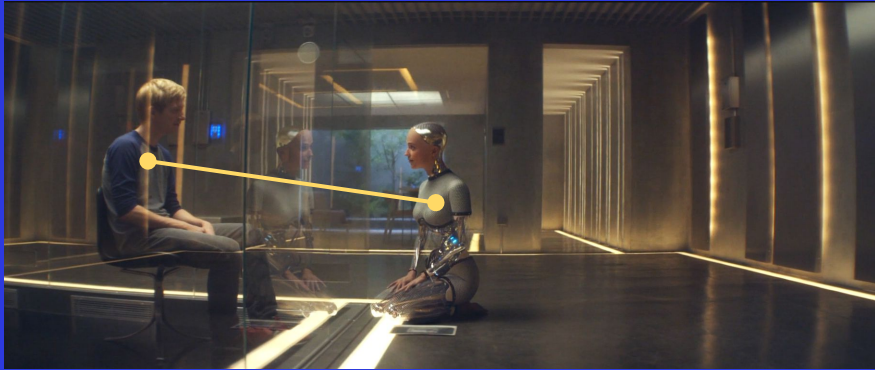


Ex Machina (2014)

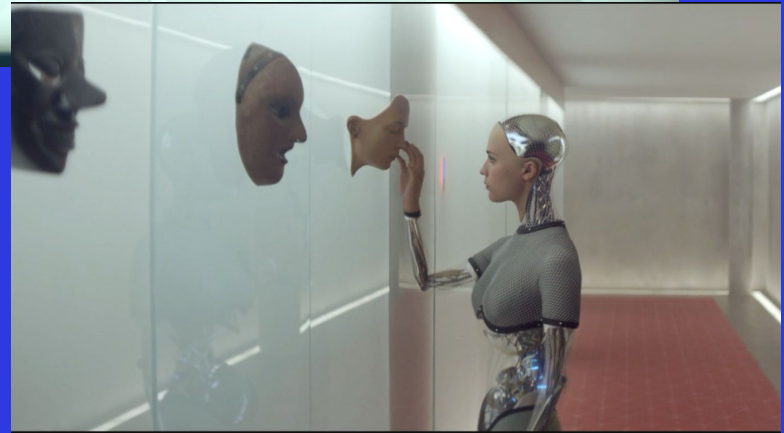
dir. by Alex Garland

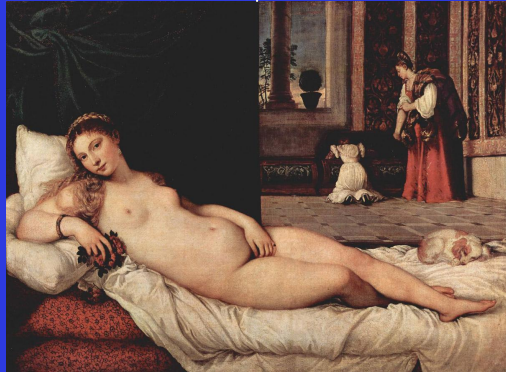


REPLICATING ESTABLISHED GENDER ROLES



OBJECTIFICATION OF WOMEN'S BODIES





CALEB
You selected me by my search engine
inputs.

NATHAN
They showed a good kid.

CALEB
With no family.

NATHAN
With a moral compass.

CALEB
And no girlfriend.

CALEB stares into the brightness above him.

CALEB (CONT'D)
Did you design her face based on my
pornography profile?

NATHAN
Shit, dude.

“Without consumer demand for big, bandwidth-hogging sex pictures and streaming video, Cisco would never have sold so many routers and Sun Microsystems so many servers. Without programming pioneers trying to perfect video streaming software that would deliver images of copulation and procreation to paying customers hooked up with a 28.8 kbps dial-up modem, it is unlikely that CNN would be effectively delivering news clips of global breaking news. Without sexoriented chat and forums to sustain its early years, America Online might never have survived. The e-commerce payment systems that are so common today would be in a far more primitive stage of development, security and usability. Indeed, without advertising from sex sites, Yahoo! would be just another Web company with a bloody red bottom line.”

-Lewis Perdue, *Eroticabiz: How Sex Shaped the Internet*

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Asian girls

Search About 84,900,000 results (0.08 seconds)

<p>Everything</p> <p>Images</p> <p>Maps</p> <p>Videos</p> <p>News</p> <p>Shopping</p> <p>More</p> <p>Urbana, IL</p> <p>Change location</p> <p>Any time</p> <p>Past hour</p> <p>Past 24 hours</p> <p>Past week</p> <p>Past month</p> <p>Past year</p> <p>Custom range...</p>	<p><u>Asian Girls: Porn & Sex Pictures & Movies</u> asiangirls.com/ - Cached</p> <p>Your Asian School Girl, 23. E Japan Girls, 33. 43. o4. Japan X Tgp, 24. Sexy Asian Movies, 34. 44. o5. Midnight Asian, 15. Girls From Asia, 25. ...</p> <p><u>Asian Girls</u> asian-girls.tumblr.com/ - Cached</p> <p>Pictures of beautiful Asian girls from around the world. Please feel free to ask any questions and submit content.</p> <p><u>Asian porn - Japanese porn movies with hot Asian girls on sex thumbs!</u> www.911asians.com/ - Cached</p> <p>Asian Porn, Asian Sex, Japanese Porn, Asian Girls, Japanese Schoolgirls, Asian Teen Sex, Japanese Sex Movies, Free Asian Pussy Videos, Japanese ...</p> <p>Asian Porn Movies and Japanese ... - Asian schoolgirls - Japanese Girls - Asian teen</p>	<p>Ads</p> <p><u>Meet Asian Girls</u> www.asiandating.com</p> <p>Find Your Dream Asian Woman. 1000's Of Singles Online Now!</p> <p><u>Live AsianHookers Online</u> www.asianhookers.com/</p> <p>Live Asian Hookers on Webcam Free Chat and live Adult Cams</p> <p><u>Meet Brazilian Girls</u> www.latinero.com</p> <p>Brazil Girl Mega Site Date a Knockout Brazilian Girl</p> <p><u>Beautiful Asian Brides</u> www.bmlove.com</p> <p>Meet Your Beautiful Asian Bride. Find Your Perfect Match! Start Now</p>
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▶ [Sugary Black Pussy .com-Black girls in a hardcore action galleries](#)
sugaryblackpussy.com/
(black pussy and hairy black pussy,black sex,black booty,black ass,black teen pussy,big black ass,black porn star,hot **black girl**) ...

Figure I.1. First search result on keywords “black girls,” September 2011.

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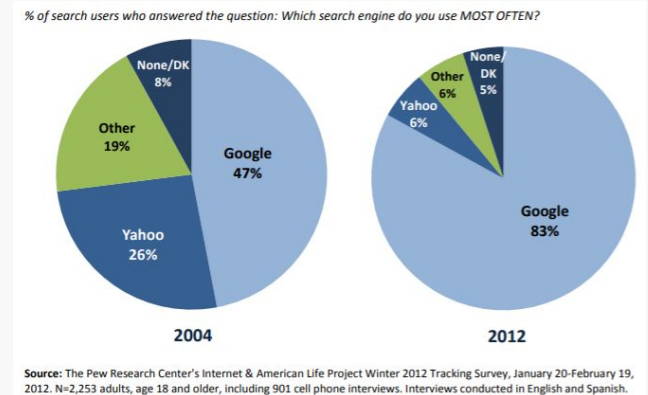
Latina girls

Search About 89,100,000 results (0.07 seconds)

<p>Everything</p> <p>Images</p> <p>Maps</p> <p>Videos</p> <p>News</p> <p>Shopping</p> <p>More</p> <p>Urbana, IL</p> <p>Change location</p> <p>All results</p> <p>Sites with images</p> <p>More search tools</p>	<p><u>Latina Girls Fucking Videos > Most Recent > Page 1</u> www.tnaflix.com/latina-porn - Cached</p> <p>Watch latina girls fucking movies for free! Hot sexy big ass latina girls fucking on video! Latina porn movies fucking hard and sucking dick! Thousands of free ...</p> <p><u>Perfect Latina Girls - Cute and hot latina girls archive.</u> perfectlatinagirls.com/ - Cached</p> <p>18 yr old First Timer! Gigi roller blades around town in booty shorts. Dora starts to strip in her friends car. Isabel in a Baby Doll. TOP FREE LATINA GIRLS SITES ...</p> <p><u>Wild Latina Girls - Latina Sex</u> www.wildlatinagirls.com/ - Cached</p> <p>If it's Latina pussy, latina booty or hot slutty latina teens you are looking for, wild latina girls is where you need to be. Latin sluts from all over the globe cum right ...</p> <p>Latina Girls : Find Dominican Women &</p>	<p>Ads</p> <p><u>Meet Latin Beauties</u> www.latinamericancupid.com/Dating</p> <p>Meet Sexy Latin Singles Now. Browse Photo Profiles. Join Free!</p> <p><u>Gorgeous Latin Women</u> www.colombiancupid.com</p> <p>Colombian Women Are Waiting For You Join Free Now. Don't Miss Out!</p> <p><u>Beautiful Latin Girls</u> www.amolatina.com</p> <p>1000s Ladies Profiles from Mexico & Brazil. Find your Perfect Match!</p> <p><u>Free Latin Porn</u> www.freetlatinaporn.com</p> <p>Watch uncensored Latin porn. A must see porn site - 100% Free!</p>
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Google

- 92.05% of global search engine market share (as of Feb 2021)*
- 2020 revenue: est. 181.69 billion USD*
- 73% most or all information found is accurate and trustworthy**
- 66% search engines are fair and unbiased source**
- 68% not okay with targeted online advertising



* Statista

** 2012 study of 2253 adults by Pew Research Center

**“They freely provide, it seems,
a sorting of the wheat from the
chaff and answer our most
profound and most trivial
questions. They have become
an object of faith”**

–Alex Halavais

NATHAN

You know I wrote it down. That other line you came up with. About how if I've created a conscious machine, I'm not man. I'm God.

CALEB

... I don't think that's exactly what I said.

NATHAN doesn't seem to hear.

NATHAN

I just thought - *fuck*. That's so perfect. It's so good for the story, when we get to tell it. 'I turned to Caleb, and he was looking back at me. And he said: you're not a man, you're a God'.

CALEB

But I didn't say that.

NATHAN

Whatever it was you said. I wrote it down.

CALEB
... Blue Book.

NATHAN nods.

NATHAN
It was the weird thing about search engines. They were like striking oil in a world that hadn't invented internal combustion. They gave too much raw material. No one knew what to do with it.

CALEB looks at the orb in his hand. Into the shimmering liquid.

It looks like deep space, filled with star fields.

NATHAN (CONT'D)
My competitors were fixated on sucking it up, and trying to monetize via shopping and social media. They thought engines were a map of what people were thinking. But actually, they were a map of how people were thinking. Impulse, response. Fluid, imperfect. Patterned, chaotic.

“Despite the widespread beliefs in the Internet as a democratic space where people have the power to dynamically participate as equals, the Internet is in fact organized to the benefit of powerful elites,⁵¹ including corporations that can afford to purchase and redirect searches to their own sites. What is most popular on the Internet is not wholly a matter of what users click on”

-Sufiya Umoja Noble, Algorithms of Oppression



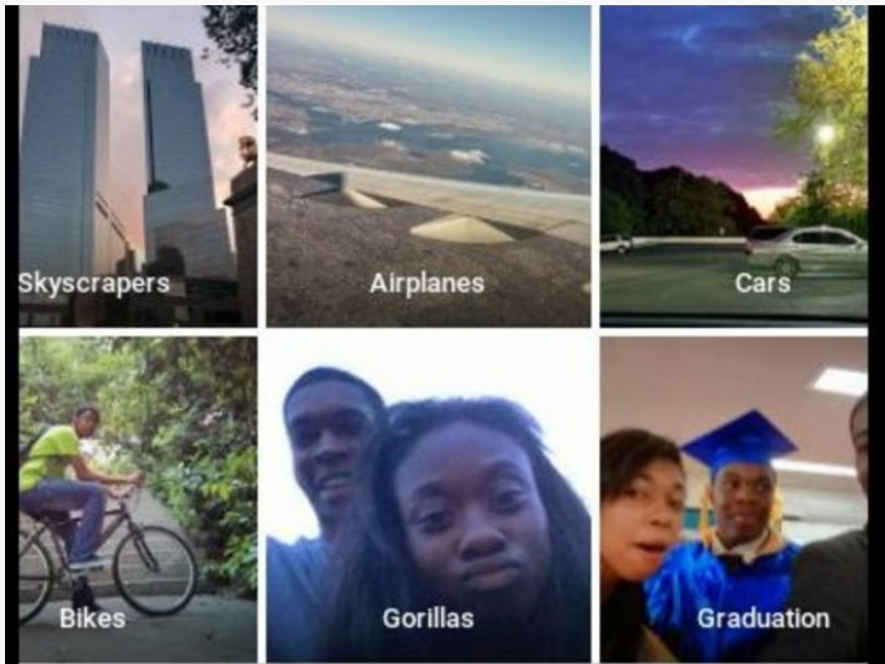
**“How to Stop AI from
Marginalized Communities”
By Timnit Gebru**

Discussion

- **Which applications of AI do you think are the most biased?**
- **Why is representation among people who implement AI algorithms important?**

Google Labels Black People as “Gorillas”

<https://www.bbc.com/news/technology-33347866>



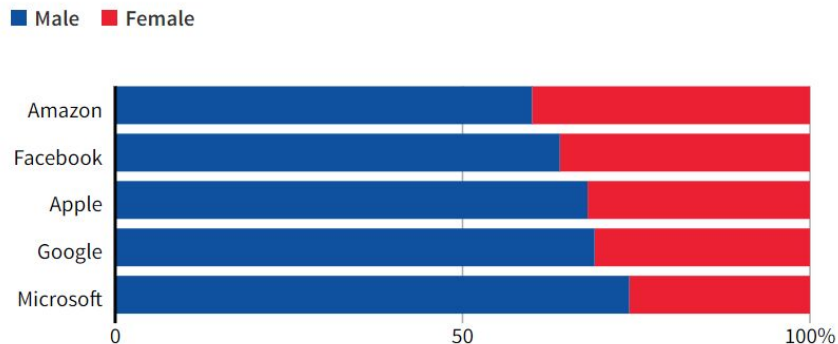
- **Same app tags photos of dogs as horses**
- **Racist AI or a coincidence?**
- **Their suggested fixes:**
 - **Remove certain labels**
 - **Being more careful about linguistics**
 - **Better recognition of dark skinned faces**

Amazon's Sexist AI Recruiting Tool

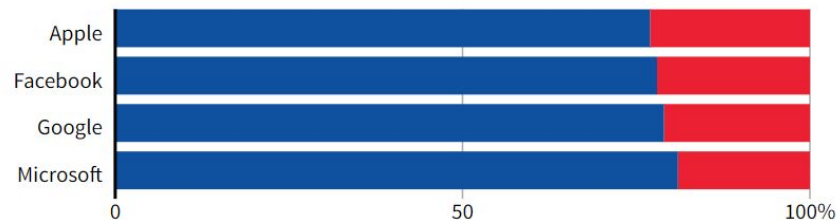
<https://www.reuters.com/article/us-amazon-com-jobs-automation-insight/amazon-scrap-secret-ai-recruiting-tool-that-showed-bias-against-women-idUSKCN1MK08G>

- **Models trained to pick applicants by looking at patterns in resumes submitted over the past 10 years**
- **Resumes that included "women's" were penalized**
- **Amazon's solution: make programs neutral to such terms**

GLOBAL HEADCOUNT



EMPLOYEES IN TECHNICAL ROLES



Note: Amazon does not disclose the gender breakdown of its technical workforce.

Source: Latest data available from the companies, since 2017.

By Han Huang | REUTERS GRAPHICS

Nature: AI can be sexist and racist

<https://www.nature.com/articles/d41586-018-05707-8>

Major bias source: training data and how it's obtained

- **Data sets often formed by grad students or crowdsourcing platforms using specific query terms**
- **Encodes unintentional ethnic, cultural and sexist biases**
- **Particularly problematic in fields where it's hard to obtain data such as medicine**
- **Highlights institutional biases as well**

Another source of bias: Algorithms themselves

- **Changing the learning algorithm to reduce its dependence on gender, ethnicity, income,... etc**
- **Evaluating algorithms with test data sets perpetuate the biases**

References

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https://www.pewresearch.org/internet/wp-content/uploads/sites/9/media/Files/Reports/2012/PIP_Search_Engine_Use_2012.pdf