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#ethics in a #machinelearning world

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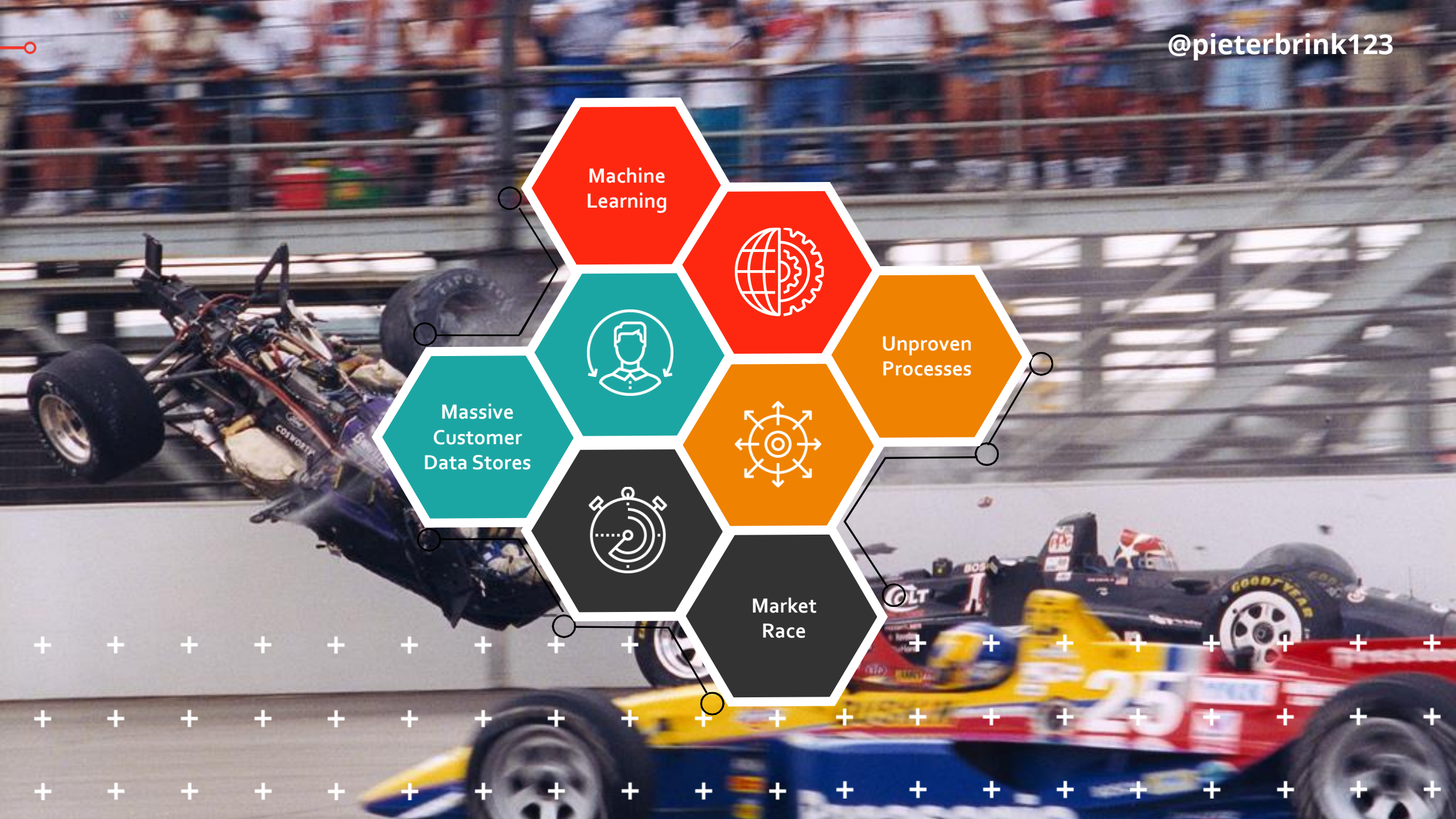

Checking restaurant hours

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ON THE TOPIC OF AI:

I just watched the @Google #duplex video. Absolutely amazing. As AI grows, it's not the machines that I'm afraid of, it's the humans that control the machines that frighten me. AI will be used by the super rich to manipulate, deceive, and exploit us.

8:50 AM – 10 May 2018

@Peesha_Deel, *Swirling Archer*

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realizing. The obvious question soon followed: Should AI software that's smart enough to trick humans be forced to disclose itself. Google executives

Mark Bergen, *Bloomberg*

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The reaction…

Google Assistant making calls pretending to be human not only without disclosing that it's a bot, but adding "ummm" and "aaah" to deceive the human on the other end with the room cheering it… horrifying. Silicon Valley is ethically lost, rudderless and has not learned a thing.

8:12 AM – 9 May 2018

@Zeynep, *Zeynep Tufekci*
UNCSILS professor & NYTimes writer

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With no exceptions so far, the sense of these reactions has confirmed what I suspected – that people are just fine with talking to automated systems so long as they are aware of the fact that they are not talking to another person. They react viscerally and negatively to the concept of machine-based systems that have the effect (whether intended or not) of fooling them into believing that a human is at the other end of the line. To use the vernacular: "Don't try to con me, bro!"

Lauren Weinstein, *People for Internet Responsibility*

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YOUR SCIENTISTS WERE SO PREOCCUPIED WITH WHETHER OR NOT THEY COULD
THAT THEY DIDN'T STOP TO THINK IF THEY SHOULD

Who asks the question?

Artificial Intelligence “around the world”

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Amazon, Google
Top-ranked AI groups

Nvidia
Part of the growing trend of AI/ML research in Canada

Microsoft, Apple, Intel
Major players ranked behind leaders

IBM, Facebook
North Eastern US-based, growing globally

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Digital Marketing and Bias

Impact of bias: Exclusion

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Impact of bias: Exclusion

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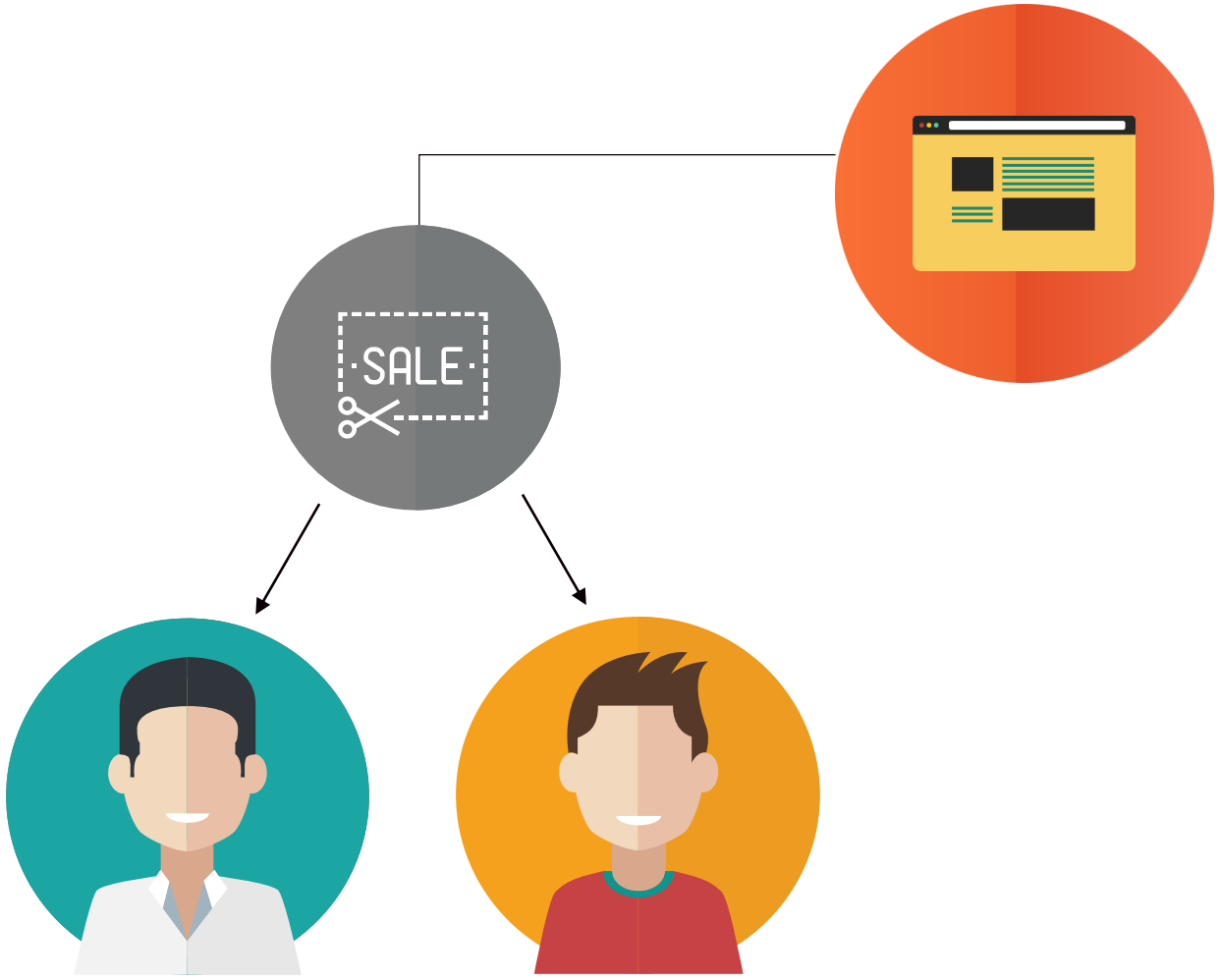
Impact of bias: Exclusion



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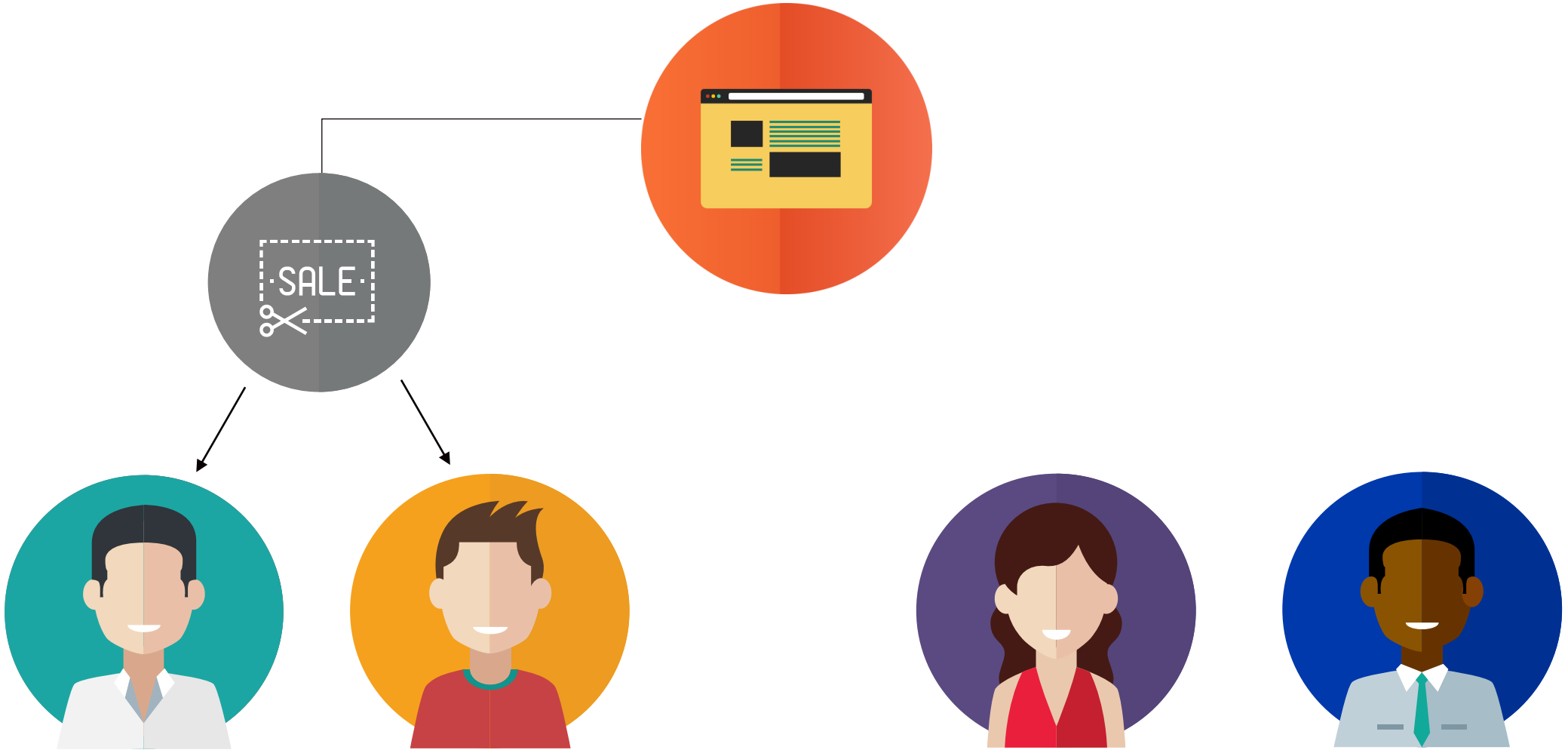
Impact of bias: Exclusion



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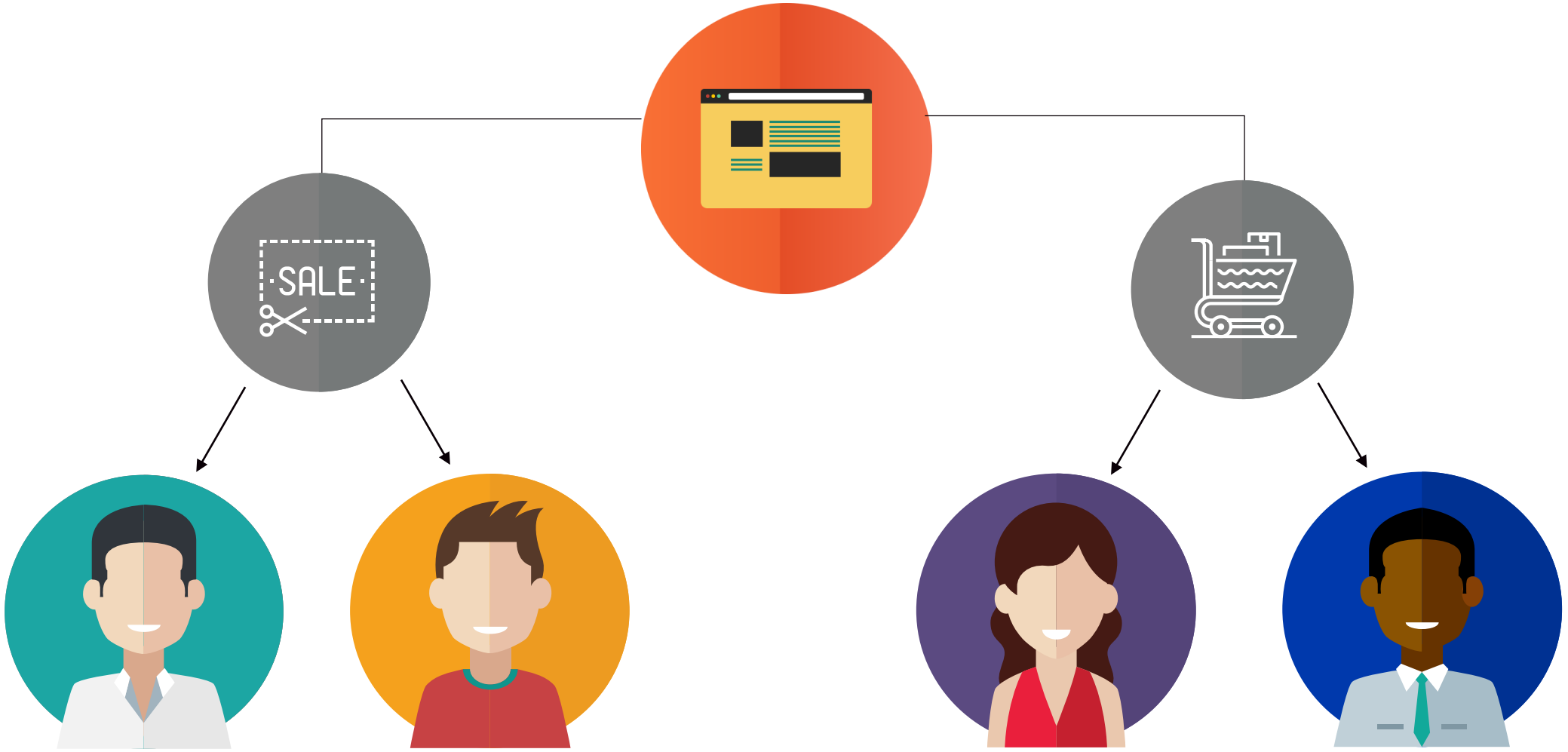

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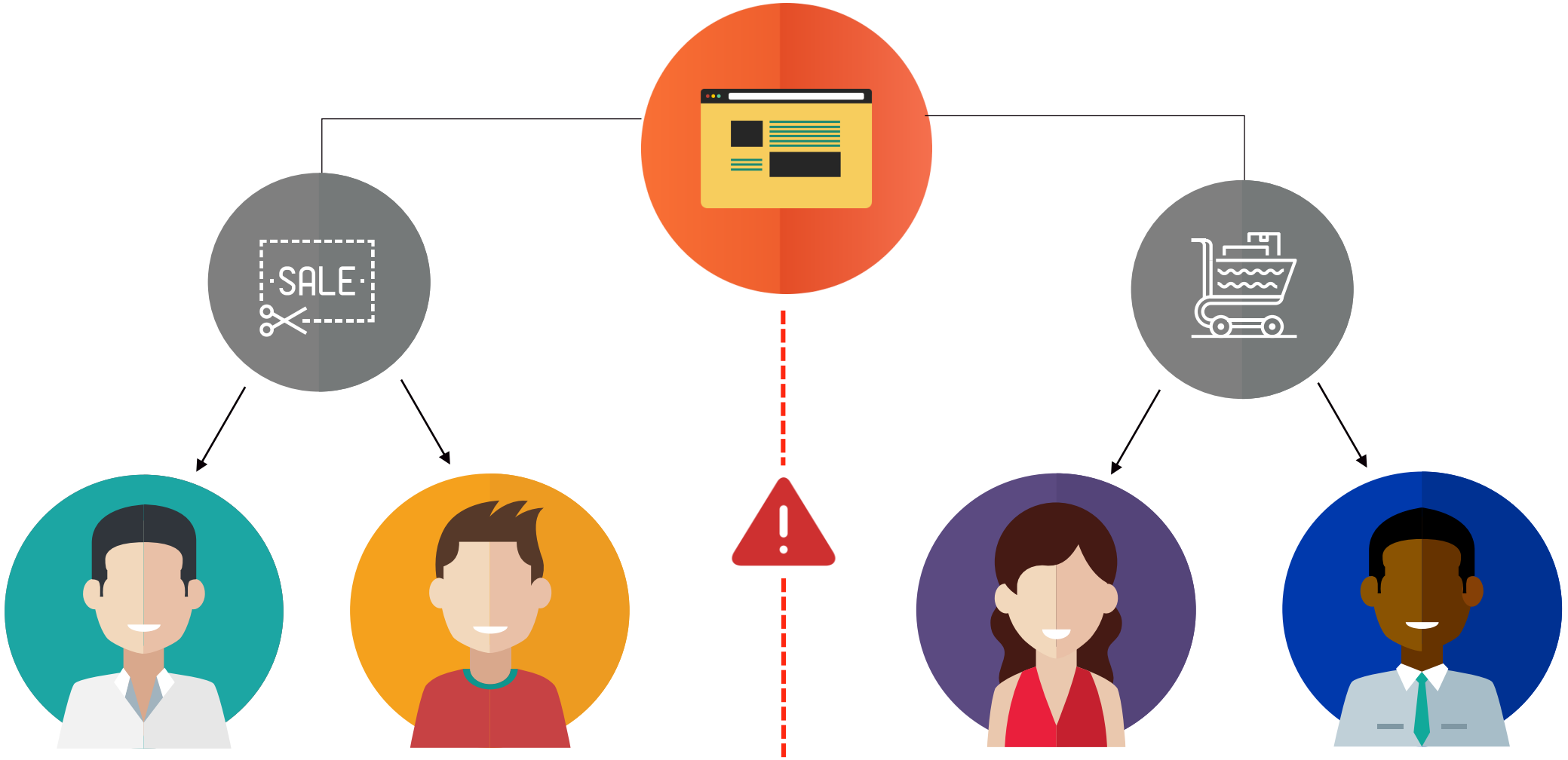

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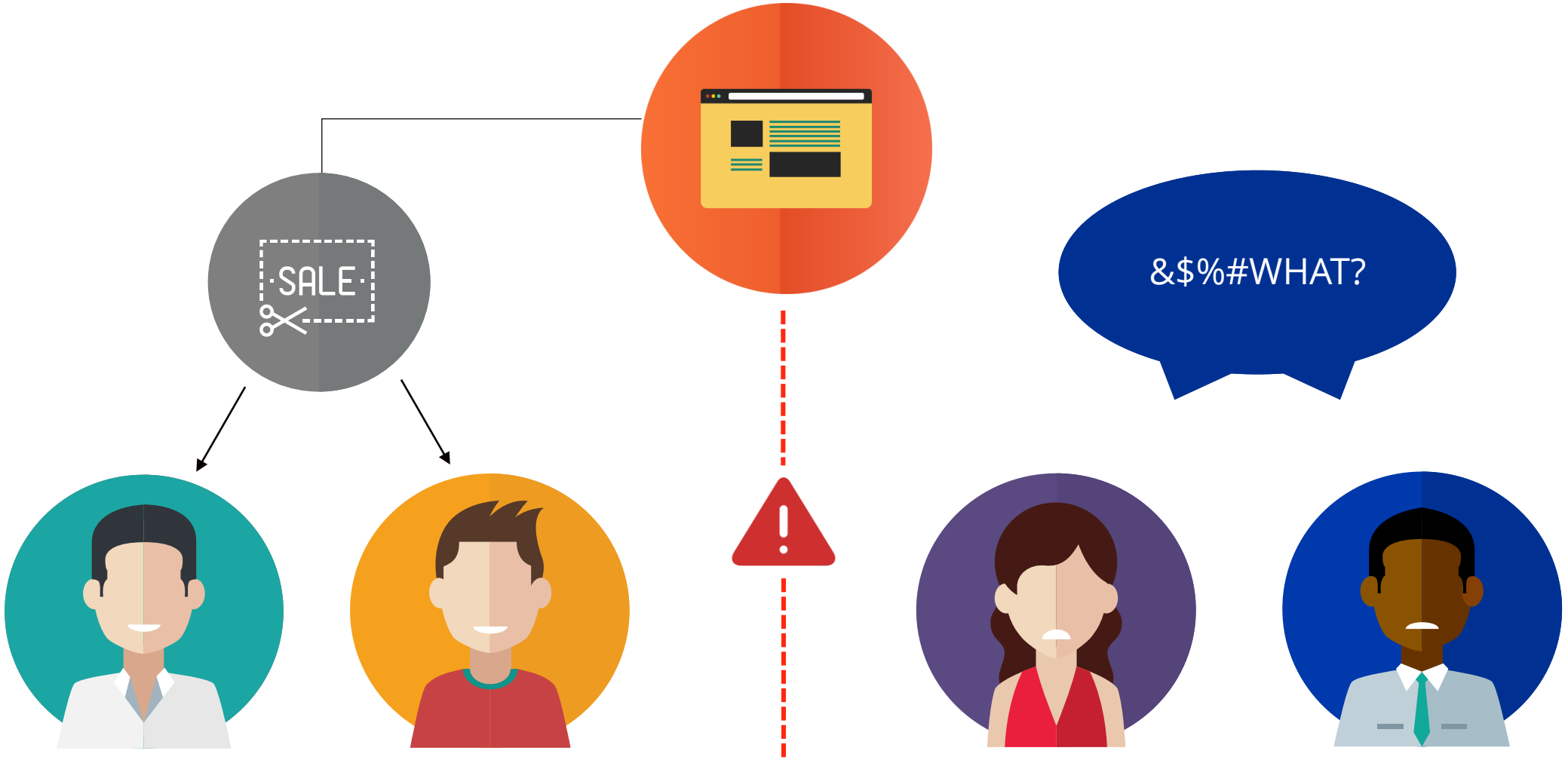

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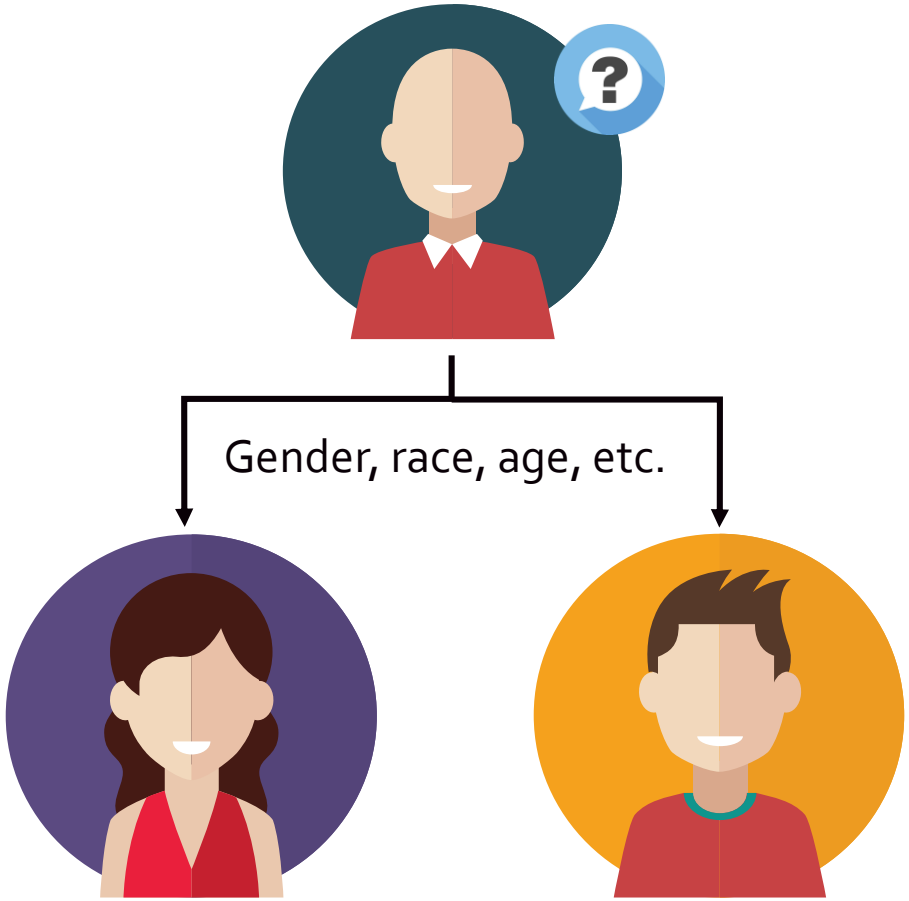
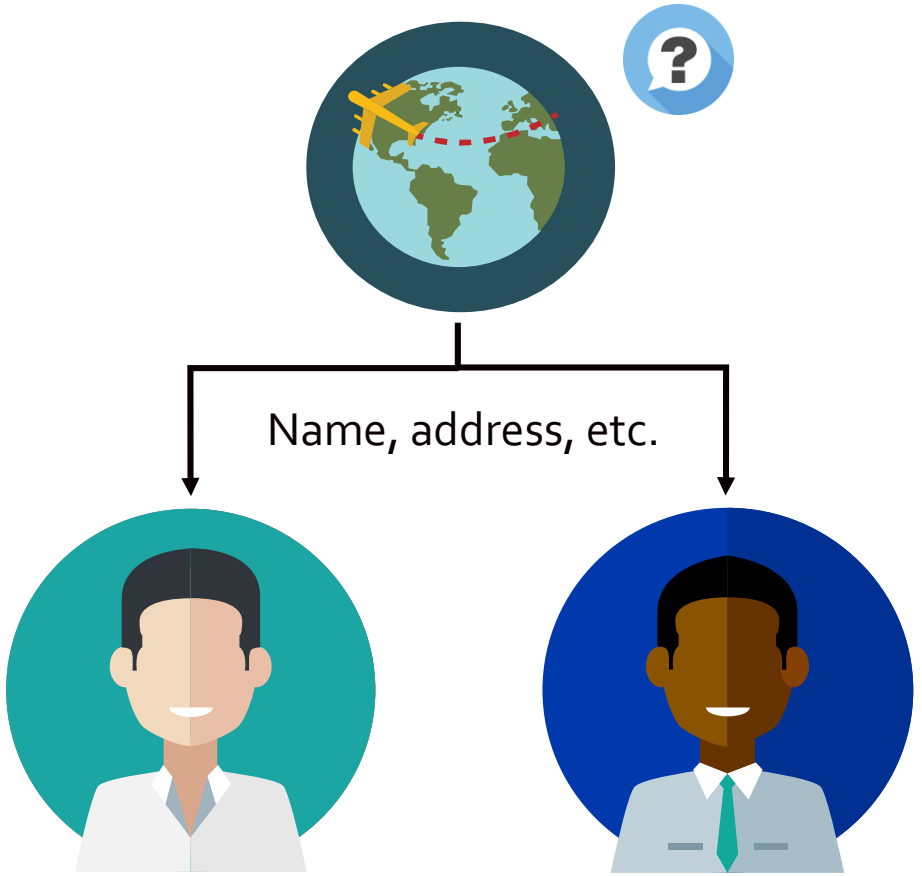
Features can introduce bias

Direct bias



Embedded bias



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COMPELLING TALE, CHAP!

But what can I do about it?

Integrity

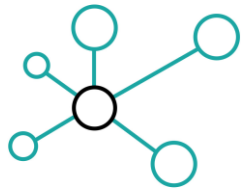
Organization adopts

Culture of Integrity

Individualize

Context over

Demographics



Diversity

Data & Team Diversity

Fairness Testing

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Integrity

Organization adopts a Culture of Integrity

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Integrity is hard

- Shifts in org culture
- Removing the blame game
- Enabling individuals on ethical scenarios

Organizations mimic behavior of their leaders!

Must start from the top down

Ask SHOULD instead of COULD

Individuals need to be supported to work in an environment where they can question decisions and actions.

Ultimately YOU are responsible.

Ethics is everyone's job!

Individualize

Context over Demographics

Individualize

Behavior wins.

Model outcomes based on actions, not assumptions based on age, gender, etc.

Individualize

Track it. Safely.

In order to model after behavior, you need to store behavioral data and profile it.

Make sure you are doing this with privacy in mind!

Individualize

Blindness is not a cure.

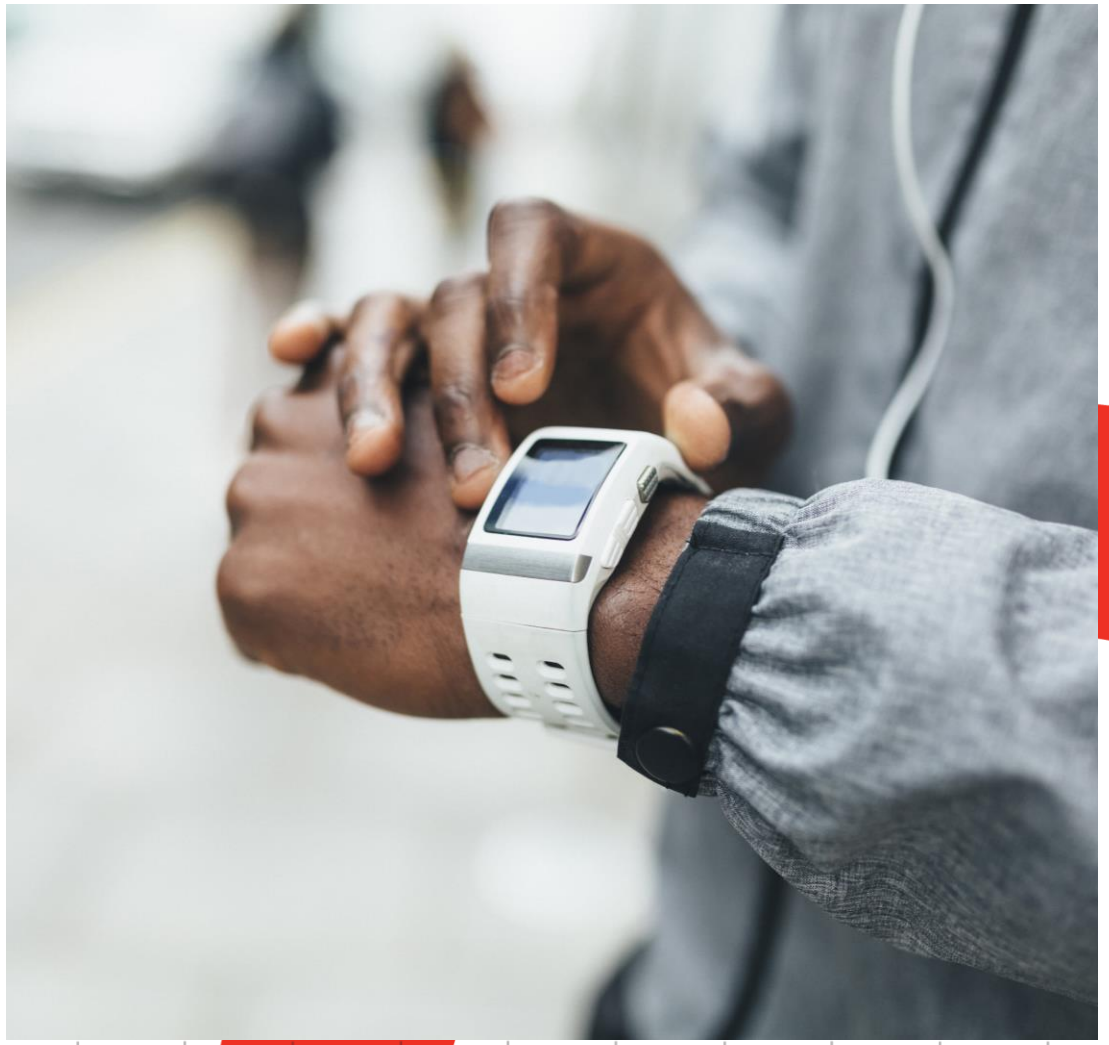
Ignoring demographic data will not fix everything, but it sure can help!

Individualize

Context takes time

You need to build up behavioral data in order to make predictions.

Existing data sets based on demographics are already out there.



Some fun with demographics!

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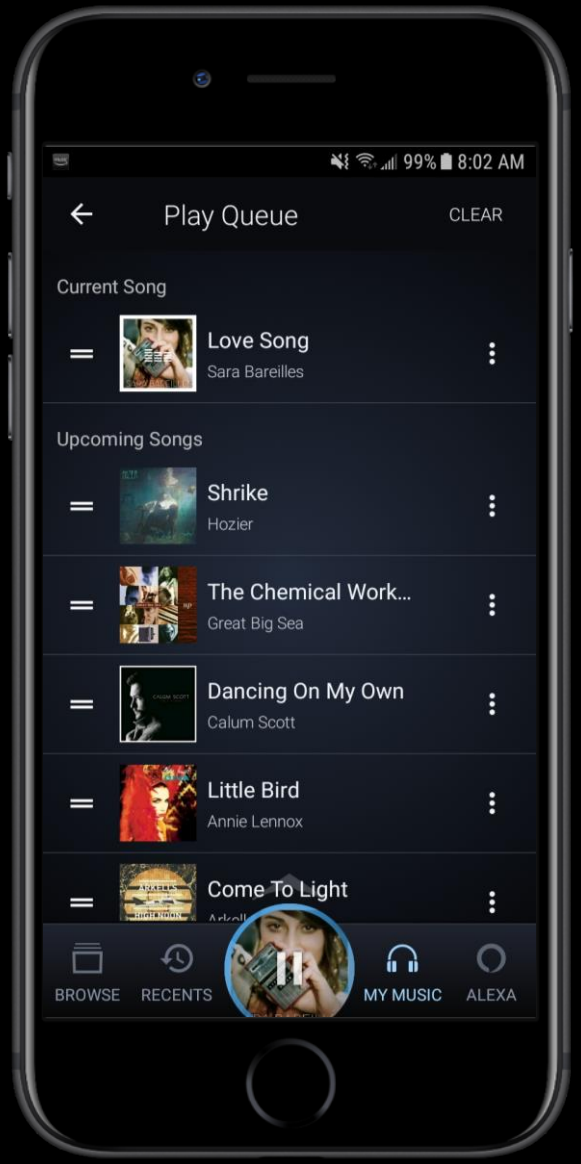

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Choose your playlist

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Smells like team spirit

Nirvana

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Choose your playlist

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Smells like team spirit
Nirvana

Fallin’
Alicia Keys

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Choose your playlist

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Smells like team spirit
Nirvana

Fallin’
Alicia Keys

Cleopatra
Lumineers

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Choose your playlist

Smells like team spirit
Nirvana

Men, 35-50

Fallin’
Alicia Keys

Women, 30-40

Cleopatra
Lumineers

Hipsters, 25-35

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Diversity

Data and Team Diversity

Fairness Testing

Diversity

Lack of diversity in the team leads to unconscious bias.

Think: Non-binary gender? Physical differences? Cultural differences? Ability differences?

Diversity

Diverse teams can more easily break into other markets and deliver better experiences

Think: China, Japan, etc.

Diversity

Diverse data allows your algorithm to cover the entirety of your audience and increase accuracy of results

Think: Will they tell the story of when you got it right?

ETHICS ALL THE THINGS!

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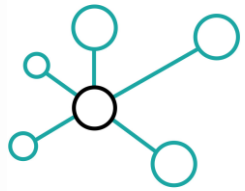

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THANK YOU.

Be excellent to each other!

Photo by Charles Strebor (https://www.flickr.com/photos/rantz/)

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