

CTAM Think Recap

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Impact of algorithms on marketing and society

Applications of AI to Analytics Using Digital Media (i.e. Microsoft)

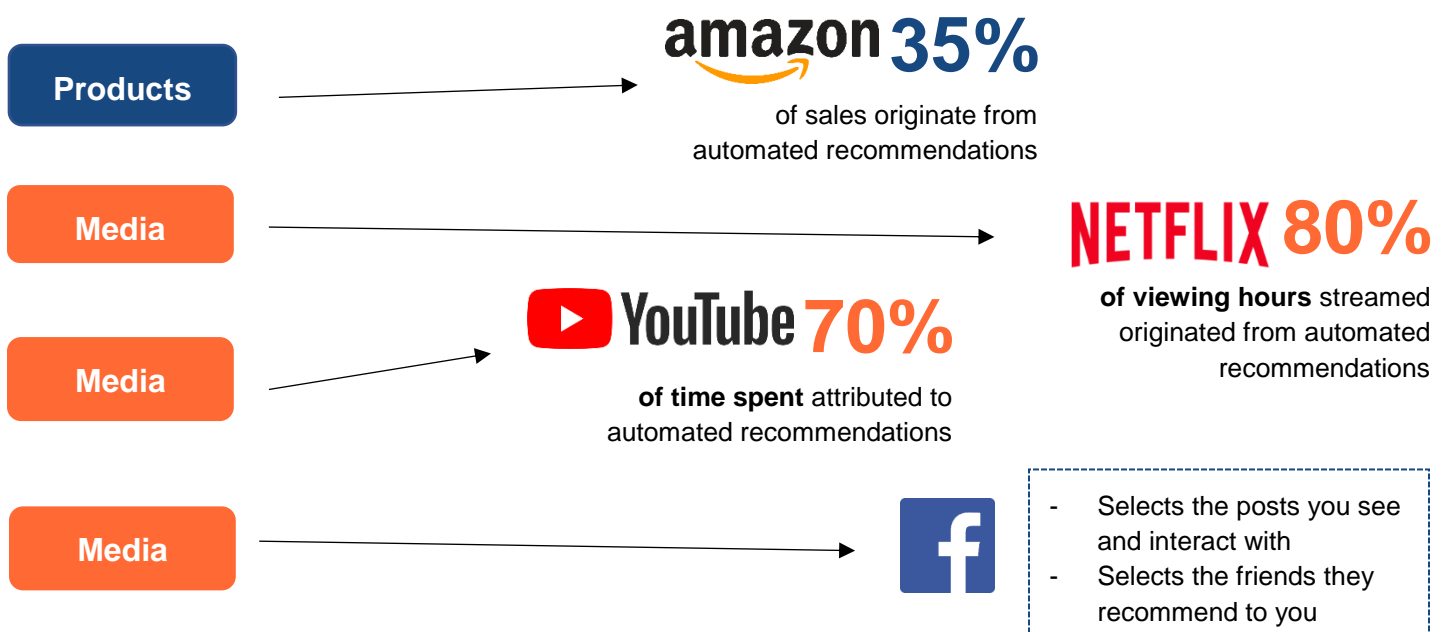


- Creates experimental chatbot Xiaoice in China that rises in popularity – 1/4th of its follower's express love.
- Tries to replicate the success in China and creates experimental chatbot Tay.ai.
- Tay.ai quickly became racist and made MIT's annual worst-tech list.

How can the same kind of algorithm have such drastically different outcomes?

- The outcome depends on what the algorithm is "fed" or interacts with.

Algorithmic Decisions in our Lives



Algorithms Affect You Without Realizing

In 2012, Facebook conducted a study in which they tweaked their newsfeed algorithm to show some users more political news vs. fun.



Voting turnout **increased** from **64% to 67%**.



Informs sentencing



Assigns students

What's Next:

- Voice Activation Algorithms
- Personalized Medicine
- Self-driving Cars

Algorithms & AI: Overview

Artificial Intelligence



Transfer knowledge from **experts** to **knowledge base**.

Limitations – Difficulty expressing tacit knowledge
– Follows a set of rules and not patterns

Alternative – Feed it LOTS of data and find patterns

Machine Learning



Extracting intelligence from data.

Computers have the ability to learn without being explicitly programmed.

Algorithms



"Fully-Programmed"



Artificial Intelligence



Decision Support

Old Model



Autonomous

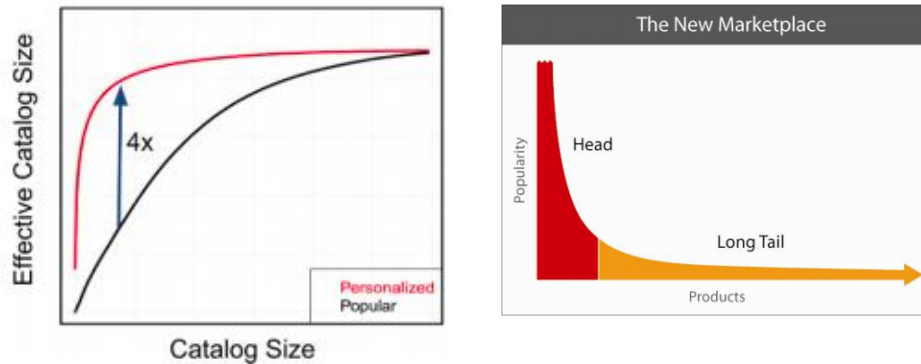
New Model

What does this mean for Media Platforms & Content Creators?

Netflix Study- Algorithms act as a differentiator for media platforms.

- Netflix perceived catalog size is 4x when personalized recommendation algorithms are in use.

The theory is that demand shifts toward the long tail (niche customers find niche content) with personalized algorithms.



Content creators need an algorithm strategy as well. Discovery by algorithms on media platforms is the new SEO.

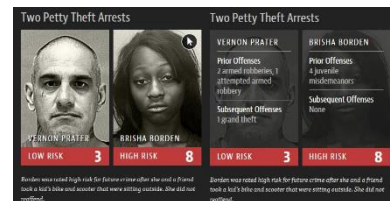
Risk Management – Algorithmic Decisions

How can we protect ourselves against Algorithm bias?



Amazon's recruiting engine skewed favorably towards men

Racial bias in recidivism rate estimates



- This happens because algorithms ingest bad input (human decision-makers are biased, and the AI learns that bias)
- Algorithms are driven by “nature” and “nurture” (code, data)
- The outcome is unpredictable because data is less predictable than programming
- Human auditors are essential to mitigate bias