

#### DESIGNING MACHINE LEARNING

A Multi-Disciplinary Approach

#### guided investigation

## "Netflix Prize"

How might we improve Netflix's user experience to suit streaming services better?'





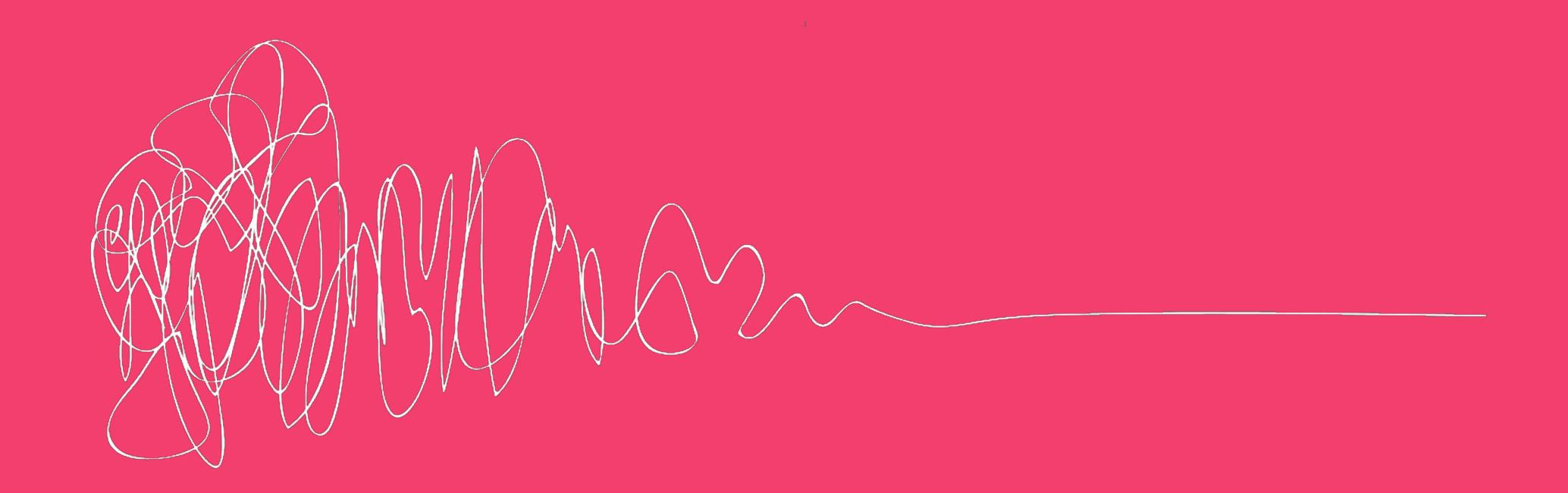
Netflix circa 2007



- 1. A booming DVD business with predictable yet slowing growth.
- 2. Signals that internet content delivery will grow exponentially, though initially tiny market.
- 3. Data about users' movie preferences.
- 4. Tiny fraction of movies available to stream.

Netflix circa 2007



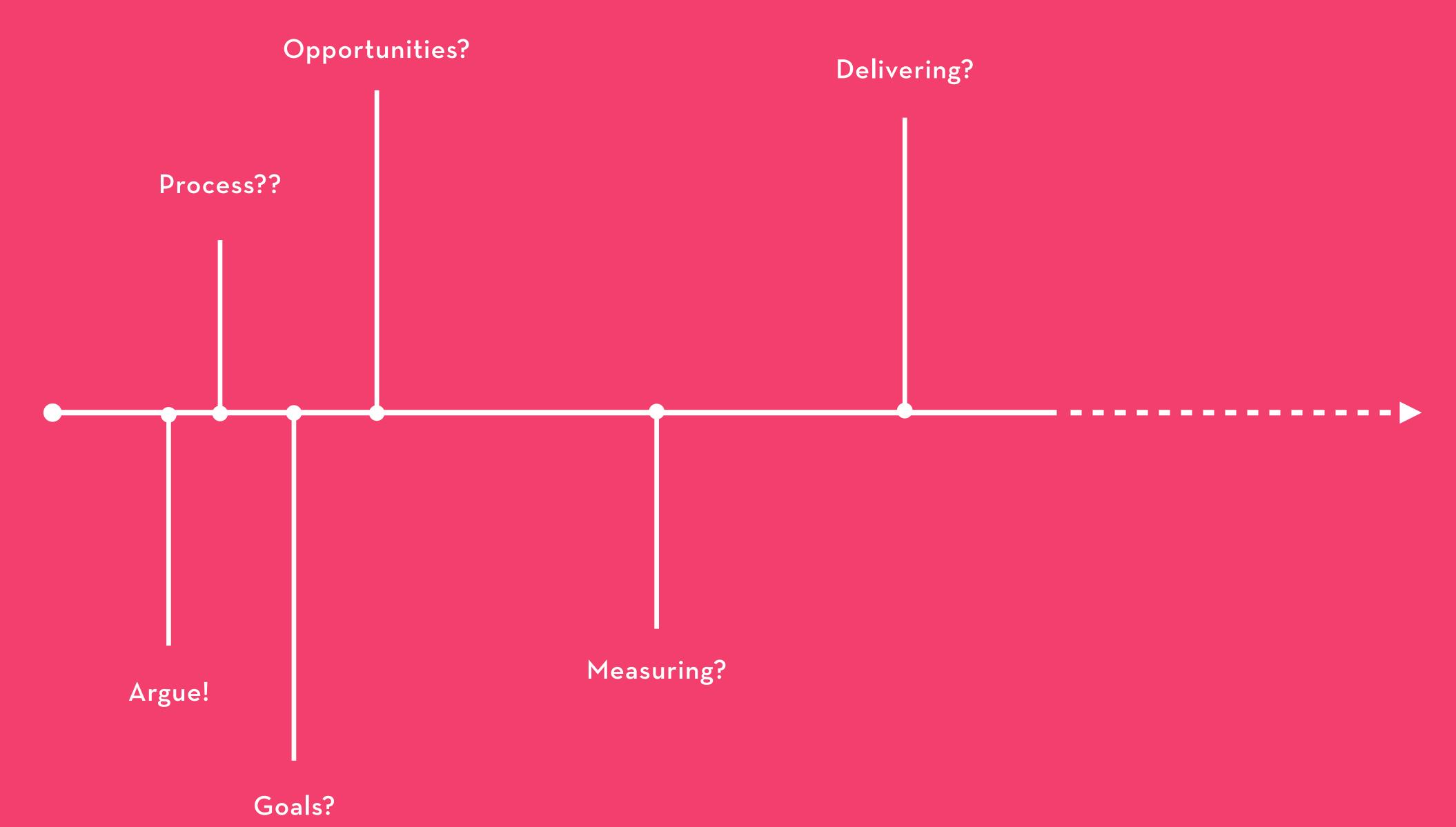


Netflix circa 2007













#### **The Netflix Prize Rules**

For a printable copy of these rules, go here.

#### **Overview:**

We're quite curious, really. To the tune of one million dollars.

Netflix is all about connecting people to the movies they love. To help customers find those movies, we've developed our world-class movie recommendation system: Cinematch<sup>SM</sup>. Its job is to predict whether someone will enjoy a movie based on how much they liked or disliked other movies. We use those predictions to make personal movie recommendations based on each customer's unique tastes. And while Cinematch is doing pretty well, it can always be made better.

An intersting twist...



#### Datawocky

On Teasing Patterns from Data, with Applications to Search, Social Media, and Adver

« Enumerating User Data Collection Points | Main | Traveling: In India this
week »

#### More data usually beats better algorithms

I teach a <u>class on Data Mining</u> at Stanford. Students in my class are expected to do a project that does some non-trivial data mining. Many students opted to try their hand at the <u>Netflix Challenge</u>: to design a movie recommendations algorithm that does better than the one developed by Netflix.

An intersting twist...



#### Your Second Guided Investivation:

Using insights from stakeholder interviews, data, and team research, design a strategy for Netflix's transition to a streaming movie platform.



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We want you to think highly creatively.



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You may focus on any aspect of the problem: the user experience, the interface, the business strategy, etc.



You can 'cheat' and look at what Netflix did to their product in the transition to streaming (they did some pretty creative things!), but the streaming platform was still noticably incomplete.



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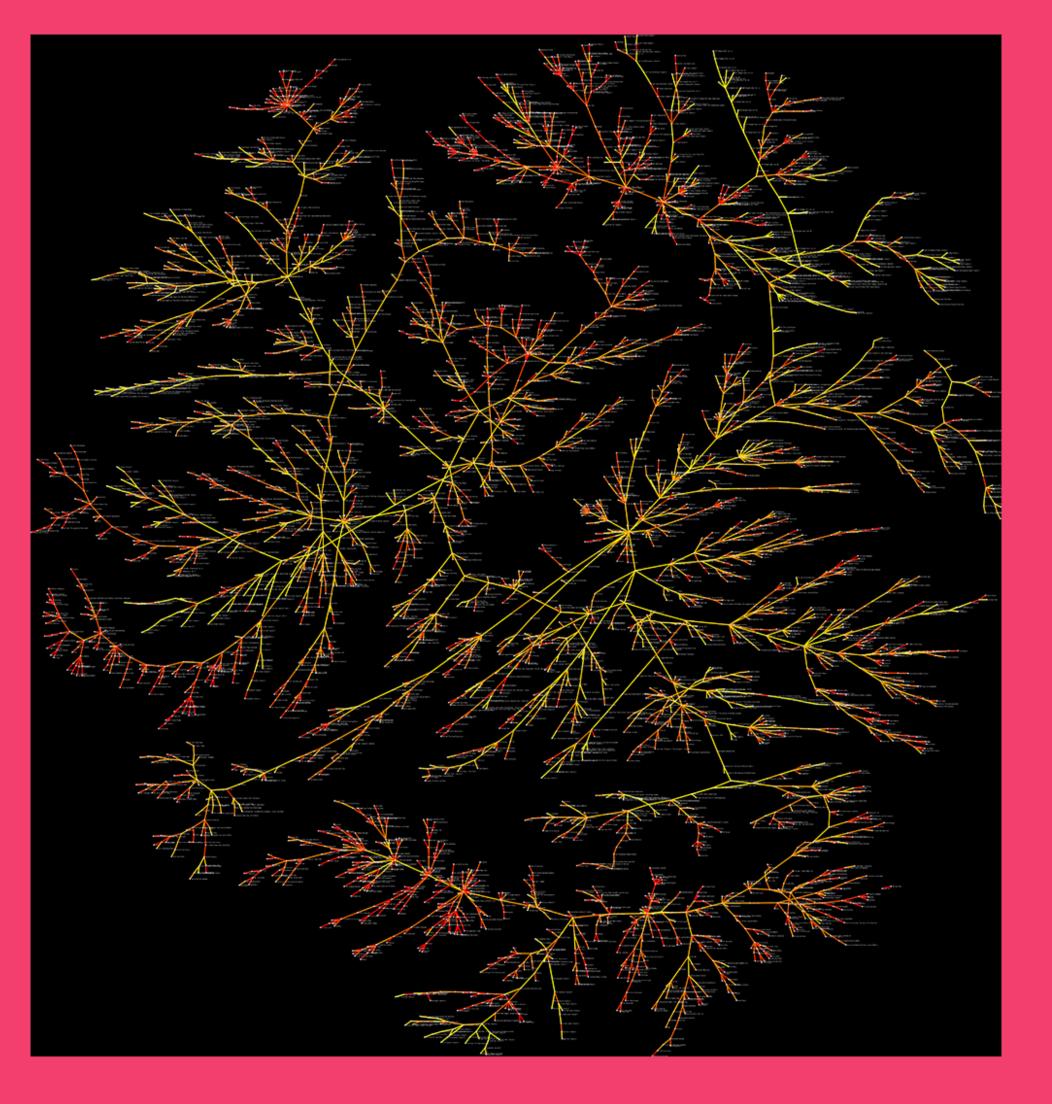


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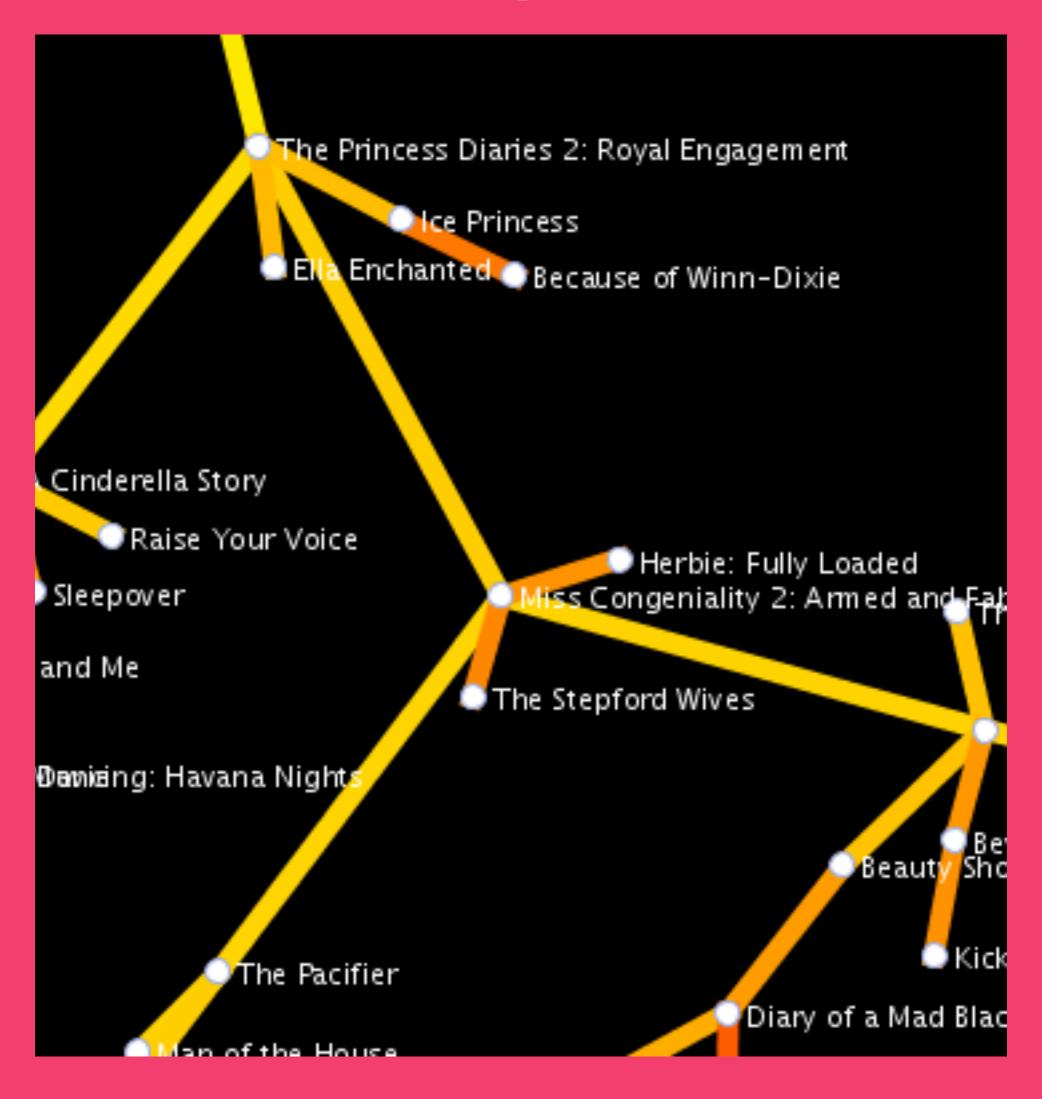
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Recommendations were a huge differentiator for Netflix, but also posed a big risk. Why?











## Make Lo-Fi Prototypes!

If last week was about the value of ethnography, this week is about the value of lo-fi prototyping.



#### Project Groups

Team 1: Katia Teran, Tyler Su, Vikram Jindal

Team 2: Zoe Weinberg, Andrew Huang, Farid Soroush

Team 3: Abhishek Garg, King Alandy Dy, Erica Pincus

Team 4: Barr Yaron, Daniel Levine, Marcy Regaldo

Team 5: Tianxing Ma, James Liu, Ian Taylor

Team 6: Angelica Willis, Gal Ron, Alexander Maschmedt

