Crowdsourced creativity

CS4784: HCI Capstone
Virginia Tech
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February 2, 2015

Preview

- Discuss *UX Book* Chapter 3
- Crowdsourced creativity
- Project pitches (instructor)
- Practice pitching with peers

Crowdsourcing

- Term coined in 2006 by *Wired* writer Jeff Howe
  - Play on the phrase "outsourcing"
- Today, often means leveraging the web to gather the contributions of large numbers of people from around the world
- Work is often divided up into "micro-tasks"
- Workers can be volunteers or paid contractors
- APIs allow developers to embed humans into the software
  - "Artificial artificial intelligence"

Some crowdsourcing platforms

- Amazon Mechanical Turk
  - https://www.mturk.com/mturk/welcome
- ODesk
  - https://www.odesk.com/
- Elance
  - https://www.elance.com/
  - Recently merged with ODesk
- TaskRabbit
  - https://www.taskrabbit.com/
- MobileWorks
  - https://www.mobileworks.com/

Why might crowdsourcing support creativity?

- Scale up benefits of collaboration and social creativity

- Rapid feedback and iteration

- Diverse in terms of demographics, culture, skills

- Crowd can work in parallel with creator

- Crowdsourced efforts can be embedded into a user interface

Examples of crowdsourced creativity

- Soylent (writing)
- Cooks or cobblers (product design)
- This Exquisite Forest (animation)
- CrowdCrit (graphic design)
- NewsPad (journalism)

Soylent

- Crowdsourced writing assistance using paid crowdworkers

- Microsoft Word plugin that connects to Amazon Mechanical Turk via API

- Find-Fix-Verify algorithm

- Multiple Soylent modules
  - Shortn, Crowdproof, The Human Macro

- Evaluation looks at speed, cost, quality

(Bernstein et al. 2010)

Soylent

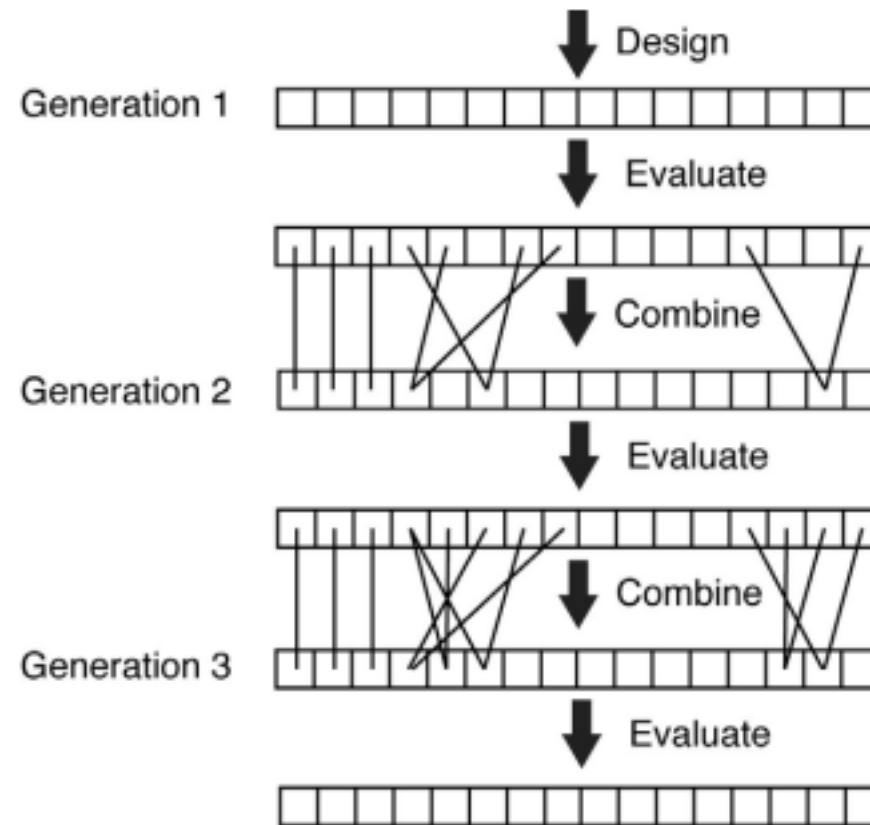- https://www.youtube.com/watch?v=n_miZqsPwsc

Cooks or cobblers

- Leveraging the creativity of paid crowdworkers for sketching/product design

- Iterative design process via Amazon Mechanical Turk API

- Focused on sketches of chair design

- Genetic algorithms used to combine ideas across multiple designs

- Evaluated creativity of ideas and how they were combined and inherited across generations

(Yu and Nickerson 2011)

A genetic algorithm

(Yu and Nickerson 2011)

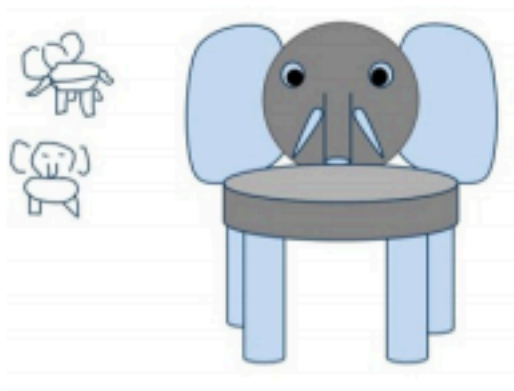**Figure 7. Two chairs rated with low creativity, from generations 1 and 3.**

Figure 8. Two chairs rated with high creativity, from generation 1 and 3.
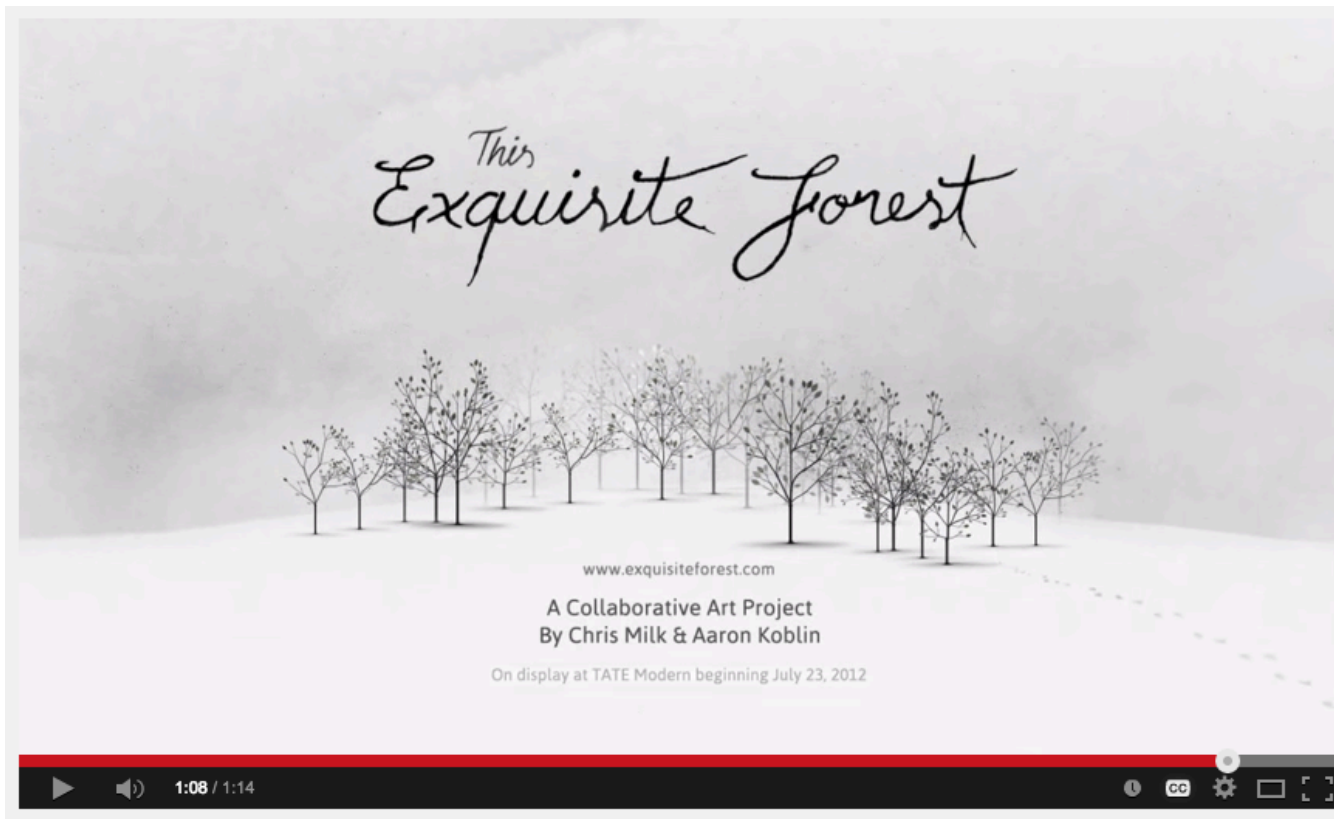
(Yu and Nickerson 2011)

(Yu and Nickerson 2011)

This Exquisite Forest

- Crowdsourced animation project using volunteers
- Created by artist Aaron Koblin and director Chris Milk in partnership with Google and Tate Modern
- Contributors create a branching animated narrative, one animated chapter at a time, inspired by Surrealist game "exquisite corpse"
- Professional animators "seed" each storyline
- No formal evaluation?

This Exquisite Forest
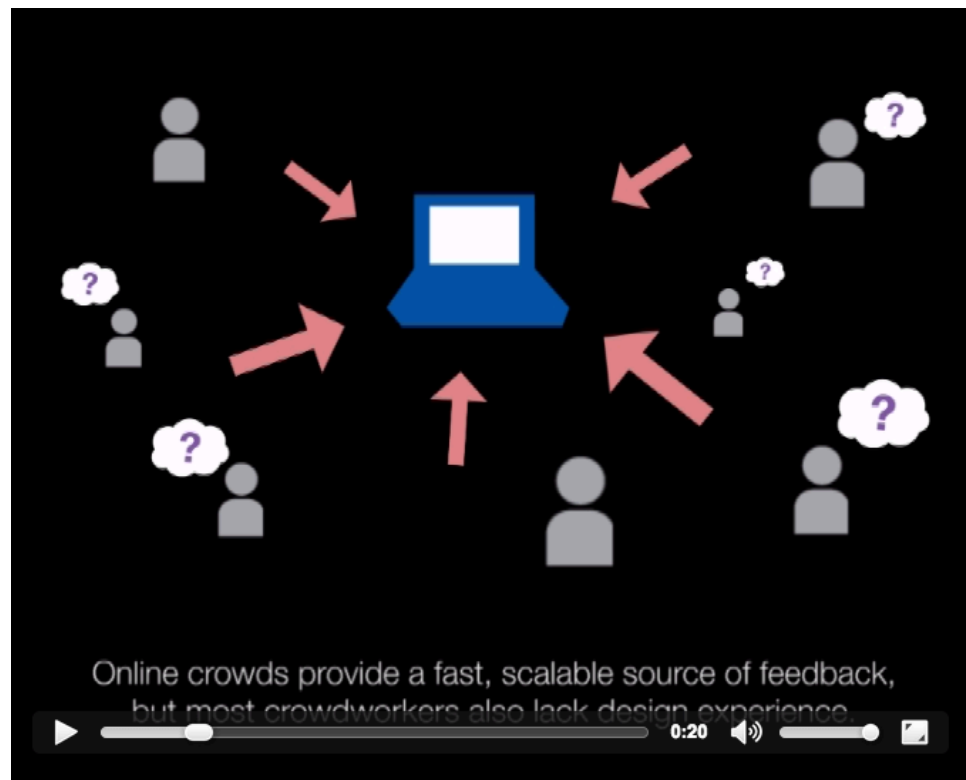
- https://www.youtube.com/watch?v=nnhJ1841K-8

CrowdCrit

- Crowdsourcing feedback on visual designs (posters, flyers, etc.) using paid crowdworkers from Amazon Mechanical Turk

- Critique interface helps non-expert crowds provide useful feedback

- Aggregation interface groups and visualizes crowd feedback for designers to explore

- Evaluation focused on comparing crowd vs. expert feedback, reactions of designers

(Luther et al. 2015)

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CrowdCrit

- http://dl.acm.org/citation.cfm?doid=2556420.2556788 (go to "Source Materials" tab)

Online crowds provide a fast, scalable source of feedback, but most crowdworkers also lack design experience.
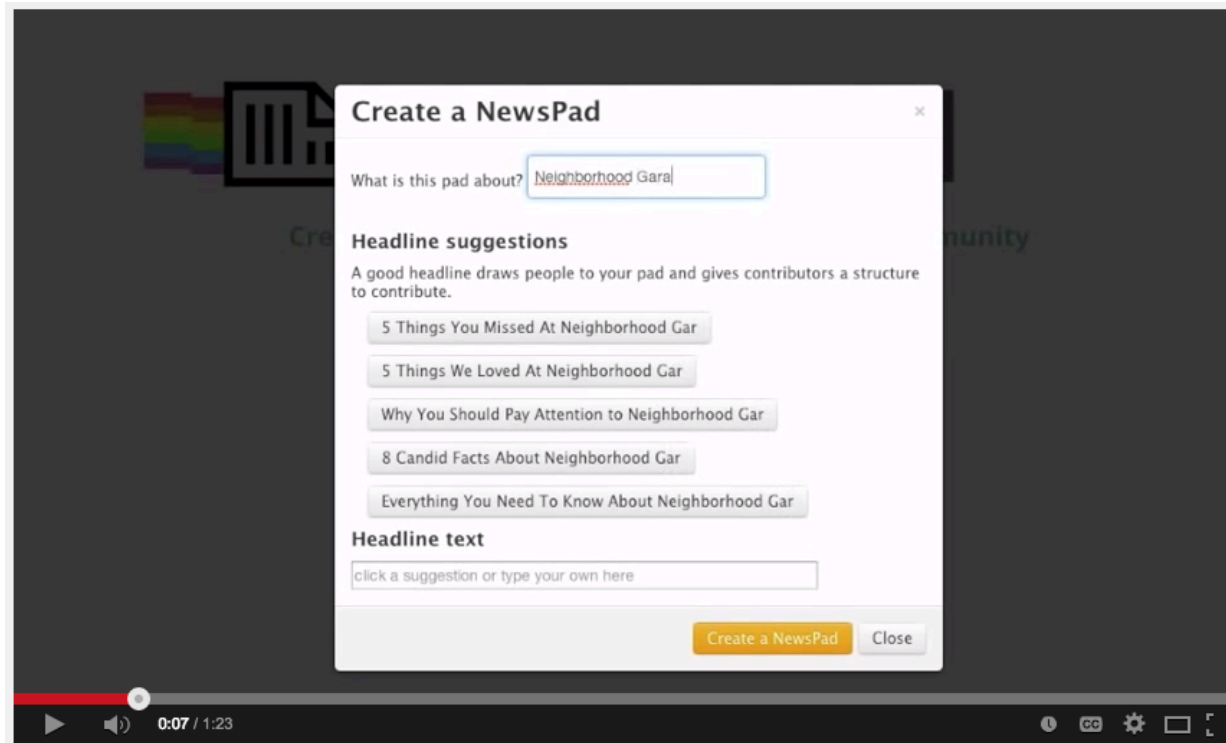
NewsPad

- Crowdsourced local news gathering and story writing

- Geared towards volunteers (local citizens)

- Software tool scaffolds the process of journalism for non-experts (writing headlines, etc.)

- Social features for requesting improvements, sharing via social media

- Informal evaluation with 3 real-world deployments (conference, zombie walk, design expo)

NewsPad

- https://www.youtube.com/watch?v=6G6XJzxveDA#t=54

Using crowdsourcing for your projects

- At least three options

  - Usability testing

  - Prototyping a volunteer community

  - As the intended user base

- Funds are available!

Next class

- Read Chapter 4, *UX Book*, contextual analysis
- Prepare to pitch during class