User Centered Design Process
May 1 - June 14

History of user centered design in HCI
June 19, June 21

Academic HCI
June 26, June 28

Special topics in HCI
July 5, July 10

Course Review
July 12, July 17

Presentation 2
July 19

Last class
July 24
Special topics

- Accessibility in HCI
- Gamification
Gamification - the use of game mechanics and game dynamics in a non-game context

Term coined by Nick Pelling in 2002.
Gained popularity around 2010

Used in design to increase motivation and engagement
Gamification

Game mechanics

Gamespace
Player representation
Rules
Competition
Collaboration

Element of chance
Feedback system
Evidence of accomplishments
Goals and challenges
Transparency
Gamification

Engagement elements

- Meaning of the gamespace
- Social game context
- Game objectives and feedback
- Meaningful choices
Gamification

Meaning of the gamespace

- Often achieved by storytelling practices
- Should be heavily supported by visual elements
- Gamified goals should connect to personal goals
- Connecting to a meaningful community of interest is helpful
- Building upon social meaning within the created story and outside of it
Gamification

Engagement elements

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Gamification

Challenge = Goals + Rules + Feedback
Gamification

Challenge

Goals
- Personally meaningful
- Customizable
- Socially meaningful
- Clearly presented
- Achievable

Rules
- Transparent
- Reliable

Feedback
- Informational
- Meaningful rewards
  - “Juicy”
Gamification

- Interesting and meaningful challenges
- Clear goals, organized by increasing difficulty
- Match the edge of user abilities
- Make rewards meaningful internally and externally
- Feedback should be informational
- Feedback is more effective when hitting emotional level

Game objectives and feedback

Meaningful choices
Gamification

- Support voluntarism and autonomy
- Make choices feel meaningful and impactful
- Support multiple ways of problem solving
- Lead users in the right direction but don’t force them

Meaning of the gamespace

Game objectives and feedback

Meaningful choices
Gamification

Engagement elements

- Meaning of the gamespace
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- Meaningful choices
- Social game context
Gamification

The Robbers Cave Experiment by Muzafer Sherif

Realistic conflict theory - situation when two or more groups that are seeking the same limited resources leads to conflicts, negative stereotypes and discrimination between groups.

In-group–out-group bias - pattern of favoring members of one's in-group over out-group members

Gamification

Social game context

- Connect to meaningful communities
- Allow users to group and regroup
- Support community internal activities
- Support setting shared goals
- Support status and reputation representations
- Support players representation customization
Gamification

Engagement elements

- Meaning of the gamespace
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Gamification

Cow Clicker by Ian Bogost
Gamification

Self-determination theory

Intrinsic motivation
- Feeling capable of doing something
- Feeling free to choose how to do something
- Feeling connected to other people

Extrinsic motivation
- Possibility of achievement
- Fulfilling an obligation
Gamification

Single game element

Serious games

Games design with a main purpose being other than entertainment

Military, education, health, science, engineering, management, etc.
Gaming can make a better world | Jane McGonigal