

Computer-Human Interaction

October 19, 2016

Today

- Admin
- Brainstorming
- Scenarios
- Hot Topics
- Research Paper Circles

Admin

- T3 extension: 10/27 @ 11:59pm
- Plagiarism
- Doodle Poll: T4
 - <http://bit.ly/2eSNJgG>

- What personal attributes (skills, characteristics, abilities, etc.) do people need to design good user interfaces? (1-3)
- What personal attributes do YOU have (skills, characteristics, abilities, etc.) that can help you design good user interfaces?

PEOPLE NEED TO BE...

- 1)
- 2)

I AM....

- 1)
- 2)

Creative Confidence

- David Kelley: Ted Talk

Creative Confidence

- Creative Myths
 - Creative = artistic
 - Creative industries = designers, architects etc., not CEOs, lawyers, doctors
 - Creativity is fixed, genetic – you have it or you don't
- Creativity
 - “Using your imagination to create something new in the world”
- All have creative potential, but many lack the confidence
- Discover
 - Capacity to imagine, or build upon “new-to-the-world ideas”
 - Takes bravery

Kelley, T., & Kelley, D. (2013). *Creative confidence: Unleashing the creative potential within us all*. Crown Business.

Design-Driven Innovation

- Don't wait for inspiration to hit you
 - Seek experiences that spark creative ideation
 - Interacting with experts
 - Tech Box
 - Existing products
 - Defamiliarization – Make the familiar strange
 - immerse yourself in unfamiliar places to surface new insights about about the familiar & opportunities for variation
 - Studying users – sampling
 - Extreme case, Intensity, maximum variation
 - Interviews, observations, artifacts
 - Compare approaches across industries
 - Customer service in restaurant when seeking to design tools to improve service in hospital
 - Inspiration journals

Kelley, T., & Kelley, D. (2013). *Creative confidence: Unleashing the creative potential within us all*. Crown Business.

Inspiration

Please use this book to describe games that you enjoy playing.

This includes board games, sports games, computer games, cell phone games, games played on a console (e.g., Nintendo), etc.

For each game, please:

- 1 provide the name of the game, indicate how often you play, & when you last played
- 2 describe specific actions and behaviors you enjoy in this game
- 3 describe what features make the game fun, and why

Book

When thinking about question **3**, consider these Feature Categories:

Sensation: What you see, hear, feel, etc. For example, games with vivid or enjoyable colors, images, animations, sounds, music, or haptic feedback (e.g., vibrations on a video game controller)

Fantasy: Games that have an element of make-believe

Stories: Games that have a dramatic story (e.g., games in which you are a character participating in an ongoing storyline, or games that build a sense of tension as the dramatic story unfolds)

Challenge: Games that push you to overcome obstacles (e.g., through time pressure, competing against others, multiple levels that players move through)

Social: Games that are played with others (e.g., sharing information with other players, collaborating to achieve a goal, or competing)

Explore: Games that let you discover and explore new worlds or environments

Self-Expression: Game that allow you to express your creativity or ideas, and allow you to personalize the game world (e.g., creating your own character or avatar, building elements in the game world, etc.)

Design-Driven Innovation

- Ideation
 - Don't commit to an idea too quickly
 - "Creative thinkers.. are careful not to rush to judgment"

Brainstorming: Warm-Up

- Shared Memory
 - Partners
 - Reminisce about a trip
 - “Yes, and, remember when ...”
 - 2 min
- Let’s Plan a Party
 - Groups of 4-5
 - Brainstorm ideas, one at a time
 - “Yes, but...” (5 min)
 - “Yes, and...” (5 min)

Brainstorming: Warm-Up

- The Failure Bow
 - Consider one light-hearted failure in the past few weeks.
 - Volunteers?
 - “I failed!”
 - <describe failure>
 - Class: rousing cheers, woohoos, applause
- Improv Objects
 - Choose one object
 - Improvise a 45-sec commercial selling us on the idea
 - Team works together

Brainstorming

- Consider IDEO Brainstorming Rules
- Redesign the experience of getting a morning cup of coffee.
- 20 ideas in 10 min.

STEPS

- 01** | Defer judgement. You never know where a good idea is going to come from. The key is make everyone feel like they can say the idea on their mind and allow others to build on it.
- 02** | Encourage wild ideas. Wild ideas can often give rise to creative leaps. In thinking about ideas that are wacky or out there we tend to think about what we really want without the constraints of technology or materials.
- 03** | Build on the ideas of others. Being positive and building on the ideas of others take some skill. In conversation, we try to use “and” instead of “but.”
- 04** | Stay focused on the topic. Try to keep the discussion on target, otherwise you can diverge beyond the scope of what you’re trying to design for.
- 05** | One conversation at a time. Your team is far more likely to build on an idea and make a creative leap if everyone is paying full attention to whoever is sharing a new idea.
- 06** | Be visual. In live brainstorms we write down on Post-its and then put them on a wall. Nothing gets an idea across faster than drawing it. Doesn't matter if you're not Rembrandt!
- 07** | Go for quantity. Aim for as many new ideas as possible. In a good session, up to 100 ideas are generated in 60 minutes. Crank the ideas out quickly and build on the best ones.

Brainwriting

- Redesign the experience of using public transportation.
- Write ideas first
- Share & iterate
- 15 ideas in 5 min.
- Debrief: Compare experiences

Thompson & Nordgren, *Creative Conspiracy: The New Rules of Breakthrough Collaboration*.

<https://www.fastcompany.com/3033567/agendas/brainstorming-doesnt-work-try-this-technique-instead>

Brainwriting

- Write ideas first
- Share & iterate
- Challenges w/ brainstorming
 - one voice dominating discussion
 - Traditional brainstorming: a few people do 60-75% of the talking
 - Anchoring: prematurely biased by others
 - Early ideas have disproportionate influence
 - Yet early ideas are often the least creative
- Effective
 - brainwriting groups generated 20% more ideas and 42% more original ideas as compared to traditional brainstorming groups

Thompson & Nordgren, *Creative Conspiracy: The New Rules of Breakthrough Collaboration*.

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Reframing the Problem

- Great solutions come as answers to good questions
 - Reframing helps you to reconsider the question
- Use data to reframe
 - From “how can we help people to complete the homebuying process”
 - To “How can we help people find enjoyment in the homebuying process”
- Take a step back from mundane/obvious solutions
 - Is the solution answering the most interesting/important question?
 - Improving mousetraps vs. Solutions to better mouse-proof home
- Alter your focus / point of view
 - Consider different stakeholders impacted, contexts of use, etc.

Context Scenarios

- “Jane wants to order a new backpack for school. She opens her laptop and navigates to Amazon.com. She uses the search field to type in “backpack” and then chooses from a drop-down menu to search within “Women’s Accessories”.”
- “Samuel approaches the food ordering kiosk and presses the “New order” button. The button is large and positioned in the middle of the screen—white text on a black background. Samuel then looks at the menu options before deciding to look at “Today’s Specials”. He presses the corresponding button and sees a list of meal options, ordered by meal category and laid out in a neat grid. A new entrée piques his interest, so he presses the colorful images to select that item.”

Context Scenario

“It’s Friday afternoon and Joe is flying to Sydney. He doesn’t have enough money for a taxi to the airport, and he’s running late.

So, he goes to the local ATM and identifies himself.

He specifies that he wants \$100 from his savings account. He’d like the money in \$20 notes so that he can give the taxi driver the correct change.

He doesn’t want a printed receipt, as he doesn’t bother keeping track of transactions in this account.”

Context Scenarios: Characteristics

- Story of a particular persona
- Conveys needs, goals, motivations
- Persona using your product in way most typical for that persona
- Describes context in which use patterns occur
 - Environmental
 - Organizational
 - Social
- Primary interactions
- Conveys: motivations, desires & outcomes of using interface

Context Scenarios

- Textual narrative
- Broad, shallow
 - High-level interactions
 - From user's perspective
 - Not interaction detail
- NOT current product. The FUTURE
- Magic = Don't focus on how it will happen
- May need multiple = different use contexts

Context Scenarios

- Challenge: design action competes with reflection
 - Desire to produce overrides desire to reflect while engaging in the design process
 - Design reviews & evaluations happen once a design concept is arrived at
- Scenarios support reflection in the design process
 - While also helping people move towards product
 - While constructing the scenario, designers are considering the users' needs, assumptions, design alternatives, etc.

Carroll, J. M. (2000). Five reasons for scenario-based design. *Interacting with computers*, 13(1), 43-60.

Context Scenarios: ?s

- In what setting(s) will the product be used?
- What primary activities does the persona need to perform to meet her goals?
- What is the expected end result of using the product?
- How much complexity is permissible, based on persona skill and frequency of use?

Context Scenarios Activity

- Brainstorm a persona
- Choose one of the ideas you brainstormed and create a context scenario for this persona