Tool Visualization Brainstorm
Midterm Project - part 1

A man's errors are his portals of discovery. - Joyce

Gary Zamchick, Brian Amento, NYU Spring ‘06
Overview

• Food for thought
• Visual brainstorm case study:
  - Info Display: World Financial Center (esidesign)
• Defining a User/Storyboarding
• Futuristic Tool Brainstorm
• Review: Poem drawings
Case Study:  
*Building Display System*

*World Financial Center, NY.*

**Design**
Building Display System (WFC)

- **Background - ESI Design**: DESIGN - WFC, Sony Kids, Kennedy Space Museum, Ellis Island, Reuters Times Sq

- Disciple of Buckminster Fuller

- **Visual Challenge**: Design information displays for passageways throughout the World Financial Center. Promote entertainment and retail events, and provide public services announcements.

- **Technical Challenge**: Create a rich visual system that can be updated by non-technical personnel.
• **First Meeting**  
  Blackboard incident  
  Astrology Park, Deconstructing a clock, financial spreadsheet, Sky/River...  
  - Socrates, NO! Plato’s Cave!  
  - You’ve missed the point!  
  - Edwin’s ideas  
  Forming/Unforming  
  Harold Lloyd movies  
  Vibrant like Korean Art  
  A Pool filled with Ping Pong balls  
  Quantum Fishbowl
Visual Brainstorm
Word Association

Voice, poster, data feed, seduction, unfinished, particles, dynamic, oral tradition, not focused, flowing, un-intimidating, emotive, boiling pot, Harold Lloyd, merge, permutation, 3D, updatable, puzzlement, passive but involving, highlights, scale shifts, big brother, empower, abstract to concrete, Seurat, pointilism, prism, magnification, music, dance, geometric patterns, Homer, glass, Korean art, spotlights, fish tank, sky/river, passage of time, location, pace, seasons, magic, events, ether, animate, sundials, clock, financial data, pulse, filters, lightening, sparkle, materialize.
Storyboards
User Experience Sketch

Scale issues

Pace of Animation

Positioning

Glare
Persona: Mike Miller, 28

Mike is a Sales Rep for Amex. He’s always running to meetings around Manhattan. He eats lunch and often dinner around the World Financial Center. One could say it’s his second home. He passes the display 7-8 times a day at locations throughout the center.

He’s often distracted, talking with peers, anxious about deadlines. He shops and enjoys the free performances at the Wintergarden.

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Text
Animation
Spec
Video
Reuters Display

Times Square
Defining the User

- Personas
- User concept sketches
- User scenarios vs. Use-case scenarios
- Storyboards
- Concept sketches
Personas

• “The heart of goal-oriented Rapid Prototyping is defining a user group, a very specific “persona” to design for.” -- Alan Cooper

• Real users have limited usefulness: You cannot ask people what they think a new application should be, they simply don’t know. You can observe them doing things and draw conclusions.

• Instead, make up a pretend user - a hypothetical archetype defined by their goals. Design for 1 person.
Persona

Users are not elastic. Once defined, a persona remains fixed. We don’t continually broaden the definition of a persona to accommodate new features.

(Movie).
User Definition

Concept sketches that convey user behavior at a single glance.

Personal Visual Shorthand
User Scenario

• A description of a person's interaction with a system.
• Help focus design efforts on the user's requirements, which are distinct from technical or business requirements.
• Describe in simple language the interaction that needs to take place. *No reference to technology is required.*
User Scenario - Sample

A customer withdrawing money from an ATM...

- It's Friday afternoon and Joe is flying to Sydney. He doesn't have money for a taxi to the airport and is running late.
- 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.
User Scenario - A description of a person's interaction with a system.
User Scenario

It's just your small group of friends and 65,000 other fans out on a sunny day. With Marauder, you don't have to worry if you get separated. The special GPS capability will track your entire group and keep you in touch!
Use-Case Scenario

- Step-by-step walkthrough of a user’s interaction with an application.
- Work through interface issues and/or spec the design for human factors evaluation.
- Paper Prototypes
Use-Case - Step by step interface walk-through

- **User**: Kevin - .com entrepreneur, start-up, business growing
- **Profile**: ATT voice and wireless customer
- **Channel**: Internet - Phone
- **Customer Strategy**: Add services to current set and tailor package to be cost-effective.
- **Personalization techniques**: Collect clickstream - associate clickstream with profile, check for new offers, update cookie in browser with new information, utilize collaborative filtering to push offers that might be appropriate and decision engine for ones that is targeted for.
- **Email**: sent to Kevin's customer representative regarding new interests.
- **Objective**: Internet Hosting Service

Kevin goes ATT to learn about Internet hosting services.
- Signs on
- Sees use case scenario in offer area
- Selects a use case - 1 600 Flowers - to understand Internet hosting solutions. Within use case, data information available and other services.
- Selects "learn more about Internet Hosting"
- Reviews information and decides to add case study to his "my page".

Decides to sign up for service, receives price quote based on other purchased services.
- Downloads application online, application pre-filed, and fills out new areas.
- Has some questions and selects "call me on my mobile".
- CSS receives call, Kevin's profile attached, case that went clear and is today
Use-Case - Step by step interface walk-through

Interface mock-up plus user interaction sequence
Storyboarding

- Presents the salient details...
  Small frames - nothing gratuitous
- Shows sequence - moment to moment, location to location, action to action.
- Spec path through an activity or scenario.
- Level of detail: important re: soliciting input.
  Rough: invites input.
  Refined: Fait accomplis
Howard the Humongous - TV Pilot Storyboard

Howard the Humongous

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Storyboarding Examples

Live Addressbook - Animated Motif

Movie on Desktop

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YourKey - VPN (Make the product a star!)

Zoom in slowly on front door

Ding Dong Fly's outward

Door opens... Huh?

Package w/ cable waggling "Hmmm..."

Box disappears to reveal playful Yorkshire Terrier device small & cute

View: back of your key

Animate cable to computer

Key appears (lighten)

Yourkey Animation

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Inspiration for Class Brainstorm

Dr. Suess
Saul Steinberg
Push Pin
David MacCauley
Scott McCloud
Will Wright
Dr. Suess

Inspired by visits to factories as a child

(Computers will be gone in 100 years but Suess will still be with us)
You'll find yourself heading, to parts "unknown," with nary a thought, your cover is blown.

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Saul Steinberg

Use of simple line drawings to represent abstraction.

Putting man in the middle of a metaphorical landscape.
Push Pin Studios
Milton Glaser, Seymour Chwast

Cornucopia suggesting a benevolent magic that brought the grace of music to everyone’s home.

Before it was bakelite box: a graceful and functional object designed to soothe fears of “phony” magic.

Moved visuals away from literal description of story to enhancing the story with metaphors of it’s own.

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David MacCauley

The Way Things Work
Will Wright

• Visual thinker

• Day-to-day lives of AI simulated humans - attracts women and non-gamers in large numbers.

• Cottage Industry: Use of Sims characters/scenes to tell real stories
Scott McCLOUD

- Reinventing Comics: How Imagination and Technology are Revolutionizing an Art Form

www.scottmccloud.com
Tool Visualization Brainstorm

• Group Work (in Class)
  - Task 1: Use Rapid Viz to define user/goals
  - Task 2: Use Rapid Viz to propose solutions
  - Generate a list of tools

• Individual Work (at Home)
  - Idea Generation
    • Use techniques that multiply outcomes
    • Identify a single specific solution
Brainstorming Rules


IDEO
Task 1: Use Rapid Viz to Identify User Goals

Scenario: A Day in the Life, 2015:
(Divide into groups of 4)
Scenarios: School, Office, hospital, Starbucks, the Mall, The Kitchen

Goal: To identify useful communication or information devices and tools.
Assumptions about the technology

• Portable terrabytes of data storage
• High bandwidth wireless transmission
• Accurate GPS location for services (w/in 1’)
• Novel input devices and display methods
• RFID tagging of objects; Smart room sensors
• Lightweight long life battery
A Day in the Life, 2015:

(Distribute futuristic location sheets.)

- Working *alone*, draw a persona you would find in the location (8.5 X 11).

- Label the persona w/name, age, occupation. In a talk balloon, list 5 communication/info needs relevant to your persona in the scenario you are working on. Attach personas/talk balloons to scene.
Task 2: Using Rapid Viz to Propose Solutions

A Day in the Life, 2015: (25 minutes)

- Together, brainstorm technologies that can support the needs of the posted personas.
  ( “The only way to get good ideas is to have a lot of ideas.”)

- Write tech ideas on post-its and place them around the periphery of the scene near the persona they support.
Task 2: Using Rapid Viz to Propose Solutions
Choose (1) of the tech concepts you like and create:

- A very quick descriptive concept sketch
- A sequence (3-4 frames) showing the persona using the tech.
- Draw a physical device they might use.
- Draw a rough sketch of the interface.

This is to jumpstart your application thinking.
Tool List brainstorm (to be posted)

Tools that help...

• Ideation
• Collaboration & communication
• Specialized Domains
• Content delivery
• Next-Gen Technologies

...keep ideas in our peripheral vision
...enable brainstorming/voting
...present evidence in novel ways
...to tell a story in text and pictures
...Wearable technologies
Teaming up for Projects

Please submit your choice for collaborator.

Anyone without someone to work with should come up by end of class. I’ll try to make some connections.
Assignment: *Define Tool for Development*

See Webpage for details
Assignment: Define Tool for Development

- See Webpage for details
Assignment: Define Tool for Development

- See Webpage for Details
Assignment: Define Tool for Development

- See Webpage for details
Assignment: Define Tool for Development

- Important:
  - All: Please email the 2 concept statements to me (indicating your first choice) by Tues 2/14. Brian and I will have time to review the complexity and general direction chosen for your application.
  - Bring your completed assignment to class next week. You will refer to it as you begin to spec your application interface in more detail.
Assignment Review: *Poem GUIs/Agent*

- Please put your drawings on front desk.
- Spend a few minutes reviewing them.