

Getting to Know Users

Lecture 2

Objectives

- Understand
 - Value of User Data Collection
 - Some Qualitative Data Collection Techniques
 - User/Participant Choices
 - Interviewing
 - Content, Structure, Conduct

Outline

- What to design/build?
- Goal Directed Design – Research Stage
- Qualitative Techniques
 - Interviewing
 - Participant Observation
 - Artifact Collection

What to design/build?

- The essence of design answers the question
 - “What should we build?”
- How can you answer that question?

Systematic Data Gathering

- One goal of the course is to provide concrete methods
 - Don't "wing it"
- Goal Directed Design Method
 - Provides principles for design
 - Provides an overarching method
 - Guidance for data gathering
 - Guidance for analyzing data

Goal Directed Design – Research Stage

- Defining Scope
 - Objectives, timelines, costs constraints
- Audit
 - Business plans and goals
 - Market research – competing, similar
- Interviews & Observations
 - Client (Stakeholders) – Visions, risks
 - Product users – goals, behaviors, motivations, tools

Market Research

- Market Research answers the question “What should we build?” at a high level.
 - What does the market want?
 - What are the segments of the market?
 - What are similar or competing products?

- User Data Gathering – more low level
 - How do users achieve their goals?

Qualitative Research

- Types of Qualitative Research
 - Stakeholder interviews (client)
 - Subject matter expert interviews
 - User and customer
 - User observation/ethnographic field study
 - Literature review
 - Product/prototype competitive audits

Exercise (5 minutes)

- Suppose you are going to design a tool to support “office” work.
 1. Who is the **must** get interview?
 - (why?)
 2. What is the **most** important question?
 - (why?)
- Write these on the card
- Put your name on the card

Interviewing

Four Principles of Contextual Inquiry

1. Context is Critical
2. Design is a partnership with client/customers
3. A shared understanding of the work/activity/goals matters
4. Focus: gather information as a function of your goals for design

Persona Hypothesis

- Selection of participants guided by possible personas
 - Essential roles and consumer demands
 - Possible Demographics
 - Domain Expertise versus Technical Expertise
 - Environment/Organizational Concerns

Types/Stages of Interviewing

- Early/Exploratory Interviews
 - Get the lay of the land, who, what where
 - Informational interviews
- Middle/Focusing Interviews
 - Details of goals and processes
 - Understand and elaborate patterns
- Later/Confirming Interviews
 - Confirm patterns
 - Validate understanding

Designing the Interview

- Where should it happen?
 - Context matters
- Developing Questions
 - Focus on goals first, tasks second
 - Avoid making the user a designer
 - Avoid discussions of technology
 - Encourage storytelling
 - Ask for show and tell
 - Avoid leading questions

Conducting the Interview

- Interview Flow
 - Introduction
 - Put the participant at ease
 - Transition
 - Conduct of work - focus
 - The field interview
 - Collect examples, processes, artifacts
 - Wrap-up

Introduction

- Opening of the Interview
 - Introduce yourself
 - Reinforce the focus
 - What you're asking of the user/Interviewee
 - Set expectations
 - How long will this interview last
 - Setup the user as the expert
 - Cover the confidentiality policy (consent)
 - Ask permission to record
 - Deal with tool opinions at the start (listen, note)
 - Let interruptions happen

Transition

- Move from Introduction to Interview
 - During introduction looking for relevant tasks/work for the interview
 - “Show me how you ...”
 - “Outline your typical day.”
 - “What was the first thing you did today?”

Interview

- Users explain their goals
 - Observe, discuss
 - Be nosy, ask questions
 - Take notes
 - Know what to capture
 - Collect artifacts
 - Draw the workplace
 - Collect retrospective accounts (stories)

Examples (Interview)

- Goals
 - What makes a good day? A bad day?
 - What activities waste your time?
- System Oriented
 - What are your favorite aspects of the product?
 - What aspects of the product do you use most?
- Workflow
 - What did you do when you first came in today?
 - What things do you do weekly or monthly?
- Attitude
 - What do you see yourself doing five years from now?
 - What do you enjoy most about your job?

Wrap-up

- Closing an interview
 - State a summary of what you saw
 - User will likely respond, elaborate
 - Pet issues
 - Special situations, concerns, marketing,
 - Thank the user
 - Small token of appreciation

Other Approaches

Other Approaches

- Focus Groups
- Usability and User Testing
- Card Sorting
- Task Analysis
- Participant Observation
- Artifact Collection

Participant Observation

- Becoming the customer
 - Experiencing the world/work/goals as much like the customer as possible
 - Time consuming – but valuable
- Training for the work/activity
- Entering the workplace
- Doing the work

Participant Observation

- Training for the work/activity
 - Special Equipment
 - Colleague who learned to drive a Forklift
 - Knowledge Requirements

Participant Observation

- Entering the workplace
 - What is the “First Day” experience?
 - Meeting others, key people
 - Getting a Mentor

Participant Observation

- Doing the work
 - Understanding local procedures
 - Learning to handle “exceptions”
- How long is long enough?
 - Nothing is surprising
- Field Notes Every Day

Exercise (5 minutes)

- Suppose you are going to design a tool to support “office” work.
 - You get to collect one “thing” from the office, what would you ask for?
 - Answer on the back of your card

Artifact Collection

Artifact Collection

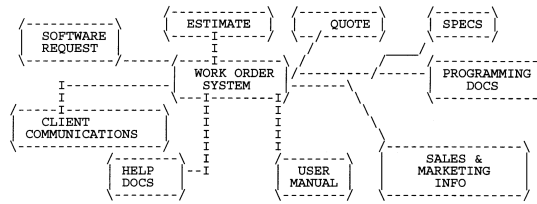
- Don't under estimate the value of artifacts
- Collect everything they let you have
- Sometimes artifacts have to be 'redacted'
- Pictures are a special artifact
 - Really helpful, but sometimes not allowed
 - People in photos – always a special case

Artifact Collection

- Artifacts that help tell stories
 - Forms
 - Process charts, diagrams
 - Organizational charts
 - Email discussions, forums
 - Reports
 - Spreadsheets
 - Photos

Gallery

- Process Diagram
 - How is programmer work created/organized?



Gallery

■ Internal FAQ

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Symptom / Solution list                                05/23/92 FF.

Symptom: Someone is having trouble using the spooler or printer.
Action: See Useful UNIX examples / information (spooler / printer)

Symptom: A message is displayed on the system console or terminal.
Action: See Messages on console or terminal.

Symptom: A code is displayed on the red LED display.
Action: See Messages on LED display.

Symptom: The system seems very slow.
Action: Do an @SHEL map to determine the process using the most CPU
time, then do a BASIC MAP to find out who and what is running
to cause the slowdown.

Symptom: Errors are displaying on the command ENTER "PROGRAM" because
of "[" or "]" characters in the program.
Action: ENTER and re-LIST the program on MSCD (Micos) or RUN "P.09"
to change the brackets to parenthesis.

Symptom: A system went down during an @COMP command while running
U.OPT.
Action: Enter @SHEL ls -l /sys1/d0/100/????? If the file shown is
larger than the file that was being compressed, make sure
that the displayed file is the file that was being compressed
(use lookhdr) and copy it back to the file in the @COMP
command.

Symptom: RS tape drive says Invalid argument on writing to a tape.
Action: Use Gold Series XTD or any 6150 tape.

Symptom: Client uses an automatic for feed of 66 lines in
for print
    
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Gallery

- Internal "Experts Directory" in development

MSC Employee Reference List
TECHNICAL

| Employee | Dept | Phone | E-mail | Domain | Competency | Skill Set |
|----------|------|-------|----------------|----------|------------|---|
| Daniel | PD | | daniel@msc.com | @msc.com | Expert | BASIC, Medical Practice Management, Managed Care Administration, PQMCC, Scheduling, Medical Practice Management, Implementation Management, Dept Management |
| Craig | SD | | craig@msc.com | @msc.com | Expert | PC Hardware, RS4000 Hardware, Windows 95, AIX, BASIC, C/C++, Electronic Claims, Scheduling, Medical Records, SIS, Reporting & Query, Implementation Management, Contracting/Proposals |
| Ellen | SD | | ellen@msc.com | @msc.com | Expert | Unit, Delphi, Informatica, SQL Server, Managed Care Administration, Scheduling, Medical Records |
| | | | | | Knowledge | Windows 95, AIX, BASIC, C/C++, Electronic Claims |

Handwritten notes:
 - Title (circled)
 - Software Development (SD), DB, PD, R, Admin, OSH (PC, QS, NT), LANG (BAS, C#)
 - LANG (BAS); APP (MED-MGTC, PM, FQAC, SCHED, DDS-PM, IML)
 - DR/SD: MGT (CM, SD, TR, CV)
 - MGT (CM, SD, TR, CV) - V.P., MGR, DILE
 - TT SD: OSH (ATE), ENV (DELP), DBASE (I/FM/SOLS), APP (MED-MGTC, SIB, MREC)
 - RGM AD-HR: STAF, BFTS, EMPL

Gallery

- Screen Shots
 - Technical Support Issue Tracking System

```

SU.04 View/Print Open Calls 07/01/97 10:54
View, Print: View Last HELP #: 0
Assigned, <days>: Kl Kris Lang Days: 0

QSI# Who ---Due--- When Cll Mag -Sent-----Description-----
1 508662 KL 06/27 10:47 LATE CRT NONE MEDICAL
2 508260 KL 06/27 14:00 LATE SPO STAT Y KL M.001
3 509490 KL 07/01 10:04 LATE ARB NONE D.052 R
4 509499 KL 07/01 11:00 HD2 STAT YC JRH D.452 R
5 509419 KL 07/01 12:32 SPO NONE M.001
6 509405 KL 07/02 09:00 KNO STAT Y KL D.452 0
7 508530 KL 07/02 09:27 DAB NONE D.037
8 508586 KL 07/03 06:52 IPD NONE ELECTRON
9 509465 KL 07/31 09:00 POC STAT Y KL D.052 R

R'set, I'nf, P'rint#, View#, Q'si##, C'omp#, CR For More:
    
```

Gallery

- Screen Shots
 - Version Control System

```
DC          View Version History          12/15/98  10:16
V'iew, P'rint: M.031
Mnemonic:  RDN

PGM      VER      --Date--  ----- Comment -----
1. M.031  904  KY   12/03/98  MNO Medical Client Goodwill
2. M.031  82C  JN   09/14/98  SETUP - TEST - ON SITE SUPPORT - COMPLETION
3. M.031  827  GM   08/19/98  INCREASE COMMENT FIELD SIZE TO 40 CHARACTERS
4. M.031  82A  JST  07/16/98  Support for dental interface to go live.
5. M.031  900  BMS  04/27/98  DISPLAY SIGNON IN APPT INFORMATION WINDOW
6. M.031  901  BMS  04/08/98  DOLLAR RESTRICTION PER MONTH FOR SPEC PLAN
7. M.031  828  JN   05/27/97  Implement new clinical records interface
8. M.031  829  JN   04/24/97  Error fix, not copying Form info if moved appt
9. M.031  826  JN   04/03/97  DD INFO TO APPT SAVE & INFORMATION WINDOWS
10. M.031  U26  JN   04/03/97  DD INFO TO APPT SAVE & INFORMATION WINDOWS

R'eset, I'nf, P'rint#, V'iew#, C'heckOut#, CR For More:
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Question

- What is “social computing”?

Question

- What is “social computing”?
- What is “social media”?

For next class

- Bring to class (completed)
Three 3x5 cards
On each card write:
 1. Name of a social media/computing web site
 2. 1-2 sentences about what it does
 3. Your name

- You will get up to 3 points of credit
 - Social media/computing site "Boggle"