Contextual Inquiry

COSC 480: User-Centered Design
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Contextual Inquiry

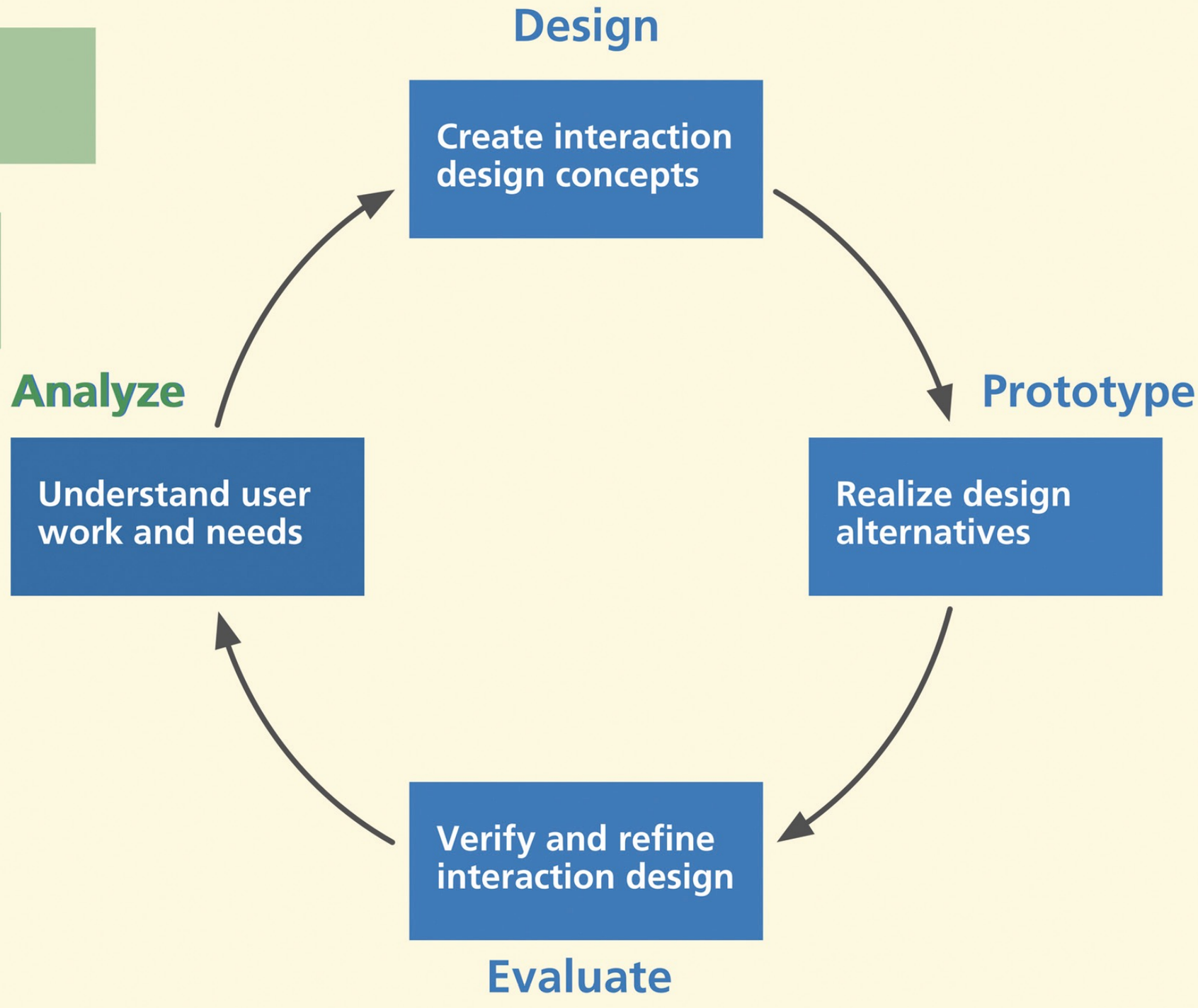
The UX Book: Chapter 3

Design-informing models

User needs & requirements

Contextual analysis

Contextual inquiry



System Concept Statement

- Typically 100 to 150 words in length
- Mission statement for new system to be developed
- Explains system to outsiders
- Helps set focus and scope for system development internally

Writing a SCS

- Writing a good system concept statement is not easy
- Amount of attention given per word is high
- A system concept statement is not just written
- It is iterated and refined to make as clear and specific as possible

Effective SCS

An effective system concept statement answers at least the following questions:

- What is the system name?
- Who are the system users?
- What will the system do?
- What problem(s) will the system solve? (Be broad to include business objectives)
- What is design vision and what are the emotional impact goals?
- In other words, what experience will system provide to user?
- Especially important if target is commercial product

SCS Audience

Audience broader than that of most other deliverables, including:

- High-level management
- Marketing
- Board of directors
- Stockholders
- Even general public

Contextual Inquiry

- Goal: To understand customer's work practice
- Getting your nose in customer's tent
- Roots in ethnography
- Branch of anthropology focusing on study and systematic description of human cultures

Work

- Set of activities people undertake to accomplish goals in work domain
- Some activities entail system or product usage
- Includes play, if play rather than work is goal of user
- Example, using a CAD/CAM application to design an automobile

Work Domain

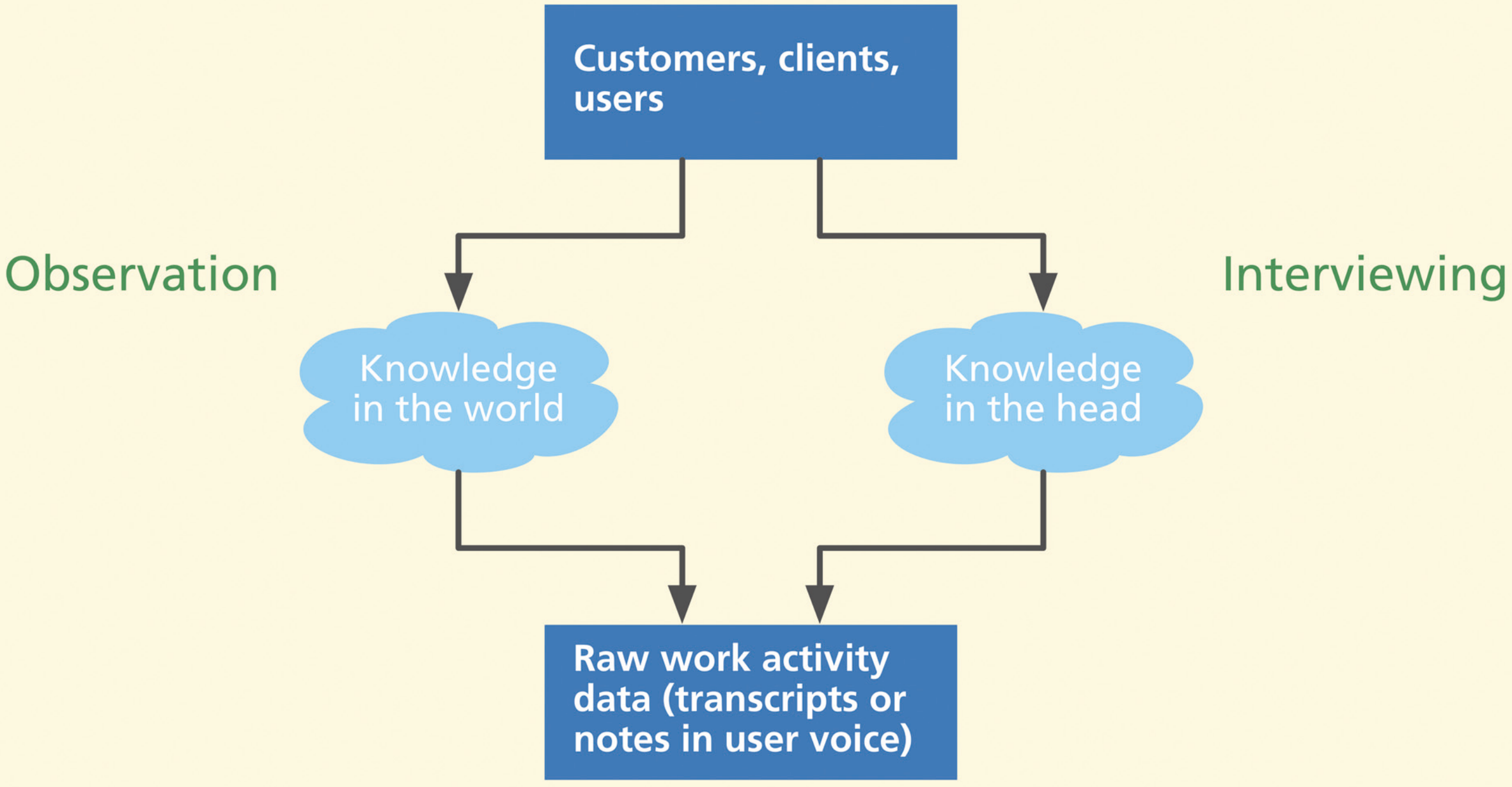
- Entire context of work and work practice in target enterprise or other target usage environment
- Context essential to understand the work

Work Practice

- Followed and observed in customary performance of a particular job to carry out operations of enterprise
- Involves learned skills, decision making, physical actions, and social interaction
- Can be based on tradition, ritualized, and habituated
- Work activity composed of sensory, cognitive, and physical actions made by users in course of carrying out work practice

What is contextual inquiry?

- UX lifecycle activity to gather detailed descriptions of customer or user work practice
- For purpose of understanding work activities and underlying rationale
- Goal: To improve work practice and construct and/or improve system designs to support it
- Includes
  - Interviews of customers and users (*what they say*)
  - Observations of work practice in real-world context (*what they do*)
- Not “requirements gathering” in traditional sense



Contextual Inquiry Focus

- Are we gathering data on an existing system or a new system?
- Contextual inquiry is about the way things are done now
- But, yes, you are thinking ahead about your new system, too

How to do CI: Overview

- Prepare and conduct field visits to customer/user work environment (where system being designed will be used)
- Observe and interview users while they work
- Inquire into structure of users' own work practice
- Learn about how people do work your system is to be designed to support
- Take copious, detailed notes (raw data)

CI: Preparation

For system with complex work domain

- Get feel for customer's organizational policies and ethos
- Look at their online presence
- Website
- Participation in social networks
- Understand vocabulary and technical terms of work domain

CI: Preparation

- Learn about competition
- Learn about culture of work domain in general
    - Example, conservative financial domain vs. laid-back art domain
- Recognize differences in perspectives between managers and users

CI: Preparation

- Investigate current system, practices, and history
  - Look at company's existing and previous products
  - If software, download trial versions to get familiar with design history and themes

CI: Preparation

- Decide how many people to send on visits
- UX people and other team members
- Set own limits on number of visits and number of team members (depending on your budget and schedule)
- Plan interview and observation strategy (who in team does what)

CI: Contact Users

- Explain purpose of visit: to learn about their work activities
- Explain approach: for them actually to do the work while you are there to observe
    - Get permission to do these observations of real work activities
- Build rapport and trust (promise personal and corporate confidentiality)
- Identify areas of activity and users for observation and interviews

CI: Contact Users

- Ask about which kinds of users are doing what and when
  - Set scope
  - Explain that you want to see broadest representation of users and work
- Identify work activities
  - Focus on most important and most representative tasks

CI: Contact Users

- Establish or negotiate various parameters, such as how long you will/can be there (up to several weeks)
- How often to visit (up to every other day)
- How long for average interview (a couple of hours maximum)
- Maximum number of interviews per visit (e.g, four to six)
- Identify appropriate support people
  - Determined by management people
  - Arrange logistics for visits

CI: Contact Users

- Select appropriate users and others to meet, observe, and interview
    - Especially frequent users, managers, customer representatives
    - Cover as many usage roles as possible
    - What if you cannot find real users?
    - Plan visits to multiple sites if they exist
    - Set up right conditions (real work context)

CI: Collect Data

- Remember goal
- Do not ask users what they want or need
  - If I had asked people what they wanted, they would have said, faster horses" — Henry Ford
- Observe and interview users
  - In own work context
  - About how they do their work
- Form partnerships with users
  - User is "expert", not you, the person from outside

CI: Collect Data

- Get task data
  - One of most important kinds of contextual data
  - Notice triggers for tasks and steps
    - What happens to cause them to initiate each task or step?
    - Example, incoming phone call leads to filling out order form
- Learn about your users' task barriers
  - Notice hesitations, problems, errors

CI: Collect Data

- Recording video
  - Effective way to capture comprehensive data
  - Use only where conditions and resources permit
  - Can help you capture nonverbal communication cues
- Note taking
  - Pen and paper
  - Laptop
  - Small digital recorder
  - For notes, not for recording interview

CI: Collect Data

- Be a listener
  - Usually do not offer your opinions about what users might need
  - Do not lead user or introduce your own perspectives
- Do not expect every user to have same view of work domain and work
  - Ask questions about differences and find ways to combine to get “truth”

CI: Collect Data

- Capture details as they occur
  - Do not wait and try to remember it later
  - Follow leads, collect “clues”
    - Be ready to adapt, modify, explore, branch out
- Be an effective data ferret or detective
  - Discover, extract, “tease out”
- Pay attention to information needs of users

CI: Collect Data

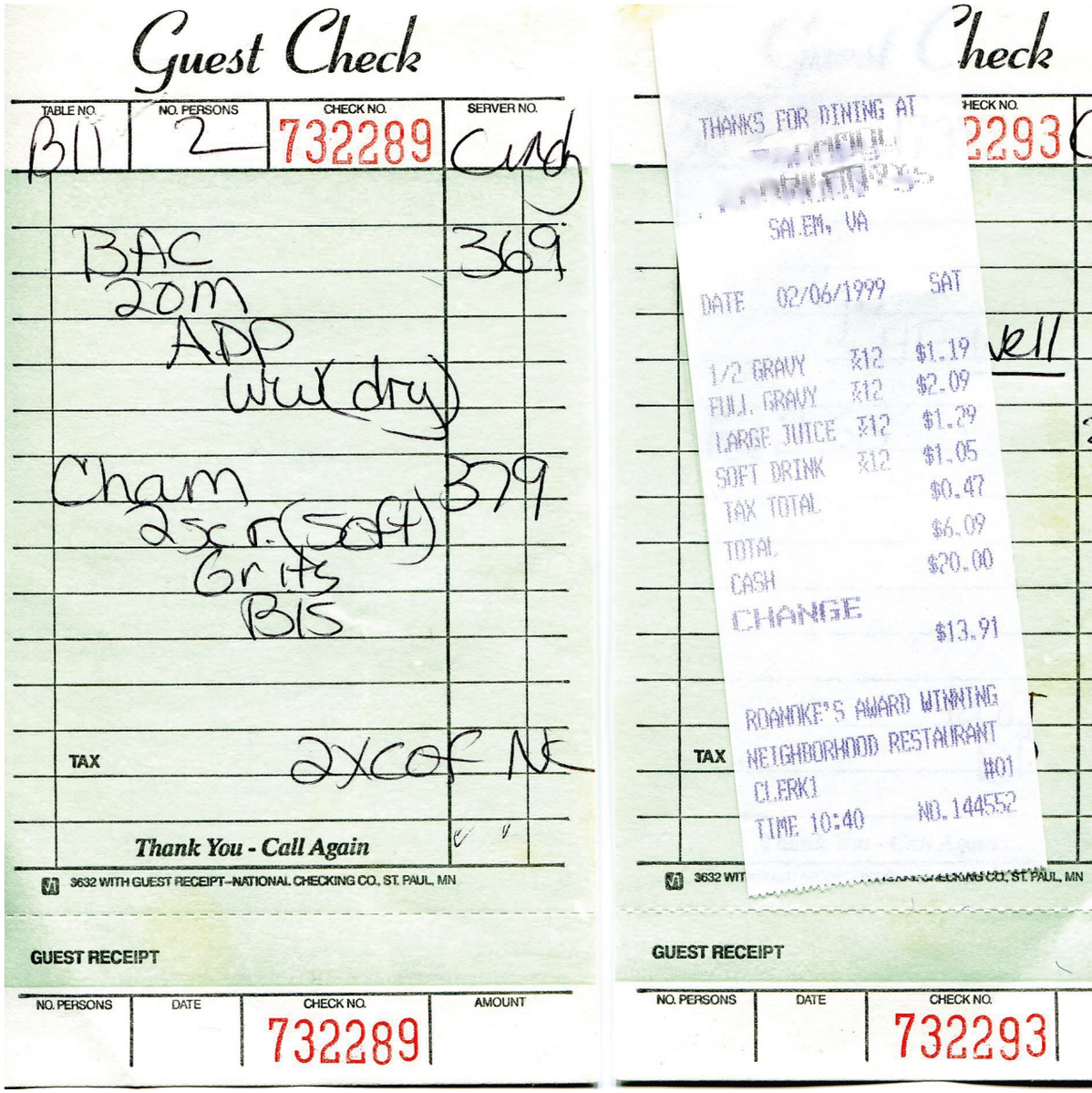
Questions not to ask

- Do not ask about the future; do not ask users what they would do in a given circumstance.
- Do not ask for design advice
- Do not ask leading questions that just put ideas into their heads

CI: Collect Data

Collect work artifacts

- Tangible talking points for analysis and design
- Example: Work artifacts from local restaurant



CI: Collect Data

Other forms of data collection

- Digital photos
- On-the-fly diagrams of workflow, roles, and relationships
- On-the-fly sketches of physical layout, floor plans
- Quantitative data (e.g., how many people do this?)

CI: Collect Data

- Do not overstay your welcome
- Be efficient, get what you need, and get out of their way
- Limit interviews to no more than two hours

Reading for Wednesday

Chapter 4:
Contextual Analysis
Consolidating and Interpreting Work Activity Data

Upcoming Deadlines

- 09/13: Submit A3 (Project Pitch) on GitHub
- 09/14: Present A3 (Project Pitch) in morning class
- 09/14: Complete A4 (Preference Form) during lab
- 09/16: Submit T1 (Team Agreement) on GitHub
- 09/21: Submit T2 (Project Proposal) on GitHub
- 09/23: Complete PR2 (Peer Review Form) online

T2: Project Proposal

1. Domain
2. Users
3. User Cases
4. Competitors
5. System Concept Statement

Due 11:59pm on Wednesday, September 21st