Recap

• Information Needs
  – **Instrumental** (satisfying needs helps attain a goal, satisfy a preexisting need)
  – **Contestable** (*why* do you need that? Argue what is *really* needed)
  – Related to **necessity** (carry a moral weight, primary and secondary needs)
  – Not necessarily a **state of mind** (possible to be unaware of one’s *true* needs, thus making them difficult to ascertain, measure, and/or observe)
Example

• “I need to know the phone number for Lowes”
  – Instrumental: I am writing a paper on the lumber industry and want to know how much lumber costs.
  – Contestable: I don’t really need the phone number for Lowes in order to get prices, I could go there in person and look myself.
  – Necessity: What is the relative importance or priority of my need?
  – State of Mind: What I really need is to lookup the median prices of lumber in commodity market reports.
Explaining Information Needs

• Seeking Answers
  – Robert Taylor

• Reducing Uncertainty
  – Charles Atkin
  – Nicholas Belkin

• Sense Making
  – Brenda Dervin
Seeking Answers

• **Visceral need:**
  “conscious or even unconscious need for information ... a vague sort of dissatisfaction ... probably inexpressible in linguistic terms”

• **Conscious need:**
  “conscious mental description ... an ambiguous and rambling statement”

• **Formalized need:**
  a “qualified and rational” statement of need, however, asker is not aware whether the need could be answered in that form or not

• **Compromised need:**
  the question reflects the kinds and forms of data that may be available. A compromise between the formalized need and the available resources.
Visceral Need

Conscious Need

Formalized Need

Compromised Need

“... what do we lose if we reject truthfulness?” — What does that mean?

I read this paper for my philosophy class and in it the author mentioned truthfulness... how is that different from “truth”?

What’s the difference between “truth” and “truthfulness”?

Do you have books on philosophy?
Reducing Uncertainty

• Charles Atkins
  – People sense differences between what they know and what they want to know.
  – Constant comparison of current mental state against goal states.
  – Seek information to reduce the uncertainty (move closer to goal state)
Anomalous State of Knowledge

Perceive an anomaly (ASK) → Request Information → Judge if anomaly is resolved

Yes → Anomaly resolved
No → Is motivation exhausted?
Yes → Perceive an anomaly (ASK)
No → Perceive an anomaly (ASK)
Sense Making

• Brenda Dervin
• Users need to “make sense” of the world
• Information need: “some kind of gap that requires filling ... [with] something the needing person calls ‘information’”. (1983, p156).
• Reduce anxiety (lack of knowledge leads to anxiety)
Problems with “Needs”

• Cannot be observed
• Proxies for more general needs
• Chicken-and-Egg problem of Needs and Behaviors
• Not very informative of predicting behavior (e.g., “criminality needs”)
• Not fixed
• Short (relatively) termed
Information Seeking

• Discovering patterns
• Filling gaps
• “Purposive seeking for information as a consequence of a need to satisfy some goal” (Wilson, 1999; emphasis added)
• “…purposive acquisition” (Johnson, 1997)
• Search for relationships among stimuli
• Inquiry, motivated by a problem (Dewey)
Information Behavior

• More general than information seeking
• Not necessarily purposeful
• The “totality of human behavior in relation to sources and channels of information” (Wilson, 1999)
• Active vs. Passive information behavior
• What is passive information behavior?
Modeling Users and User Needs

- Who are we designing for?
- Go and ask a user
  - Users are unaware of their needs
  - Users can’t necessarily envision solutions
- Personas
  - Precise descriptions of hypothetical archetypal users
  - Goal oriented
Personas

• Specific
  – Detailed and concrete
  – Named

• Hypothetical
  – Archetypal users

• Precise (but not necessarily accurate)

• Build a “population” of personas
  – Create several personas
Example Persona: Lucy

Lucy is 26 and single. She works at Borders bookstore, and picks up some extra money dog-sitting for people in her neighborhood. She lives in an apartment with a fairly small kitchen, but it is big enough for the cooking she does. Lucy cooks most of her meals at home, but doesn’t know how to cook a lot of things. She usually makes simple things like spaghetti with store-bought sauces. Lucy does have one “specialty dish” – tacos, which she feels she makes really well and likes to make when friends come over.

Lucy likes to leaf through cookbooks during her breaks at work and plan meals. She also likes to watch cooking shows, and can follow a recipe with reasonable success. However, Lucy never feels comfortable in the kitchen. She is always afraid of screwing something up and rarely improvises in her cooking.

Lucy wants to be able to cook without needing cookbooks and recipes -- to be able to cook like Emeril on TV who can taste a dish and know what’s missing or how to take it from good to BAM great!
Example Persona: Andy

Andy is a 28 years old graduate student in computer science. He lives in a three bedroom apartment with two roommates. He is usually sitting in front of his computer most of the day coding or looking at funny YouTube videos. He likes playing computer and video games or watching movies when he is relaxing at home.

He owns a Wii and a Playstation 3, and one of his roommates owns an Xbox 360. He’s been thinking about purchasing a Nintendo DS, but he’s not sure how much he will play it. He purchases one game every two or three months or so. He doesn’t have a large game collection himself, but he can always find enough games to play from his roommate’s or other friend’s collections. Sometimes he has trouble remembering to return the borrowed game after finishing it. Other times, he forgets who borrowed his game so a couple times he just gave up and bought the same thing again.

He particularly likes role playing games and sometimes will spend hours playing World of Warcraft with his friends, usually on the weekend. His favorite console games are Final Fantasy X, Xenosaga, and Shin Megami Tensei: Digital devil saga. He occasionally looks at Ebay or Ebgames to find used or rare games. He thoroughly does his research before purchasing any game to make sure that he is getting a good deal. He also subscribes to Game Informer magazine to read reviews about new games and likes reading Penny Arcade comics.
Exercise 5: Personas

• Create a persona for your collection
• Think about those “archetypal” users you mentioned who might want to use your collection
• Try to create a specific hypothetical person from within one of these archetypes
• Remember to identify a goal for your persona
Using your Persona

• Take your persona and begin to think about the information needs this persona might have.
• What kinds of questions might they ask?
• What gaps might they perceive?
• What information anxieties might they have?
• How would your persona go about seeking information?
• Where would they turn first?
• What technologies and resources would they use to seek answers/bridge gaps/find information?
References

• Cooper, A. (2002). The inmates are running the asylum. Chapter 9.