363 Midterm

Chapter I

1. Usability
   * 1. Successful Designers – go beyond what is expected. think of diversity. study evidence
     2. great designers- committed to user experience, aware of emotional responses
2. ascertain the users needs
3. ensure reliability
4. standardization: pre-existing standards met
5. integration
6. consistency
7. portability
8. 5 human factors:
   1. time to learn
   2. speed of performance
   3. rate of errors
   4. retention
   5. satisfaction
9. life-critical systems often poorly designed
10. Individual User Level – what do people use the internet for?
    1. routine processes
    2. Decision support
    3. education and training
    4. leisure
    5. user generated content
    6. internet-enabled devices/communication
11. goals for profession:
    1. reduce anxiety and fear of computer usage
    2. graceful evolution
    3. social media participation
    4. input devices
    5. information exploration
    6. provide tools, techniques, and knowledge
    7. raise computer conscience in general public

Chapter 2

1. Universal Usability
   1. GOAL: addressing needs of all users
   2. anthropometry: the scientific study of the measurements and proportions of the human body.
   3. concerns: work-surface and display-support, leg space, work space depth, adjustability of heights and angles, posture, available footrests, etc..
   4. be aware of the way people learn and what could influence them to not
   5. introvert/extrovert, sensing vs. intuition, etc. personalities are different
   6. plan for disabled and old users
   7. TECHNICAL CHALLENGES: producing satisfactory internet interaction connections, responsive design (phones too), easy maintenance to multiple languages

Chapter 3

Guidelines, Principles, and Theories

1. Guidelines: low-level advice about good practices
2. Principles: strategies
   1. need more clarification
   2. determine user’s skill levels, identify tasks
   3. 5 primary interaction styles: direct manipulation, menu selection, form fill-in, command language, natural language
   4. 8 golden rules of interface design: consistency, universal usability, informative feedback, dialogs to yield closure, prevent errors, permit easy action reversal, users in control, reduce short-term memory load
3. Theories: frameworks to draw on during design and evaluation
4. High Level Goals (smith and mosier) – consistency of data display, efficient info assimilation, minimal memory, compatibility of display with data entry, flexibility for user control
5. explanatory theories : observing behavior, describing activity, etc
6. predictive theories: enable designers to compare proposed designs for execution time or error rates
7. Foley and van Dam: conceptual (users mental model), semantic level (describes meaning conveyed), syntactic level, lexical level
8. Norman: forming goal, forming intention, specify action, execute intention, perceiving the system state, interpreting the system state, evaluating the outcome.
   1. gulf of execution: mismatch between users intentions and allowed actions
   2. gulf of evaluation: mismatch between systems rep and users expectations
9. micro-hci theories: focus on measurable performance
10. macro-hci theories: focus on case studies
11. taxonomy: explanatory theory

Other random:

1. models: waterfall (distinct phases of development), evolutionary (interleaved), and component-based (assembled from existing components)
2. process iteration: parts of processes reworked
   1. incremental delivery vs. spiral development
3. Software Process. specification, development, validation, evolution
4. Principles, Methods and techniques, methodologies, tools
5. Key Principles: rigor and formality, separation of concerns, modularity, abstraction, anticipation of change, generality, incrementality, reuse