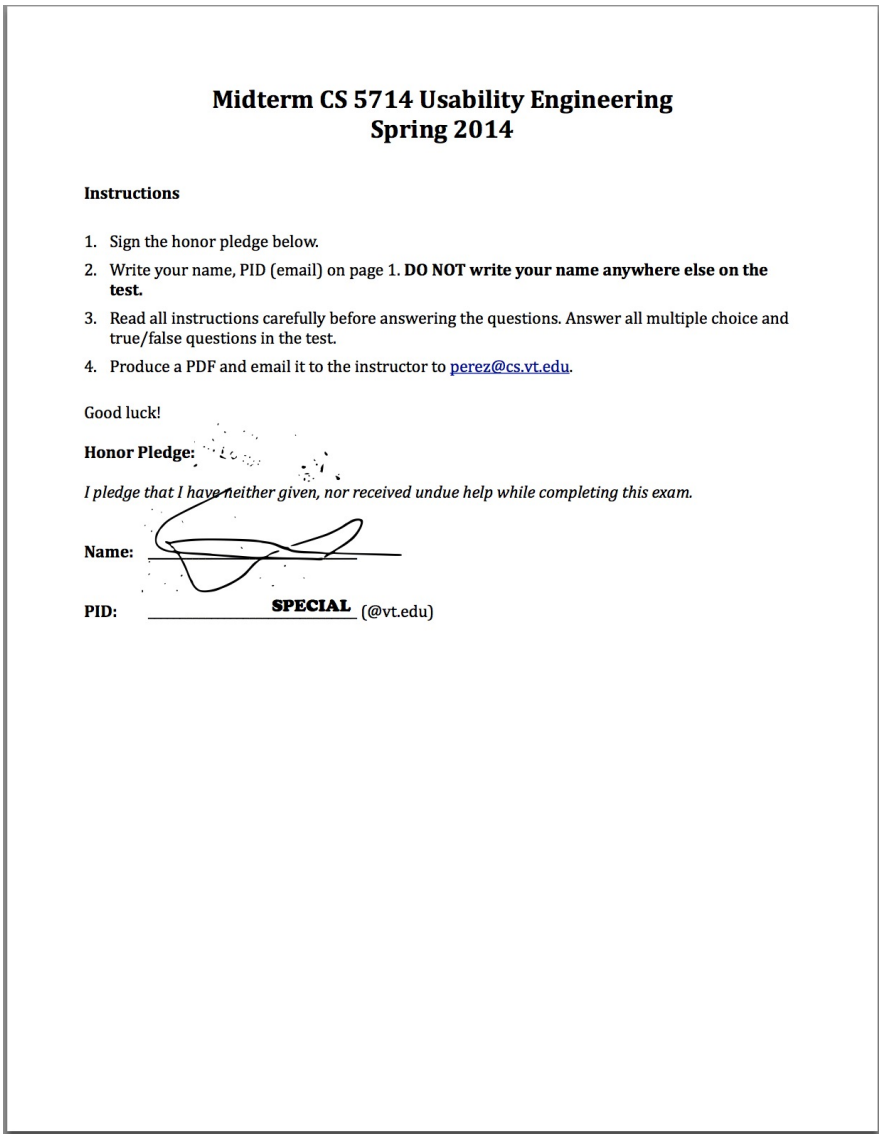
Signature



Midterm CS 5714 Usability Engineering
Spring 2014

Instructions

1. Sign the honor pledge below.
2. Write your name, PID (email) on page 1. **DO NOT write your name anywhere else on the test.**
3. Read all instructions carefully before answering the questions. Answer all multiple choice and true/false questions in the test.
4. Produce a PDF and email it to the instructor to perez@cs.vt.edu.

Good luck!

Honor Pledge:

I pledge that I have neither given, nor received undue help while completing this exam.

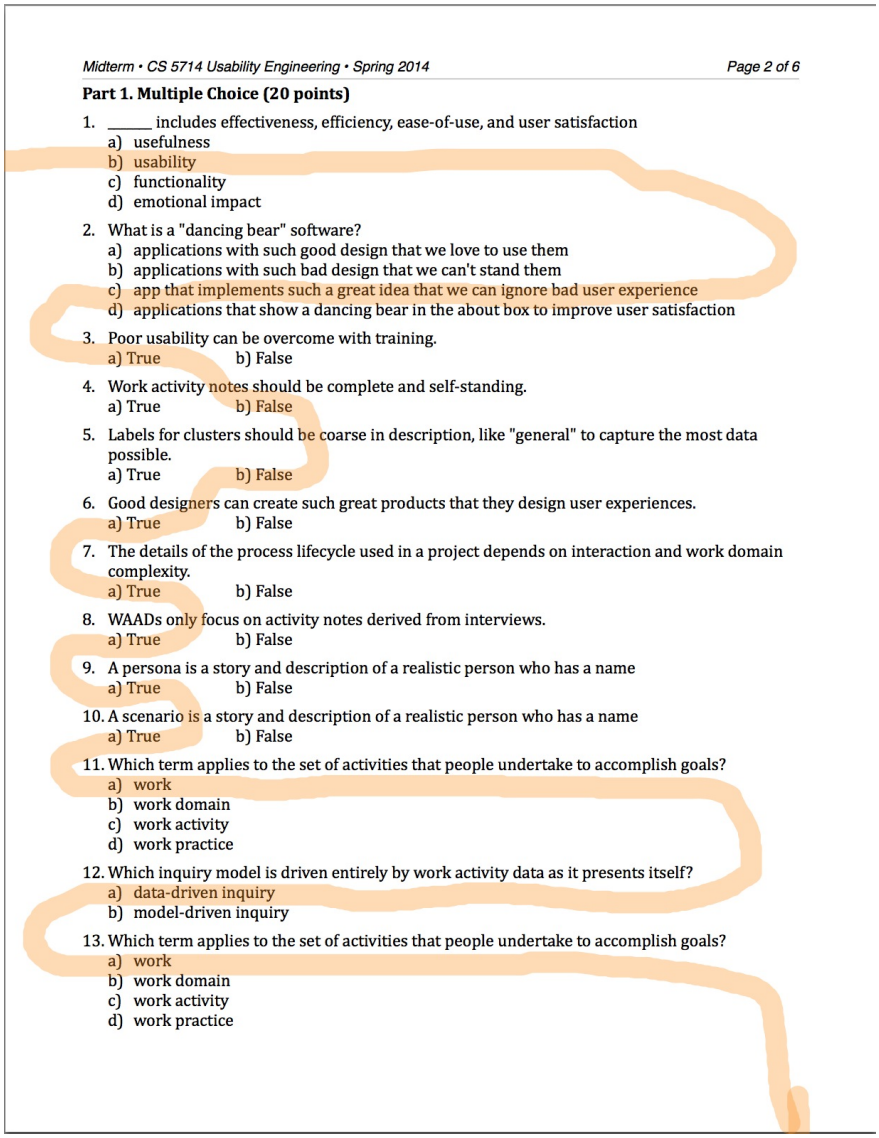
Name: _____

PID: _____ (@vt.edu)

SPECIAL

Figure 1: Pledge and signature

Part 1

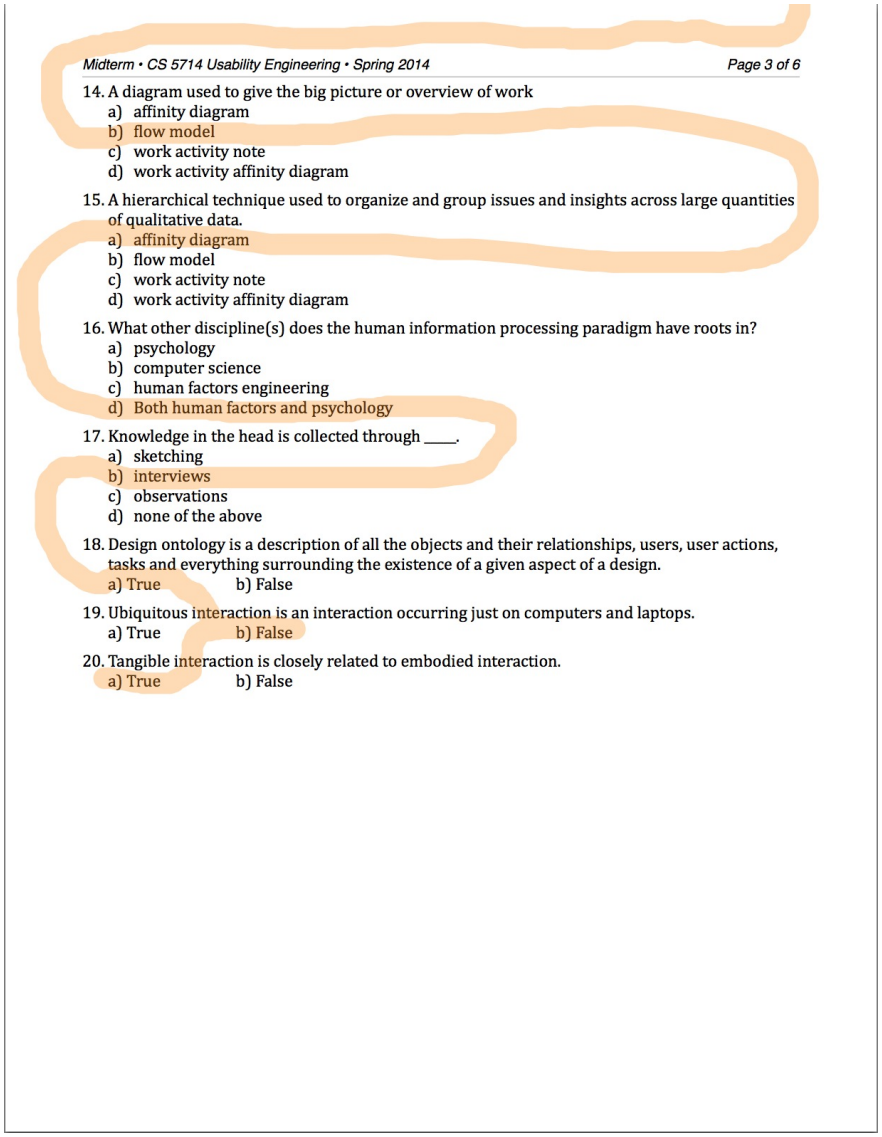


Midterm • CS 5714 Usability Engineering • Spring 2014 *Page 2 of 6*

Part 1. Multiple Choice (20 points)

1. _____ includes effectiveness, efficiency, ease-of-use, and user satisfaction
   a) usefulness
   b) usability
   c) functionality
   d) emotional impact
2. What is a "dancing bear" software?
   a) applications with such good design that we love to use them
   b) applications with such bad design that we can't stand them
   c) app that implements such a great idea that we can ignore bad user experience
   d) applications that show a dancing bear in the about box to improve user satisfaction
3. Poor usability can be overcome with training.
   a) True b) False
4. Work activity notes should be complete and self-standing.
   a) True b) False
5. Labels for clusters should be coarse in description, like "general" to capture the most data possible.
   a) True b) False
6. Good designers can create such great products that they design user experiences.
   a) True b) False
7. The details of the process lifecycle used in a project depends on interaction and work domain complexity.
   a) True b) False
8. WAADs only focus on activity notes derived from interviews.
   a) True b) False
9. A persona is a story and description of a realistic person who has a name
   a) True b) False
10. A scenario is a story and description of a realistic person who has a name
    a) True b) False
11. Which term applies to the set of activities that people undertake to accomplish goals?
    a) work
    b) work domain
    c) work activity
    d) work practice
12. Which inquiry model is driven entirely by work activity data as it presents itself?
    a) data-driven inquiry
    b) model-driven inquiry
13. Which term applies to the set of activities that people undertake to accomplish goals?
    a) work
    b) work domain
    c) work activity
    d) work practice

Figure 2: Multiple Choice — True/False One



Midterm • CS 5714 Usability Engineering • Spring 2014 *Page 3 of 6*

14. A diagram used to give the big picture or overview of work
    a) affinity diagram
    b) flow model
    c) work activity note
    d) work activity affinity diagram

15. A hierarchical technique used to organize and group issues and insights across large quantities of qualitative data.
    a) affinity diagram
    b) flow model
    c) work activity note
    d) work activity affinity diagram

16. What other discipline(s) does the human information processing paradigm have roots in?
    a) psychology
    b) computer science
    c) human factors engineering
    d) Both human factors and psychology

17. Knowledge in the head is collected through ____.
    a) sketching
    b) interviews
    c) observations
    d) none of the above

18. Design ontology is a description of all the objects and their relationships, users, user actions, tasks and everything surrounding the existence of a given aspect of a design.
    a) True b) False

19. Ubiquitous interaction is an interaction occurring just on computers and laptops.
    a) True b) False

20. Tangible interaction is closely related to embodied interaction.
    a) True b) False

Figure 3: Multiple Choice — True/False

Part 2

Question 1

Graduate students at a large public educational institute have varying needs throughout their academic career. Their main contact is an overloaded faculty member who is struggling to accommodate all requests in a timely structured manner.

I propose InkDrop, an automated proxy scheduler for assisting close community members in achieving meet-ups that last less than 5 minutes. While there are many communities that can benefit from InkDrop, it will initially support an academic community to accommodate rapidly changing multiplex organizational structures and process flows. All community members at some point require knowledge surrounding matriculation, and Inkdrop will help members access a centralized reference for decentralized content and

information. Members will be able to navigate information flow charts to reduce unawareness, expedite the required paperwork flow, and take charge of their academic career while also aiding the faculty member in performing the job duties succinctly and expeditiously.

143 words (not including this line of course)

Question 2

Like all well executed User Experience Design processes, this is a first pass at the information provided. Subsequent interviews will include a discussion and verification about the physical representations of the current and proposed system and work flows.

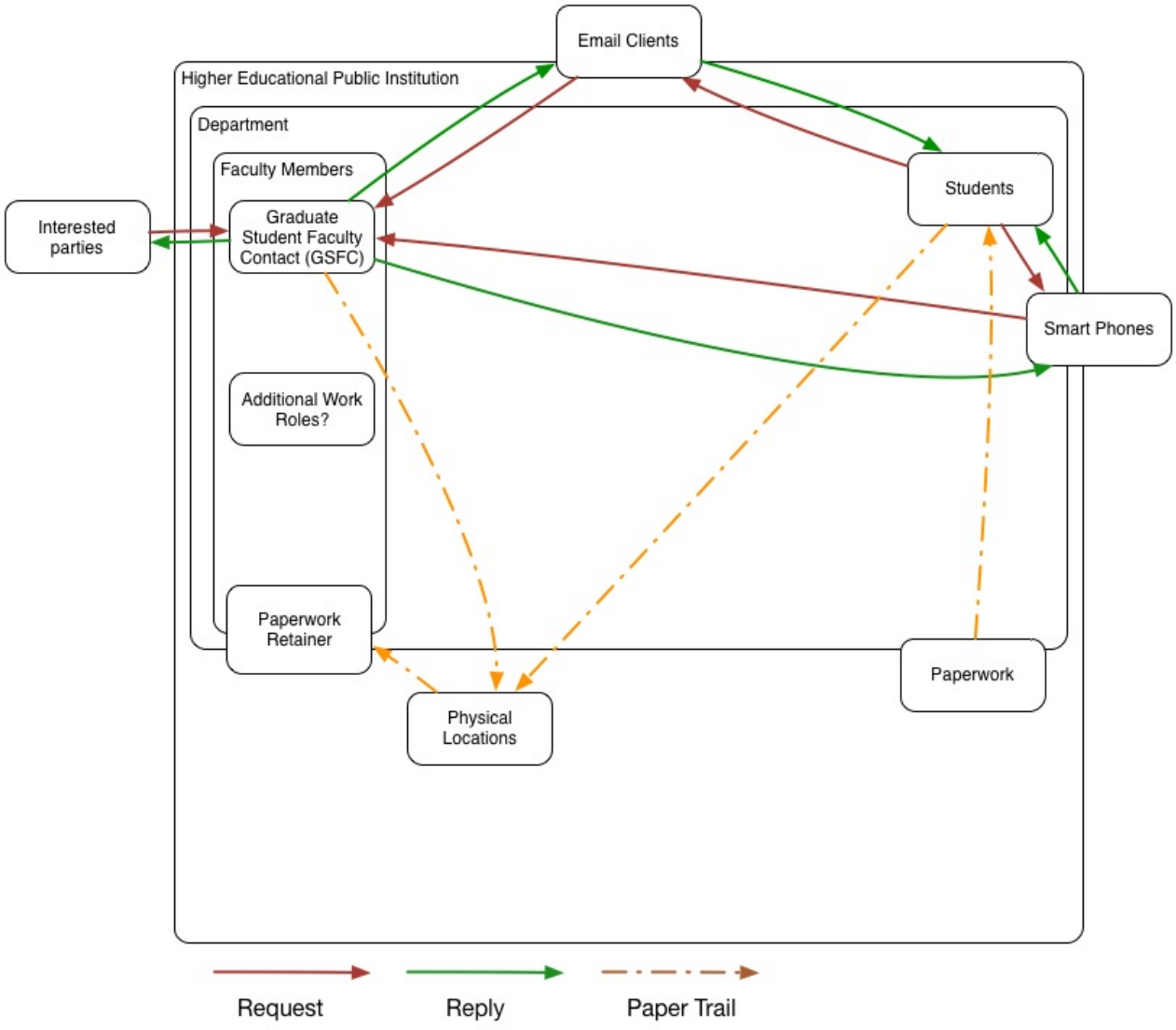


Figure 4: Current Structure

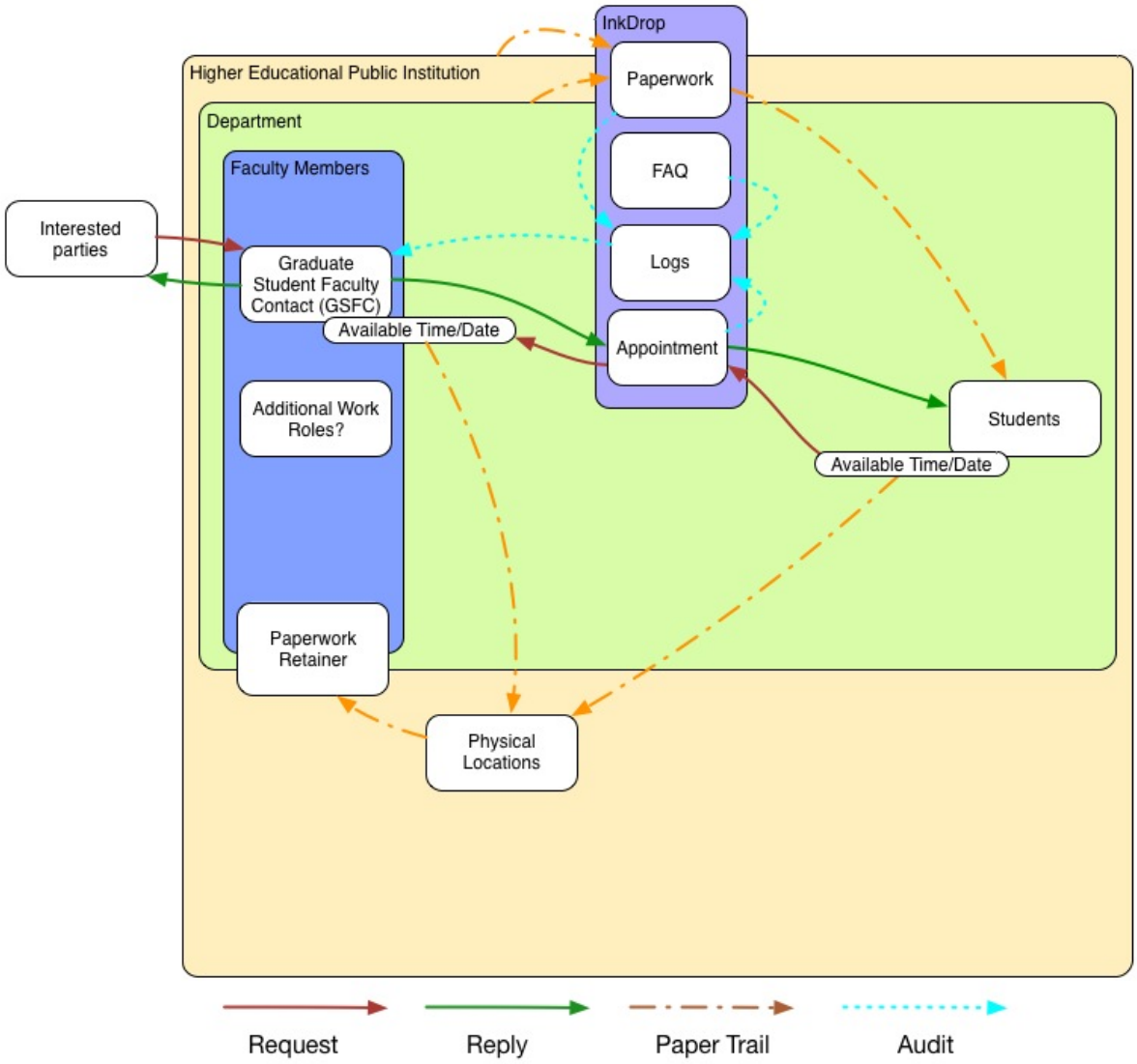


Figure 5: Proposed Implementation

Question 3 - Work Roles

Assumption: (Dr. MPQ @ a public institution) !== (Dr. Manuel @ VT) && (Dr. MPQ) == (Benevolent Dictator):

Roles marked with an asterisk (*) are explicitly mentioned in the interview. Roles without an asterisk are inferred form the interview, however titles and duties have yet to be reified.

Faculty Member * Dr. MPQ

The roles and responsibilities of a faculty member are not mentioned

Graduate Student Faculty Contact (GSFC) * Dr. MPQ

This role is in charge of helping graduate students in several capacities including signing paperwork, holding brief meetings, and consultation. It is unclear if these roles are independent of a formal work

role title despite potentially having different purposes. Many of the concerns aside from signatures are centered around information communication.

Additional Work Roles * Dr. MPQ
It is mentioned that he has many other work roles, but they are not explicitly discussed or delineated.

Paperwork Retainer, Interested parties Unknown
The paperwork flow is not clearly defined. For example, does the student(s) continue handling the paperwork, or the signature the final step. This leaves open the questions of who retains the paperwork, who views the paperwork aside from the student and GSFC

Student (s) There are graduate students who need paperwork signed, consultation regarding graduation, and other questions surrounding their education.

There are also other roles that must be considered, but aren't easily classified as a work role given the lack of inquiry, but closer to places and domains that have influence on this particular client's case:

Higher Educational Public Institution * Not known

Physical Locations * Campus, and KWII

Smart Phones, Email clients * While they are communication channels as well, they are explicitly different form a phone call, as they have physical components as well.

Question 4

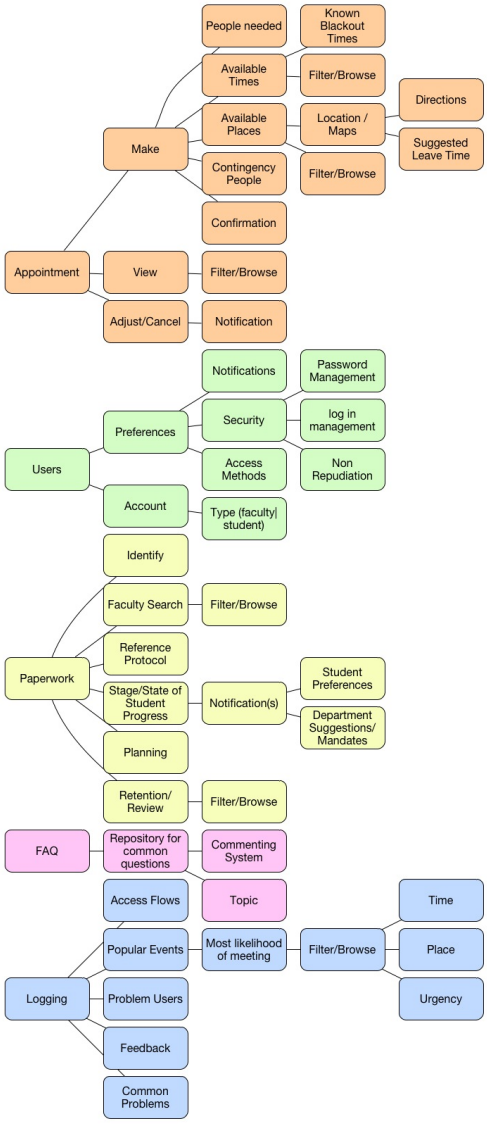


Figure 6: InkDrop : Hierarchical task inventory diagram

Part 3

Harrison, Tatar, and Sengers (HTS) identify a third paradigm of the HCI research area by first defining human factors then classical cognitivism/information processing. Their definition surrounds the strengthening of meaning based on interactions in particular situations. This view point is an HCI centered paradigm that tries to address the murky connection between symbols and referents in the common communication semantic triangle as in Figure 7.

I believe the strongest component of the this third phenomenologically-situated paradigm of understanding HCI is the importance of the user, in particular their domain knowledge and interactions in situations. As

a challenge in designing any experience (electronic, situated, [inter/intra]-personal, or otherwise), accommodating varying viewpoints rarely occurs. The third paradigm stresses that the users' perceptions, knowledge, interactions, and should not be bijected and formally judged. This lack of adjudication is grounded around accommodating varying viewpoints and social structures, where precision can but infrequently exists. This lack of precision in the other two paradigms is ignored as being irrelevant. In the scope of the third paradigm, however, all contexts, experiences, and situations of every user are recognized and given weight.

The requirement of the third paradigm to encompass situations, users, and viewpoints strengthens HCI as a field, especially relevant to user experience. This phenomenologically-situated idea is at a core of well rounded usability engineering principles and stages, in particular: participatory design, user inquiry, and evaluation methods. The third paradigm situates us designers and engineers to keep an open mind throughout the processes as we also try to concretize the connections that exist in the domains we are interacting with, while also understand our effect, similar to the *entanglement* concerns proposed by Schrdinger in describing theoretical clashes among interpretations and experimentation.

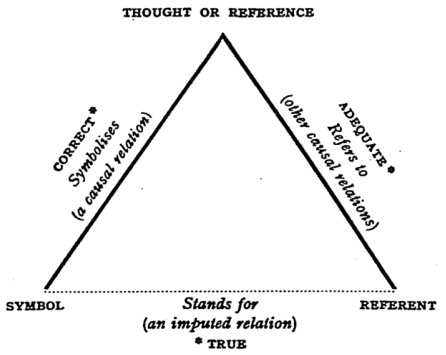


Figure 7: A traditional semantic triangle