Major Area:
Information Display of Social Interaction

Examiner:
Professor Judith Donath
MIT Media Laboratory

Description:
The central topic of this exam is designed to build an understanding how social information is conveyed through visual display and that display can impact the social behavior of individuals. The first group of readings is an overview of methods for displaying quantitative and qualitative social information within communication tools. The next group of readings provides examples of interfaces employing these techniques. The last section covers the broader issue of medium effects and our relationship to others through media.

Written Requirement:
The written requirement for this area will be satisfied with a paper of publishable quality in the area of visual communication of social information. Professor Donath will evaluate the paper.

Signature________________________________________ Date:_________________

Reading List:

Display of Information


**Innovative Communication Interfaces**


**Medium Effects**


Technical Area:
Sensing Human Intention

Examiner:
Professor Cynthia Breazeal
MIT Media Laboratory

Description:

While a group of individuals may explicitly state the goal or purpose of their interaction between each other, it is challenging for a technical application to understand this goal. Even more difficult is the task of automatically determining the implicit goals of the group and of each individual, which may or may not support the explicit group goal.

The technical area of this examination addresses this challenge by looking at different ways to detect the intention of the individuals through their verbal and non-verbal cues and then by examining different techniques of plan recognition that can be used to understand the multiple goals existent in a group interaction, based on these cues. The purpose of this examination area is to determine a method for modeling the shared plans of a group provided multiple modes of behavioral input from the group.

The reading list is organized into four sections that build upon each other towards the goal of developing a model of human intention. The sections are as follows: first, methods for sensing intention (conversational, gesture, gaze, attention, and affect cues), second, considering the meaning of intention from a cognitive science perspective, third, general techniques of pattern recognition, and lastly, methods for plan determination.

Written Requirement:

The written requirement for this area will consist of a 24-hour three question take-home examination to be administered and evaluated by Professor Breazeal.

Signature________________________________________ Date:_________________

(The reading list begins on the next page.)
**Conversational Cues**


**Gesture Cues**


**Facial and Eye Movement Cues**


**Sensing Affect Cues from Computer Interaction**


**What is Intention?**


**Pattern Recognition Techniques**


**Plan Determination**


Contextual Area:
Psychology of Group Behavior and Social Influence

Examiner:
Professor J. Richard Hackman
Harvard University

Description:

The contextual topic of this exam covers the psychology of how individuals influence one another’s beliefs and behaviors. With an emphasis on behaviors important to group decision-making, these readings focus on the negative impact group interactions can have on group behavior, such as group polarization and ‘groupthink.’

Written Requirement:

The written requirement for this area will consist of a 24-hour three question take-home examination to be administered and evaluated by Professor Hackman.

Signature________________________________________ Date:_________________

Coursework:

Social Psychology of Organizations, Psychology 1501, 2002 Fall Term.
Harvard University Psychology Dept, taught by Professor J. Richard Hackman

Reading List:

_Psychological Mechanisms at Work_

Transaction Publishers, New Brunswick, NJ.


**Influencing Group Processes**


Biography of J. Richard Hackman

J. Richard Hackman is the Cahners-Rabb Professor of Social and Organizational Psychology at Harvard University. His research interests in the field of social and organizational psychology include team dynamics and performance, social influences on individual behavior, and the design and leadership of self-managing groups and organizations.

Professor Hackman has been awarded the Sixth Annual American Institutes for Research (AIR) Creative Talent Award in the field of “Measurement and Evaluation: Individual and Group Behavior”, the Distinguished Scientific Contribution Award of the American Psychological Association’s division on industrial and organizational psychology, and both the Distinguished Educator Award and the Distinguished Scholar Award of the Academy of Management. He is a Fellow of the American Psychological Association and of the American Psychological Society and in 1998 was Hewlett Fellow at the Center for Advanced Study in the Behavioral Sciences at Stanford University. J. Richard Hackman has published numerous articles, and seven books.

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