

NOTA BENE

Newsletter of the Lewis Department of Humanities

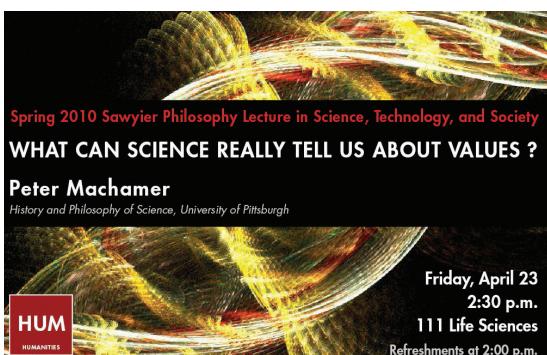
Fall 2010

Sawyier Lectures

The fall 2009 Sawyier Philosophy Lecture in Science, Technology, and Society featured professor of philosophy William C. Wimsatt of the University of Chicago. Wimsatt's lecture, "Cultural Evolution of Technological Artifacts: Development, Enskillment, and Scaffolding in the Production of Cumulative Culture," considered how modularity has emerged in cultural evolution.

Wimsatt began by discussing the emergence of modularity in artifacts left behind by early civilizations (stone tools, and clay vessels) and ventured into the modularity of modern society (as evidenced by Sears catalogue homes and parts inventory catalogues).

The spring 2010 lecture on April 23 features Peter Machamer, professor of history and philosophy of science, University of Pittsburgh, speaking on "What Can Science Really Tell Us About Values?"



Jahna Otterbacher Joins Faculty



Assistant professor Jahna Otterbacher joined the Lewis Department of Humanities in January 2010 as assistant professor of technical communication. Otterbacher received the Ph.D. in Information from the University of Michigan's School of Information in April 2006. At Michigan, her advisor was Prof. Dragomir Radev, and she was a member of the CLAIR (Computational Linguistics And Information Retrieval) research group. Previously, she was a visiting lecturer at the University of Cyprus.

One aspect of Otterbacher's research looks at how user-submitted reviews are received and displayed. For instance, Amazon.com collects feedback from the community about the helpfulness of reviews and then uses this information to organize them. The idea is to reduce the threat of information overload by guiding users to the content that others have found helpful. In examining the structure of user-submitted reviews, Otterbacher finds that features such as word choice, textual properties such as punctuation and grammatical errors, and writing style influence the perceived helpfulness of those reviews. For example, reviews that invoke ethos (persuasion by exhibiting competence or expertise) and logos (persuasion through logic) are more well-received than reviews that invoke pathos (persuasion through emotion).

In This Issue

ARTstor Comes To IIT (p 2)

Gewgaws Lab (p 2)

Speech Analysis Lab (p 3)

**Department Sponsors
Student Prizes
In Three Areas (p 4)**

Otterbacher's current research explores the management of information overload and user behavior in information spaces where unstructured text is the main form of expression. Examples of such spaces include consumer product review forums at Amazon.com, film discussions on the Internet Movie Database (imdb.com), and restaurant review forums on Yelp.com.

Otterbacher joined the Humanities Department at IIT because of the possibilities that access to disciplines and departments such as philosophy, computer science, psychology, and the Institute of Design can offer. She states, "it behooves any modern approach to information and communication to be performed in an interdisciplinary environment."

Humanities Department faculty are active in research and teaching initiatives that make innovative use of technology to explore topics in the humanities.

Examples of these initiatives include use of ARTstor, research into machine-mediated language, and projects focused on open source and distributed collaboration in Web development.



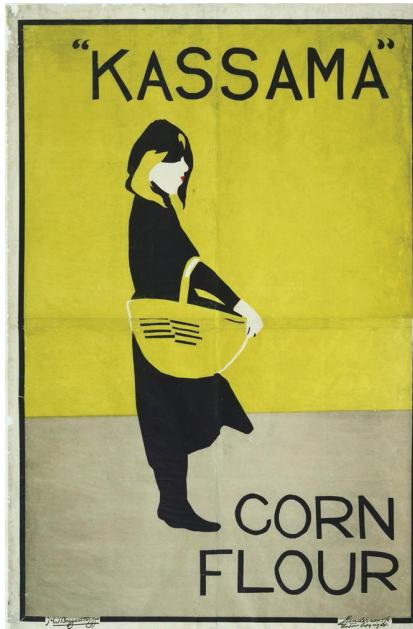
Karl Stolley, assistant professor of technical communication, bridges technical communication, rhetoric, and computer science while investigating open source and distributed collaboration in Web development.

Stolley's research combines open access, Web standards, activity theory, and emotional design to investigate how technical communicators in particular can shape the ways that we learn, work, and interact with the world. His research examines the making of digital artifacts, including how and

Gewgaws

A lab researching and creating humanized digital communication technologies and interfaces.

Follow [Gewgaws Lab on Twitter](#).



Gewgaws Lab: Open Source and Humanized Web Design

for what activity the artifact was made. Stolley uses rhetorical and activity theory "to argue for how others might employ theory-grounded approaches to digital production and design." To promote work in this area, Stolley has established Gewgaws Lab (<http://gewga.ws>), a virtual lab aimed at developing open-source humanized interfaces and digital communication technologies.

Gewgaws Lab is a design-based counterpart to the Usability Testing and Evaluation Center (UTEC; www.iit.edu/usability), which Stolley codirects with UTEC's founder Susan Feinberg.

The lab's short- and long-term goals include open-source advocacy, education, and outreach, as well as opportunities for IIT graduate students in technical communication to derive capstone projects from their work in the lab. Gewgaws Lab has two initial projects: a Web-based card sorting program for conducting usability tests (SortIIT) and a distributed Web-based system for deploying and sharing educational and instructional materials, particularly writing resources (FreeOWL). The lab will be applying for an NEH Digital Humanities Startup Grant, as well as seeking direct corporate sponsorships and partnerships.

ARTstor Comes to IIT

In January 2010, IIT became a participating institution in ARTstor, thus making this wonderful resource available to IIT faculty and students.

As described on its website, ARTstor is "a nonprofit digital library of more than one million images in the arts, architecture, humanities, and social sciences with a suite of software tools to view, present, and manage images for research and pedagogical purposes."

Far left: "Kassama", Corn Flour (James Pryde and William Nicholson, 1894).

Immediate Left: Palais de glace/Champs Elysées Poster (Jules Chéret, 1892).

Speech Analysis Lab: Research on Machine-Mediated Language



Matthew Bauer, assistant professor of linguistics and director of the Speech Analysis Lab, investigates speech intelligibility in public and commercial environments.

More and more, humans encounter machine-mediated language—human or synthetic speech delivered through technology.

Examples range from public transit announcements to drive-through windows, automated phone systems, and toys that talk. For people with low vision, encounters with prerecorded or synthetic speech also include bank teller machines, Web security services, and public transit kiosks, among many others.

The quality of machine-mediated speech varies widely. Unfortunately, guidelines from the Americans

with Disabilities Act specify only that communications to any member of the public should be "effective." Surprisingly, there are few design guidelines or standards for the prerecorded or synthetic speech.

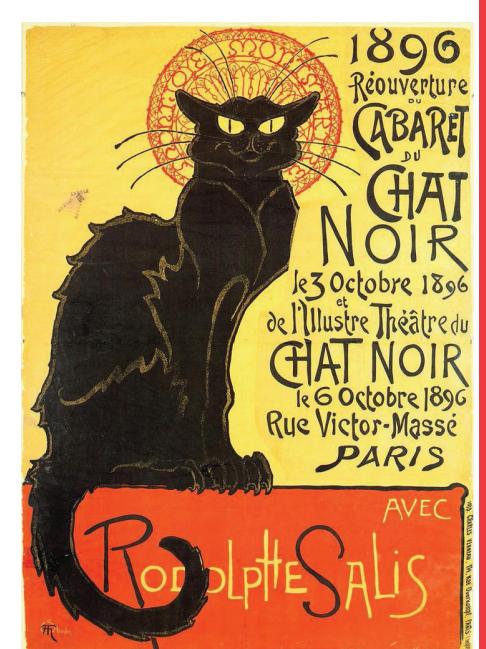
One goal of Bauer's Speech Analysis Lab is to determine the qualities of intelligible machine-mediated speech. The lab uses a variety of technology, including a sound booth, computer bank, ultrasound machine, and other recording devices. Machine-mediated speech from various sources is analyzed for features that are known to affect intelligibility, such as signal fidelity, speaking rate, intonation, and pitch. The idea is to develop more specific technical specifications for intelligible machine-mediated speech.

So far, the Speech Analysis Lab has produced two reports for an advocacy group for people with disabilities. It has also run a series of IPROs, including a spring 2010 study of audio CAPTCHAs (Completely Automated Public Turing Test to Tell Computers and Humans Apart). Visual CAPTCHAs present distorted text to a user, who is asked to type the text into an answer box. The idea is that humans, but not computers, are able to interpret the distorted text, thus preventing online forms from being accessed by spambots.



Above: Students in Matthew Bauer's audio CAPTCHA IPRO class record public transit announcements on a CTA platform.

Left: Students analyze the machine-mediated speech using headsets.



Collections include images from the Library of Congress, Metropolitan Museum of Art, Museum of Modern Art, and numerous other more specialized collections.

ARTstor has been on the department's wish list for several years because of its potential to enhance teaching and research in so many areas. Access to ARTstor is supported by the joint funding efforts of Galvin Library, the College of Science and Letters, the College of Architecture, and the Institute of Psychology.

Right: Cabaret du Chat Noir Parisian Poster (Théophile Alexandre Steinlen, 1896).

Audio CAPTCHAs ask users to identify an audio string of digits or words that has been distorted or placed against a background of "white" noise or reversed speech. The audio format is intended to be accessible to users whose vision problems prevent them from using visual CAPTCHAs. At issue is how to improve audio CAPTCHAs so that users can easily solve them but computers cannot.

In the future, Bauer "hopes to secure a client base in order to analyze assistive speech before it goes out to the public, before it gets unfavorable reviews, and in certain extreme cases before lawsuits."



Department Sponsors Student Prizes In Three Areas

The Humanities department sponsored three prizes during the spring 2010 semester to support student work in various areas of the humanities at the middle school, high school, and undergraduate levels.

Writing Contest For IIT Undergraduate Students

Full-time IIT undergraduate students were invited to enter the 45th Annual Writing Contest, sponsored by IIT's Lewis Department of Humanities. Prizes are awarded in four categories: fiction, nonfiction, freshman essay, and poetry.



Allen C. Lewis Prize for High School Journalism Students

The Allen C. Lewis (*left*) Prize, named for one of the founders of Illinois Institute of Technology, encourages high school journalism students to think critically and write clearly for the gen-

eral public about complex topics and issues in technology, science, or business. The competition awards six prizes to high school juniors and seniors.

John Root Award for Chicago-Area History Students

The 2nd annual John Root Award was offered for projects on the history of technology and science in society as part of this spring's Chicago History Fair, which encourages the exploration of history by students in grades 6-8 (Junior Division) and 9-12 (Senior Division). IIT hosted the City High Schools Regional on Saturday, March 13, and the Metro Junior History Fair on Saturday, April 17, with over 500 students and 150 teachers and judges attending each event.

Recipients of the inaugural John Root Award in 2009 were Julia Wang and Sam Petti from Stevenson High School for the project "Shuttering Child Labor: The Life World of Lewis Hine" and Caroline Williams, Mary Pierce, and Megan Chan from Lincoln Park High School for "Gustavus Swift and the Meatpacking Industry."

Contact Us

Kathryn Riley
Department Chair
riley@iit.edu
312.567.3566

Greg Pulliam
Associate Chair
pulliam@iit.edu
312.567.7968

Susan Feinberg and **Warren Schmaus**
Co-Directors, Graduate Studies
gradhuminfo@iit.edu
312.567.3471 • 312.567.3473

James Maciukenas
Newsletter Editor
jmaciuke@iit.edu
312.567.3581



Are you an alumna or alumnus of the Lewis Department of Humanities? Write us at humoffice@gmail.com with your news.

NOTA BENE

LEWIS DEPARTMENT OF HUMANITIES
Illinois Institute of Technology
3301 South Dearborn, Siegel Hall 218
Chicago, IL 60616 USA
312.567.3465
www.iit.edu/csl/hum

NON-PROFIT ORG.
US Postage
PAID
Chicago, IL
Permit #936