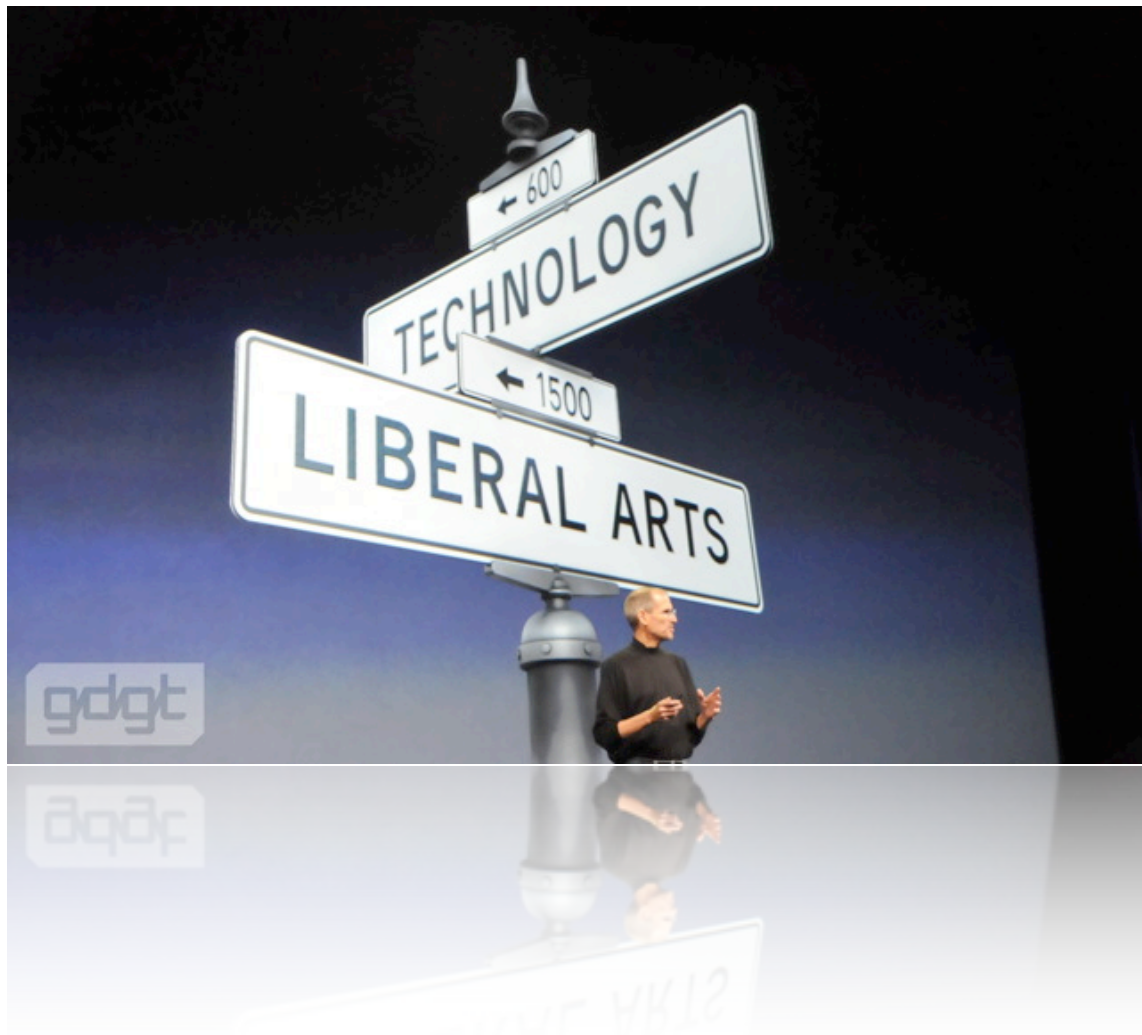


Social Informatics

Independent Major Proposal Essay



Independent Major:

Social Informatics

Introduction / Briefing

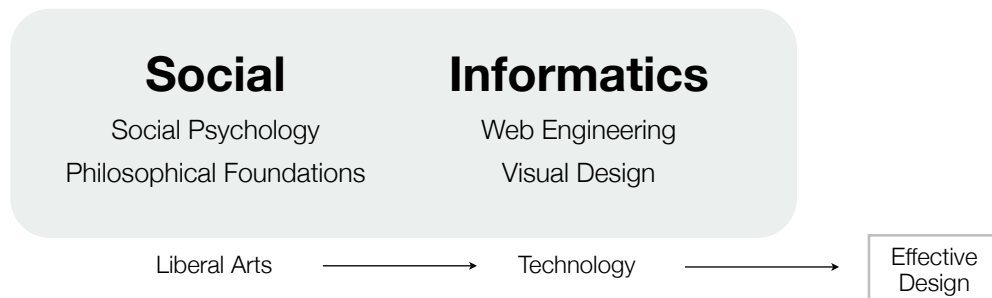
The technology we use today determines the course of our lives in the same way the architecture of a library determines what we will learn, or the number of slices on a pizza determines how much pizza we will eat. The designers of cellphones, computer operating systems, and websites have an immense amount of control over our lives, whether we are aware of it or not. The Social Informatics Independent Major is a journey into the study of the relationship between mind and machine, and how this relationship manifests itself in social group dynamics. Social Informatics realizes that in our world we can no longer look at computers as number crunching machines; they are becoming the very glue that holds us together.

The Social Informatics Independent Major unites the Humanities (Psychology and Philosophy) with New Media (Computer Science and Film Studies). In doing so, it offers a real-world application for the humanities, and a novel approach to interaction design. A degree in Social Informatics will not only be a useful thing to have straight out of college for jobs requiring specific skills in new media, it will also be an indispensable foundation for higher education and creative business leadership 5, 10, 20 years in the future.

Design

The Social Informatics Independent Major is modeled from the Symbolic Systems major at Stanford University. Symbolic Systems majors at Stanford take courses in Computer Science, Philosophy, Psychology, and Linguistics in order to gain a better understanding of how individuals and groups of individuals interact with technology. The Social Informatics Independent Major uses this as a starting point, but adds courses in Cinema Studies. The need for a background in visual communication is becoming ever more necessary for understanding technology's place in today's society. Video is becoming the words, sentences, and paragraphs we use to interact with each other.

Inside each of the departments, the major focuses on a specific domain. In the Computer Science Department, the focus is Web Engineering. In the Psychology Department, the focus is Social Psychology. In the Philosophy Department, the focus is Logic and Philosophical Foundations. In the Cinema Studies Department, the focus is Visual Design. Each focus, or domain, is specifically intended to work in concert with the other domains. The result is the ability to create smart, intuitive tools with new, innovative media for leadership in tomorrow's world.



Social Psychology

Our brain is the center of our universe, and thus the study of Social and Cognitive Psychology is at the heart of Social Informatics. The principles studied in Social Psychology become the driving force behind all of the other domains in Social Informatics. With a background in Social Psychology, Web Engineering becomes less of a coding routine and more of an exercise in Choice Architecture, a fledging pursuit in the study of Psychology focused on how choices are presented to people. A web engineer faces thousands of decisions on how to pose questions to people, both verbally and spatially. Choice Architecture has taught us that the way these questions are posed can influence the outcome, such as opt-in or opt-out systems, where the answer can be heavily swayed by the default choice. All of the decisions a web engineer or a visual designer makes can be intelligently guided by an in-depth study of Social Psychology and the principles that drive human interaction. Our brains are starting to act as analog intermediates between digital devices. How do we keep technology human?

Philosophical Foundations

Designing humanistic tools in Social Informatics relies heavily on being able to make coherent arguments. Nothing is more important in forming a coherent argument than having a solid foundation in the principles of logic. Philosophical Foundations ensures a firm grounding in the abatement of fallacies and the application of predicate and anterior logic. In addition to this, Philosophical Foundations examines the metaphysical relationship between man and machine. Does interacting with a machine that runs on a set of predetermined rules influence our free will? As you will see, the tiny bits of code in a web site can have unforeseen manifestations in our fate.

Web Engineering and Artificial Intelligence

The internet is literally becoming the air we breathe. With the proliferation of wi-fi networks and more academic course materials moving onto the web every year, we no longer have the choice of abstaining from internet use. Because of this, web developers are now the architects of our digital lives. Like trains, we can only traverse on the rails that web engineers lay for us. What if we could take what we know in Social Psychology and apply it to the new social frontiers of the web? Social Informatics seeks to integrate psychological and philosophical principles into Web Engineering in order to transform web sites from an amalgamation of social data into extremely useful communication tools. The web is also becoming a support framework for our new most favored method of interaction: video.

Visual Design in Cinema Studies

No medium can convey the raw emotions of a human more thoroughly than the immersive visual and auditory experience that is a moving picture. With the spread of cheap, high-quality consumer video technology, our society is now more than ever using video as a means of communication. In the year 2007 alone, the video sharing site Youtube.com grossed more bandwidth than the entire internet in 2001. Easy access to video is in the hands of millions of people, gradually turning moving pictures into the preferred method of communication. The Social Informatics Independent Major seeks to study the concepts that constitute effective visual communication and to learn the skills required to produce them.

First Year

Logic and Argumentation PL151

Forming a cogent, persuasive argument is extremely important, in philosophy and elsewhere. Introduction to Logic covers the skills necessary for thinking logically, which can be applied to every domain in the major. Additionally, logical reasoning skills are extremely useful in computer science.

Computational Thinking CS151

The “Informatics” part of Social Informatics relies heavily on a strong foundation in computer science. Computational Thinking introduces basic programming methodologies that will be used extensively in the higher levels of the Web Engineering domain.

Social Psychology PS253

Because Social Psychology is such an integral part of Social Informatics, a solid foundation is important. Social Informatics is about how groups interact with machines. Social Psychology lays the foundation for all Social reasoning in Social Informatics.

Free Will and Determinism PL298

Free Will and Determinism examines ideas fundamental to those of Social Informatics, such as the metaphysical relation between man and machine. If machines can think for us, does that make them human, or does that make us a machine?

First Year Summer

I spent the summer of 2009 at Stanford University taking classes and working with the Psychology department to develop this major.

The Psychology of Making Better Decisions

This is a specialty class at Stanford that covers the most cutting-edge advancements in Social Psychology. A perfect way to build off the Social Psychology class I took the semester before, The Psychology of Making Better Decisions covers new concepts to the realm of Psychology like prospect theory and choice architecture.

Cognitive Psychology

While examining groups and their behavior, we must not forget that these groups are comprised of individuals, each with an inexplicably unique brain. The study of the brain and how it interacts with the world around it is imperative to a well-rounded study of Social Psychology. Cognitive Psychology also ties directly into Web Engineering, where the web designer must have a precise working knowledge of Cognitive Psychology in order to design easy-to-use interfaces.

Sophomore Year

Intro to Film Studies EN241

Intro to Film Studies serves as a launching point for the study of visual design. In it, I will learn how to comb over films with an analytical eye. The knowledge I gain in this course will benefit my study of visual design, and in addition will benefit the Web Engineering domain, which also relies heavily on how images are presented to the eye.

Web Programming CS297

This course is the catalyst to the entire domain of Web Engineering. This course will introduce every web language necessary to make a cutting-edge website, including HTML, CSS, PHP, Javascript, MySQL, and Regular Expressions. This course lays the foundation for one of the capstone projects in the Social Informatics major, Webisodic Content, in which I will design a high-traffic dynamic web page from scratch.

Junior Year

Japanese Popular Media and Culture

This is a course offered at Kansai Gaidai, where I plan on going abroad for my Japanese Minor. Studying media and technology in Japan will be a rare opportunity to study Social Informatics while immersed in another culture, especially one such as Japan's. This opportunity will yield a widely broadened perspective in the pursuit of Social Informatics.

Philosophy of Science PL317

The Philosophy of Science takes a look at how 20th-century scientists approached the notion of science and what theoretical structures they used to do so. How will science change in the coming century? Will the web alter the way we advance knowledge? Social Informatics is in pursuit of the same questions. This course is appropriate as the top of the Philosophical Foundations domain, and in preparation for both capstone projects.

Film Theory 300 Level

This will be a 300-level film theory class serving to build upon my knowledge of film studies from the Intro class. This class will advance the knowledge gained in the Intro class to the level where I can be confident in analyzing and producing meaningful works of film.

American Dreams AM378

Phyllis Mannoche's American Dreams class will set the stage for the perfect combination of my filmmaking skills and my film studies knowledge. Both my production skills and my study of visual communication will be brought to the next level by this integrative class.

Senior Year

Data Structures and Algorithms CS231

This computer science course will build off the knowledge gained in web programming and introduce a new level of programming sophistication. Data Structures and Algorithms also covers web projects and social simulations, which is an excellent way to formally bridge the gap between the Web Engineering and Social Psychology domains.

Film Seminar 400 Level

This film seminar course will allow me to bring my film studies skills up to an advanced level. Skills learned in this class will be applicable in the Independent Study in Webisodic Content and beyond.

Capstone Projects

The Social Informatics Independent Major culminates in two broad-reaching capstone projects. These two projects are intensive studies uniting all 4 domains of Social Informatics into a cohesive, meaningful whole.

Independent Study in Webisodic Content EN491

The first capstone project is about Social Informatics in action. The Independent Study in Webisodic Content marks the culmination of the skills learned in both the Web Engineering and Visual Design domains. Webisodic Content is a revolution that is taking place in the film industry. Instead of releasing a movie every 2 years, or a TV show every few months, innovative producers are turning to the web as their primary means of distribution. This sets the stage for the perfect marriage between the domains of Web Engineering and Visual Design.

The Independent Study in Webisodic Content will begin with the design of a dynamic web page that will host the video content. This will draw extensively from skills learned in Web Programming. During the completion of the website, I will start scripting, shooting, and producing a short webisodic series that will be distributed through the aforementioned web page. Completing this project will mean bringing the knowledge and skills learned from Social Informatics out into a real working fast-paced environment, giving me the opportunity to fine-tune my understanding and application of Social Informatics.

Independent Study in Social Informatics PS492

The second and final capstone project leans more toward the theoretical side of Social Informatics. In the Independent Study in Social Informatics, I will pick a specific concept in Social Informatics based on the experience I will have gained in classes Junior year and study it intensely in order to create a research project with the help of the Psychology Department. This research project will culminate in a thorough final report on my findings and its impact on the field of Social Informatics.

An example of what the Independent Study in Social Informatics might look like could be the intensive study of status updates. Status updates are short bursts of personal information that have changed the way we communicate with each other and express our inner thoughts. If this were my project, I would research what psychological factors went into truncating one's feelings into a small number of characters and broadly distributing that message. I would collect data on what emotional states cause people to be more open with sharing their feelings in the form of status updates, and what emotional states prevent that. I would be particularly interested in seeing the effects of status updates on individuals' perceptions of one another and of themselves.

Node-Based Overview of Classes



Chronological Schedule of Classes

Senior Year	Number	Semester	Domain
Independent Study in Social Informatics	PS492	Spring 2012	Social Psychology, Web Engineering, Philosophical Foundations, and Visual Design
Film Seminar	EN493	Spring 2012	Visual Design
Independent Study in Webisodic Content	EN491	Fall 2011	Social Psychology, Web Engineering, Philosophical Foundations, and Visual Design
Data Structures and Algorithms	CS231	Fall 2011	Web Engineering

Junior Year	Number	Semester	Domain
American Dreams	AM378	Spring 2011	Visual Design
Philosophy of Science	PL317	Spring 2011	Philosophical Foundations
300 Level Film Studies Course	300 Level	Spring 2011	Visual Design
Japanese Popular Media and Culture	200 Level	Fall 2010	Visual Design

Sophomore Year	Number	Semester	Domain
Introduction to Film Studies	EN241	Spring 2010	Visual Design
Web Programming	CS297	Fall 2009	Web Engineering
Cognitive Psychology	200 Level	Summer 2009	Social Psychology
The Psychology of Making Better Decisions	200 Level	Summer 2009	Social Psychology

Freshman Year	Number	Semester	Domain
Computational Thinking	CS151	Spring 2009	Web Engineering
Free Will and Determinism	PL298	Spring 2009	Philosophical Foundations
Social Psychology	PS253	Spring 2009	Social Psychology
Logic and Argumentation	PL151	Fall 2008	Philosophical Foundations

Timetable of Distribution Requirement Fulfillment

Requirement	Status	Semester
English Composition	Fulfilled	
Arts	In Process (Spring 2010)	
Historical Studies	In Process (Spring 2010)	
Literature	Fulfilled	
Language	Fulfilled	
Quantitative Reasoning	Fulfilled	
Natural Science (Lab)	Fulfilled	
Natural Science	Target: Spring 2011	
Social Science	Fulfilled	
Diversity (International)	Fulfilled	
Diversity (U.S.)	In Process (Spring 2010)	
Jan Plan	2 completed (1 needed)	
Wellness	Fulfilled	