PROPOSAL, SAM FOX COMMONS COURSE

Visualizing Information

300-level, 3 credits

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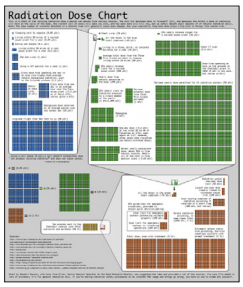

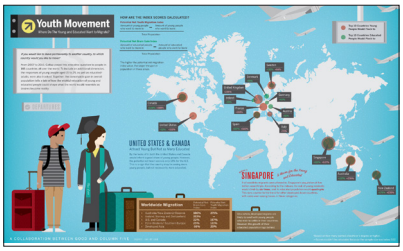

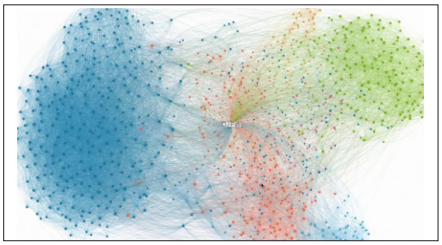

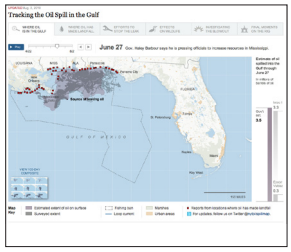

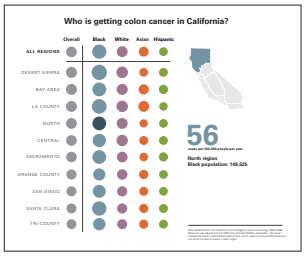

EXAMPLES OF CONTEMPORARY INFORMATION DESIGN

Radiation Dose Chart, Randall Munroe, xkcd
Youth Movement, Good Design
Linked In's new InMaps, Linked In
Interactive timeline, BP Oil Spill, *New York Times*
Colon cancer prototype, Heather Corcoran

"In an uncharted world of boundless data, information designers are our new navigators."

New York Times, Natasha Singer, April 2, 2011

BACKGROUND

Information is abundant in today's world. Contemporary designers, architects, and artists are working to visualize information in better and more interesting ways. Advancements in technology have enabled us to collect more numerical data and structural information faster, as well as to build sophisticated tools for management, presentation, and experimentation. As a result, information design has become a multidisciplinary field; those who have skills in content structure, visual design, usability, and interactivity can contribute in important ways. Current examples of professional projects are easy to find: they include the interactive graphics of the *New York Times*, visualizations on websites like Flowing Data, the informational graphics of *Good Magazine*, and even the messaging and data tools being created through the Sam Fox School's grant in cancer data visualization.

COURSE DESCRIPTION

This project-based studio course brings students from diverse backgrounds in Art, Architecture and Design together to learn to compose information-rich surfaces. The course will explore principles of information design on paper initially, and offers the opportunity to extend some applications to the screen. Course topics include content organization, visual structure, hierarchy, typography, color, sequencing, audience and usability. Students will have the chance to select subject and media for some of their projects. Projects will be supplemented with readings and lectures about contemporary information design, with some historical references.

This course combines the rigor of a disciplinary classroom with the flexibility of a multidisciplinary one. Topics likely to emerge in the multidisciplinary conversation include information in three-dimensional spaces, communicating information with a particular voice or editorial perspective, analytical versus poetic information design, function, audience, and programming. All of these will be supported, and students will develop a set of tools which can be adapted to their own disciplinary work in a meaningful way.

LEARNING OUTCOMES

1 Ability to generate informational visual language.
2 Familiarity with different categories of information–numerical, process, structure, etc.
3 Method for generating informationally oriented works, in relation to content prompt.
4 Ability to develop appropriate data/content for informational purpose.
5 Understanding of relationship of paper and screen.
6 General understanding of information design leaders/culture.
7 Understanding of common language of information design which bridges multiple fields.
8 Ability to apply learning to course of study in Art, Architecture, and Design.

SOFTWARE AND TOOLS

Students are required to have a working knowledge of Adode Illustrator for this course. Knowledge of additional programs in the Adobe suite is beneficial but not required. Students may engage programs such as the open-source visualization tool "Processing," as well as motion and interactive software.

SCHEDULE OF PROJECTS, TENTATIVE

Students will complete four projects, each of which functions as a unit.

Weeks 1–3
Getting Started: information affects everyone.

Content: Health data, community and world

Visual work: charts, graphs, posters

Lectures and readings: Introduction to the field through journalism, basic visualization, examples of tools in health (examples such as *Information Design Handbook*, Gapminder, *Good Magazine*, *New York Times*)

Learning: Data plotting, hierarchy, shape, color, type, the power of labels

Week 4–6
Time

Content: Variable–time-based process of student's selection

Visual work: timelines, motion animations

Lectures and readings: Motion graphics and narratives, examples of time-based stories (examples such as Scott McCloud, Otto Neurath)

Learning: Content development within a framework, sequence, pacing, iconography, type

Week 7–9
Maps and other complex structures

Content: Variable–complex structure of student's choice

Visual form: diagram, interactive image

Lectures and readings: Building usable complex structures across disciplines including biology, literature, health, examples of images, diagrams, taxonomies (examples such as Tufte, Flowing Data)

Learning: Micro/macro structures, isometric perspective, scale, color

Week 10–15
Synthesis

Content: Variable–student's choice

Visual form: Student's choice

Lectures and readings: Self-generated information design (examples such as Nicholas Felton, Feltron, Andrew Kuo, and *Maps of the Imagination*)

Learning emphasis: Shaping independent work, synthesizing content and form, principles of audience and usability, evaluating informational work

SAMPLE PROJECTS

In the first project, students will be asked to explore local and world health data to form a "data story" which combines at least two kinds of data. They will design a large poster which displays this data to reveal an important health population relationship. This project will provide students with straightforward content to introduce basic visual languages of information design.

In the second project, students will work with a time-based story or process. Results may be created in print or on the screen.

SELECTED SOURCES

Akerman, James R., Robert W. Karrow Jr. and John McCarter. *Maps: Finding Our Place in the World*.
Brown, John Seely and Paul Duguid. *The Social Life of Information.*
Grafton, Anthony and Daniel Rosenberg. *Cartographies of Time*.
Eye Magazine, the Information Design issue, winter 2011.
Krug, Steve. *Don't Make Me Think: A Common Sense Approach to Web Usability*.
Reas, Casey and Ben Fry. *Getting Started with Processing.*
Reas, Casey and Chandler McWilliams. *Form+Code in Design, Art, and Architecture*
Steele, Julie and Noah Iliinsky. *Beautiful Visualization: Looking at Data through the Eyes of Experts*.
Tufte, *The Visual Display of Quantitative Information.*
Tufte, *Envisioning Information*.
Tufte, Edward. *Beautiful Evidence*.
Visocky O'Grady, Jen and Ken. *Information Design Handbook.*
Wurman, Richard Saul. *Information Anxiety*.

NOTE

Formerly the province of graphic design, information design is quickly becoming a multidisciplinary field that integrates visual design, data management, programming, and usability. To date, its programmatic and research existence in the Sam Fox School has centered largely within the Communication Design program. By giving it a position in the Sam Fox School Commons, the School establishes a more public hub for potential growth and collaboration across schools. We are a data-driven university. The growth of this field presents an opportunity for us to contribute to this culture in a significant way.