Analyzing Visual Data

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Abstract
Visual research methods are hot across academe and starting to penetrate the iSchool community. In any visual research design, data collection is relatively easy compared to the more complicated task of analysis. This half-day workshop focuses critical attention on visual data analysis. We will learn and practice five visual analysis techniques: *compositional interpretation, content analysis, thematic analysis, pictorial metaphor analysis,* and *conceptual analysis.* In a collaborative environment, all participants will be able to voice questions and concerns about the visual analysis process and advance their own visual research projects.
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1   Introduction

Visual research methods are hot across academe and starting to penetrate the iSchool community. In any visual research design, data collection is relatively easy compared to the more complicated task of analysis. Therefore, this half-day Workshop focuses critical attention on visual data analysis. The session is intended for three audiences: 1.) those who wish to be guided in advance through their own original visual research project that is analyzed at the Workshop; 2.) scholars who already have a visual data set that has yet to be analyzed; and 3.) people with a general interest in visual research methods. These three groups will convene at the iConference in Philadelphia to learn and practice five visual analysis techniques, namely: compositional interpretation, content analysis, thematic analysis, pictorial metaphor analysis, and conceptual analysis.

The session will be run by Jenna Hartel, an early adopter of visual methods in information studies, creator of the iSquare Research Program, and a specialist on visual data analysis. The event concludes with recommendations from an artist on ways to disseminate the results of visual research via traditional and non-traditional formats and channels. In a collaborative environment, all participants will be able to voice questions and concerns about the visual analysis process and advance their own visual research projects; further, the get-together will seed a community of interest for the future.

In advance of this workshop, participants will have an opportunity to create a similar corpus that explores a topic and population of their choice. The Workshop will bring these studies to fruition in a collaborative environment.
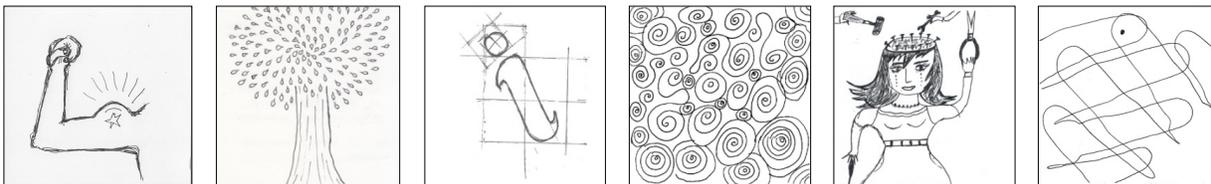

Figure 1. Six examples of a much larger visual data set from the iSquare Research Program.

2   Workshop Outline

This Workshop is an opportunity to learn and practice five visual data analysis techniques. A related purpose of the event is to form a community of visual methodologists in information studies. It is designed for a half-day (4 hours).

2.1   Intended Audience

The event is intended for three audiences: 1.) those who wish to be guided in advance through an original visual research project that is analyzed at the Workshop; 2.) scholars who already have a visual data set that has yet to be analyzed and wish to do so; and 3.) anyone with a general interest in visual research

methods. All scholars, students, and practitioners in information studies, broadly construed, are welcomed.

Figure 2. Jenna Hartel (left) teaches visual data analysis to students at the Faculty of Information, University of Toronto. Similar hands-on engagement with a visual data set will occur at this workshop.

2.2   Workshop Format

Three months before the iConference people across information studies will be invited to conduct their own visual research project in a supportive and structured environment. (The invitation will be posted on mailing lists and announced at relevant conferences, such as the ASIS&T Annual Meeting.) Interested parties will be given instructions to launch a visual research project using the draw-and-write technique/iSquare protocol. The guidance includes counsel with Jenna Hartel, a visual methodologist; a sample human subjects protocol; data-gathering instruments; and data management templates. After implementing their studies between January-March, 2016, the researchers will bring their data sets to the Workshop at the iConference in Philadelphia.

The Workshop will begin with a general introduction to visual data analysis. Then, attendees will learn and practice five different techniques:

- *Compositional Interpretation* (Rose, 2007), an approach native to art history and art criticism
- *Thematic Analysis* (Guest, 2012), a flexible inductive strategy used across the social science
- *Content Analysis* (Krippendorff, 2012), an approach common in communications that quantifies concepts and themes in a data set
- *Pictorial Metaphor Analysis* (Forceville, 2009), which links visual metaphors to their meanings in society
- *Conceptual Analysis*, a traditional means of interrogating visual concepts using existing theories or frameworks in scholarly literature

Each analytical technique will be profiled to reveal its disciplinary roots, epistemological and ontological commitments, application process, and quintessential findings. Delegates will then have an opportunity to practice the technique on their own data and to talk with others about the process.

The event concludes with recommendations on ways to disseminate the results of visual research in traditional and non-traditional formats and channels. Rebecca Noone (Figure 3), artist-in-residence for the iSquare Research Program, will display examples and facilitate a creative brainstorming.

Figure 3. Examples of visual data presented in the non-traditional format of art exhibitions. At the Workshop, ideas such as these will be presented by scholar/artist Rebecca Noone.

3   The Goals

This session aims to help researchers select and apply visual analysis techniques and to instill a heightened critical awareness of the ways such devices determine findings. Another goal of the Workshop is to bring together visual researchers in information studies. To fortify the nascent community, all participants and their studies will be profiled on a dedicated webpage at www.iSquares.info.

4   Relevance to the iConference

The topic is relevant to the iConference for three reasons: 1.) visual research methods (Prosser & Loxley, 2008) are increasingly popular across the social sciences and the iSchool community should not fall behind the trend; 2.) we have entered a visual age in which images must be considered and interrogated more carefully; and 3.) the visual nature of information has not yet been explored, creating an urgent need for the type of research supported in this Workshop.

5   Biography of the Organizers

Jenna Hartel is an Associate Professor at the Faculty of Information, University of Toronto. Since the beginning of her academic career she has believed that visual methods are powerful tools for information research and she has taken steps to introduce these methods to information science. She has won an ALISE methodology award for a paper on visual methods; published the first methodological paper on visual methods in *JASIS&T* (Hartel & Thomson, 2011); hosted and presented on many panels about visual methods at conferences; taught classes on visual methods at the Faculty of Information; supervised masters thesis and dissertations that employ visual methods; and won the first SIG-USE Innovation Award for the iSquare Research Program. Her expertise includes photographic and drawing techniques (Hartel, 2014a, 2014b, 2014c), among others.

6   References

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