

Ethnography and Big Data: A Rapprochement?

Ethnography Workshop #2

4.6.2013, DISI/Design Thinking Center, University Of Trento, Italy

Outline

1. Introductions
2. Outline of the workshop
3. Definitions
4. Possible benefits of such a rapprochement, but also some problems
5. Basic positions on the basic root of the problems: ignorance or hostility?, and some examples of these positions
6. Data on which is the case from you and your networksExercise
7. Exercise in finding evidence on this issue: "hanging out" with documents
8. Report back and summary

Definition of Ethnography

- * Ethnography: As fieldwork/participant observation that is
 - * experiential,
 - * embodied,
 - * not only qualitative, and
 - * not only descriptive

Definitions of Big Data

"Big data are high volume, high velocity, and/or high variety information assets that require new forms of processing to enable enhanced decision making, insight discovery and process optimization." - Gartner Group, 2012 (An American research/advisory firm)

" *Big Data* is no more exact a notion than Big Hair. Nothing magic happens when you get to the 18th or 19th zero...What's new is the way data is generated and processed. It's *like dust in that regard, too. We kick up clouds of it wherever we go.* Cellphones and cable boxes; Google and Amazon, Facebook and Twitter; cable boxes and the cameras at stoplights; the bar codes on milk cartons; and the RFID chip that whips you through the toll plaza — each of them captures a sliver of what we're doing, and nowadays they're all calling home. *It's only when all those little chunks are aggregated that they turn into Big Data; then the software called analytics can scour it for patterns.*" - Geoffrey Nunberg

Additional Definitions

“Big Data is notable not because of its size, but because of its relationality to other data. Due to efforts to mine and aggregate data, Big Data is fundamentally networked. Its value comes from the patterns that can be derived by making connections between pieces of data, about an individual, about individuals in relation to others, about groups of people, or simply about the structure of information itself.” boyd and Crawford

“The first is to make explicit how “Big Data” are intimately associated with computing; indeed, the notion that they are a separate species of data is connected to the idea that they are generated more or less “automatically,” as traces normally a part of mediation by computing. Such data are “big” in the sense that they are generated at a much higher rate than are those large-scale, purpose-collected sets” - Hakken

Rapprochement between Ethnography and Big Data: Benefits

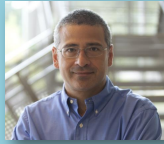
- ✦ To Ethnography, from Big Data
 - ✦ Big Data can be studied as an important phenomenon/aspect of contemporary culture
 - ✦ Big Data techniques can be used as a source of information regarding other topics—e.g., digital technology and social change—as part of methodological triangulation
 - ✦ A possible focus for contemporary cultural critique: (Crawford and boyd piece)
- ✦ To Big Data, from Ethnography
 - ✦ Behavioral meaning of scraped data is fraught (see Marres/Weltrevede piece)
 - ✦ How much and in what ways to discount technical affordances
 - ✦ The impact of analytic tools on data is also difficult to assess
 - ✦ Main problem is interpretation, finding meaning in the data
 - ✦ All of these ethnography can help with (see Gross, et. al. piece)

Rapprochement: Problems in Getting it

1. Some BD disses all previous study of the social as “pre-scientific”
2. Some Ethnography is mindlessly critical of Big Data for, e.g, positivism, hype,
3. Some BD not well informed about previous study of the social
4. Some Ethnography not sufficiently concerned with problems of generalization
5. Some BD interested only in correlation, not explanation
6. Some Ethnography ignorant of BD (although not as much)

The Problem in a Nutshell: Mutual Hostility, or Mutual Ignorance?

- ❖ David: More hostility, although more from BD than from Ethnography
- ❖ Kalpana: More ignorance, although more from BD than from Ethnography
- ❖ Essential to decide which if to develop a program to pursue such a rapprochement
- ❖ Some documents which display each



Alex Vespignani

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Tuesday, April 30, 2013

3:00pm

IMU Georgian Room

Modeling and forecast of socio-technical systems in the data-science age

Abstract: The big data revolution and the ever increasing computational power are providing the necessary data, numerical experiments and validation tests which are finally adding an "applied" dimension to complex networks and systems science. Data-driven computational models are finally providing a quantitative understanding of the emerging tipping points and nonlinear properties that often underpin the most interesting characteristics of human collective behavior and networks. These models are at the center of data gathering and computational modeling infrastructures that offer predictive analytic tools for processes as diverse as epidemic outbreaks, information spreading, knowledge diffusion, and Internet packet routing. The field of complexity science has thus entered a new stage of its life in which applications and quantitative results allow us to deal with problems which have a huge impact on our lives such as pandemic emergencies, traffic congestion, systemic risks, and the emergence of social collective behavior.

Here I review some of the recent progress toward the developing of infrastructures for the analysis and forecast of socio-technical systems that integrates the complex features and heterogeneities of real-world systems.

Biography: Alessandro Vespignani is currently Sternberg University Distinguished Professor at Northeastern University in Boston, where he leads the Laboratory for the Modeling of Biological and Socio-technical Systems. He is fellow of the American Physical Society, member of the Academy of Europe, and fellow of the Institute for Quantitative Social Sciences at Harvard University. He is also serving in the board/leadership of several international scientific journals and the Institute for Scientific Interchange Foundation. He is president elected of the Complex Systems Society. Vespignani is focusing his research activity in modeling diffusion phenomena in complex systems, including data-driven computational approaches to infectious diseases spread.



More Documents

<http://www.ucd.ie/research/news/news/newsarchive2013/news/mainbody,163964,en.html>

<http://ethnographymatters.net/category/themes-2/ethnomining/>

Getting to Data:

* Which is the case, hostility or ignorance, in your world?

* networks

* colleagues

* co-workers?

❖BREAK!

More Data: The “hang out with data” exercise

* See instructions

Summary

- * Kalpana and David: Has workshop changed their sense of the situation?
- * Describe process followed as the basic moves in ethnography
 - * sort things out as you understand them
 - * talk to other people
 - * do some "hanging out"
- * Any other thoughts?