

## Cross-School “Bring your own idea” session

### Working across disciplines to make data more meaningful

#### **Submitted by**

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#### **Description of topic**

The volume of data produced annually on the planet is growing exponentially. In 2011, the digital universe contained 1.8 trillion gigabytes; it is doubling approximately every two years.<sup>1</sup> We have moved into an era of “big data” in which the way we manage the collection, translation, discovery, analytics and presentation of data across subject areas has dramatic impact on its usefulness for the public and decision leaders and organizations. As information design and programming guru Ben Fry describes, “We’re getting better and better at collecting data, but we lag in what we can do with it.”<sup>2</sup> Faculty across our campus use data to answer questions, solve problems, and understand phenomena. Their fields include, but are not limited to, digital humanities, social and hard sciences, design, medicine, law, and business. Many of these faculty members work as data collectors and analysts. A smaller subset studies human interactions with data, working in fields such as public health, medicine, and engineering. An even smaller subset visualizes data, builds interactive formats to view it, and programs tools, working in fields such as design, informatics and computer science. Collaboration across these groups tends to be driven by individual faculty members’ interests, without the benefit of coordination or idea sharing among groups, or guidance from a broader agenda.

This session proposes to bring together faculty representatives from across the campus engaged in this new field of data science, who are engaged in data discovery, planning and use, design and programming, and assessment. Our goal will be to discuss more integrated approaches for moving data to information for the potential larger collective impact.

#### **Why this topic is important at WU**

Overinformation, living in a sea of accessible but unmanaged data, is a growing social challenge. Research universities are able to bring together people with deep expertise in diverse fields to experiment with new ideas. Washington University is unique in its ability to combine arts and sciences with the specific fields of engineering, design, business and law to explore entrepreneurial ideas. We have the potential to ask broadly relevant research questions about data, develop and design useful applications that can be analyzed, and disseminate across academic venues. Ultimately, however, our value will be measured outside of the university. Establishing a data infrastructure practices to help individuals and organizations provide better access to the data that they manage—democratizing information, would serve the public good. If faculty discussions from this session yield significant interest, then we might position ourselves institutionally to make a real contribution to the condition of overinformation in which we all live.

#### **Format**

TBD

#### **Additional guests to be invited**

1. Ray Avrdison, Earth & Planetary Sciences
2. Dennis Barbour, Engineering
3. Michael Frchetti, Anthropology
4. Dan Giammer, Engineering

5. John Gohsman (CIO)
6. Jenine Harris, Brown School of Social Work and Public Health
7. Aaron Hipp, Brown School of Social Work and Public Health
8. Caitlin Kelleher, Computer Science
9. Joe Loewenstein, English
10. Doug Luke, Public Health
11. Kathy Miller, Biology
12. Phil Miller, School of Medicine
13. Tim Parsons, International Area Studies
14. Steve Pentecost, Digital Humanities
15. Neil Richards, Law
16. Bill Tate, Education
17. Killian Weinberger, Computer Science

<sup>1</sup>John Gantz and David Reinsel. 2011. *Extracting Value from Chaos*.  
<http://www.emc.com/collateral/analyst-reports/idc-extracting-value-from-chaos-ar.pdf> (accessed February 17, 2014)

<sup>2</sup>Ben Fry, *Visualizing Data* (Sebastopol, CA: O'Reilly Media, 2008), 2