
CONFERENCE REVIEW

Information Plus Conference, 16–18 June 2016, Vancouver, BC, Canada

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Vancouver's Emily Carr University of Art and Design (ECAUD) was the site for the first gathering in North America of interdisciplinary experts including practitioners and educators in design, data journalism, computer science, and bioinformatics, whose interests intersect across the gamut of information visualization.

The Information Plus Conference comprised three parts: a two-day, single-track conference, a one-day hands-on workshop and an exhibition of data visualization projects from around the world. The event was organized by design professors Isabel Meirelles of OCAD University in Toronto and Katherine Gillieson of ECUAD. Additionally, prominent members of the IEEE VIS community encouraged involvement from the visual design and data journalism communities to strengthen the impact of data driven work. The two organizers took on their role out of concern over the apparent lack of interest within the larger design community to address the issue in any formal way. In fact, of the impressive list of organizations sponsoring and endorsing the conference, the professional organizations for graphic designers in Canada and USA were absent. That fact is unfortunate since the event fostered, for the first time in this author's experience, an open appeal to designers to share our particular expertise rather than conform our skillsets to look more like data scientists.

The single-track format functioned as a strategic structural device. While it limited the number of presentations possible over the two days, it also provided the basis for the sense of community built over the course of the event as members of diverse communities sought common language and conceptual ground through this shared experience. The conference program included keynote addresses, presentations by specially invited speakers, 20-minute research presentations and five-minute lightning talks. The range of formats provided variety throughout the plenary event. The presentations were grouped thematically which gave opportunity to hear perspectives on how different fields approached similar information visualization challenges. A few presentations featured projects by interdisciplinary teams, adding layers of complementary perspectives.

Tamara Munzner, Professor of Computer Science at University of British Columbia, opened the conference with a keynote address in which she presented a systems framework for the design and analysis of data visualizations. Munzner set the tone for the conference by asking questions such as, 'how are computer scientists and designers alike, how are we different, where is the common ground, and what are the differences in the kinds of images we make?'

She suggests the differences lie in what she calls 'technique-driven work vs problem-driven work.'

Invited speaker Scott Murray of O'Reilly Media, drawing upon his influential book, discussed developing online learning experiences. Subsequent peer-reviewed presentations ranged from Andy Kirk of Visualizing Data, Ltd. UK, discussing the need for visualization literacy, to Michele Mauri of DensityDesign Research Lab in Italy presenting a project in which his students submitted infographics to Wikipedia to gauge the public's response to design. The results send an important, if deflating message for information designers and educators.

The health care sector was well-represented throughout the conference. The designer/client team of Guillermina Noël, Carmen Dyk and Janet Joy presented their collaboration on improving hospital operations through data collection and visualization. Will Stahl-Timmins discussed designing interactive graphics for *The BMJ*. Design professor Karen Cheng of University of Washington demonstrated points of intersection among the audience with her humorous and critical presentation on the value of visual information design for scientific publications.

That the data journalists won over the audience for the day makes sense given their mission to inform and engage the widest range of viewers. Invited speaker, journalism professor Chad Skelton of Kwantlen Polytechnic University shared information on some of Vancouver's famous citizens as revealed through parking ticket data. Designers from ProPublica and NPR in the USA gave lively lightning talks on challenges they face from reporting information based on the human form, to knowing how to shape a narrative with information.

Colin Ware, Director of the Data Visualization Research Lab at University of New Hampshire, kicked off day two with his keynote address on visual thinking about data. Well known throughout the audience for his work on perception, Ware confirmed the importance of cognition received through eye tracking. A visual query, he said, includes seeking patterns in data to help solve problems. He also discussed the importance of sketching as an aid for extending memory.

Invited speaker, Catherine D'Ignazio of Emerson College, established the day's cultural and community oriented themes with her discussion of the profound inequity common in data collection, and her work with civic groups on creative ways to build data literacy. Another resonant idea was her call for 'data visceralization,' data that is felt, not just seen.

Yanni Loukissas of Georgia Institute of Technology, discussed the importance of context and locality in visualizing data. He joined other speakers in calling for more 'messy data' to allow for varied interpretations over seeking Tuftean perfection in presentation. Robert Kosara of Tableau Software and Drew Skau of ScribbleLive, shook the foundation upon which the entire audience stood with their rigorous study of pie charts by dismantling received assumptions about their uses and limitations. Drew Hemment of University of Dundee and Moritz Stefaner, a data visualization designer in Germany, presented Project Ukko on behalf of their entire international collaborative team. The project visualizes global weather conditions to aid decision-making. The mesmerizing display perfectly marries refined design aesthetics with sophisticated programming. Patricio Davila of OCAD University suggested considering community-based visualizations as part of larger assemblages, in order to fully understand the contexts in which the data are gathered and utilized.

Invited speaker Gregor Aisch of *The New York Times* concluded the conference with a talk that unified the audience as he discussed the context and challenges of time-consuming but data-rich interactive visualizations in the news today.

Videos of the presentations, highlights from the exhibition, and a summary of the workshop may be found on the conference website: <http://informationplusconference.com/>

Notes on contributor

Angela Norwood is an associate professor and chair of the Department of Design at York University where she teaches across the curriculum with an emphasis on information design. Her current research interests include examining the role of design in indigenous communities through social, cultural and cognitive aspects of wayfinding and signage systems, advertising, and design pedagogy. She has conducted workshops and focus groups on this topic in Ladakh, India and Nunavut, Canada. She is a former professional graphic designer having worked in Chicago, IL, Raleigh, NC, and as a designer and consultant on the global marketing team for Democrats Abroad, an organization that empowers US citizens in 71 countries to participate in US elections. Her work has been published in design journals and recognized by several organizations and publications including the Type Directors Club, *Graphis* and *Communication Arts* magazines. Her work is included in the American Institute of Graphic Arts (AIGA) National Design Archive.