Adaptive Observation: Design Tools for Data

Data needs design needs data needs ...

Design is the profession where technology meets the human, humans' needs and expectations. In a world of even more complex technology and devices that swarm peoples' lives, data gathering, processing and data-driven decision making become more and more crucial. Let it be mobile devices in the field, ambient sensors attached to household appliances, interconnected services, or new tangibles from a not too distant future; they all generate data nowadays, that has a distinct quality: abundance, unstructured fuzziness, lacking semantics and very few relevant details, that is, insufficient coverage. Furthermore, the majority of data is "cold", too late and too far away from the human using the machine.

1. Big data or small data - it does not matter, the problems in understanding data and creating meaning are same
2. Design processes are the right tool when dealing with large-scale uncertainty
3. The human is the central point around which data collection and analysis hinges

Subjective and objective data
Data collection needs to embrace the entire human-machine context; sensors and instrumentation, sentiment, and the context of use.

Semantic layers
Raw data needs to be augmented to better understand it and act upon it. Semantic layers that add metadata and explanatory concepts to data bring pure data closer to the vocabulary of different stakeholders.

Collaboration on data
Different viewpoints matter when trying to create meaning from raw data. Data tools need to allow for collaborative action upon gathered information.

Automation and Integration
Integrated tools are better than tool chains are better than manual processing steps.

Empower human tasks such as interpretation, selection and conceptualization to humans, then automate the rest.

What we make
UXsuite – software toolset for product experience analytics
PULP Scription – a prototyping tool with instrumentation for HTML5 apps
SurveMe – a survey creation language that supports explicit semantics

What we do
Lectures: Creative Programming for Designers, Data Visualization
Semester design projects in the Out of Control theme
USE courses in ‘Decision under Risk and Uncertainty’