

Working with Users - The Human Factor

Information and HCI

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Why does information matter?

Many HCI solutions are about giving people access to information and helping people find information.

If we know what people are looking for, and how people process information, we can design better interfaces.

Information Seeking

- Information is meaningful, was communicated by somebody, and can be used to make decisions (adapted from Fidel 2012)
- **seeking**: looking for information to support an actual decision need
- **surfing**: browsing through an information source without an actual decision need
- **encountering**: finding useful information for a decision when a person wasn't searching

Relevance

- ❖ highly subjective
- ❖ most definitions of relevance used in research are based on whether the information covers a given topic

Information Poverty

lack of access information and / or lack of access to information

This can have many reasons:

- information is not available in person's language
- Internet access is required
- relevant information sources are blocked
- ...

Information Visualisation

- ❖ The use of
 - ❖ computer-supported
 - ❖ interactive
 - ❖ visual
- ❖ representations of abstract data
- ❖ to amplify cognition (Card et al., 1999)

The ASSERT model

- ❖ Ask a question
- ❖ Search for information
- ❖ Structure the data
- ❖ Envision the answer
- ❖ Represent the visualisation
- ❖ Tell a story

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At each stage, you can go back and revise any of the preceding stages

Ask a question

- ❖ Make it specific
- ❖ Make sure you can access the data
- ❖ Data should be reliable
- ❖ People should care about the question

Search for Evidence

- ❖ Find good sources of information
- ❖ Make sure you know strengths and limits

Structure the information

- ❖ Abstraction
- ❖ Transformation
- ❖ Sampling
- ❖ Summary Statistics

Envision

- ❖ Craft a way of answering the original question using the data
- ❖ In particular, focus on relationships between data points

Represent the data

- ❖ This is where design matters!
- ❖ Blend science, art, technology

Tell a story

- ❖ Answer the question
- ❖ Highlight the “so what”?
- ❖ Make sure your visualisation is meaningful