Building Bridges
Between IA and Information Behavior Research

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A Question of Culture

What is Information Behavior Research?

"the totality of human behavior in relation to sources and channels of information, including both active and passive information-seeking, and information use"

Wilson (1999)

"how people need, seek, give and use information in different contexts"

Pettigrew, Fidel & Bruce (2001)
Research Perspective

Teenagers were skateboarding, watching each other, talking to each other, performing challenging tricks …
Then, a police officer dropped by …
He drove his motorcycle over the ramp …
He talked with the skaters …

Model Making

Zipf's Principle of Least Effort (1949)
Decide how much effort to put into something at time T so as to minimize the overall effort of completing some longer term task

In many settings, people invest little time in seeking information

Model Making

<table>
<thead>
<tr>
<th>Active</th>
<th>Passive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directed</td>
<td>Directed</td>
</tr>
<tr>
<td>Search</td>
<td>Browsing</td>
</tr>
<tr>
<td>Monitoring</td>
<td>Being Aware</td>
</tr>
</tbody>
</table>

Marcia Bates (2002); First proposed in 1986.
Design Perspective

<table>
<thead>
<tr>
<th>IBR</th>
<th>IA</th>
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</thead>
<tbody>
<tr>
<td>Involvement</td>
<td>Observation</td>
</tr>
<tr>
<td>Agent in service</td>
<td>Science</td>
</tr>
<tr>
<td>Ends</td>
<td>Situation</td>
</tr>
<tr>
<td>Means</td>
<td>Human focus</td>
</tr>
<tr>
<td>Process</td>
<td>Fidelity of description</td>
</tr>
<tr>
<td>Unit of analysis</td>
<td>Activities and context</td>
</tr>
<tr>
<td>Outcome</td>
<td>Models</td>
</tr>
</tbody>
</table>

Observations

- Differences in valuing knowledge
- Differences to increase
  - Specialization (and growth) of technology
  - Wider participation in design
  - More contexts and always changing
    ( __ Informatics )
- Boundary spanning is problematic
  ( But not new! )
Criteria

- **Specificity, content appropriate**
  Research in Information Behavior must apply to the actual concerns of the target domain

- **Applicability, process appropriate**
  The use of Research in Information Behavior must conform to the processes of the application target domain


Classes of Mistranslation

- Recommendations/guidelines can lack **specificity**
- Detailed accounts & models can lack **applicability**
Addressing Specificity and Applicability

- Embed research within the design process
- Create expressive 'boundary objects' or 'performances'

CARE: Computer-Assessment & Risk reduction Education

- Objective
  Reduce behaviors that put people at risk of being infected with a STI
- Technology
  Tablet PC & expert system for estimating risk and suggesting changes in behaviors
- Information
  The right information (and not too much)
- People
  Young adults, especially of low economic standing

Interaction Design

Three Principles
- Tunneling
- Tailoring
- Credibility

Four stages
1. Welcome
2. My Risks
3. Thinking it Through
4. My Plan
• Cardboard box
• Ballpoint pen
• Twenty screens
• Intercepted people
• Role played scenario
• No images/audio
• MD & Researcher

Many
Limited
Data capture options
Yes
No
Team observation
Target use setting
No
No
Participant recruiting
Opportunistic
Scheduled
Moderator control
Limited
High
Operational convenience
Variable
High/stable
Team observation
No
Yes
Data capture options
Limited
Many

Reflections

• Enfranchisement & empowerment
  – Involving people trumped all other concerns
  – Participant stories clarified assumptions

• Identified usability problems
  – More difficult to manage on the street but problems readily identified

• Interactive ambiguity and improvisation
  – Crudeness of prototype was a benefit
In sum ...

Paper prototyping on the street allowed us to improve the **specificity** and **applicability** of the research

Uncovered information that was not otherwise available to us

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**Propositions**

1. Blending/bridging of disciplines in professional practice

2. Studying and codifying these practices is a research problem

3. We lack ‘understanding’ on how knowledge is created and exchanged in design

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**Propositions**

4. META knowledge is essential for improving practice and educating new professionals

4. The connection between IA and IRB is a special case that is playing out in many fields

5. The fields of IA and IRB are ideally positioned to carry out this research (a recursive situation)
Takeaways

- Question of knowledge
- Blending/bridging in professional practice
- Research on practice – leads to mutual understanding and benefit

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