Background

• **Purpose:** Improve understanding of digital library contexts

  organizational  institutional  social
  cultural  collaborative

• **Social digital libraries**
  – content + services + organization(s)
  – information / knowledge creation & sharing
Background

• Calls to consider social contexts of DLs
• Experimental, promising models, frameworks, methods of study
• Support for communities, collaboration
• Need for theoretical, practical research
• Implications: design, use, research, theory
Framework and Approach

Social Paradigm

Social Informatics

Social Worlds Perspective
(Strauss, 1978)

Boundary Object Theory
(Star & Griesemer, 1989)

Theory of Information Worlds
(Jaeger & Burnett, 2010)

Social Constructionism

Case study approach (Yin, 2003)

LibraryThing (LT) and Goodreads (GR)
Research Questions

What roles do LibraryThing and Goodreads play, as boundary objects, in translation and coherence between existing social & information worlds; and coherence and convergence of emergent worlds around their use?
Method

1. **Qualitative content analysis**
   - 519 messages
   - 5 LT groups
   - 4 GR groups

2. **Online survey**
   - 163 users
   - 9 groups
   - Likert scaled questions

3. **Semi-structured qualitative interviews**
   - 11 users
   - from survey takers
   - Critical incidents

Software:
- NVivo
- SPSS
Findings

• **Translation**
  - Based on information needs
  - Negotiating, explaining norms / rules
    • Disruptions
  - Explaining point of view, coming to agreement
  - Getting to know each other
  - Convergence not guaranteed

• **Social norms**
  - Convergence stronger
  - New topics emerged – digressions
  - Written and unwritten; institutionalized
  - Comparative, contextual
  - Violations, conflicts
Findings

• Social types
  – Stronger
  – Nicknames
    • “Sir Pterry,” “DFW,” “Mel,” “AJ”
  – Outsiders
    • Authors (friction)
  – Individuals, each other
  – Collectives, roles
  – Self-typing

• Information value
  – Convergence of shared group interests, understanding
  – Coherence between individuals, groups
    • Impact of existing values
  – Occasional conflicts
Findings

• Information behavior and activities
  – Individually, collectively coherent, normative
    • Information-based activities
  – Moderators, active members
    • Encouraged normative activities, information sharing
    • Build convergent community
  – Divergences, everyday life information behavior became normative

• Organizations
  – Few references
  – Emergent worlds
    • Boundary-spanning individuals
    • Group transitions
    • Language used
  – Existing worlds
Findings

• Sites
  – More apt to use as emergent site
  – More topic drift
  – Emergent discussions within existing threads
  – Some information behavior in other sites
  – Different perceptions of existing, emergent communities

• Technologies
  – Linking
    • Books, authors, series
    • Within, beyond thread, group, site
  – Organizational / cataloging features
  – Other features, tech
    • Blogs
  – Role of tech in helping community convergence
Findings

• Open codes
  – Other boundary objects
    • Books!
  – Boundary spanners
  – Outsiders
  – Lifecycles
Findings
Survey

Compared to general population, per Pew data (Duggan & Brenner, 2013)

Age

DL use

Facebook

Twitter

Pinterest

Information Value

Info Behavior & Activities

Multiple
**Findings**

**Survey**

**Strong role in most phenomena**

<table>
<thead>
<tr>
<th>Phenomenon</th>
<th>Mean rating</th>
<th>Median rating</th>
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<tr>
<td>Sites</td>
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<tr>
<td>Translation</td>
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<td>Coherence / Convergence</td>
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<tr>
<td>Social Types</td>
<td>2.945</td>
<td>3.000</td>
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</tbody>
</table>

Most correlations between phenomena were significant.

Not: information value vs. translation, technologies, organizations

Significant
(all p < 0.001)
Structure

- As collection, organization
  - "Fit" as boundary object, site for existing practices
  - Technology for full spectrum of features

Roles

- Moderators, key members establish community structure
  - Groupthink?

Social network

- Common activities, "pursuits"
  - Connections, ties, sense of community
  - Site for activities, sharing of values
  - "Off-topic," everyday life information behavior

Values

- Divergences accepted
  - "Invisible work"
- Not complete

- Translation leads to coherence, common ground
  - Emotional, cultural, informational reasons
- Not complete
DL Design / Practice

Implications

• Establishing a community
  – Highlight translation processes and resources
  – Make DL-wide norms, values clear
  – Be willing to engage in translation, negotiation
  – User profiles

• Right features, right audience
  – Sociotechnical approach
  – Support roles identified herein
DL Design / Practice

Implications

• Cross the streams
  – Encourage users’ boundary spanning
  – Facilitate linking, bring in related content
  – Encourage interaction about the DL, its communities
  – Work with other practitioners, researchers beyond one’s home discipline
Research Implications

• Digital libraries in context
• Social informatics and information behavior
  – Information values
  – Boundaries / boundary-centric
• Work across disciplines, boundaries
Theory Implications

- **Social digital libraries**
  - Further develop, test survey instrument
  - Slight revisions to framework, instructions for coding and analysis, for edge cases

- **Boundary object theory**
  - Scope and scale in sociotechnical research
  - Remain pluralistic