Business Models, Governance Structure and Network Structure in Virtual Communities

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Business Models, Governance Structure and Network Structure in Virtual Communities

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Research Question & Method

- How should firms design communities for different business models?
  - What business models build on virtual peer production communities?
  - How does community governance (imposed or socially evolving) impact community structure?

- Method: Review of existing literature (XXX Articles)
Literature Review—Objective

- To obtain a typology of virtual communities based on business models
- To investigate governance structure and network characteristics
- To generate propositions regarding attributes of virtual communities
- To generate propositions regarding how community governance impacts community structure
Deriving a Typology

- Differentiators:
  - For profit (set by sponsor) versus non-profit (set by members)
  - Community driver: member or sponsor
  - Purpose of community
    - The purpose of the community in this typology is based on what the community is designed for.
Virtual Community Typology
(Based on Business Models)

Differentiator

Virtual Communities

For- Profit
(set by sponsor)

Non- Profit
(set by members)

Member Driven

Sponsor Driven

Member Driven

Sponsor Driven

Relationship-Building
Trading & Sharing
Stakeholder Engagement
Foster Common Interest
Advance Common Cause
Improve Government Service

Agenda

Community Driver

Purpose of Community

The purpose of the community in this typology is based on what the community is designed for. Example: relationship building communities, such as LinkedIn, are designed to build relationships. It does not mean that stakeholder engagement may not happen in LinkedIn. It may happen, but it is a byproduct.
Governance Structure

**Types of Governance**

- **Structural Governance:**
  - Actions of the community dictated by the design of the community site (Tapscott & Williams, 2008).
  - Ex: ranking and rating system, voting mechanisms, etc.

- **Social Governance:**
  - Community-managed governance,
  - Collective action motivates individuals to contribute to the community effort and to adhere to shared norms (Shah, 2006).
  - Ex: task assignment/contribution.

**Task Complexity** (Campbell, 1988)

- **Uncertainty:** Presence of multiple ways of attaining a solution and presence of multiple solutions.
- **Interdependence:** Dependency of task on multiple contributors or resources.
Network Characteristics

Small World Networks:
- long distance connections are added at random to regular networks
- low paths lengths between nodes and high clustering coefficient (high levels of nodes’ isolation)

Scale Free Networks:
- exponentially distributed connections from each node outwards
- Uneven distribution means that some members are connected to a lesser / greater degree than others
- greater degree connection indicates a senior position in the network

Small World Network (Watts & Strogatz, 1998)

Scale Free Network (Albert & Barabási, 2000; Goh et al. 2002)
# Characteristics of Virtual Communities
(from literature review)

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<th>Purpose of Community</th>
<th>Governance Structure</th>
<th>Task Complexity</th>
<th>Network Structure</th>
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<tr>
<td>Relationship Building</td>
<td>Structural</td>
<td>Low</td>
<td>Scale-Free</td>
<td>LinkedIn, Facebook</td>
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<td>Trading &amp; Sharing</td>
<td>Structural</td>
<td>Low</td>
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<td>Stakeholder Engagement</td>
<td>Hybrid</td>
<td>High</td>
<td>Small-World and Scale-Free (hybrid)</td>
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<td>Forster Common Interest</td>
<td>Social</td>
<td>High</td>
<td>Small-World (sometimes scale-free)</td>
<td>Open Source Development Communities</td>
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<tr>
<td>Foster Common Cause</td>
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<td>Improve Government Service</td>
<td>Structural</td>
<td>Low</td>
<td>Scale-Free</td>
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</table>

*Ongoing empirical research*
Follow-on Research

- **Ongoing:**
  - Content and Structural Analysis
  - of Stakeholder Engagement Community
  - with Hybrid Governance Structure
  - (➔ Intel Software Developer Network)

- **In five to seven years ...**
  - Analyze structural and behavioral patterns of multiple networks of each type
    - Longitudinal analysis of networks over prolonged time periods.
    - We need to wait a few years until computers are sufficiently powerful to analyze networks with thousands of nodes and ties.
  - Identify additional types of communities.
Thank you!!
References


