Business Models, Open Collaboration, and Open Source Software Development

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Models of Business

• What is a business and its purpose?

• What does strategy tell us about open source?

• What is a business model?
  • The model of the customer interface in the mind of the designer of the business
  • Implementations may work out, - or fail!
# 4 Types of Business Models

<table>
<thead>
<tr>
<th><strong>01. PRODUCT MODEL</strong></th>
<th><strong>02. SOLUTIONS MODEL</strong></th>
<th><strong>03. MATCHMAKING MODEL</strong></th>
<th><strong>04. MULTI-SIDED MODEL</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The company develops a product or standardised service and sells it to customers. The value proposition is transactional: to provide a product or standardised service that many customers will buy.</td>
<td>The company engages with a customer about a problem the customer faces, and provides an integrated solution. The value proposition is relational: to tailor solutions to each customer.</td>
<td>The company joins buyers and sellers in its online or physical marketplace. The value proposition is transactional: to facilitate exchange.</td>
<td>The company provides different products or services to different customer groups. The value proposition is multi-sided: one customer group gets additional benefits from the other group’s transactions.</td>
</tr>
</tbody>
</table>

Baden-Fuller, Giudici, Haefliger, Morgan, 2016
PRODUCT MODEL

FIRM

Payment

Product or Service

CUSTOMER
Customer’s need
SOLUTIONS MODEL

FIRM
Redesign solution

Integrated solution

Payment

Customer’s need

CUSTOMER
Customer’s need

www.businessmodelzoo.com
MATCHMAKING MODEL

FIRM
Platform organiser

Fee for using platform

Product, service or solution

Payment

CUSTOMER A
Customer’s need: Selling a product, service or solution

The Firm connects Customer A and Customer B through its physical or digital platform.

CUSTOMER A
Customer’s need: Buying a product, service or solution

Fee for using platform

www.cass.city.ac.uk
www.businessmodelzoo.com
MULTI-SIDED MODEL

FIRM
Platform organiser

Fee for using platform

Product X
Additional benefit

Product Y

CUSTOMER A
Customer’s need

The firm provides different products to customers A and B. Customer B derives additional benefit from Customer A’s transactions.

CUSTOMER B
Customer’s need

Fee for using platform
What is special with OSS?

• Innovation by user developers gives the world great software and enables new business

• User entrepreneurs set up shop with what they’ve developed

• Developers help each other and contribute to business problems

• “We are the product” also means: “We are the innovation!”
Two Questions for the OSS-enabled Business Model

• **Why?**
  
  • Lerner and Tirole in 2001: “Why do highly skilled programmers give a way software for free?”
  
  • Stallman, the GNU and so forth only half the story
  
  • Why is FLOSS sustainable and (often) resulting in high quality and for the benefit of business?

• **How?**
  
  • Who solves whose problems in OSSD today?
  
  • What are the patterns of open collaboration?
A broader look at motivation

• Long-term goals that may be in vain

• Making sense of one’s life (narrative, character, learning)

• Doing the right thing

• Understanding quality

  • standards of excellence as shared in a community

  • community as defined by a social practice
What is a social practice?

- Shared type of work: think care givers, architects, managers, software engineers, bankers etc.

- Social practice defined as “a coherent and complex form of socially established cooperative human activity ... trying to achieve and extend the standards of excellence appropriate to and definitive of the activity” (after MacIntyre, 1981)
# A social practice view of motivation

<table>
<thead>
<tr>
<th></th>
<th>Self-determination view</th>
<th>Social practice view</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Output</strong></td>
<td>Product</td>
<td>Good</td>
</tr>
<tr>
<td><strong>Incentive</strong></td>
<td>Reward</td>
<td>Unity of life, moral obligation</td>
</tr>
<tr>
<td><strong>Interaction with peers and tasks</strong></td>
<td>Situational, next step, solution-oriented</td>
<td>Developmental, sequential, quest-oriented</td>
</tr>
<tr>
<td><strong>Quality perception</strong></td>
<td>Use value</td>
<td>Standards of excellence</td>
</tr>
<tr>
<td><strong>Time perspective</strong></td>
<td>Short- to mid-term</td>
<td>Long-term, sense for the right time</td>
</tr>
</tbody>
</table>

von Krogh, Haefliger, Wallin, Spaeth 2012

www.cass.city.ac.uk
Open Collaboration

• Private-collective innovation involves individual users, firm users, and firm producers

• Problems revealed are incremental or path-creating

• What is the inner working mechanism of open collaboration? Who solves whose problems?
The setting: Open Stack
Data from Open Stack

- Two years, 5018 problems that were either Blueprint or Bug
- 196 individuals in 14 firm producers, 280k LOC, 12,298 revealed solutions
- 163 independent users, 95 produced 55k LOC, 2,578 revealed solutions
- 184 individuals in 110 firm users, 640k LOC, 7,605 revealed solutions

Armisen et al., 2016
Who contributes what to Open Stack?

Contributions of blueprints and bugs per actor (total amount)

Armisen et al., 2016
Collaboration depends on who suggests the feature

<table>
<thead>
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<th>Features proposed by</th>
<th>Firm producers</th>
<th>Firm users</th>
<th>Independent users</th>
</tr>
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<td>Commits contributed by</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm producers</td>
<td>Low collaboration</td>
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<td>Blueprints &amp; Bugs</td>
<td>Low collaboration</td>
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</tbody>
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Armisen et al., 2016
Business Models and Open Collaboration

• If “we are the innovation” then triadic business models that engage in open collaboration need to understand the social practice behind innovation

• Because interaction is developmental, long-term

• Because consumers are also suppliers

• Because learning is an explicit part of the customer engagement and runs both ways
Comments
Questions
Critique
Answers
Puzzles
Data

PDF with today's slides: