Visual Modeling for Value (Co-)Creation

Iván S. Razo-Zapata
Eng K. Chew
Erik Proper
Context

- Service economy
  - Exchange and use of resources (not necessarily money)
  - Economic growth
Context (cont)

Business innovation tools

- Business Model Canvas
  - Osterwalder et al.

- The Value Proposition Canvas
Context (cont)

Business innovation tools

- $e^3$value
  - Gordijn et al.
  - **What** they exchange rather than how
Context (cont)

Business innovation tools

- Board of Innovation
Context (cont)

Business innovation tools

- BMC
  - VPC
- $e^3$value
- Board of Innovation
- Different strengths
  - Value exchanges
  - Revenue analysis
- Value (co-)creation is missing!
Scope and Purpose

- Visual support to design value (co-)creation
Requirements

- Value (co-)creation
- Literature review:
  - Value in use (aspects)
    - Cognitive
    - Emotive
    - Functional/Behavioral
  - Co-production (relationships)
    - Co-ordination
    - Co-operation
    - Collaboration
Requirements

- Effective visual notation (Moody 2009)
  - Easy to understand
  - Powerful enough to perform analysis
- Support roles (Malavolta et al. 2013)
  - Extrovert
    - Communicate ideas
  - Introvert
    - Analysis and automation of tasks
Visual Elements

- Preliminary ideas

<table>
<thead>
<tr>
<th></th>
<th>Co-ordination</th>
<th>Co-operation</th>
<th>Collaboration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Encounter (Touch point)</td>
<td><img src="image1" alt="Diagram" /></td>
<td><img src="image2" alt="Diagram" /></td>
<td><img src="image3" alt="Diagram" /></td>
</tr>
<tr>
<td>Functional</td>
<td><img src="image4" alt="Diagram" /></td>
<td><img src="image5" alt="Diagram" /></td>
<td><img src="image6" alt="Diagram" /></td>
</tr>
<tr>
<td>Cognitive</td>
<td><img src="image7" alt="Diagram" /></td>
<td><img src="image8" alt="Diagram" /></td>
<td><img src="image9" alt="Diagram" /></td>
</tr>
<tr>
<td>Emotive</td>
<td><img src="image10" alt="Diagram" /></td>
<td><img src="image11" alt="Diagram" /></td>
<td><img src="image12" alt="Diagram" /></td>
</tr>
</tbody>
</table>

Table 1: Visual modeling constructs to describe value (co-)creation opportunities.

(Very traditional) Human Journey

- Dating ➔ Getting married ➔ Having children
**Example**

- Value creation as a **co-operation** relationship between customers and suppliers

  **Customers**
  - Personal info (name)
  - Visa details
  - Trust
  - Loyalty
  - Paying

  **Suppliers**
  - On-line Check-in
  - + Insurance
  - + Reputation

- Full customer journey

  **Gathering info**
  - Ticket
  - Billing

  **Booking**
  - Traveling

  **Customers**
  - + Paying

  **Suppliers**
  - + Ticket
  - + Billing

  **Traveling**
About the visuals

• **Design Principles**

• **Scratch programming language**
  - **Visual constructs**
    - Commands
    - Functions
    - Triggers
    - **Control blocks**
      - Dynamic behavior
  - **Eliminate syntax errors**

Focus on

- Relationships (pair-wise)
  - Co-ordination, co-operation and collaboration
  - Level of engagement
  - Close to operation
    - Design patterns
- Usability
- (Almost) no effort to learn
- Sketching scenarios
Future research

- Provide ontological support
- Domain-Specific Modeling Languages
- Software Engineering

Future research

• ecoSVN
  – Assessing the economic feasibility of innovative services
  – Business value

• Valcola
  – Value Co-creation Language

• iSIM
  – Integrated Service Innovation Method
Further research

(1) Business Strategy → Distinctive “Business Logic” of service innovation

(2) Choose Customer Types & define customer needs (i.e. CVP) per type

CVP = customer value proposition

(3) Service Concept Design

(4) Service (Activity System) Design

(5) Customer Experience Design

(6) Service Architecture Design

(7) Monetization (Profit Formula) Design consistent with (1) Customer Types Choice

CVP = customer value proposition

Impact of “monetization intensity” on customer experience

Choosing 1-sided; 2-sided; or M-sided type of customers

Reusable service modules – service platform

Non-linear

Legend:

= alignment to ensure internal & external fit

Iterative

Co-dependent relationship

iSIM

Integrative SI-BM Design Method

Choosing 1-sided; 2-sided; or M-sided type of customers

Reusable service modules – service platform

Iterative

Non-linear

Legend:

= alignment to ensure internal & external fit

Iterative

Non-linear

Legend:

= alignment to ensure internal & external fit
Thanks for your attention!

Questions?