

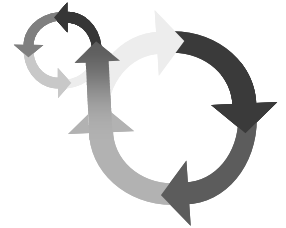
PATONGO: Patterns and Tools for Non-Governmental-Organizations

Christina Matschke, Franziska Arnold, Johannes Moskaliuk, Katrin Wodzicki & Ulrike Cress

The potential of knowledge exchange

To describe individual learning and knowledge building, the co-evolution model (Cress & Kimmerle, 2008) assumes two different systems: The cognitive systems of the user and the social system (e.g. a community and its Wiki).

- The interplay between individual's knowledge and the information available in a social system enables a co-evolution of the two systems.
- Knowledge is exchanged between cognitive and social systems through the processes of internalization (learning) and externalization (knowledge building)
- A cognitive conflict between prior knowledge and new information stimulates the creation of new knowledge.



Knowledge sharing in large, decentralized non-governmental-organizations

Non-governmental-organizations often possess great amounts of knowledge, but knowledge transfer is hardly realized. Procedural knowledge is particularly difficult to exchange, as there is no possibility for direct observation of good practices.

Web 2.0 technologies allow informal exchange of procedural knowledge and the development of a common knowledge representation in organizations. By the example of the Evangelische Kirche Deutschland, an internet platform will be constructed in order to facilitate:

1. Community building, i.e., networking and communication (e.g., black boards, storytelling, peer advice)
2. Knowledge exchange (e.g., structured project descriptions of good practices)
3. Knowledge construction with shared artefacts (e.g., abstract Wiki-articles)



Barriers of knowledge exchange

(Cress, Kimmerle, & Hesse, 2006)

Potentials of knowledge exchange systems are often not realized, as people seldomly contribute their knowledge.

Barriers in knowledge exchange are:

- Motivational (e.g., perceived costs, fear of face loss, fear of knowledge lead loss)
- Cognitive (e.g., lack of prior knowledge or ability to communicate with laymen)
- Social (e.g., lack of awareness of others, conflictuous intergroup situations)

Facilitators of knowledge exchange

Barriers can be overcome:

- When use of knowledge sharing is greater than costs (e.g., gain in prestige, bonus systems, pride)
- Through explicit or implicit norms to share knowledge
- Through a common identity
- Through common goals
- Through awareness of the other community members

Open research questions:

How can these findings be applied to a knowledge exchange platform in the field?

How can the communication of procedural knowledge be facilitated?

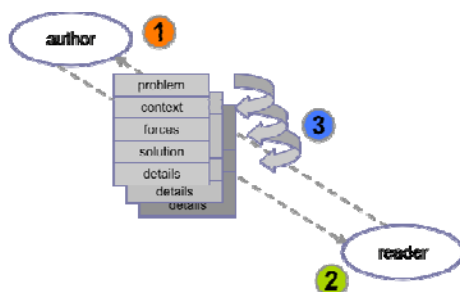
Empirical studies within Patongo

Patterns and the exchange of procedural knowledge

Patterns, that is, structures for the externalization of knowledge, can help to improve the externalization and reception of knowledge between practitioners (Wodzicki, Moskaliuk, Cress, in press).

Hypothesis: Patterns improve the externalization (1), the reception (2) and the development of procedural knowledge (3).

Method: Participants receive information in the domain "first aid" (via webbased training). Then, they work with a wikibased pattern to document their knowledge (1), use existing patterns to gain new knowledge (2) or have to improve an existing pattern (3). As dependent variable we measure individual learning outcome and quality of the used pattern.



Mental representations and information exchange

The mental representation of a social situation affects the attitude towards former outgroup members (Brewer & Miller, 1984; Gaertner et al., 1993; Hewstone & Brown, 1986; Hornsey & Hogg, 1999).

Hypothesis: The mental representation of a community affects the amount and of information individuals give and use from the community

Method: Coverstory: Participants are told they participate in a group study where six participants' computers are virtually connected.

1. Intergroup phase: Participants chose one from two groups (blue group / red group), create a group name and allegedly work with the group on a brain storming task
2. Manipulation of mental representation of the community through different framings in a second brain storming task:
 - Intergroup: two brainstorming windows, two-coloured background
 - Individual: one brainstorming window per person, every person choses a nickname and is represented by a colour
 - Common ingroup: One brainstorming window, new background colour ("yellow group"), new group name



3. Winter survival task: Participants rate items and have the possibility to share information with other participants

Expected results:

