

Integrating Practical Knowledge in the Organizational Learning Process: The Web 2.0 Portal *geistreich.de*

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Abstract. Non-governmental organizations (NGOs) are particularly faced with the challenge to gather and re-distribute the practical knowledge of their dislocated and mainly unconnected members. Web 2.0 tools may be suitable tools to involve these members in a vivid and mutual exchange process. But various social, motivational, and cognitive barriers will have to be taken into account in order to apply Web 2.0 technologies successfully. It will need to be discussed of which type these barriers are, and in which ways the design might respond to them. Some first experiences with the Web 2.0 portal *geistreich.de* will be reported.

Keywords: Web 2.0, theory-driven design, practical knowledge

1 Introduction

The project PATONGO is a response to the challenge to establish a Web 2.0 portal for knowledge exchange between full-time employees and voluntary activists of the Protestant Church in Germany (*Evangelische Kirche in Deutschland - EKD*), which consists of 22 Lutheran, Reformed and United regional churches within a federal structure. In other words, the EKD is a decentralized body, consisting of several (more or less) independent subunits all over Germany. So far, no systematic approach exists for establishing an exchange of knowledge across these subunits. Organizational knowledge in this context consists mainly of what individuals know. Consequently, organizational knowledge is only locally available and exists in the form of implicit or tacit knowledge. As far as this point is concerned, the EKD is a prototype of organizations that are confronted with a similar challenge. The success and failure of the project will have important implications for other organizations as well.

Taking into account these organizational characteristics, the challenge may be broken down into three tasks:

- *Establishing a common identity:* Because of the distributed structure of the EKD, its individual members (including full-time employees and active volunteers) have no experience of belonging to a common organization. So it is important to raise their awareness of pursuing common goals with a common identity, or – using different terminology – of being a community of practice [1].

- *Motivating for knowledge exchange:* Currently, members of this organization do not document and share their most effective practices. So why should they start doing that? If most members – as in the case of the EKD – do not use personal computers in their daily work, the barrier to use a web portal to share their experience will be even higher. Their motivation to share has to be enhanced purposefully.
- *Supporting knowledge externalization and evolution:* It is by no means easy to write down implicit practical knowledge (i.e., externalization), as it is difficult to make use of the practical knowledge of others for one's own work (i.e., internalization). The knowledge sharing process should be structured in such a way that contributing and retrieving knowledge are facilitated. Moreover, evolving the practical knowledge of the organization should be supported, in order to optimize the organization's procedures and functioning.

In the course of this project, the Knowledge Media Research Center promotes the design and development of the Web 2.0 portal *geistreich.de* by providing design recommendations based on theory, and by involving the target group in the design process with different methods. In the following paragraphs, our theory-driven design recommendations (which have only been implemented partly so far) will be described in more detail. *geistreich.de* has been online since May 2010. First experiences can be presented and discussed within the workshop.

2 The Web 2.0 portal *geistreich.de*

2.1 Establishing a common identity

Knowledge exchange is a social process, mainly taking place in a specific social community. Exchanging knowledge within the community will not only increase the individuals' knowledge, but also their inclusion into the social community. Feeling to be part of a community and identifying with it, will foster participation and engagement for collective goals [2,3,4]. Only when a common identity and common goals have been established successfully, knowledge exchange between locally distributed members of the organization will go on smoothly. Several design options, that may promote community building through a Web 2.0 portal, and their implementations on *geistreich.de*, are presented in Table 1.

2.2 Motivating for knowledge exchange

Contributing knowledge to a common pool (say, a database or wiki) will involve considerable expense [5,6]. Knowledge will in many cases be withheld because:

- contributing needs time and energy ("When should I do this?");
- knowledge is associated with power ("I will not disclose my tricks!");

- contributing is not always rewarded (“What’s in it for myself?”);
- organizations are characterised by a high degree of anonymity and opacity (“What’s happening with all this knowledge?”).

So although knowledge sharing is an advantage for the organization or community, its individual members are better off when they do not share their knowledge and just use that which has been provided. But if no one provides any knowledge, the knowledge pool will remain empty (i.e., the information sharing dilemma; [7,8]). Consequently, people need the experience of positive consequences directly resulting from their contribution. In voluntary contexts, such consequences will tend to be more of a social nature (social recognition and reputation) than of a physical one (material and monetary rewards). A feedback system should support getting this social recognition (see Table 1). Moreover, the barriers to contributing should be as low as possible. Therefore, the interface design should be very intuitive, and the application should fit smoothly into the contexts of targeted contributors’ work.

Table 1. Establishing a common identity: Design options and their implementation on *geistreich.de*.

Design options	Implementation on <i>geistreich.de</i>
Using conceptualities and symbols that are in line with, or even emphasize the common identity of the users	The name of the platform is a reference to the Holy Spirit (<i>Heiliger Geist</i>). Moreover, the platform is structured into a “realm of ideas” (<i>Ideenreich</i>) for discussing first ideas and challenges, a “realm of experiences” (<i>Erfahrungsreich</i>) for exchanging specific practices, and a “realm of knowledge” (<i>Wissensreich</i>) for church-related knowledge. (A fourth category “realm of relationships” (<i>Beziehungsreich</i>) is planned for social networking between members).
Emphasizing commonly pooled knowledge, while individual members and their contribution are less prominent.	On <i>geistreich.de</i> , wiki technology is used for pooling individual knowledge in form of a coherent common product, especially in the “realm of knowledge”.
Structuring individual profiles in such a way that only organizational and exchange-related information can be provided	The “realm of relationships” has not yet been implemented. Profiles within it will include position in the church, congregation, and similar information.
Feedback on relevance of individual contributions to the community	Reported practices within the “realm of experiences” may be rated by users who have signed in.

2.3 Supporting knowledge externalization and evolution

Even if the interface design is intuitive, it is far from easy to externalize practical knowledge. Practical knowledge is in most cases tacit knowledge [9]. Although

someone may have done something one hundred times, s/he will struggle to explain to an inexperienced person how to do it.

In the project, a pre-structure (also called “pattern”) has been implemented to support this externalization process. Members of *geistreich.de* are asked to provide a short description of their practices, for example, with information on the time required for preparation and implementation, the target group, and some keywords. Moreover, they create a detailed description with additional information on preparation, implementation, material, costs, and post-evaluation. The structure provides the authors of such descriptions with several clues that will make them think about what an inexperienced person needs to know in order to do it. Establishing a commonly used pre-structure and pool of keywords will also help them to search for relevant practical knowledge. The evaluation that will accompany the project will validate to which extent the pattern is used and what the resulting descriptions are worth.

The main aim of *geistreich.de*, however, is not only a collection of individual practical knowledge, but also the establishment of common practices and an evolution of practical knowledge (in the sense of improving and developing innovative solutions). This process is stimulated if multiple members contribute to the description of practical knowledge: One member starts to describe his or her knowledge, other members read it, learn something, and some of these readers may add some of their own information or comments based on their current experiences or on trying out what they have learned [10]. Moreover, *geistreich.de* supports a discussion of first ideas, and asking questions within the “realm of ideas”.

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