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2 The SIFA community as a virtual learning space in OSH

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Abstract
In the years 2004 to 2012, a long-term study on the effectiveness of safety experts was commissioned by the German Social Accident Insurance (DGUV). An interdisciplinary team of scientists investigated in these years the activities and the effectiveness of services for professionals responsible for occupational safety and health (OSH). In a case study-like manner it is discussed how the technology that was originally developed as an acquisitions and incentive instrument for the various phases of the safety experts’ long-term study, now has become the safety experts’ online community. Both as a stand-alone instrument of prevention as well as a place of learning for professionals for occupational safety, it seems to be a highly appropriate technology. Accompanying the mentoring ensures regular technology updates to meet the increasingly broad use by a growing number of OSH specialists.

1 Introduction
Online communities are considered as an especially useful social technology for empowering networks in industry as well as in education (Köhler & Kahnwald, 2014). The described safety experts’ online community (cf. Forschungsgemeinschaft Sifa-Langzeitstudie, 2013) currently includes approximately 4,700 members, showing a continuous annual growth of about 5-10%. New members are usually obtained through the seminars at the national German safety agency DGUV or personal appeal by current members. The community is subject to a scenario that allows both the exchange of information, the formation of a stable community of those interested in this knowledge, and the establishment as a place of learning in OSH.

2 Design and structure of the online community
The safety experts’ online community is split thematically into five areas that are accessible from the home page after logging in: long-term study, sharing, knowledge, practices, and attitudes.
The online portal consists of five main content areas that cover both information and communication. Concerning the header long-term study (1), it is here that the progress and results of the long-term study can be viewed. With the completion of the long-term study, this area will no longer be needed, and it may assume more of an archive character.

In the area of knowledge (2), regularly extended technical articles and current news headlines on relevant topics by members of the research community can be viewed and updated. In addition, here topic-specific links and book recommendations can be found, and these can be supplemented by all members of the Sifa community.

Within the area practice (3), study materials and checklists for downloads as well as a calendar function can be found.

In the field exchange (4), the communication tools of the community are provided. Forums are the most important asynchronous means of communication. The profiles of members that are created during registration are available. By using these “business cards” it is easier for members to establish personal contacts within the community to communicate their own interests and special fields and/or identify experts for specific inquiries and contact them directly via e-mail.

The community members can create personal contact lists from the profiles as well as lists of forums under personal settings (5). Members can update their personal profile here at anytime. In addition, the members of each forum can specify whether and how often they want to be notified by e-mail of new posts.
With that structure the community meets the main characteristics of a social media tool as described by Weller et al. (2014).

3 Learning in OSH with the safety experts’ online community: informal and virtual

One of the main tasks of the SIFA community is to serve as an exchange platform for professionals of work safety. But it also constitutes a virtual place of informal learning. Informal learning in virtual communities is “learning under conditions beyond educational institutions” (Straka, 2000, S. 23) and without regulated certification. The vast majority of conscious adult learning takes place informally (Livingstone, 1998), with estimates for this varying between 70% and 90% (Tough, 1979; Erpenbeck & Heyse, 1999). In contrast to everyday perceptions and general socialization, it is classified by the learners who are made aware of its role as a significant acquisition of knowledge (Livingstone, 1998).

What is a virtual learning space? Landfried\(^1\) has defined it in as early as 1999 that, on the one hand, the boundless access is independent of time and space of knowledge, while, on the other hand, the knowledge of “real” institutions and particularly individuals will be replaced (Köhler et al., 2010). What does this mean for SIFAS and the use of the SIFA community? Following the theoretical approach coined by Lave & Wenger (1991) aspects of informal learning in virtual communities such as the Sifa community include the following:

- Health and safety as discipline: Members must have expertise in a common area (“domain”). Unlike teams, communities of practice do not define a task, but focus on the common interest in a topic.
- Community of professionals (safety experts): There has to be interaction with each other, engaging and exchanging ideas and experiences with a group of people.
- Specific individual action experience as SIFA: Another important element is a common practice of the members which arises over time within the community, for example, working together to develop solutions to current problems.

Since these aspects are found in the safety experts’ online community, it can be regarded as a place of informal learning.

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4 Conclusion and Outlook

The community offers many opportunities for learning in OSH. In addition to the acquisition of knowledge concerning the categories of knowledge and practice, it offers a platform for exchange in the form of discussion forums. Regular technology updates allow for the increasingly diverse use by a growing number of users. Interested specialists for occupational safety can register on the website www.sifa-community.de. In the future, the platform will be expanded with the effect that the exchange of important information for professionals will be amplified, such as information on events or technical innovations. In this way, participants can exchange safety at work fast and stay up to date on topics of interest in their professional field, get news from the field, and maintain sustainable knowledge partnerships with other professionals. Furthermore, a trend analysis of message board discussions based on text mining procedures is currently being established. This will allow for the automatic and continuous identification of upcoming topics within the community. This data can be interpreted by experts on industrial safety who, for instance, are capable of also identifying important topics that are not being discussed. Based on these insights, adapted training sessions and micro-content can be provided for members of the Sifa community. The trend analysis will thus enable innovative settings of continuous education by bridging formal and informal settings.

References


