

Support for Learning in Change Management

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ABSTRACT

In this paper we try to discuss the issues that are related to individual and shared learning, as well as support of didactic practices in case of changes in organisations. We approach this from the knowledge management point of view and briefly introduce the context we are investigating in organisations, namely change management processes. Then we explore the learning, realisation, and integration phases in an organisation to define a first set of requirements for supporting IT systems, before concluding our paper.

General Terms

Design, Human Factors.

Keywords

CSCL, change management, learning, didactic practices.

1. INTRODUCTION

Though change was always an essential part of a company's business processes [5], change management is still a challenge for management and IT. There are several reasons for that. There is no standard way of leading change management processes in a firm to accompany the overall change from the current status to a (if available) well-defined required status. In general, resistance is the first reaction to change suggestions. People involved in change processes are not keen of changing: they want to keep their position, status, work area, responsibilities, etc., especially they do not want to change anything about their own work, work processes, and work environment. They do not like uncertainty, insecurity, and chaos. They can be and are normally part of the change situation, of the problem, or are often the problem itself.

To manage change processes by considering the volatility in and around an organisation several actions must be taken. Depending on the circumstances, employees have more or less responsibility, more or less self-organisation and -administration. The rules, norms, and conventions established so far might be changed, work structures, like working hours, assessment procedures, success measures, payment, and motivation mechanisms, might be completely different in the future. These all have great impact on the people's acceptance of changes, involvement and motivation for participation in change processes.

Focusing on the organised work practices in a company, collective capabilities are defined and supported by "didactic practices" [11]. These practices are, e.g., dealing with instructions, advices, directions, guidance, and recommendations. In the research of CSCW, these aspects of cooperative work practices have not got enough attention so far [11]. If we think about didactic practices we also consider the learning processes by individuals as well as the support environments for organisational learning and knowledge management.

In this paper we try to discuss the issues that are related to individual and shared learning, as well as support of didactic practices in case of changes in organisations. We approach this

from the knowledge management point of view and briefly introduce the context we are investigating in organisations, namely change management processes (Section 2) and explore the learning, realisation, and integration phases in an organisation (Section 3) to define a first set of requirements for supporting IT systems (Section 4), before concluding our paper.

2. FROM CHANGE MANAGEMENT TO KNOWLEDGE SHARING

Change management is "the process of continually renewing an organization's direction, structure, and capabilities to serve the ever-changing needs of external and internal customers" [8]. Change is an omnipresent feature of organisational life at an operational, technical, and strategic level [4]. Due to Balogun and Hope Hailey 70% of all change programmes fail because the management of organisational change is still reactive, discontinuous, and ad hoc [3]. A new and pragmatic framework for change management is needed [6]. This should be based on insights of further exploratory empirical studies and on new ways of thinking when change is introduced to organisations.

Change management is tightly connected to knowledge management. Besides combining information, skills, experiences, and personal capability of people [2] we have to consider the artefacts people create and exchange, communication they carry out, and how knowledge impacts human behaviour and interactions [12]. The spiral knowledge management life cycle (Figure 1) helps to understand the complex process of changing in an organisation by considering relevant factors having impact on the success in this matter. After identifying the organisation type as a time-, product- or service based the business processes, related artefacts, and different types of knowledge (individual content knowledge versus organisational collective knowledge that combines know-what with know-how, in particular know-what versus know-how which "can be hard to spread, coordinate, benchmark, or change" [4]) can be defined. Volatility, different phases of knowledge management including phases between implicit/tacit and explicit knowledge, emerging change requirements to work processes and organisational context, are further factors included in this model.

In change management context, we have still several questions to answer: How can we change practices, which means changing the construction and use of knowledge among people? How can a CSCL system support changing and extending know-how which is the ability to put know-what into practice? "Technical means that can facilitate the kind of self-organized mutual learning" [11] asks for a cooperative ensemble to be able to preserve and improve its own capabilities. What are the related didactic practices in a concrete work context? Are we actually talking about instructions given and taken by people? This further questions the term of managing. Why don't we talk about "sharing instead of managing" [1] [9] [10]? How can we communicate knowledge that is highly personal, hard to formalise, difficult to exchange with others, deeply rooted in action and in an individual's commitment to a specific context?

Can a learning environment help to establish such complex change processes in an organisation?

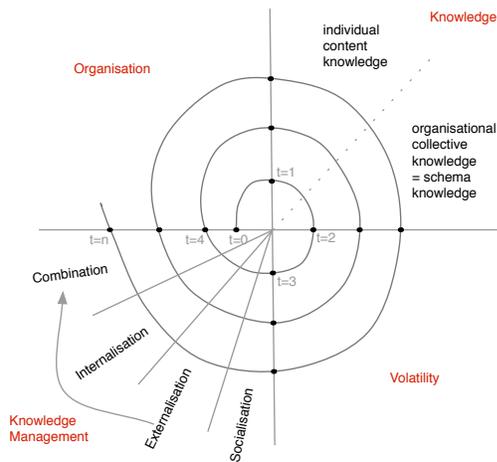


Figure 1: Knowledge management process in an organisation (based on [12]) (t=time).

In the next section, we explore learning process in changing organisations, before we analyse the requirements for supporting systems.

3. LEARNING IN CHANGING ORGANISATIONS

Given the context in a changing organisational environment, individuals go through a tough change process. Figure 2 shows how the self-esteem of individuals is developed during the change process. After being shocked at the beginning, the expected reaction is normally denial by relatively high self-esteem of people involved. After a while, individuals slowly understand the changes and reasons for change by rationalising, and later or sooner they emotionally accept the situation. At that point where self-esteem reaches the lowest point, they start increasing their self-confidence and courage, and start learning to adapt and follow the changing situation.

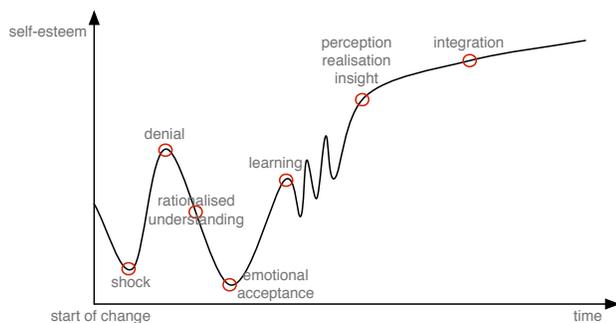


Figure 2: The seven phases of the change of self-esteem of individuals in a change process (based on [7]).

In the learning phase, there are up and downs in self-esteem, modified by the knowledge individuals gather, apply, and provide. How much collective knowledge, know-how, practical knowledge is provided here has impact on the duration, quality, and density of learning progress of people involved. This process ends up with perception, realisation, or insights achieved by individuals. Then the integration follows.

To sum up, *learning*, *realisation*, and *integration* phases can look like ideally as follows: Trying and learning of new activities, behaviours, systems, etc. might end up successfully. Single persons gather each time new experiences by improving their implicit and individual content knowledge, which can be shared in the group of communities by externalisation and combination. This adds to the organisational, collective knowledge. By reflecting to this schema knowledge new implicit and explicit knowledge can be produced, which then hopefully is integrated into the daily work practices, even if it takes a while. New ways of thinking and working can be then part of the routine work processes. Of course, not always is this the case. Due to several reasons, which are not concern of this paper, change might be a complete disaster for an organisation. In this paper, we focus only on the aspects of learning support in case of change management we expect to be successful at the end.

4. REQUIREMENTS FOR SUPPORTING SYSTEMS

In an organisational change context, we want to distinguish between informing and learning. In these categories, several aspects are important. People must be informed about changes planned. Preferably reasons for change are communicated with all affected to facilitate a common understanding for the decisions made, e.g., the detail of data can vary from time to time and from situation to situation. On the other hand, changes impact peoples' work more or less substantially. In most cases, they need to learn new ways of doing things they were used to do before, reskill in certain areas, take more or less responsibility, and so on. Learning does not happen only alone, it is a cooperative process. Know-what and know-how can be shared by communities of practice, for which appropriate IT systems are required. This is our point of attention in this paper.

On the one side, there are structured data, which are well supported in CSCLE environments as far as we are informed. Still, there are some additional requirements to the current systems. In this sense, the systems must facilitate:

- *Easy capturing of data that is provided in change processes.* Because of the workload of everyone in a changing organisation, there is no time for doing additional work, like preparing data for documentation or sharing. The IT environment has to facilitate easy textual, audio, or video capturing by using differently scaled devices. Capturing by doing must be utilised and made accessible for everyone, not only for change managers. Commenting or ranking can be provided for gathering feedback to available data of all.
- *Informing the people about changes, decisions, challenges, news, etc.* It is important that this type of information is described properly by explaining the rationale behind it. Management-compatible documents, like presentation slides or summary charts, are not always convincing. Additional information about reasons, relations between different factors, studies done by third parties supporting or explaining the decisions made, etc. can help to clarify things and avoid misunderstandings and further questions by people informed.
- *Contextualising the information in the particular organisation with respect to specific (past and future) products and processes.* The change information is not understandable for people being informed, if it is not related to known work context. Contextual information helps to clarify where and in which part of the work processes the change is needed and planned as well as what the impact of the change would be. Contextualising calls for linking among

different sources of information, adding and annotating descriptive data to information items, attaching documents to relate to older or new contexts.

- *Feedback or commenting on information provided by all participants.* This is important for including all people involved into a communication process in which they can raise their voice and ask questions, comment on certain critical changes and their consequences, stress their concerns, etc. Letting them participate this way helps acceptance of changes by them and informs the management about the reaction of people affected of the changes decided.
- *Accessibility for all participants, even if the relevance is not very obvious at the time of announcement of the information.* This calls for providing an open space that can be integrated and partly restricted to certain work groups in the integration phase, according the use situations in the changed and adapted work processes. Easy access is needed for searching and personalisation of the result lists, keywords, folders subscribed, etc. Access might be provided for mobile devices, for audio search, or for full text search with a keyword. Results can be accessed multimodal, depending on the environmental and infrastructural circumstances under which people are working. This requirement is connected to the configurability requirement listed next.
- *Configuring based on individual and collective needs.* This is probably the most challenging feature in such an environment because users differ in their preferences and categories they find relevant for the configuration and personalisation, especially when information becomes a delicate issue. Configurability of different parameters for access (e.g., what is private, and what is common and shared with others, what is shared in a smaller group and what is public in the whole organisation), data structuring and indexing (e.g., by tagging), reminders (e.g., RSS feeds, alert mechanisms), monitoring for awareness (e.g., who is there, who is commenting what on which content, who asks the questions, who answers them), etc. are needed.

On the other hand, change processes call for ad hoc informal exchange between people affected. In this sense, unstructured data are very relevant, not only between the phases learning to integration but also before (see Figure 2). To achieve this there is need to support for:

- *A protected space for sharing.* Individuals must be provided by a protected space in which they can share ideas, questions, answers, doubts, wishes, emotions, etc. without feeling controlled and observed by the management. This is only possible if the organisational culture including management supports this type of multi-layered organisational communication.
- *Easy change between private and shared mode.* Users need sometimes private space for communication and sharing, but sometimes they want to share certain information, exchanged in a private channel so far, also with others, and again, if things are getting problematic or insecure, they want to go back to the private conversation. The system must enable easy change on demand between two modes.
- *Illustrating changes in comparison to the existing structures, processes, or other organisational, informational, strategic, or technical factors.* Highlighting the differences, in best case with an explanation or argumentation why these changes are needed and what the goal is when applying these changes, makes the approach to, understanding and,

hopefully, acceptance of the new things introduced by change management easier for the individuals.

Considering the fact that knowledge is embedded in collective work practice [11] and the positive impact of collective learning on people and the role of mutual support in communities of practice, especially in change management, we further define the following requirement to IT systems: *Collective editing and commenting to others content.* Learning in groups establishes implicit exchange between people involved. In areas of documenting (changed) processes collaboration between domain workers, probably from different perspectives, can be very useful. Support for collective editing by providing awareness information and possible additional communication channels, like integrated chat between writers, can increase the common understanding of (changing) processes and, at the same time, can host discussions for clarification among participants. Commenting to each other's content can also be integrated in the same tool.

5. CONCLUSIONS

In this paper, we showed what the requirements for an IT system are to support change processes in an organisation with respect to support for learning of individuals. First of all, it is important to understand what type of knowledge is created and exchanged between people involved, and how these different types of knowledge can be captured and communicated. Then the factors of change management regarding the individuals are presented briefly, by focusing on learning, realisation, and integration phases, before analysing the functional and non-functional requirements for IT systems. This is a first step to try to define such requirements. The list presented is not exhaustive.

We have still some questions we want to answer in our future work: Are the existing CSCL systems offering these features in a more or less acceptable quality? We need to evaluate the existing systems with respect to these requirements. Furthermore we want to design systems that meet these requirements and evaluate with real users.

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