Available online at www.sciencedirect.com

ScienceDirect

Procedia - Social and Behavioral Sciences 119 (2014) 268 – 277

Procedia Social and Behavioral Sciences

27th IPMA World Congress

Dealing with change in a complex environment from a person-centered, systemic perspective

David Haselberger[a], Renate Motschnig[b]*

[a]*Postgraduate Center, University of Vienna, Spitalgasse 2, Hof 1, 1090 Vienna, Austria*
[b]*Faculty of Computer Science & School of Education CSLEARN, Waehringer Strasse 29/6.41, 1090 Vienna, Austria*

Abstract

In (not only) recent software development and management activities the phenomenon of change is omnipresent. Are there some regularities that help us to deal with it constructively? In this paper we present a case study on how we worked with IT managers and consultants to learn about their practices when coping with change and their insights resulting from reflection. Besides the concrete change scenario readers will find an example of the new open-case workshop setting and a theoretical interpretation of resulting insights based on a person- centered systems theory perspective that may help to see the larger picture behind the dynamics involved.

Keywords: Person-Centered, Management, Systems Theory, Change, Self Organization

1. Introduction

Developing products in the Information and Communication Technology (ICT) industry is a complex endeavor. Often, the appearance and functionality of a final product is not known from the outset of the project. Sometimes it is even not known whether the project is possible at all. Most of the time, requirements change in the course of development. Also, technology advances rapidly and opens up new possibilities. A product is usually not finished with a first prototype, but evolves with bug fixes, feature implementations, interface adaptations and through

* Renate Motschnig. Tel.: +43-1-4277-108 93.
E-mail address: renate.motschnig@univie.ac.at

doi:10.1016/j.sbspro.2014.03.031

particular organization-driven marketing strategies over several development-progressions. The completion of a product is accomplished by people - individuals with particular sets of skills, personal values concerning work, interaction, teams, friends, family and other areas of life, with unique experiences that form how they perceive themselves in that particular moment and also, what technologies they prefer over others and that influence where they feel competent, what is challenging for them and what bores them. Such skilled persons work together in a group with a common goal, to finish the product, a team with a particular outlined mission that is optimally guided by a shared vision (Senge, 2006) of the project including at least parts of the personal visions of each individual in the team concerning where they want to go to, what they want to accomplish, what they really want to get out of the project, where they want the project to be heading (Senge, 2006, p. 138). Besides the experts in technology are the future users that need a particular product to be fit on the more and more global, competitive market. Stakeholders are in contact with the project team sharing their vision of the product, reconciling what can be done with the project team, exchanging ideas, proposing directions on which development of the product can be grounded, besides the strengths, competences, experience in technology and with other clients that the team can introduce. Sometimes, team members are experts on particular technologies, while other technologies may suit the problem better. The primary *raeson d'être* of the project and therefore the project team is to gain value, mostly in the form of monetary profit, for the organization that embeds it. From the outset, the project is intersected with open or subtle, unconscious, rules and values that were established and proofed worthwhile for the living together, developing and lasting of the organization and are often referred to as organizational culture.

Conditions of the business environment, such as changing customer needs or problem complexity, bring forth different approaches towards dealing appropriately with given circumstances. According to Verna Allee (Allee, 1997, p. 5), in modern thinking: *"Change is all there is"* as opposed to traditional thinking where change is described as *"Something to worry about"*. But are we as persons, developers, managers and our practices and methods ready for that fundamental shift in perspective and resulting intellectual as well as behavioral change? While we won't be able to provide the full response to the question, the goal of this paper is to provide a few steps toward better understanding of what change means in particular situations, how practitioners address it, how we can support them in sharing experiences and deriving insights, and which theories may help us to better understand the ensuing phenomena. But before delving into a concrete case and setting let us sketch the landscape of approaches that explicitly address change.

Software development approaches in the ICT industry often summarized with the umbrella-term agile are particularly oriented towards dealing with change. This means, a main goal in agile development is being able to respond quickly and flexibly to changing environmental or system circumstances. The system may be the product, the project team or the organization. *"Agility is the ability to both create and respond to change in order to profit in a turbulent business environment (Highsmith, 2002) in:(Highsmith, 2004, p. 16)."* Through providing just as much structure in the development process as needed, project teams may be enabled to react flexibly to change (Highsmith, 2004, p. 17). In situations where requirements are ambiguous or not known, agile approaches seem to be highly effective (Ambler, 2002) in: (Abrahamsson et al., 2002, p. 96). Through valuing interpersonal relationships over tools and processes on paper, working software over heavy documentation, flexible reaction over rigid fellowship, agile software development approaches attempt to bring about a paradigm shift in software engineering (Abrahamsson et al., 2002, p. 98).

Boehm and Turner (2003) propose to focus less on methods, but rather on people, values, communication and expectations management. Presenting an agile approach to the Unified Process (Jacobson et al., 2007), Sinan Si Alhir (2005) highlights the importance of people in ICT project teams: *"Unequivocally, people are and will remain the 'original ingredient' necessary for success. However, with a better understanding of agility, individuals, teams, and organizations are further empowered not only to simply address change and complexity, but leverage change and complexity for a competitive advantage. Furthermore, it is experience, experimentation, and application of agility that will enable us to realize its benefits."*

Software development processes are utilized in ICT-projects to organize and simplify complexity. They label and categorize experiences of involved persons and suggest work procedures that proofed to be successful. If procedures are not adequate for a situation any more, if labels are too general, a reorganization of development in the team may be appropriate. From a systems theory viewpoint, we can argue that periods of change are necessarily