

User-Centered Design and Change Management

Leading Organizational Change Towards User-Centered Design

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Abstract

An important task of UX consultants and managers is to enable product developers to implement user-centered design (UCD) processes in their companies. Tragically a lot of change processes fail when progressing from functional engineering to UCD. Resistance inside the organization is often the reason. Which mechanisms of organizational development cause resistance? How can we manage the change to UCD successfully and sustainably?

Keywords:

/// UCD

/// UX Professionals

GOALS FOR THE SESSION

Attendees at this session will:

- Understand the basic principles of organizational psychology and why implementing UCD processes is more about management than about UCD.
- Stop to fear resistance and start to use it as a great starting point for change management.
- Learn how to model acceptance, apply best practices of change management and build strategies for change processes.

AUDIENCE PARTICIPATION

- The attendees will participate by audience votings and there will be sufficient time for questions and discussion.

HANDOUTS OR OTHER SESSION MATERIAL

- The presentation slides including detailed reference list as PDF.

PREVIOUS PUBLICATION OR USE OF THIS MATERIAL

There was no publication in conference proceedings before. I held a comparable tutorial on change management

at the German language conference „Mensch & Computer 2011“, but the contents have been altered.

YOUR BACKGROUND IN THIS MATERIAL

- Usability engineer: 12 years professional experience. Approximately 75 projects.
- UCD change manager: 7 years professional experience (inhouse:

5 years, external consultant: 2 years): Approximately 15 projects. One of them affecting 190.000 work places in an automotive environment.

- 5 years experience as academic researcher: technology acceptance and participative design
- 4 years experience as university lecturer for usability engineering, technology acceptance and participative design

Discussion	Objectives	Time
01. Introduction	Introduction of the speaker and scope	3 min
01. Audience Votings	raise audience attention	5 min
02. Why UX crusaders fail	Enable reflection of own positioning as UX consultant in a UCD change process	5 min
02. Organizational psychology insights into change processes	Understand that organizations are social constructions and what that implicates	10 min
02. Laws of physics and their meaning for Change processes	Understand how change can be motivated and empowered	5 min
02. The Change Management Paradox	Understand reasons for resistance and how to deal with them	7 min
03. Modeling Acceptance	Learn how to analyze the stakeholders of change	5 min
03. Best Practices/ 7 Golden Rules	Learn how to work as change manager and how to save your skin from failing	10 min
04. Discussion/Questions		10 min

Tab. 1.
Session Schedule with Time Allocation

DETAILED DESCRIPTION OF PRESENTATION CONTENT

1. 'Introduction' & 'Audience Votings'

I will start by explain the presentation scope: The implementation of UCD in organizations by changing the paradigm of product design towards user-centered design thinking. [Abb. 1]

The audience will then be asked to vote if they agree in a couple of statements about change management to raise attention and draw the audience into the presentation. The statements will therefore be quite provocative, e.g.: „Design thinking cannot create a sustainable change.“

Consequently I am going to introduce 3 general hypotheses about change management:

1. UCD is not the only possible way to create products
2. Communication and documentation are important, but do not create change
3. Implementing UCD is a management not a design process

These hypotheses will be later on filled with life while wandering through different stages of the presentation. They build the framework of the presentation.

2. 'Why UX Crusaders Fail' to 'The Change Management Paradox'

I am going to explain why UX professionals tend to fail in implementing UCD processes: Usually they are very emotional and ambitious about their user-centered paradigm of product creation – which is positive. They tend, however, to be too ambitious in trying to convince, lead or sometimes even force e.g. visual designer and sw engineers into predefined UCD processes. By doing so, they act more like crusaders than as partners, which means: they have a hard time to create acceptance – usually they cause even more resistance. [Abb. 2]

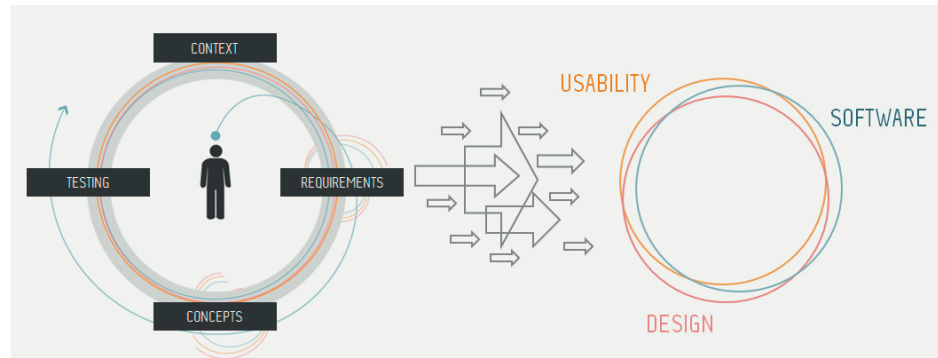


Abb. 1.

- Product development is paradigmatic
 - » Visual Design = aesthetics/creation
 - » Engineering = problem solving/efficiency
 - » UCD = phenomenologic/reactive
- Paradigms go for the same goal from differing starting points – but they all create products.
- There is not ONE right way.
- Separatists loose access to members of other paradigms.



Abb. 2.

3. 'Modeling Acceptance' to 'Best Practices/7 Golden Rules'

I will explain from an organizational psychologist perspective that management systems are social constructions as well as systems of power. These systems tend to stay in a stable position. The major dilemma of implementing new processes in such an environment is the 'change management paradox': the system wants to remain in the stable state (=secure), but change means instability (=insecure). Resistance to change by the organizational structure is a 'natural' occurrence and can hardly be avoided. It is important to understand the factors that drive resistance. I will also reflect the implications of a theory about individual resistance against mandatory changes in working environments (Brehm, 1972).

There are, however, levers that keep the system in motion all of the time: People trying to gain power by participating in topics that might raise their influence. Cooperation and participation therefore are the keys to give power to a new idea like implementing UCD. Stakeholders need to understand the benefit for themselves in their working environment in order to accept the instability of a change process.

Ironically, Sir Isaac Newtons laws of physics give an good explanation of how to bring a system that wants to stay in a stable position into motion: you need a critical moving mass and a constant flow of energy, which is bigger than the energy of the reacting (resisting) body. I will use this analogy to explain that change management needs many more efforts than to create documentations and singular communication/qualification to be effective.

4. Manage the Change

A model of acceptance (Brau, 2008 & 2011) will be introduced as an aid for finding facets of the change that will increase or decrease acceptance. This will enable participants to analyze their own or their clients organizational environment so that they can derive a strategic change management. [Abb. 3]

$$\text{Acceptance} = \frac{eU}{eS + eR} \times BT$$

Abb. 3.

The presentation ends with the explanation of 7 golden rules for change managers:

1. Be neutral, do not be a crusader
2. Define a clear scope and stick to it
3. Quantify what you are doing
4. Know about and utilize quality management
5. Be competent and communicate competent
6. Participate managers by taking orders from them
7. Participate on all levels, but never rely on volunteers

References

1. Brau, H. (2008). Mein System benutzt' ich nicht: Ein praxisorientierter Ansatz, Nutzerakzeptanz zu messen und zu verbessern. In: Brau, H. Diefenbach, S., Hassenzahl, M., Koller, F. et al. (Hrsg.). Usability Professionals 2008. Fraunhofer: Stuttgart.
2. Brau, H. (2011). Acceptance Engineering – Menschzentrierte Gestaltung von Arbeitssystemen. In: Brandenburg, T. & Thielsch, M. T. (Hrsg.). Praxis der Wirtschaftspsychologie II. Münster: MV Wissenschaft.
3. Brehm, J. W. (1972). Responses to Loss of Freedom. A Theory of Psychological Reactance. Morristown: General Learning Press.
4. Davis, F. D. (1986). A Technology Acceptance Model for Empirical Testing New End-User Information Systems: Theory and Results. Doctoral Dissertation, Sloan School of Management, Massachusetts Institute of technology.
5. Dickenberger, D., Gniech, G. & Grabitz, H.-J. (2001). Die Theorie der psychologischen Reaktanz. In: Dieter Frey & Martin Irle (Hrsg.) Theorien der Sozialpsychologie. Bd. I: Kognitive Theorien (S. 243–273). Bern: Huber.
6. Doppler, K. & Lauterburg, C. (1996). Change Management: Den Unternehmenswandel gestalten. Frankfurt/Main: Campus Verlag.
7. Eagly, A. H. & Chaiken, S. (1993). The Psychology of Attitudes. San Diego, CA and Fort Worth, TX: Harcourt Brace Jovanovich.
8. Fishbein, M. & Ajzen, I. (1975). Belief, Attitude, Intention and Behavior. Reading, MA: Addison-Wesley.
9. Hassenzahl, M. (2011). Encyclopedia entry on User Experience and Experience Design. Retrieved 26 February 2011 from Interaction-Design.org: http://www.interaction-design.org/encyclopedia/user_experience_and_experience_design.html
10. ISO 9241–110: Ergonomics of human-system interaction Part 110: Dialogue principles
11. ISO 9241–210: Ergonomics of human-system interaction — Part 210: Human-centred design for interactive systems
12. Staehle, W. H. (1999). Management – Eine verhaltenswissenschaftliche Perspektive. Munich: Verlag Franz Vahlen.
13. Rosenberg, M. J. & Hovland, C. I. (1960). Cognitive, Affective and Behavioral Components of Attitudes. In: Rosenberg, M.J., Hovland, C.I., McGuire, W.J., Abelson, R.P., Brehm, J.W. (Eds.): Attitude Organization and Change, pp. 1–14. New Haven, CT: Yale University Press. Statista.org.
14. Venkatesh, V., Morris, M.G., Davis, G.B. & Davis, F.D. (2003). User Acceptance of Information Technology: Toward a Unified View, MIS Quarterly, Vol. 27, No.3, pp. 425–478.

