Institutionalization of Human Centered Design at adidas Group

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Abstract

At the adidas Group, UX and usability is constantly gaining in significance. After the introduction of a framework (we reported at UP 2012) we provided some insight into how we established Human Centered Design in the IT Marketing department (UP 2013). Today, this way of working is being institutionalized in the whole IT organization and attracting greater cross-functional attention. In this article, we describe our approach to increase the level of maturity of Human Centered Design in the company; and highlight current and future challenges.

Keywords

Enterprise UX, Inhouse Usability Engineering, Human Centered Design, UX Strategy

Background

The topic of Human-Centered Design (HCD)[1] was first introduced to the adidas Group Global IT organization a couple of years ago within the IT Marketing department[2]. In 2011, HCD became a

[1] Human Centered Design (HCD) as defined in ISO 9241-210 (International Organization for Standardization, 2010).
[2] The adidas Group Global IT is subdivided into multiple departments, each supporting the respective business function. The Marketing department within IT (in short IT Marketing) supports the Marketing business function.

recommended – but not mandatory – approach in the software development process of adidas Group IT. The initial working model of executing separate usability methods like prototyping or evaluations in various projects showed good first results but was not a sustainable solution allowing to cover the entire project landscape. A strategic and process-framework was created to establish a human-centered way of working throughout the project lifecycle, which became mandatory for the department in 2013.

The usability engineering team supported the department on three activity levels: Informing, consulting and executing methods. After only a few months, the approach had been well established for most projects and received positive feedback from various stakeholders – from IT and business project managers to senior management.

At the same time, some other departments were also introducing initiatives to set a stronger focus on usability.

Benefits of taking the next step and aggregating the HCD-activities centrally in the IT organization are the following:

- Knowledge about users can be aggregated and shared between departments
- Standardized company-wide quality expectations from external service providers in regards to usability evaluation, context analysis, prototyping and visual design
- Mandate to address the whole user experience cross-landscape
- Formal connection between usability activities in the different departments, service aggregation, standardized approach and wording

Usability Incubation – Moving to an Organization-Wide Commitment

Being aware of the importance of usability and the HCD approach, the Senior Management Team has positioned usability engineering centrally in the IT organization. The benefits of bundling the efforts centrally are reflected through cost savings, a common, consistent approach, standardization, and aggregation of knowledge and resources. The initiative of introducing and establishing HCD within the organization is referred to as “Usability Incubation”.

Incubation drives and enables topics that are relevant to every IT department, to be worked upon in a central team, until they have reached a certain maturity level, at which point they can be taken over by the [organization].[3]

By Q3 2013, the Usability Incubation Team was formed, with the mandate and mission to establish Human Centered Design throughout the IT organization.

Human Centered Design as Common Approach

The Usability Incubation Team selected Human Centered Design (HCD) as defined in ISO 9241-210 as the approach to improve the usability of IT solutions. The HCD-approach helps shape the usability of

[3] Defintion by Management

solutions and the user experience, influencing the quality of IT solutions. For consumer-facing applications, an improved user experience acts as a profit lever; for employee-facing applications an efficiency lever that raises the satisfaction of the employees.

Objective to Reach a Higher Maturity of HCD

In order to measure the success of the Usability Incubation period, a certain level of maturity of HCD in the organization needs to be attained (see Incubation definition above). There are diverse models and scales for categorizing the maturity of Human Centered Design in organizations[4]. The model the team has selected is the Usability Maturity Model of Human Factors International (HFI) (Schaffer, 2004) and consists of six maturity stages (level 0 to level 5). Level 0 reflects a total lack of knowledge around the topic of usability, whilst level 5 is the stage at which usability is part of the company's DNA.

In line with the Usability Incubation Team's mission, level 3 was targeted as our primary objective for the Incubation period:

"Level 3 – Essential Capabilities: Now the strategy has proceeded to the point where there is a solid infrastructure for usability work. A [human]-centered methodology has been fit to the organization's development process. There is a reusable template for every deliverable in the methodology and every common questionnaire. A design standard maintains development efficiency and consistency for all common development environments. Finally, at least one showcase project has proven that these parts work together effectively." (Schaffer, 2004)

Usability Incubation: Phases of Institutionalization

[4] Leitfaden Usability (DAkkS, 2010), Human Centredness Scale (Earthy, 1998) Corporate Usability Maturity (Nielsen, 2006) amongst others.

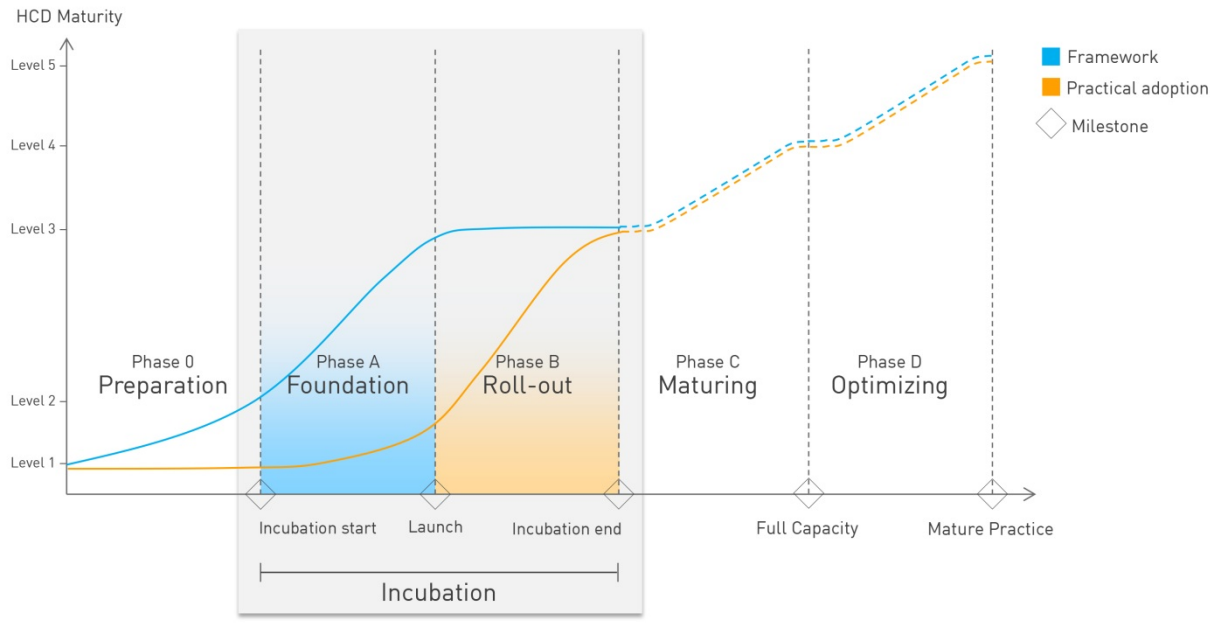

Figure 1 Phases and milestones of institutionalizing usability at adidas Group IT

The Usability Incubation period starts with a milestone entitled “Incubation Start” (see in Figure 1) and ends with “Incubation End”. Within the period, there are two phases: “Foundation” and “Roll-out”, with the foundation phase coming to an end with the launch.

In order to get to the launch, the precondition is that the framework for establishing HCD within IT and that all required artifacts for the actual roll-out, are available. The launch describes the point in time when HCD is set as mandatory approach for the whole IT organization.

The Incubation phase does not end with the availability of the framework, rather the actual practical adoption of the approach.

Once Incubation ends, the maturing phase begins, targeting people skills and budget allocation towards an all-encompassing human-centered mind set and culture within IT.

Making it Official (Phase 0: Preparation)

The start of Incubation only began after the concept had been signed off by the CIO and Senior Management Team. Each IT department head accepted the following criteria, which were considered necessary for Usability Incubation to truly succeed:

- Dedication of at least one resource for each IT department in order to function as usability evangelist. They contribute an understanding of the application and project landscape of the department and can contribute to Incubation topics.
- Placing HCD into departmental strategies, plus supporting the alignment with the respective business counterparts.

- Making HCD a mandatory approach within each department
- Allowing extended specification and evaluation phases to facilitate higher application quality for higher efficiency (B2E) and higher profit (B2C)
- Ensuring access to end users and their involvement in projects
- Hiring/(re-)skilling usability engineering resources

By their joint sign-off, the management team showed their commitment to towards the institutionalization of HCD.

Forming the Basis (Phase A: Foundation)

With the management buy-in, Phase A could start. The phase covers the definition of a framework for HCD in IT and triggering activities that will help its practical adoption.

Integrating HCD in the established software development processes was essential. The fit of HCD was analyzed and the process documentation enhanced accordingly. HCD activities and principles have been added to the phases and deliverables that are now part of the standard IT development processes. The focus was on the waterfall methodology, as this is the most mature process type; nevertheless, the HCD-approach is also valid for agile and hybrid processes. Activities such as evaluating design solutions must be done in any case. The point in time and the selection and design of the usability engineering methods differs depending on the individual case.

Touch points and connections between **projects and applications** needed to be identified for a full understanding of the IT landscape. Information from all departments has been gathered to get an understanding of processes, applications, services and involved stakeholders. This understanding was needed for the long-term goal of really considering the holistic (end-to-end) user experience when prioritizing and planning projects.

Another task was starting the definition of a **working model** between IT and business functions. Business teams must be aware of the changes that are ongoing in IT, how these changes impact the collaboration and what is expected from them (for example end user availability). In this context, it is also important to understand how third party entities such as agencies will be taken up in the working model.

To teach and enable colleagues, **trainings** on HCD, context analysis, prototyping and usability evaluation have been introduced. At the same time, the topic of HCD needs to be **communicated** internally in the right manner to inform our colleagues across the company, in an easy, lean and understandable fashion. All documentation related to HCD within the software development lifecycle, templates for the conduction of HCD methods, supplementary tools and UI guidelines are all to be created in a “colleague-centered” way.

In order to prove that the HCD approach fits within IT projects – ranging from B2E to B2C – certain focus projects have been selected per department to function as **showcases** for others to increase adoption. **KPIs** (like a quantitative UX evaluation, time per task, number of errors, etc.) are identified to measure

the success of the HCD activities. The focus projects have been selected and are being worked on during Phase B (roll-out).

Bringing HCD to Life (Phase B: Roll-out)

Reaching maturity level 3 by the end of Phase B for both the theoretical and practical maturity defines the point at which the Usability Incubation's mission is accomplished, having established HCD into the IT organization. In order to get there, various factors are considered which are described in the following chapters.

Direction and Set-up

There are various ways to set up the organization of Phase B and onwards. Three options as shown in Figure 2 have been proposed, option A was selected to follow the Incubation phase as it offers both a standardized approach and domain expertise. The central "UX Team" consists of internal employees and an extended workbench made up of external usability professionals.

The UX Team focuses on two areas: (Internal) HCD consulting and offering usability services.

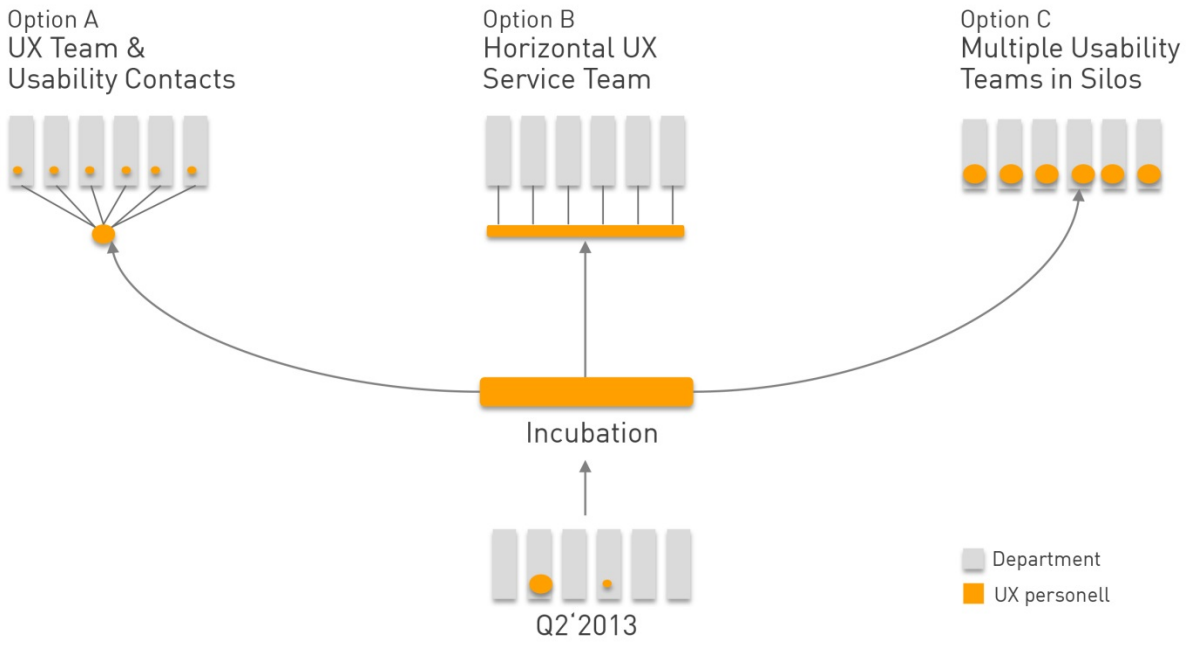

Figure 2 Proposed organizational set ups for Phase B and onwards

UX Team – Internal HCD Consulting and Services

The UX Team acts as an enabler for all departments and project teams within IT to implement HCD in their respective area. To realize that, the UX Team consults project teams regarding HCD activities and which methods would be appropriate for the specific circumstances (e.g. for a market fold-in, global roll-out, new development, agile, waterfall, etc.). The team provides and coordinates the usability

engineering services via an “extended workbench” that consists of multiple established external partners.

Usability engineering services that are provided cover:

- Planning HCD activities and methods tailored to project needs
- Context analyses: Individually as well as in combination with other analytics departments (e. g. social media and web analytics) and building a knowledge pool about our users
- Requirements engineering in a human-centered way, including the alignment of user/business/technical and other requirements.
- Prototyping services such as the creation, maintenance and control of style guides, UI component libraries, icon libraries or the project-specific creation of wireframes
- Usability evaluation services such as usability tests, expert reviews, benchmarking questionnaires

In addition, the UX Team generally informs, trains and coaches colleagues on HCD and monitors the HCD status and maturity of projects, programs and departments to make the status transparent to management.

Figure 3 shows the working model between department/project, UX Team and the UX Team’s extended workbench.

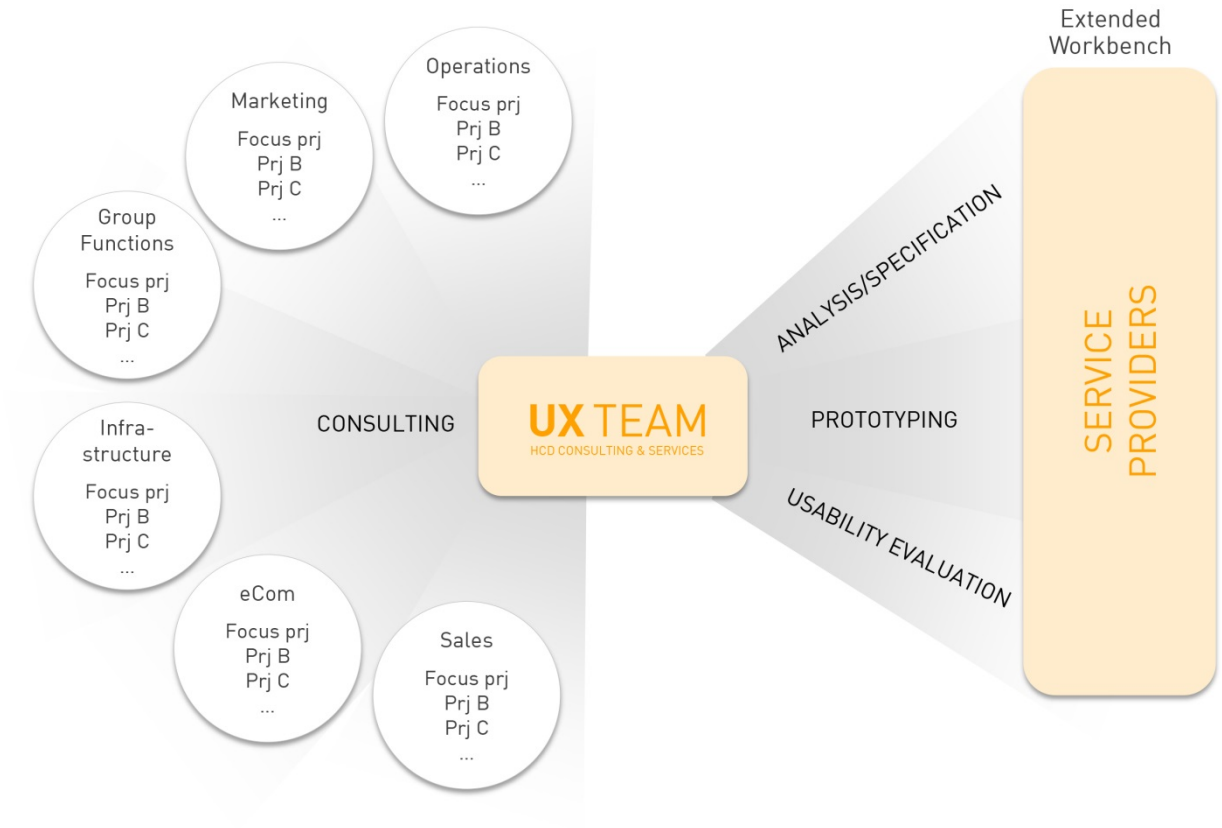

Figure 3 UX Team – HCD consulting and services working model

Achievements So Far

In the first three months after its conception, the UX Team has consulted on more than 12 projects. Most of them have either already made use of the services from the extended workbench or are planning to do so within in the coming weeks. Feedback has been very positive, mainly relating to the high quality of results, the speed of execution and the great cost to benefit ratio showing that the model is proven successful on a reduced Incubation scale. This is an ideal starting point to extend the scope further and with that, leave Incubation soon.

Extending the Impact (Phase C: Maturing and Phase D: Optimizing)

The next step towards fully establishing HCD is to increase the reach of the UX Team's consultancy and services to all IT projects to optimize usability of the solutions and the user experience. Continuous efforts will be put into institutionalizing the HCD-approach within the entire company.

Eventually, we believe working human-centered will impact the organization positively through what we call "need management" (as opposed to demand management), revealing consumer and employee needs based on context analysis as a clear driver for future innovations.

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Authors

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Leo Glomann leads the UX Team at adidas Group Global IT. After finishing his studies in interaction design he has been working as interaction designer and usability engineer since 2007. In addition, he is working as part-time lecturer at the design faculty of the University of Applied Sciences Nuremberg, addressing the fields of game design and Human-Centered Design.

Lucie Grudno

Lucie Grudno has been part of the Usability Incubation Program that aims at an organization-wide institutionalization of Human-Centered Design. She has been a usability engineer at adidas Group since 2011, working on establishing HCD to optimize the usability and user experience of employee- and consumer-facing interactive products. She has a business studies background and focused on human-computer interaction and usability engineering during her studies, Diploma thesis and internships.