

# Lessons for Participatory Designers of Social Media: Long-Term User Involvement Strategies in Industry

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## ABSTRACT

Social media changes the conditions for user participation in service development. Active user communities, fast paced iterative development, considerable development after market launch, developer access to users' digital trails, peer production, and low cost feature distribution are well known facets that bring substantial changes. In this paper we distil lessons for participatory designers from an in-depth case study of an over decade-long service development in industry, Habbo Hotel by Sulake Corporation. We argue that the range of core issues that shape user participation in social media can be captured by three interrelated issues: 1) shifts in developer-user social distance, 2) cumulated user knowledge beyond one project, and 3) user-generated content and user-owned services. We then consider what insight these provide for a design initiative we are involved in: the Finnish national public service broadcasting company's teacher resource.

## Author Keywords

Social Media, Community Participation, Industry Contexts, Long-Term User Involvement

## ACM Classification Keywords

H5.3. Information interfaces and presentation (e.g., HCI): Group and Organization Interfaces.

## INTRODUCTION

Social media is all but a clear-cut case for participation. Some claim that we see a participative or user-driven web (OECD, 2007), but at the same time many of the social media services we use today are designed with little transparency and great power asymmetry between developers and users. Open source development and open data movements have reached various sectors of society (Tapscott & Williams, 2010), while the reality for many designers is conformance to APIs, app stores and data in the hands of powerful commercial actors (Petersen, 2008).

As the research field of Participatory Design (PD) is embracing new territories for participation, a pertinent question is how lessons can be learned from cases outside its traditional bounds. What are the relevant aspects of generalization, and do the traditional frames of participation hold when the research field expands? Vice versa,

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can traditional PD wisdom guide social media development and bridge differences between work and leisure?

In this paper, we start with a large-scale social media case that currently does not live up to traditional PD criteria, such as user-controlled development, independent voice, or organizational flexibility (Clement & Besselaar, 1993). However, this online service started out with the developers developing for themselves and their friends, and, like other success stories, found that there was a more general demand for their service. Over time, more strict boundaries between developers and users emerged, and the forms of participation transformed too.

The lessons learned from this case are distilled with reference to PD themes, especially large-scale collaboration (Simonsen & Herzum, 2008), long-term user involvement (Bossen et al., 2010), and the context of social technologies and social media (Hagen & Robertson, 2010). We also evaluate the applicability of these lessons by interposing them on an early stage service development project for teachers. The contribution of this paper is directed towards building a framework for cross-case analysis of user participation and contributions.

## WHAT SOCIAL MEDIA CHANGES IN PARTICIPATION

PD has broadened its scope since its early trade union activist origins of new technology and work democratisation of the 1970s and 1980s (Greenbaum & Kyng, 1991). Widespread use of the Internet and advanced online services challenge traditional assumptions of PD in regards to adequate forms and methods of participation (Muller & Kuhn, 1993). Several research groups are moving towards research designs with extended time frames and a continuation of design activities across multiple development cycles (e.g., Voss, 2009; Botero & Saad-Sulonen, 2008; Simonsen & Hertzum, 2008). However, social media changes the conditions for user participation in service development still further. Jenkins (2006) draws a picture of the new media landscape, where media convergence, participatory culture, and collective intelligence shift the boundaries between media producers and consumers. Bruns (2008) argues that users are able to move smoothly across a participation continuum, stretching from active content creation through various levels of engagement with existing content, and on to mere use of content. Shirky (2008) gives numerous examples of how individuals with tools for sharing and cooperation join together and get things done without formal organisations.

Hagen and Robertson (2010) discuss challenges and opportunities for participation in the context of social

technologies, which they define as “tools and practices that constitute our increased capacity for personal communication, production, publication, distribution and sharing”. Example social technologies are Facebook, Ning, Flickr, Youtube, Wordpress. They raise the following important topics: complex and variable contexts of use, emergent design, designer role, and the intertwined nature of design and use.

*Complex and variable contexts of use.* In contrast with previous PD settings from the 1980s and 1990s, the number of people involved and use situations has increased drastically. This challenges approaches that try to simulate or model future use in advance during the planning process. Isbister and Höök (2009) aptly state that there are too many new variables of use. Heterogeneity of actors have been a long-standing research theme in for instance technology studies, but have received new attention, as these social technologies are more large-scale than previous groupware systems. The anonymity and geographic distribution of users also present new challenges. (Clement, Costantino, Kurtz, & Tissenbaum, 2008; Ehn, 2008)

*Design is emergent.* In contrast with traditional models of software engineering, where development ends with a maintenance phase, PD has emphasised that design is completed in use (Henderson & Kyng, 1991; Voss et al., 2009). This emergent design in and through use is very visible in service development for social media and related concepts such as perpetual beta. In the hands of users, services such as Facebook, Twitter, Flickr have transformed from what developers originally intended them for. This emergent property of design has previously been discussed in PD under the themes of appropriation, customisation, personalisation and tailoring. (Balka & Wagner 2006; Mørch, 1997; Nardi, 1993)

*Designer role.* One of PD’s key topics is that new technology and work practices need to be planned in tandem. In the context of social technologies, this translates into planning, not only the technical platform, but also the participation of the future community of users. Researchers have noted that communities can take up concerns that have been under-addressed by designers. (DiSalvo et al., 2007; Merkel et al., 2004; Botero & Saad-Sulonen, 2008)

*Design and use.* Social technologies highlight the intertwined nature of design and use. The short development cycles and long duration of evolving projects enables use to feed into design in unforeseen ways. We can no longer study design and use as separate concerns. (Williams et al., 2005; Johnson, forthcoming)

In addition, we would like to highlight new forms of participation. For instance, from a developer perspective, after market launch, developers of popular social media services have three advantages over other kinds of products and services to understand the wide variety of user practices: 1) easy access to online activities, 2) online forums, and 3) real-time statistics. These additional means to learn about users and engage in dialogue with them reframe the needs for traditional forms of participation. (Johnson, forthcoming)

## **KEY ISSUES: CUMULATED USER KNOWLEDGE BEYOND ONE PROJECT, DEVELOPER–USER SOCIAL DISTANCE, USER-GENERATED CONTENT AND SERVICES**

The scope of one project has long been a dominant way for structuring and generalizing findings about user involvement. Methods to support human-centred design have been organized with respect to the progression of a project, from beginning to the end of development (market launch or operation), via certain phases (Muller & Kuhn, 1993; Maguire, 2001). However, this way of structuring methods does not resonate well with the realities of service development for social media listed above, particularly the accumulation of user knowledge over time. Considerable development after market launch, more capable software frameworks (less original code needed to launch a service), and both instant and low cost feature distribution have turned “the project” into a series of smaller development “chunks”, often called sprints in agile development. The assumptions connected to project starts and endings, as well as intermediate phases, regarding prior user involvement, cumulated user knowledge, and design space openness no longer match design realities. For instance, in contrast to starting “from scratch”, the start of a project for the 4<sup>th</sup> redesign of a particular feature is not associated with zero prior user involvement, little knowledge about users, nor a great open design space that needs to be explored.

Shifts in *developer–user social distance* refers to changes in uncertainty and unfamiliarity of the other group’s practices, resulting from a combination of changes in 1) diversity of use practices, 2) difference among developers and users, 3) direct developer participation in use practices and vice versa (direct user participation in development practices), and 4) indirect contact between developers and users through both social and technical mediators (Latour, 2005). The first mentioned aspect, diversity in use practices, seems fairly likely to increase for any successful social media service that facilitates open-ended peer production, as the number of users and the amounts of local contexts where the service is used increase. However, we wish to direct attention to changes in the latter three aspects shaping developer–user social distance: difference, participation, and mediators.

Some earlier use of social distance and difference, such as in discussions on ethnicity and race (Bogardus, 1925), are based on fixed boundaries between inherently different groups. In contrast, this construction of social distance is relational, contingent, and variable. In this sense it is closer to the notion of distance employed in social network analysis, which often is based on interaction frequency and network topology (Granovetter, 1973). It is a contextually contingent question whether the social distance is manifested in symmetrical or asymmetrical social relations, which in turn could mean either exploitation or empowerment of users, for instance. Social distance here is not foremost a matter of taste and class, as in Bourdieu's theory of distinction (1984). The use of difference between developers and users here is open to multiple axes of differentiation.

A user–developer pattern has emerged around many social media services that are based on professionally

authored content or sites that are clearly separated from the rest of the Internet, like many virtual worlds or online games are. Users have created their own community supporting services to complement the main site. For instance, commentary blogs, discussion forums, photo and screenshot sharing as well as virtual asset trading is very typical. One driver behind this phenomenon is that server providers are responsible for the content on their servers and few server providers have the resources to moderate user-created content professionally, which is why moderation to a large degree is left to the users themselves. A second driver is that these sites provide some complementary function that is not officially supported, which the main service provider is then able to renounce, if necessary. Exceptions to this otherwise common pattern of an official site and one or many user-hosted community sites are sites that are almost completely based on user-generated content, such as social network sites.

We thus argue that when planning user involvement for social media services the following aspects need particular consideration: shifts in developer–user social distance, cumulated user knowledge beyond one project, and user-generated content both in the main service and interconnected user-owned services. These aspects bring with them two further issues: degree of business/mission criticalness of features, as well as organisational specialisation and internal rhythm of development, which we shall discuss below in more detail.

#### CASE HABBO: DATA, METHODS AND OVERVIEW

Habbo is one of the oldest and most popular social media services where children and teenagers meet, socialise, and play many types of games. It was first launched in August 2000 in Finland as *Hotelli Kultakala* ('Hotel Goldfish'). At the time of writing, Habbo is present in more than thirty countries, and 10 million users visit Habbo monthly (Sulake 2011). Instead of an entrance or a monthly fee, the business model is free-to-play—revenue is based on micropayments and advertising in the hotel. Virtual furniture, mini-games, and membership in the Habbo club are bought with Habbo currencies. These currencies can either be earned in Habbo or purchased with pre-paid cards, bank transactions, credit cards, or special mobile phone text messages. The service operator, Sulake, is a Finnish company with headquarters in Finland and four country offices to support localized versions of the hotel.



Figure 1. Idyllic Image From Online Ad for Habbo by Sulake in 2006.

Our data was gathered both from developers and users through a multi-method approach with varying intensity during eight years and has been reported in detail in

several articles going into a PhD thesis (Johnson, forthcoming). The research started in the fall of 2003 with pilot interviews and participant observation in Habbo user communities. During 2004 online texts written by Habbo users on websites, blogs and in discussion forums were analysed as well as visitor profiles through a survey that reached 10 000 users. The non-professional websites and discussion forums produced by Habbo users, so called Habbo fansites, have been an important data source for understanding the consumption of Habbo. Since Habbo was launched, active users have kept track of the furniture, events, changes, trends, fashion and other debates in Habbo. This user-created documentation of Habbo has been sampled since the beginning of this research. In 2005 ten theme interviews with Habbo developers and three focus group interviews with all together twelve Habbo users were organised. In 2006 the first author participated in the development of customer feedback methods at Sulake. From 2007 the research has concentrated on analysis, trying out new features in Habbo and keeping up-to-date through additional interviews with Sulake developers. Taken together, these bodies of data provide us with an excellent view of the varying forms of interchange and dialogue between the varying users and developers of this virtual world and research strategies have evolved over the years.

While this study offers unique insight into the interaction between a social media company and its users, this case is representative beyond this target group and games to social media in general for a number of reasons. For instance, the case is typical with respect to software business characteristics, functionality for group communication, active user communities, and developers' non-traditional means to learn about users (following online use, discussions, and web analytics).

#### HABBO HOTEL SERVICE EVOLUTION

What Sulake–Habbo consists of has changed significantly over the years. Habbo started as a pet project for a few developers and their friends, grew to become a popular online world among new media people and within a few years it became mainstream for a teenage target group. Technical, economical, and organisational bottlenecks were solved so that the service could grow and scale up to become a transnational service. We group the service evolution into five stages (Table 1).

Stage	Years	Monthly users	Hotels
Concept	1999–2000	< 10 000	1
Beta	2001–2003	< 1 million	4
Expansion	2004–2005	1–5 millions	16
Complexity	2006–2007	5–10 millions	19
Competition	2008–2010	10–15 millions	12–18

Table 1. Habbo Service Evolution

Concept refers to the first prototypes in 1999 and 2000: *Mobiles Disco*, *Lumisota*, and *Hotelli Kultakala*. At this time, the development resources were minimal as the two founding developers created the first proto on their free time after work and during weekends. Beta refers to the

time period between 2001 and 2003, when much of the basic functionality was completed. Internationalisation started through a UK partnership, followed by a Swiss partnership. Expansion refers to 2004–2005 when the product was packaged so that it made a roll out possible in more than 10 new countries during one year. Before that different code was used in different countries. Complexity refers to 2006 and onwards when the product was extended to a social networking service. Competition reflects the increased amount of social media services for children and an increased teenage adoption of Facebook.

During this service evolution, what was designed and developed changed. It started with *design for being*, making Habbo a cool hangout online. As the developers also used the service themselves, the informal engagement with the user community gave the developers a good implicit understanding of the users. During the beta stage, designers focused on *use practices* and the *changing target group*, following an increase in developer–user social distance. When the developers realised that there are too many users to keep track of, they started thinking about common learning paths for all users: logging in, learning to navigate in Habbo, connecting with others, creating a room etc. As younger teenagers took over Habbo (and the developers grew older), the developers realised that an age gap of ten years had emerged between developers and users. The developers were no longer insiders in the (teen) user culture, which meant that market and user research strived for an understanding what is cool and “in” within the target group. Means for safe playing were implemented and the parent of the user became a key stakeholder in website communication.

During the expansion stage, design objectives such as *cost-efficiency* and *double-sided business* became stronger. The target group of the first usability evaluation was new users and business critical service features. Marketing needed to show advertisers the Habbo demographics, so at one point the focus of the persona descriptions became lifestyles, not activity inside the hotel. This reflects the double-sided business model of Habbo, revenue from users is one part, and revenue from ads is another. When economics started driving development more, focus changed to customer loyalty, acquisition, monetization, and retention. In the competition stage, global competition and multi-sided business grew in importance. In 2009, when the Personas method was implemented in a data-driven fashion, the focus became to ensure that six persona descriptions should reflect the growing and declining market areas as well as have an even gender and age spread.

We have witnessed many changes in user involvement practices. From having relied on developer gut feeling, the company gradually adopted more and more advanced user research methods, to after ten years claiming to be a company driven by user-data. For instance, usability evaluations and market surveys entered development practice about four years after market launch. The Personas method was adopted still four years later. These changes did not occur only due to the usual suspect “more resources available because of organizational growth”.

Stage	Participation Forms, First Occurrence
Concept 1999–2000	Avatar activities, Developers as users, Informal evaluations, E-mail feedback, Volunteers
Beta 2001–2003	Volunteer forum, Weekly newsletters and polls, Fansites, Official Fanzine, Summer meetings, Sales statistics, Customer service
Expansion 2004–2005	Market survey, Focus groups, Usability evaluation, Playability testing, CRM system, Release pilots
Complexity 2006–2007	Online user panel, Global youth survey, User and group homepages, tags
Competition 2008–2010	Data mining, Automated surveys, User experience testing, Personas

**Table 2. First Occurrence of User Involvement Method by Service Evolution Stage (Johnson forthcoming)**

When studying the accumulation of user knowledge in the development organisation over several years, it became apparent that project phases did not structure the user of user research and involvement methods. Instead the question became one of turning attention to shifts in developer–user social distance, cumulated user knowledge beyond one project, user-generated content both in the main service and interconnected user-owned services, degree of business/mission criticalness of the feature to be developed, as well as organizational specialization and internal rhythm. The strength of the developers’ own experience of using the service and early close interaction with users is notable.

#### **Community Building: Fansites and Volunteers**

A key factor for service success in the early stages of its lifecycle was the emergence and continuous management of the fansites and volunteers programme. Already from the start of the service, groups of active Habbo users teamed up and created Habbo-themed websites in the form of blogs, online magazines, or discussion forums—called Habbo fansites. Fansites emerged around all Habbo Hotels in their respective countries or language regions. They varied in size and temporality, from small sites with a few web pages that operated for a few weeks to the biggest fansites with hundreds of thousands of page views, readers in more than one country and that operated for many years. While most fansites remained fairly underground phenomena, the more popular ones could get recognized by Sulake as being a so called “Official Habbo Fansite”. This programme of giving special status in the community to certain fansites started after the first three years of the service, during which the developers had operated their own official online fanzine, which also served as a model for later user-produced fansites.

The Habbo fansites served important community-building purposes, as they were run by active users and subgroups formed around them. These user-produced websites complemented Sulake’s official website by providing more detailed information about the hotel from an

experienced visitor's point of view. Hints, secrets, and guidelines, and stories about Habbo fashion influenced the boundaries for acceptable behaviour in Habbo. In addition, some fansites provided a discussion forum, either for all users or for a specific group in Habbo. Thus, the fansites served four important functions: they complemented the official website, strengthened the governance policies of the producer, reproduced and reinforced social positions (like potential Habbo career paths or legitimized user groups), and improved the Habbo users' awareness of the fan cultures around Habbo.

For the first five years of Habbo, Sulake leaned on volunteers to moderate the online activities. Volunteers were called "Hobba" and their function was to mediate in conflicts, send warnings to misbehaving users, kick them out of the hotel rooms, or ban them from the hotel. In 2005–2006 Sulake brought the moderating function in-house, by employing moderators in their country offices. The volunteer program changed, and experienced Habbo users could apply to become so called Habbo eXperts, who did not have moderating powers anymore, but could get into a room that was full. In 2008 the volunteer program changed again, and eXperts became Habbo Guides, who volunteer to welcome new users and explain Habbo's features. In 2009, Guide "Bots" were introduced, answering basic questions about Habbo.

Another feature of this emergent Habbo developer–user collaboration could be termed "online community journalism". The developers of Habbo encourage Habbo users to report and write article about important topics in Habbo. Instead of the developers having to find out what matters most to the Habbo users through expensive user research, developers can rely on users doing the work. The role of qualitative inquiry is then transformed to being a means for source critique of what the users write about Habbo, and taking actions to fill in the gaps and skews in reporting as can be observed in Sulake developers' recourse to keeping "average user" as an important design group, not as a gloss to be designed for, but as a reflexive category to help counter the domination of those user groups that were more vocal.

Taken together, these forms of user activities commonly found in many social media services can be termed user-generated content and user-owned services. Their linkages to the formal design organization, in turn, can be described as slowly paced developer–user dialogue (Johnson et al., 2010).

#### **ANALYSIS OF END-USER PARTICIPATION FORMS**

Even though PD is not an integrated framework for design, some analyses of participation have become more widespread than others. Bossen et al. (2010) highlight the following aspects of participation: *kinds of people* (with respect to role in development, e.g., end-user, manager, vendor, other stakeholder), *type* (direct–indirect), *degree* (sources of information vs. co-designer), *duration* (procurement, initial design phase, throughout project), and *arena of participation* (project, organization, national by Gärtner & Wagner, 1996).

*Kinds of people.* In the Habbo case, the concept and early beta stages resemble those PD situations where a small

team of core developers interacts with fairly familiar end-users. However, as the monthly number of users approached 1 million in four different countries, the number of actors and groups within the development company and in the different countries was already too large for direct involvement. Hotel-specific country organisations emerged as intermediaries between end-users, volunteers, and the increasingly centralised game development. These country offices would take care of the local technical configuration of the hotel, community management, player support, local campaigns, and advertising. Developers specialised in graphics, user interface design, server functionality or project management. Other intermediaries also played an important role in Habbo, e.g., from youth workers and other NGOs to the consumer agency and ombudsman in certain hotel countries.

*Participation type.* Direct participation was possible in the first stages in Habbo's service evolution, but was later transformed into more indirect participation in various forms. Users were represented by volunteers and participants in usability evaluations, playability testing, and online panels. Quantitative user studies (market survey, global youth survey) formed the basis for user categories. Community journalism raised important topics for debate. Mechanisms, visible to all Habbo users, were created to automatically summarize and aggregate user-created content (e.g. tags, tag counts, room categories, popular rooms). Habbo users were also represented in design through confidential web analytics data.

*Participation degree.* Certain small groups of users have had a greater influence in the service than others, for instance user volunteers and fansite authors. Most users have remained anonymous sources for information. Some users created image manipulations of Habbo rooms and furniture and posted these on fansites, which has served as design inspiration for developers. The service developers did not form user parliaments, like in the virtual worlds EVE Online and A Tale in the Desert. Gallup polls were used for opinions regarding future features, but the results were not made binding to game development, like in self-governance experiments in MUDs and Nomic in the 1980s (Dibbell, 1998).

*Participation duration.* The common analytical question, when and for how long are the users involved, becomes problematic when longer timeframes are analysed. What is evident in social media design contexts is changing assumptions about project beginnings, middle, and ends regarding prior user involvement, and the accumulation of user knowledge beyond one project.

*Participation arena.* In the early stages the work by Sulake contributed to building both the social media service, the volunteer communities and the organization behind it, both Arenas A and B in Gärtner and Wagner's (1996) framework. Some cases, for instance nation-wide payment mechanisms, privacy policies, and consumption regulation for children and teenagers engaged national actors in multiple national arenas, or Arena C.

Simonsen and Hertzum (2008) encourage PD to think big and create a sustained approach with systematic change

management. They raise four major challenges for participation: obtaining appropriate conditions and focus for PD, managing a multitude of stakeholders, managing a stepwise implementation process, and conducting realistic large-scale PD experiments. Whereas Habbo development was not aimed at solving the first mentioned challenge, some findings relate to the latter three.

*In regards to managing a multitude of stakeholders* Sulake created a socio-technical organisation with both centralised and distributed functions. Different hotels and distributed country offices managed national customer relations, and the volunteer and fansite communities connected with each hotel. In *managing a stepwise implementation process*, Simonsen and Hertzum draw up a process with democratic participation and localisation for each site where the service is implemented. This worked in the first phases of Habbo's evolution, but the software needed to become packaged to allow for the expansion in 2004-2005. In *conducting realistic large-scale PD experiments*, Sulake used release pilots, meaning one month testing and evaluation in one hotel/country, before the release is rolled out in all hotels. This restricted beta testing gave time for user feedback to have an effect. Also, because Habbo is not a life-critical system new features could be tried out in one release, and taken away in the next.

#### **PD IN SOCIAL MEDIA CONTEXTS**

It is always tricky to think through what insights can be derived from case studies to others. This is particularly so when it comes to novel products and services that are not repeated or repeatable, as the contexts around different development projects differ. In rapidly evolving fields such as social media also available technical possibilities and domestication of services by users alter the situation so that few "benchmarking" or direct comparison exercises hold much ecological validity. In the face of these challenges Russel and Williams' (2002) insightful synthesis of technology studies research on development processes proposes two forms of generalization that appear more promising. First, they organize their review around recurring themes and patterns in development projects (paralleling Van de Ven et al., 1999 work on longitudinal innovation research comparisons). Russel and Williams argue that within a technology and/or user domain some patterns can be observed despite high contingencies and differences in social and temporal contexts. Second, they propose that concepts to capture these patterns and patterning mechanisms (e.g., technological guideposts, irreversibility, boundary object, socio-technical regime, centre of calculation...) offer the most salient mode of generalizing between technology projects. Their proposal appears to implicitly draw from (and at any rate comes very close to) the symbolic interactionist idea of "sensitizing concepts", that is, prior empirical enquiries providing grounded condensations of social reality that can aid orienting to new specific setting at hand. The idea is not "applying in" concepts to (or "finding from", or "testing the constructs in") empirical reality, but reflexively using the concepts to examine if and how the previously indicated phenomena may be present in the process under examination. Not all sensitizing concepts

potentially relevant in a domain area end up in any way significant, and often the ones holding relevance have taken somewhat different form (Star & Clarke, 2008).

We find Russel and Williams's proposal very sensible. It offers a grounded, even if tentative, mode of learning from a case to another. In their usage, however, it was used to generate an overview of findings from close to 200 case studies compiled over a decade in science and technology studies. Our setting with social media development is somewhat different in that to our knowledge Johnson's research on Habbo is the first ever careful long-term follow up of both developer and user practices and their interaction in social media. As the alternative of waiting for few years for rigorous research to pile up before thinking of potential implications is not exactly the timeliest way of disseminating insight, we here make a (tentative) variation of generalizing from a key patterns strategy. In what follows we pursue a two-stage inference process. We first spell out the most important concepts that condense the key patterns from the Habbo-Sulake case in regard to PD. We underscore that they are sensitizing propositions. We then move to illustrating the relevance (but equally the quite different form) that these patterns can take in another kind of social media service, the early stage of a web service for teachers' materials built by a national broadcasting agency.

#### **Developer–User Social Distance**

The developer–user social distance will vary during the development journey and can shift back and forth for many reasons. It is crucial in figuring out what methods are likely to be most effective. This starting point is in notable contrast to, for instance, attempts to define one "best package" for user research in social media, such as the final array of methods in Habbo. It is important to understand that if the developer-user social distance is small, developers' informal engagement and personal experience can substitute for (and excel over) more formal methods. With hundreds of thousands of users, increasing asymmetries emerge in who designs and who uses, even if peer production is a significant part of the equation. There are competing pressures to (re-)centralise large scale decisions (and then use participative practices to legitimise or generate small add-ons) and bestow volunteer communities with decision power to realize design directions from bottom-up.

#### **Cumulated User Knowledge Beyond One Project**

When it comes to social media services, user participation rarely does, and should not pretend to, be starting from a clean slate, e.g., by a concept design exercise (vs. Sanders and Stappers 2008). For some development sprints no new user research or participation is needed, nor any questioning of the alignment of design goals and user needs—contrary to common assumptions in the communication of participatory and user-centred design principles. Prior method use history shapes what is sensible consequential method use—e.g., after the main contours of Habbo had been usability evaluated, usability evaluations turned towards smaller details. Similarly, after overall user mappings, the following enquiries fine-tune specific issues that remained open. This practice can

be interpreted as a sensible ongoing tailoring of methods that becomes necessary when dealing with as complex and changing phenomena. The key question hence becomes how to enrich the knowledge in the organization and how to meet the present and long term key concerns in service development and organizations doing it.

If the conjecture we propose is correct, this then affects both the epistemic and ethical grounding for engaging in participation. The epistemic criteria for any given participatory or user research act shift from how valid the information is for understanding users and their practices per se, towards how valid (useful, even inspirational) the information is for design concerns. Similarly, if ethical criteria shift from fairness and representativeness of a given event, we need to engage (also) in a consequentialist register in judging participation. Habbo developers used biased samples (e.g., designing for an “average user”) to balance the most vocal and active users (Johnson 2007). This is similar to the idea of “user gains” that Bossen et al. (2010) have presented, e.g., that we need to reflect on participation as the means to empower users, and assess to what degree of empowerment takes place.

In general, user feedback and use practices influence most the features that are under active development. After the initial years, the Habbo service concept stabilised for a few years, where user feedback influenced incremental feature development. In 2006-2007 the service concept was broadened with social networking features and user feedback could influence those developments. This implies that it makes a difference in what order designers engage with potential sites of participation. User groups who “arrive first in the city” can tailor the service more to their interests than those who arrive later. Sometimes user groups are in competition with each other. Platform change and cultural maturation need to be prepared for in even greater emphasis than most other products: virtual worlds were new when Habbo begun, a decade later these were mainstream.

#### **Organisational Specialization and Internal Rhythm**

Service development is embedded in developer and user community rhythms. When organisational specialisation increases, more effort is needed on communicating knowledge about users and their use practices within a design organisation. The need to explicate user and technology representations grows also with the increase in relevant time frames, scopes of design and delays in launching of features. Different concurrent rhythms in development emerge: community management practices can have one rhythm, market surveys another, and development a third, or even multiple rhythms if there are side-tracked parallel development with longer timeframes. Social media also accentuates user participants “commitment horizon” as they can participate over several launches and platform changes even if they remain members only for 1–4 years. Also designers see multiple generations of users and can design for this fast turnaround.

#### **User-Generated Content and User-Owned Services**

Social media settings accentuate the organising of user communities and peer production after market launch.

Active user volunteers can fill in where a service developer company has no resources. Key questions to the organization of user possibilities in influencing service evolution include who hosts, maintains and controls the rights to activities and outcomes of user-run, developer-run, or interconnected third-party blog/forum resources and services.

In social media contexts, developers have easy access to online user action, so whenever a question of uncertainty comes to mind, a developer can just log on and check what users are doing and writing about just that topic. Service operators can use web analytics to analyse their server and service logs regarding all sorts of statistics of online user action and activities: site visits, transactions, and use patterns. These digital trails offer advanced opportunities for dialogue between developers and users, and means to tap in and collaborate with user owned interconnected resources and services. At the same time, utilization of user digital trails, especially web analytics, and keeping that information to designers further increases the asymmetry of the developer–user relationship and can lead to losing of loyalty by users (as well evidenced by counter movements to Facebook, for instance).

#### **Degree of Business/Mission Criticalness**

Assessing relevant variance in use practices is significant for fitting a technical feature to social practices. This reflects in both in-built technical flexibility and in the selection of relevant user involvement methods. For instance, login, registration, and payment options are features with use practices that are critical parts of most services and tend to become tightly scripted with little degree of freedom. Other features are less critical and some relate to more open-ended user practices, which in turn call for more technical flexibility.

#### **THE INSIGHT FOR AN EARLY STAGE PD EFFORT**

Let us move to considering these lessons in another service development case that is purposefully different. This should clarify how and to what length we think the concepts we propose need adjustment to particularities of another case. It hopefully equally shows that these concepts do hold more general relevance in how social media service development is patterned in regards to the participatory opportunities it offers.

Our case of comparison is the Finnish national public service broadcasting company YLE’s ongoing development of a social media service for teachers. The service is part of an increasing breed of social media services that aim to fit in the work life of people, aim for a widespread and diverse user-base, whilst relying on voluntary usage. YLE runs four television channels, six radio channels and an online service yle.fi, which also provides mobile services. It has a major role in Finnish media and a reputation of a dependable organization.

Yle’s Opettaja.tv (“Teachers.tv”) service was designed for both television and online, growing out of over 30 years of school TV. The service offered teaching material for teachers to use in class as well as education material for teachers’ further education and professional development. The web service offers audiovisual teaching material, tools for class education and acts as a discussion

forum. Despite the significant amount of high-quality material and a crowd of regular users, a redesign was commissioned to improve the service. User inclusive development was intensified in the form of lead-user workshops and then in the further redesign of the service.

#### **Developer–User Social Distance and Its Implications**

Our first focus point lies in clarifying what kind of developer–user social distance there is and what implications it may hold. In contrast to Habbo and most other successful social media services today, YLE’s service development did not begin by developers being users, that is, teachers or having teacher backgrounds. The professional distance between YLE designer-producers and practicing teachers appears wide in light of findings from the workshops where we had designers and teachers elaborate their understandings of what comprises the first generation *opettaja.tv* by using a participatory 3D modelling technique (Mäkinen et al., submitted). A mere 11% direct overlap and 33% benevolent overlap was evidenced in what were relevant parts of the service and what were not. In a telling example, designers talked about “pupils” as one category of actors, whereas teachers discussed “learners” nuanced in ten different categories.

The professional distance is amplified by the diversity of teaching practices and teaching technological means. Finland has national teaching target plans but gives individual teachers full freedom in how they wish to meet them. Finnish teachers are highly educated (5 years masters degree) and explore the freedom they are given. This leads to high variation in teaching practice and digital media usership. While some teachers still carry wall hanging cardboard posters into classes, some create their own mash-ups from various digital media sources.

In the light of the above, the elaborated key issues for PD in social media contexts point to considering what it means to develop a social media service with an already initially considerable social distance, but also an initially manageable variety in the user-base. It appears likely that designers could use formal participative methods and user community support to gain insight of users of educational social media content and form. Furthermore, unless some form of directed action is taken, the developer–user social distance is prone to grow even wider due to the variety in teaching practices in Finland. Just relying on shared citizenship, higher education background and media exposure is likely to keep developers in a position, in which use of informal and implicit understandings of teaching domain is cut off from their effective register.

#### **Cumulated User Knowledge Beyond One Project**

The second focus point here is the cumulated user knowledge. In this regard, the YLE teacher web services build on a whole range of prior investigations. Designers have user log data and feedback, as well as dedicated Facebook and Ning communities for users of the first version. They also already have findings from the related lead-user study and workshops. Cumulating user knowledge with these means could be continued, e.g., by targeting different areas of concern or new user groups. Just as well, diversifying the user participation approaches would make sense (hence, for instance,

adopting other approaches to complement the lead-user method!). The efforts to narrow the developer–user social distance could benefit from well rehearsed PD means such as workplace visits and asking users to act as guides to their practices particularly in schools where social media resources are already actively used.

To date the main thrust of the cumulated user knowledge appears to be that the service did not cater well enough for novel and more flexible social media uses, collecting materials from elsewhere, storing one’s own collections, use without web connection, and storing to one’s own hard drive. Users also stressed how the service was lacking user ratings, libraries, folksonomies, et cetera that they would have preferred. This leads to the third focus point for consideration.

#### **Organisational Specialization and Internal Rhythm**

In light of users’ feedback on what they would wish to have in the future, the design may benefit from shifting the design strategy into one of designing for variance and more open evolution. Such a design strategy shift, on the other hand, means a shift from YLEs production and project oriented culture into emphasizing development after launch (not only a maintenance and moderation resourcing). On the other hand it means preparing for the rapidly changing outside world by having open API’s and other interfaces. This leads us to the fourth focal point.

#### **User-Generated Content and User-Owned Services**

The fourth key lesson about social media concerns the centrality of user-generated content and the importance of users’ innovative inputs to service evolution. While these have taken many forms in social media services to date, the user-owned interconnected resources and services appear to be a major issue—most social media service development directly rests on user inputs.

Should YLE begin promoting peer production in addition to YLE-produced material, there arises, however, the question of the location and moderation of this user-generated content. Peer production can imply teaching material produced by teachers, but can just as well in this context mean user-generated categorization of the material (folksonomies), folders, playlists or remixes of existing content, and the sharing and rating of these. These service design questions have a consequence for the setup of user discussion forums, also in terms of their moderation and hosting. The location of discussion forums is likely to be tied to the location of peer contributions and user innovations, which implies that locating user forums on Facebook and LinkedIn for instance are unlikely to thrive, unless uploading and sharing of user-generated content also works on these sites (not likely). Whatever the solution, resourcing to provide example contributions, to moderate folksonomies and other content is something YLE is likely to have to do to get the community formation and user contributions going, even if it went radically participative and had teacher community volunteers (or paid volunteers) do the job. In the case of Reddit, a news commentary service, the Reddit developers contributed with 80% of the content for the first months (Clement et al., 2008). Also the trails of the users’ actions in digital services can be an

important resource for tuning and optimizing the service. For instance, toplists and recommendations of similar content need not rely only on qualitative judgements, but also on the actual use of content in the service.

### Degree of Business/Mission Criticalness

Our final sensitizing area concerns the ownership and design strategies in service evolution. In contrast to often-advocated wholesale recipes, such as “move to open design”, our case analysis underscores the variation in sensible design strategies within the service. It appears equally important as leaving openness in design to ensure that the most mission critical parts of the service work well. The issue in renewing the public teacher resource is the apparent need to figure out what are its most mission critical parameters. As a service it occupies a contested in-between niche between educational audiovisual content available elsewhere in the web (Youtube, BBC, Pirate Bay...), online teacher chat forums, as well as the educational publishing world, its virtual learning environments, and accompanying content for school books. From this position, some of the mission critical parts in its design are likely to be

- Basic viewing and search of the material
- Easy offline use, or local caches in schools, in case the wide area network is down.
- The initial setting and later evolution of the developer–user boundary with respect to the following: production of new material, categorizations of it, and linking to material on other sites.

The third point relates to finding out sensible boundaries for this service with respect to the mentioned service ecology, the potential for user-owned interconnected services, and interoperability between different services (links, feeds, authentication). One of the key missions and legitimizations for this service is to get good usage for the vast amount of Finnish materials owned by YLE. Tagging this material clearly as copyright-wise safe to use is needed. Also, clear policies for linking to teacher-created content need to be created, for instance through Creative Commons licensing. Part of defining the mission criticalness may include coming up with metrics for the funders of the service that are not just active user statistics and site visits per month. Pilot schools and best practice development may be ideas worth exploring.

There are, of course quandaries in how such mission critical aspects evolve in the service lifespan. Operating the service as a “voluntary use alternative and open repository” of educational materials and corresponding above areas of mission criticalness may be a good heuristic for the early years. However, should it happen that the teachers’ resource becomes widespread in Finnish educational life, then, at some point in its development its status may shift. From merely offering an alternative resource, the service might influence what orientations and ways of teaching are legitimate as in being compatible and supported through curricula planning. The ensuing mission critical aspects would then shift as well.

Our key point here is that one cannot infer the most mission critical aspects of a social media service from any

one case or a bunch of cases, but that the issue—what is mission critical and what can be left to evolve—will be salient in any such service. Critical aspects are contingent in regards to users, ways of using, position amongst competing alternatives, as well as the aims of resource controllers (be this users themselves, private investors, or public funding bodies). User payments or advertising is core in most commercial services, but not here. Yet the various mission critical areas concern both types of services.

### CONCLUSIONS

We have argued that social media introduces new possibilities for participatory designers, but also introduces new concerns and key issues to be dealt with. One cannot deduce a recipe or checklist for PD in social media settings, but we can offer sensitizing concepts based on in-depth research that help us orient to new projects and particularities in their development and use contexts. We argue that taking developer–user social distance as a guiding concept for clarifying adequate participation modes helps in cases where PD is clearly not a matter of project or concept design phase endeavour, but rather a long term engagement that builds on the evolution of the service and the user practices related to it, including interconnected user-owned services. Accumulation and complementarity of user knowledge, rhythms of stakeholder practices and organizations, as well as mission criticality of different parts of the system help clarifying the focal points that imply what kind of participative design could be fostered.

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