

user-centred design and the user-driven web



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Is a user-centred design process suitable for social interaction design?

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26 August 2008**

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Acknowledgements

I would like to thank Elizabeth Wright for invaluable guidance concerning the direction of this dissertation, Alice Lambert for offering constant encouragement and for her studied syntactic and morphological appraisal, and Matthew Stephens for answering my desperate plea for an interview and for creating the site that introduced me to the best that social media has to offer.

Abstract

The central tenet of user-centred design, that good design is focused upon user requirements, is found to be valuable and resistant to theoretical objections. However, user-centred design processes played little to no part in the creation of today's most successful social media services. It is proposed that this is because alternative design processes, based on a 'self-centred' approach or a reliance on personal experiences supplemented by user feedback, can be a highly effective means of satisfying user requirements, as well as being cheaper, quicker and better suited to the nature of social media.

Chapter one: Introduction

Social media is taking over the Web. In the first half of 2008 the social networking¹ world welcomed 64 million new participants, bringing the total in the UK alone up to 27 million (Immediate Future, 2008). In less than a year the percentage of internet users who read blogs² has risen from 66% to 78% while RSS³ consumption has risen from 15% to 39% (MacManus, 2008). Such a seismic shift in consumer patterns has steered the direction of the business world as well. Between 2007 and 2008 the proportion of the 500 fastest growing US companies who consider social media 'very important' to their business has nearly doubled, from 26% to 44% (Barnes, 2008). The impact of social media has even been compared to that of Gutenberg's printing press (Nation, 2008). This comparison is not hyperbolic. Beyond being internet-based, social media's defining characteristic is a revolutionary undermining of the distinction between producers and consumers of media. Instead of producing content, social media services merely facilitate user interaction⁴.

Given its novelty, spread and continuing enormous growth, it is vital that the issues surrounding the design of social media—tentatively dubbed 'social interaction design' by some in the fledgeling field (Chan, 2007, Cass, 2008)—be understood. What little has been written on social interaction design has focused upon design *principles*—axioms and observations which describe a well-designed product. But the appropriateness of such principles varies hugely from project to project and there can be no hope of applying the same rules to all (Kuniavsky, 2003). Of greater value is a design *process*, something which describes a 'repeatable, analytical process' for the creation of successful products (Cooper & Reimann, 2003 p. 8).

In the case of interaction design, social interaction design's parent discipline, designers typically look to user-centred design (UCD) for such a process (Norman, 2005). The UCD process, described in Chapter three, would seem to be well-equipped to deal with the particular challenges of social media since social media is 'even more about user engagement' than standard web services (Burns, 2008). Nevertheless, as will be explored in Chapter four, UCD has been pointedly criticised by some theorists, including one who specialises in social interaction design. Though these criticisms turn out to be mostly based on an inaccurate understanding of UCD, less easily-evaded doubts are cast when it is perceived, as it is in Chapter five, that the UCD process invariably played little or no part in the design of today's leading social media services. The tension between the theoretical validity of the UCD process and its apparent practical insignificance is resolved in Chapter six when it is observed that social media benefits from the core tenet of UCD, the focus on satisfying user requirements, but that the UCD process is not the only way of satisfying those requirements. The speed, minimal cost and better suitability to social media's distinctive character of these alternatives render the UCD process unsuitable in comparison.

Before embarking on this analysis, however, it is first necessary to consider the methodology behind it.

1. 'Social networking' refers to online services which make it easier for people to communicate and share things with large numbers of contacts.
2. Blogs are the online equivalent of the personal opinion and diary-style columns in print media. They differ from their print antecedents principally in the ease with which they can be set up and disseminated and the fact that readers can post public comments about the published articles.
3. RSS is a technology allowing users to conveniently monitor new articles on blogs and news sites which interest them.
4. The details of this definition of social media could be debated but it is adequate for the purposes of this dissertation.

Chapter two: Methodology

The methodology used to answer the dissertation question is described and justified in this chapter. It is best understood in terms of a three-part structure which corresponds to the structure of this dissertation. Chapters three and four concern design theories for and against UCD and as such are based on qualitative secondary research. Chapter four concerns the *practice* of social interaction design and is based on mostly primary research in the form of case studies. Chapter five consists of an interpretative analysis of the findings.

Determining the validity of anti-UCD arguments through comparative analysis and secondary research

In chapters three and four, UCD's validity in the face of theoretical criticisms is determined through a comparison of the literature arguing against UCD and the literature describing and advocating UCD¹. In particular it will be asked whether the former presents an accurate account of the latter. In the case of some criticisms, a final conclusion on its potency is deferred until Chapter six, when the criticism can be assessed in light of the case studies of Chapter five.

A broad sample of literature describing and justifying the UCD process was reviewed in order to understand the nature of the UCD process and the arguments for implementing it. Literature for which broad support amongst designers could be identified was favoured, on the basis that the literature which designers found most helpful would provide the clearest descriptions of the UCD process and the strongest arguments in favour of it.

A broad sample of the literature critical of UCD was reviewed in order to understand the theoretical arguments against UCD. Due to the scarcity of theorists antagonistic to UCD no particular criteria was applied in the selection of the literature beyond the theorist having genuine academic or professional credentials in design.

A broad sample of the literature about social interaction design generally was reviewed with the aim of extracting from it theories which amounted to an argument for or against the UCD process. Again, there is very little literature specifically on social interaction design and even less which addresses design *processes*, as opposed to design *principles*, so the same minimal criteria were applied to the selection of the literature in this case.

Assessing the use of user-centred design processes in social media practice through case studies

To address the part of the dissertation focusing on social interaction *in practice*, evidence was drawn from primary and secondary sources on the early design histories of sixteen highly successful social media services. The actual design process described in these sources will be compared against the UCD process, amounting to a comparison of theory against practice. The primary sources consist of interviews with the founders of these sixteen selected social media services.

1. In a few instances evidence from the case studies is used in Chapter four in addition to evidence from the secondary research. This is done where the particular evidence is more relevant to the topic of Chapter four than it is to the topic of Chapter five, where the greater part of the evidence from the case studies is contained.

Unfortunately, attempts to contact potential interviewees were only successful in one instance and thus only one of the interviews was conducted by myself (see Appendix i). Therefore the level of detail in the case studies is limited. This limitation had been anticipated in advance and as such a large number of case studies are used partly in order to compensate for it. A large number was also used in order to increase the generalisability of the findings.

The products featured in the case studies were chosen on the basis of their success and an explanation of why the featured service should be considered highly successful is given at the beginning of each case study. In general the services are considered successful because of the extremely high number of users and visitors which they regularly attract and because of the very substantial investment they have received from third parties. There are of course other valid definitions of a successful product but in practice popularity and profit are the most widely-used benchmarks of a successful social media product.

The case studies were deliberately chosen to cover a wide range of fields, from established services which set the benchmark, like Flickr and Blogger, to young start-ups which are leading the way in a new service, such as Twitter and FriendFeed¹.

Analysis of findings from both primary and secondary research

The findings of the case studies in Chapter five inform and expand the theoretical arguments raised in Chapter four. Chapter six therefore draws from both the primary and secondary research in an analysis that considers the tensions between the two and proposes a resolution of them.

Summary

The research for this dissertation was desk-based and qualitative. Secondary sources describing, advocating and criticising user-centred design and mostly primary sources describing the design processes leading to the creation of successful social media services form the backbone of the research. Analysis consists of comparative analysis of the literature, a comparison of theory against practice and an interpretative analysis aimed at creating a unified theoretical framework for understanding the research findings.

1. Of all the case studies, FriendFeed's claim to great success is the most debatable, as its user base remains relatively small (Perez, 2008 a). Nevertheless the author chose to include it for the reasons given in Chapter five, and for the sake of including a very young company to counterbalance the preponderance of older products and generate more generalisable findings.

Chapter 3: What is a user-centred design process?

This chapter draws on influential UCD literature to describe UCD's philosophy and the techniques and stages by which a product is designed using a UCD approach.

The philosophy of user-centred design

To understand the process of user-centred design it is necessary to have a basic understanding of the philosophy behind it. At its heart is an injunction to 'keep the user in the center and remember the user at the end' (Dix et al, 2004 p. 195). This stands in opposition to 'self-centered design', which consists of 'taking an approach to product design based on our own wants and needs' (Pruitt & Adlin, 2006 p. 6), and 'technology-centered design' whereby technological features and improvements are made the focus. Either focus is thought by UCD advocates to result in 'inadequate products' (Pruitt & Adlin, 2006 p. 6).

The process of user-centred design

If a user-focus defines the philosophy of UCD, direct engagement with users defines the process by which this philosophy is implemented in practice:

User-centred designers engage actively with end-users to gather insights that drive design from the earliest stages of product and service development, right through the design process. (Black, 2006)

This process of direct engagement is made through a number of specific techniques. Since the details and interrelationship of these techniques differ according to the individual theorist proposing them¹, there are in fact multiple UCD processes. Nevertheless all UCD processes bear certain elements in common. By drawing on the definition of UCD registered with the International Organization for Standardization (Usability Professionals' Association, n. d.) and by concentrating on the general process rather than the details it is possible to arrive at a meaningful definition within which all UCD processes can be comfortably fitted².

Analysis Phase

The analysis phase consists of a mixture of qualitative and quantitative user research but it is the emphasis on in-depth quantitative research which distinguishes UCD. The form of research considered most valuable is derived from ethnography and consists of observation and interviews conducted in the environment where the relevant activity takes place. Such research is considered especially valuable because it illuminates the gulf between what people say they do and what they *actually* do (Mulder & Yaar, 2007).

In general though, UCD advocates consider any form of user research to be infinitely better than none at all:

1. Karen Holtzblatt's 'Contextual Design' and Alan Cooper's 'Interaction Design' for example, are recognised as differing 'species of user-centred design' (Batrick, 2005 p. 1).

2. It is therefore correct to refer to both 'user-centred design processes' and 'the user-centred design process', as is done in this dissertation.

Surveys, focus groups, and other forms of user research conducted before the design phase can make the difference between a Web site (or any designed product) that is useful, usable, and successful, and one that's an unprofitable exercise in frustration for everyone involved.' (Kuniavsky, 2003 pp. 3–4)

This research is then distilled into a number of 'personas', fictional characters with names, histories, personalities and, most importantly, specific reasons for using the product and a physically and temporally situated context in which they do so. The personas are used throughout all the phases of the design process (Mulder & Yaar, 2007). The rationale for personas is based on UCD's wariness about designing for a 'generic user' disconnected from any particular context. Instead, personas ensure that the designer designs with 'several specific users' always in mind (Dix et al, 2004 p. 198).

Design phase

In the design phase, the personas are placed in 'scenarios', fictional narratives about people using the product (Dix et al, 2004). Scenarios 'flesh out the story' of exactly how the user would use the site (Mulder & Yaar, 2007 p. 192).

In addition to this purely theoretical prototyping, designs are tested as far as possible with real people through the use of cheap and rapidly-made prototypes. These 'low-fidelity' characteristics are considered valuable because 'prototypes that are used for exploring ideas should be flexible and encourage rather than discourage exploration and modification' (Sharp, Rogers & Preece, 2007 p. 531). Prototyping in code is discouraged in UCD because 'code... is very resistant to change from outside forces, and in the context of programming, the user's needs are an outside force' (Cooper, 1999). A flagship UCD technique is the use of hand-sketched paper simulations to test a user's ability to understand and navigate an interface.

Implementation phase

The significance of the UCD approach diminishes in this stage wherein the product is actually developed into a working, releasable product but, as far as possible, the product is continually tested and re-evaluated (Usability Professionals' Association, n. d.)

Deployment phase

After the product is completed and released, UCD continues to have a role in the form of field studies on actual use, continued usability testing and an emphasis on eliciting user feedback (Usability Professionals' Association, n. d.).

Summary

UCD is defined by an emphasis on direct engagement with users. Key UCD techniques used to facilitate this engagement are ethnographic observation, personas, scenario, low-fidelity prototyping and constant testing.

Chapter four: Are the arguments some design theorists make against user-centred design processes valid in relation to social media?

User-Centred Design enjoys such wide acclaim and acceptance that it is difficult to find design commentators who actually dispute its efficacy. Yet voices raised against its philosophical hegemony can be found, and surprisingly one of the strongest belongs to respected 'usability guru' (Schofield, 2005) Don Norman¹:

Ethnographic research is fun. You get to go out into the world and watch, take pictures, satisfy your curiosity and inherent nosiness. Back at the office it is great fun to scribble notes, to post them on walls and rearrange them to form patterns. Then we can create personas, colorful little artificial people with cute, interesting lives, or maybe overstressed, over-busy lives. We delight at personas, at prototyping, at watching people go through their paces... But does all of this activity lead to actual success in the marketplace? I fear not. (Norman, 2007 a)

Referring to user-centred design as 'Human-Centred Design' Norman makes a series of strident arguments against user-centred design which, along with arguments raised by two other design theorists, are used as the basis for this chapter.

Does user-centred design focus too much on a screen-by-screen analysis?

One of Norman's more specific criticisms is that UCD focuses too much on analysing individual screens encountered by the user, as opposed to the 'dynamic sequences' which form their context. He says this results in systems which are 'superb at the level of static, individual display, but fail to support the sequential requirements of the underlying tasks and activities' (Norman, 2005).

This argument can be dismissed as a patent 'straw man' argument. One of the reasons scenarios (see Chapter three) are used in UCD is because they 'ensure that all aspects of work captured in the work models are accounted for' (Beyer & Holtzblatt, 1998 p. 24) instead of focusing on isolated technical improvements, such as an enhanced interface. Scenarios—a technique repeatedly emphasised in UCD literature—are devoted to describing the very 'dynamic sequences' which Norman claims UCD neglects.

Does user-centred design lead to a damaging neglect of the activities which a given product facilitates?

A similar argument (and a similar counter-argument) appears when Norman asserts that 'the focus upon humans [in UCD] detracts from support for the activities themselves' (Norman, 2005). As its name suggests, Norman's (2005) preferred 'Activity-Centred Design' presents activities, and the successively more discrete 'tasks', 'actions' and 'operations' which compose them, to be the appropriate central elements of a designer's work.

1. Elsewhere, Don Norman seems to praise the UCD techniques he mocks here:

The solution is to... observe [your core customers] at work, the better to understand their true needs... Rapid iterations of prototype and evaluation is the key (Norman, 2008).

This apparent contradiction is partly explained by Norman's concerns about the dangers of UCD's theoretical hegemony: Human-Centered Design has become such a dominant theme in design that it is now accepted by interface and application designers automatically, without thought, let alone criticism. That's a dangerous state - when things are treated as accepted wisdom. (Norman, 2005 p. 14)

Again, this is a straw man argument. As described in Chapter three, the defining techniques of UCD concentrate upon activities. Scenarios describe activities in context and prototyping and usability testing test a product's capacity to facilitate a particular activity. User research is conducted with a view to better understanding the real behaviour, needs and attitudes *surrounding a particular activity*.

Perhaps it could be argued that this focus on activities should be the *only* focus and that an understanding of users is a waste of time, as does one practitioner supportive of Norman's criticisms when he asks 'what need is there to consider the whole person (Human-centered design) when your design needs to cater to what that person wants to do with your product (Activity-centered design)?' (Satrom, 2005). To this supporters of UCD can reply that this consideration of the whole person is required so that the designers 'can understand what goals [the users] are accomplishing when they show [the designer] the kinds of tasks they are performing... the goal is the reason for the activity' (DeMulling, 2005). In other words, it is necessary to understand goals to understand activities, and it is necessary to understand people to understand their goals, not to mention the context in which the activities take place.

Moreover, Norman's argument can easily be turned on its head when it is considered what the damaging consequences of emphasising activities at the expense of users might be. The founders of MySpace (see Chapter five) explicitly attribute their creation's success to a focus on users rather than features. They feared that a focus on social networking activities, such as music-sharing, news-sharing and the like, might have led to getting 'bogged down in creating the next new technology podcasting RSS thingamajiggy' (DeWolfe & Anderson, 2006). Instead, they focused purely on creating an appealing and useful environment for the users:

It wasn't set up to appeal to tech geeks somewhere. It was set up for everyday people to express themselves creatively. (Anderson & DeWolfe, 2007)

Of course this example only illustrates the fact that there is no such thing as sacrificing activities in favour of users. Activities are worthwhile when they support user requirements and worthless when they don't. This leads on smoothly to another Norman criticism, which concerns Norman's false understanding of the meaning of 'user requirements' in UCD.

Does UCD underestimate people's adaptability to tools?

The focus of UCD is creating tools that are adapted to people, rather than expecting people to adapt to tools. Norman rejects this 'nonsense' and instead proclaims that 'people adapt to the tools', citing the way we live our lives by the clock and the way musicians and automobile-drivers experience their tools as extensions of themselves (Norman, 2005). He argues that 'user requirements' constitute a moving target and focusing solely on them is anathema to progress—people learn a new tool and find that their requirements quickly change as a result (Norman, 2005). Again he argues for focusing on the activity which the tool is designed to aid.

To this it can be countered that an accurate understanding of the users will give an accurate understanding of their willingness and ability to adapt to an unfamiliar tool. 'Mental models' is a familiar term in the language of user-centred design, referring to the way that people can better understand an unfamiliar concept if they can relate it to a familiar concept. Thus the 'desktop' computer's 'folders' and 'files' can be 'dragged', 'dropped', 'cut' and 'pasted'. UCD theorists do

not advocate keeping users in a state of conceptual stasis, but moving them forward incrementally, so that each conceptual shift can be grasped and made familiar as it comes:

A good design... changes the work enough to make it more efficient but not so much that people cannot make the transition (Beyer & Holtzblatt, 1998 p. 8)

So once again, Norman's argument seems to be based on a straw man of what he claims UCD is, not what it actually is.

Is the user-centred design process' emphasis on understanding specific individuals' requirements damaging?

Norman continues his attack with a criticism of UCD's favoured methodology for user research and analysis:

There has been far too much emphasis on individual people, trying to model, trying to build fascinating scenarios and 'personas' (Norman, n. d.)

For this claim he gives three arguments: that 'too much attention to the needs of the users can lead to a lack of cohesion and added complexity in the design' (Norman, 2005), that 'the focus upon individual people (or groups) might improve things for them at the cost of making it worse for others' (Norman, 2005) and finally that such a focus makes no sense in the case of a product which is 'designed to be used by almost anyone in the world' (Norman, 2005). Substitute 'world' for 'World Wide Web' and this last charge is particularly pertinent to many social media services. One would be hard pressed to identify the specific subset of web users which eBay, Wikipedia and Flickr, for example, are targeted at. Instead of the acquiescent UCD designer, Norman advocates a 'design dictator, someone who has good focus, who knows what this product is to be about and refuses to allow distractions to change the product' (Norman, 2007 b).

But once again, Norman's criticisms are based on a skewed understanding of UCD. Respected user-centred designers IDEO (Sprenberg, Saloman & Joe, 1995) explain the purpose of focusing on individuals not as a way of slavishly creating products for just those people, but as a way of gaining deeper design insights (South, 2004). Likewise, in defending UCD deviantArt¹ cofounder Matthew Stephens (2008) argues that 'a good designer should be able to take feedback from multiple users and turn that into a single, coherent vision'. In other words, UCD is not about relying on the users to determine the design focus, it is about making sure user needs inform the designer's vision.

Is it possible to prototype social media prior to development?

A more technical problem with UCD is raised by the theories of social media specialist Adrian Chan and concerns one of the key stages of the UCD process: rapid prototyping. The problem arises from the distinctive characteristics of social media. With most interactive media the product can be prototyped because the interaction occurs solely between the user and the interface. In social media this traditional 'one to one computer-user interaction' is replaced with 'a whole community of users' (Chan, 2006 b p. 5). What good is a social media prototype unless it contains social content? How can it contain social content if it isn't a working model? It is possible to create prototypes populated with anticipated user-generated content, but the value of these tests is weakened by

1. See Chapter five.

the fact that it rests on assumptions about users' behaviour. Even if the prototype content is based on some form of user research, it is still likely to differ markedly from the content which users would *actually* contribute, because this is affected so much by the product itself.

The difficulty of prototyping social media is further complicated by the fact that social media interactions are generally activities without specific goals:

We can no longer make sense of social software and related applications from a user-centric model—at least not the model that has come out of cognitive science. That model has insisted on a rational user, a goal-oriented user interested in achieving his or her objectives. (Chan, 2006 a p. 7)

Instead of being describable in terms of goals, the social media user's motives are likely to involve intangible and subjective concepts of 'self, other, performance, and so on' (Chan 2006 b). A key part of the attraction of the most social of social media services is that they engage the user's sense of identity and community, becoming part of the narrative of his or her life. This is not the kind of thing that can be tested in a 30-minute usability test.

Likewise the user's activity on such sites does not consist of discrete actions that 'end with a function or operation's conclusion. Instead:

transactions are 'ongoing and episodic... they solicit response from others. It is other users that pick up and continue a user's action (that action being a communicative one: blog posting, video posting, commenting, etc.) (Chan, 2006 b).

Lastly, the character of a community takes time to develop and its shape will be dependent on multiple factors of which the product design itself is only one:

...you're going to get this mix of social and technological effects... the group is real. It will exhibit emergent effects... Groups are a run-time effect. You cannot specify in advance what the group will do (Shirky, 2003)

Before a social media service is a working product which users can fit into their lives as they please and use over a period of time it is impossible to adequately test its effectiveness as a social service.

However, the fact that early prototyping is of limited use for social interaction design does not mean that it is of no use. A limited simulation is better than no simulation at all if the limitations are taken into account when interpreting the results¹. Moreover, usability—how self-explanatory the interface is—is still discernible through early prototypes and does not require authentic user-created content to be of value since in this case it is the interface and not the social experience that is being tested².

So the use of prototyping social media is limited but existent. What this means in practice is discussed in Chapter six.

Does the user-centred design process consume too many resources?

Probably the most common reason why UCD is not implemented in practice is because of the resources it consumes, time in particular:

1. For example, one interaction designer writes of a social media paper prototype the testing of which produced results judged valuable enough to guide the design of the working prototype (Burns, 2006).

2. This illustrates an important distinction between usability and usefulness. A product may be very easy to use without actually being useful. Ideally, the UCD process should allow both qualities to be tested for in the prototyping phase.

Thorough user research is time-consuming; I've personally never worked on a project with a long enough timeline that user research could be done at all (Hoekman, 2007 p. 40)

That the time expended on user research and prototyping testing can sometimes be better spent in other ways is acknowledged by IDEO General Manager Tom Kelley (2002) in the form of his praise for Jeff Bezo's astonishingly rushed and scarcely-researched founding of Amazon.

This important claim will be assessed in detail after the case study evidence presented in the following chapter.

Summary

This chapter consisted of seven questions concerning the validity of arguments against UCD which were answered as follows:

- **Does User-Centred Design focus too much on a screen-by-screen analysis?** No, UCD focuses upon dynamic sequences and contexts, not individual screens.
- **Does User-Centred Design lead to a damaging neglect of the 'activities' which a product facilitates?** No, UCD thoroughly examines activities and moreover, it is necessary to understand users to understand activities.
- **Does UCD underestimate people's adaptability to tools?** No. Done well, a user-centred approach yields an accurate understanding of the users' willingness and ability to adapt to a novel tool.
- **Is the User-Centred Design process' emphasis on understanding specific individuals' user requirements damaging?** No, in UCD user needs are researched to inform a design vision, not to dictate it.
- **Can social media services be prototyped?** Not fully, because the interactions of a community of users cannot be simulated. The more social a service is the more problematic this is. But prototyping can still be useful, particularly for usability testing.
- **Does the user-centred design process consume too many resources?** A full answer is deferred until Chapter six.

Most of the theoretical arguments against UCD are based on misleading accounts of what UCD is. UCD arguments about the importance of focusing upon user needs remain theoretically intact. However, the UCD emphasis on early prototyping was found to be of limited value for social media, and the question of UCD's value relative to its cost in resources is deferred until Chapter six.

Chapter five: Were highly successful social media services designed using a user-centred design process?

In this chapter, the publicly available accounts of sixteen highly successful social media services will be assessed. Each case study will begin with a justification for the service being defined as highly successful and will finish with an assessment as to whether the service's founders followed a user-centred design process in creating it. Analysis of the findings is deferred until Chapter six.

Basecamp

Basecamp is a lightweight project management and group collaboration tool aimed at small companies. There are now over two million Basecamp account holders, who pay between \$12 and \$149 for the privilege (Park, 2008).

It was originally designed and developed by Jason Fried and David Heinemeier as an in-house tool for their small web design company 37signals. When friends and clients expressed a desire to use the application themselves it was released as a commercial product (Park, 2008).

With a designer-centric brazenness that is shocking even to Don Norman (2008) but enlightening to others¹, Basecamp's founders pride themselves on the complete rejection of the idea of the customer-as-the-design-focus by which they designed Basecamp and other products:

I'm not designing software for other people... I'm designing it for me. (David Heinemeier Hansson, cited in Park 2008)

The creation of Basecamp was anything but a user-centred design process.

Blogger

Blogger, a long-established blog publishing platform now owned by Google, is ranked as the eight most frequented site in the English-speaking Web according to respected online traffic-monitoring service Alexa Internet² (2008 b). Its history is another case of an in-house tool that turned out to have a momentum all of its own. While working on developing an innovative project management tool, cofounders Meg Hourihan (2005) and Evan Williams found it advantageous to keep a joint 'web log' of their ideas. Later, they developed code that allowed them to choose to publish specific messages not just to this in-house web log but also to their company's public website, as a way of keeping potential clients updated about the project management application. Realising that this system was a 'natural fit' with their target user base of 'web-savvy developers building websites' (Hourihan, 2005) the duo decided to release it free-of-charge in the hope of generating interest in their project management application. The web-logging tool was immediately popular and the pair

1. The Basecamp founders' 'contrarian dictates' have been published in book form to 'rave reviews' (Park, 2008) and the duo have been said to be 'as close as we get to demigods online' (Seth Godin, cited in Park, 2008).

2. The Alexa traffic rank is derived from the number of page views a site has received and the percentage of total internet users who have visited the site over the last three months (Alexa Internet, 2008 a).

decided to abandon the project management application in favour of developing the web logging tool as their main product, which shortly became 'Blogger' (Hourihan, 2005).

Thus Blogger's story is a mirror of Basecamp's, resulting purely as a spin-off of the founders' efforts to meet their own requirements and not as a result of user-centred design process.

Craigslist

Craigslist, a listings site which enjoys immense popularity in the US, occupies 23rd position in Alexa's English-speaking league table (Alexa Internet, 2008 b). Each month it runs more than 30 million classified ads, lists two million new jobs and attracts more than nine billion page views (Aun 2008). Its 2008 revenue is expected to be around \$81 million (Aun, 2008) but, because of its deliberately unexploited monetizing potential, it is estimated to be worth around \$8 billion (Blodget, 2008). All this is described by the eponymous Craig Newmark as a 'happy accident' (2004 b) stemming from a desire to improve his social life by emailing friends about 'events and happenings in and around San Francisco' (Newmark, 2004 a). Newmark's friends introduced their friends to this humble list and people began to suggest listings themselves. Soon the list had 'extended into 'buying, selling, and swapping; free job hunting, personals, and help-wanted ads... housing, roommates, apartment sales and rentals' (Newmark, 2008). Eventually it migrated onto the Web as a fully functioning and hugely popular website.

Superficially, there seems to have been no process whatsoever in this design history, let alone a user-centred one. In reality it amounts to a user-led process which continues to guide the site today:

In our case, we built something, we get feedback, well we try to figure out what make sense out of the suggestions, and then we do something about it and then we listen some more.
(Newmark, 2007)

The result is that 'Ninety percent of the function of [craigslist] is based on suggestions from users' (Newmark, 2004 b). While this user-led process is certainly in keeping with the spirit of UCD it does not amount to the full UCD process as defined in Chapter three—there is no mention of the user research, personas, scenarios, prototyping and testing which define a UCD process.

Delicious

Delicious is a service which allows its five million users (Baker, 2008) to access and add to their collection of web page 'bookmarks' from any computer with an internet connection. It uses flexible tags rather than folders to organise the bookmarks and allows users to share them with others if they so wish. In 2005 it was sold to Yahoo! for an estimated £30 million (Shachter, 2006 b).

As with Basecamp, Blogger and Craigslist, Delicious 'began life as the elegant solution to a problem encountered by its creator' (Ian Katz in Schachter, 2006 a). In this case the creator was Joshua Schachter and the problem was the vast number of web links he was sent as part of his job as an analyst at a bank. He responded by creating an online database and allowing link-contributors to tag their own links:

I built it because I wanted it, not because I thought it was a business or whatever (Schachter, 2006 a)

Again this history does not describe a UCD process.

DeviantArt

DeviantArt is an art-based social networking site which allows its users to exhibit their work and browse other people's. Now in its eighth year, it is populated by over eight million users and over 60 million works of art (Lolly, 2008). It is ranked as the 43rd most popular site in the English-speaking Web (Alexa Internet, 2008 b)

DeviantArt was planned from the start to become more-or-less what it actually became. Despite this it can still be said to be a result of the founders designing for themselves:

I was the one who came up with the idea, because it was something I wanted so badly (deviantArt cofounder¹ Matthew Stephens, 2006)

DeviantArt was based on the founders' own experience of related sites like deskmod and skinz (Stephens, 2006) rather than actual user research or testing. 'User-centered design and research was a foreign concept' to Stephens (2008) at the time. Nevertheless, the designers felt that they 'knew the types of people [they would] be catering to' (Stephens, 2006) and this knowledge allowed Stephens to identify what was absent in existing sites, and what kind of features the site's target user base of artists would appreciate, in the process creating one of the Web's first major social networking sites:

I knew that artists were, by their nature, emotional beings so we did our best to give them an outlet for their creativity in as many aspects as possible which is why we added the journal, favorites, user comments, etc (Stephens, 2006)

DeviantArt's initial design may have been based on an understanding of the target users but without the user research and other techniques which define UCD, its creation does not amount to a UCD process².

EBay

EBay is an online auction site for the buying and selling of goods. With 83.9 million active users (Stone, 2008) it is the overwhelming leader in its field across the world. The original US eBay site alone ranks as the 13th most frequented site in the English-speaking world (Alexa Internet, 2008 b).

EBay was intentionally designed from the start to be a major service, inspired by a recognition of the Web's potential for creating a new kind of marketplace:

I was frustrated that individuals were not able to participate in the most efficient markets... I thought that with the Web, with a global medium, we could create an efficient market that individuals could finally benefit from... the other half [of the idea] was the... collector idea.' (eBay founder Pierre Omidyar, 2000).

Omidyar makes no mention of any user research, prototyping or even having a particular target user in mind. However, once the site was developed, its evolution was defined largely by user feedback:

In the beginning... I was the only employee for a full year... what that meant was that I talked to the customers every single day and I listened to their feedback and I improved the site

1. The matter of who should be counted as a cofounder of deviantArt is contested (Jarkoff, 2006), but Matthew Stephens' central role in the site's creation is certainly undisputed.

2. It should be noted that deviantArt's success is not solely due to the manner of its foundation, but also to the design process used for its redesigns, all of which followed a conscientious UCD process:
every new version since [the original release] was done with the proper prototyping and user testing we definitely learned our lesson on that (Stephens, 2008)

based on what they were telling me so I really had the notion that eBay was supposed to be a site for its community' (Omidyar, 2000)

Nevertheless, this does not amount to the UCD process described in Chapter three.

Facebook

A social networking site initially focused on students¹, Facebook allows its users to interact in a myriad of ways, principally public messages, photo sharing and event-planning. In 2007, a staggering one million new users signed up to Facebook every week (CrunchBase, 2008) and the site now ranks as the seventh most popular site in the English-language Web (Alexa Internet, 2008 b). After a \$240 million investment by Microsoft in October 2007, Facebook was valued at over \$15 billion (CrunchBase, 2008).

Founder Mark Zuckerberg created Facebook while still a student at Harvard University (Phillips, 2007) and was inspired partly by his observation of his colleagues' rapacious appetite for voyeurism (Hoffman, 2008). The details of Facebook's creation, mired in legal controversy (Hoffman, 2008), are difficult to discern, but there is no mention of user research or usability testing and, given that Zuckerberg was in contact with people he knew to be working on a rival product (Hoffman, 2008), it seems probable that he would have been careful to keep the design private until its release, especially given his confidence in his own abilities after a string of previous successful social web products (Hoffman, 2008).

Although Facebook was therefore most probably not created through a UCD process, Zuckerberg is keen to emphasise the degree to which the site's evolution has been led by user feedback. This is made clear in a recent message sent out to all Facebook users:

You may have seen the preview Page we created a few months ago to get suggestions from the community on the changes we were thinking about making... As you use the new Facebook, please feel free to let us know what you think using the "Send Feedback" link at the top of new pages. (Mark Zuckerberg, cited in OPENGIGA, 2008)

Flickr

A site for uploading and sharing photos, Flickr attracts more than 44 million unique visitors a month (Evans, 2008), is ranked as the 23rd most popular site in the English-speaking Web (Alexa Internet, 2008) and was purchased by Yahoo! in 2005 for an estimated \$40 million (Evans, 2008).

Flickr's conception resembles that of eBay. Without doing any actual research the founders recognised the internet's capability for transforming the way people conducted a particular activity, in this case displaying their photos (Fake, 2007). The story continues to parallel eBay's in cofounder Caterina Fake's acknowledgement of the users' part in guiding the site's development:

'the design process... was done very much in collaboration with the users... [our team of six] posted an average of 50 posts per day on the forums, demonstrating the dialogue (Fake, 2007)

This was supported by UCD-style embracing of rapid prototyping:

1. Until 2006 Facebook was open only to students (Parker, 2006). However, while its biggest demographic is still students and recent alumni, it should be noted that the 25+ age bracket is experiencing 'explosive growth' (iStrategyLabs, 2008).

We did all kinds of dumb, stupid things. But our unofficial slogan was, "F— up fast." Make mistakes rapidly, learn from them, and move past them. (Butterfield & Fake, 2006, p. 2)

However, the absence of research of pre-development prototyping in Flickr's early design history (Fake, 2007) means that it cannot be considered a UCD process.

FriendFeed

Friendfeed is a recent start-up born out of the internet's tendency to inflict cases of information overload upon its most erstwhile fans. It aggregates a record of its users' online activities on a wide range of popular social media sites into one place, the idea being that it acts as a 'one stop shop for all your social networking updates and news items' (Gray, 2008). In February 2008 the site received \$5 million in funding (Gray, 2008) and has generated an enormous amount of positive online press coverage (FriendFeed 2008).

The story of cofounder Bret Taylor's conception of the product reads similarly to the Delicious story. To save himself the trouble of logging into multiple sites to check what his friends and family were doing in each of these sites, he created an application that allowed him to view all their activity in one place:

I immediately started relying on this daily just to see what was going on in the world. The main reason for that is, like, there's just so much information published everyday and the news sources that I rely upon are so diverse now. It's almost impossible for to me read, like, every post in every blog that I'm subscribed to or watch all the videos on the front page of YouTube... So I just created a simple filter of what the people I know. What are they actually reading? What are they actually watching? It was one of the most effective ways of just sifting the amount of information published everyday. (Taylor & Bucheit, 2008)

Again, FriendFeed's story amounts to 'self-centred design', not user-centred design.

Gaia Online

Gaia Online is a unique combination of social networking and online roleplaying. Its five million, mostly teenage, monthly visitors log in to 'play games, socialize, and buy virtual goods in its marketplace' (Olsen, 2008). It has raised more than \$32 million in financing (Olsen, 2008).

The idea came from the three founders' own interest in anime, manga and video games. It was originally to be nothing more than an 'anime link list with a small community' but the trio's ideas quickly snowballed into the multi-faceted community that exists today. No specifically UCD research techniques are mentioned in the account of the site's creation. Instead, cofounder Derek Liu (2003, p. 1) describes studying 'every single game that we liked as we extracted all the applicable aspects from them when we developed the system'.

Though this implies the founders relied on their own personal preferences to guide the site's initial design, Liu (2003 p. 1) credits its post-development evolution to the input of users:

After the opening day, we got the best research tool of all, which is our live audience. Everyone was very open in giving positive and constructive feedback. We then noticed how little we knew as we received more and more ideas and suggestions. Everything then slowly come together after that.

When asked what his advice would be to someone managing a similar board whose user-count enjoyed the same immense increase, Liu (2003, p. 2) replied 'never talk yourself out of spending the extra time in interacting with your users, no matter how busy things might become... focus on what's important... the users themselves. While this statement is nothing if not user-centred, Gaia Online's history does not amount to the UCD process described in Chapter three.

Last.fm

Last.fm allows its users to discover new music based on its automatic recording of what they listen to. It also acts as a social networking site, allowing users to share their musical interests. In May 2000 it was acquired by CBS for \$280 million (Kiss, 2007) and it currently receives around 21 million users at the site every month, with a further 19 million people using its services indirectly through third parties (Kiss, 2008).

Last.fm's history is formed of two separate strands, that of the customisable web radio and that of its 'scrobbler'¹, which came together. The founders of the original Last.fm were running an online record label and were experimenting with ways to 'plug [their] music automatically to the right people' (Stiksel, 2007) and to this end they produced a customisable web radio station. Once again, the application emerged 'almost by accident' (Jemima Kiss in Stiksel & Miller, 2007) as a minor tool to enhance their main work.

The second strand, that of Last.fm's scrobbler, was a result of a student project which, to the surprise of its creator, turned into a popular website for creating new music (BBC News, 2003). The two strands united after Stiksel happened upon a news story about the scrobbler site (Kiss, 2007).

The publicly-available design history is scarce, but the fact that Last.fm's central applications ended up being used for something other than what the original developed applications were designed for is enough to strongly suggest that they were not the result of a UCD process.

LiveJournal

Livejournal is, like Blogger, a web-based blogging platform whose origins go back to the very beginning of blogging. In October 2007 LiveJournal had 13.8 million worldwide unique visitors and generated 475 million page views (Arrington, 2007).

Livejournal is another case of a designer creating an application purely for himself, only to find it spreading uncontrollably through word-of-mouth. The application in question was simply an 'easy way [for founder Brad Fitzpatrick] to make quick updates to [his] Web site'. Inundated with requests from friends to set up the application for them, Fitzpatrick resorted to running it from his own server and leaving it open for anyone to join. Without any planning from him, the site grew exponentially from there (Fitzpatrick, 2005).

Once again, though the site's history does not amount to a UCD process, its early post-development evolution was the result of attention to user feedback:

Friends would write about waking up drunk in a ditch after a party... Then their parents would read it... So finally someone asked if there was a way to make a drunken-party post that

1. Last.fm's 'scrobbler' is an application which automatically records the music a user is listening to, allowing the system to recommend new music the user might be interested in.

their parents couldn't see. So that's how the friends thing came about. And the friends-page aggregator (rounding up friends' posts in one place) came about because we were all too lazy to go to each other's journals one by one (Fitzpatrick, 2005)

MySpace

MySpace is ranked sixth in Alexa Internet's (2008 b) English-language Web league table. In July 2008 it received 75.2 million unique visitors from the US alone (MarketingVOX, 2008).

Of all the case studies, MySpace's story is the one that comes closest to being a UCD process. The founders admit that they produced no new functionality that did not exist already. Instead, what set MySpace apart was their focus upon 'how people live their lives' (cofounder Chris DeWolfe, 2006), specifically emerging musicians and a generation of music-lovers who were 'used to selecting from thousands of songs on their iPod, hundreds of cable channels or millions of websites' (DeWolfe, 2006). DeWolfe (2006) describes how he perceived that emerging musicians were searching desperately for new ways to market themselves as record labels were forced by economics to be more stringent in their finances. Likewise cofounder Tom Anderson is described as having a 'deep passion and understanding for what emerging musicians' go through (DeWolfe & Anderson, 2006). This user-centred approach carried over into the evolution of the early site:

If we build a feature that doesn't work, [the users] tell us and we fix it. It's similar to eBay in the early days. They would have all their sellers convene and ask them what they liked and didn't like and took action on that. That's exactly what we do. We're lucky to have that direct feedback mechanism. (DeWolfe & Anderson, 2006)

Though there is no explicit mention of UCD techniques, the stated focus on user requirements from the very start suggests that MySpace *may* have been the result of a UCD process. Unfortunately the scarcity of detailed publicly-available accounts preclude a decisive conclusion.

Skype

Skype is a peer-to-peer¹ Internet telephony service that allows users to enjoy telephone-quality voice communication anywhere in the world free of charge. It was acquired by eBay in 2005 for \$2.6 billion (Miles, 2005) and now claims 338 million users worldwide and an expected 2008 revenue of over \$500 million (Baily, 2008).

Skype was inspired by an astute recognition of a gap in the market, in particular by the founders' recognition of the usability problems of existing internet-based audio communication products:

Skype was not the first telephone service to use the internet, but it is among the simplest to install and use (Andrew Davidson in Zennström, 2005)

There is no mention of UCD techniques in the founders' account of their innovation's history, but they show a UCD-worthy ability to put themselves in their customers' shoes:

People expect telephony to be simple. You pick up the handset; you get a dial tone; you call. That kind of simplicity is our benchmark... When we designed Skype's user interface, we tried to combine the ease of use of cell phones. Everyone knows how to use them (cofounder Janus Friis, 2003)

1. 'Peer-to-peer' means that the application relies solely on communication directly between users' computers, instead of relying on routing communication via a third party server.

Once again, however, the available details of this design history are insufficient to allow for a definite conclusion regarding its resemblance to a UCD process.

Twitter

Twitter is a social networking site where users keep one another updated with their thoughts and activities via 'micro-blogs' of no more than 140 characters each. Launched in July 2006, the company has raised \$20 million in Venture Capitalist funding (Malik, 2008) and has at least 2 million users (BVLG, 2008).

Twitter stems from one man's interest 'in the simple idea of being able to know what his friends were doing' (Twitter, 2008) and how the media of communication encouraged or discouraged different forms of communication (Dorsey, 2007). Founder Jack Dorsey wanted to see how people would react to a communication media that was 'transient' and would 'evaporate' into the virtual ether (Dorsey, 2008). He broached the idea to colleagues and had a working prototype made in two weeks (Dorsey & Stone, 2007).

This simplest of conceptions cannot be described as a UCD process.

Wikipedia

Wikipedia is a multilingual collaborative encyclopaedia which acquired its 10 millionth article in March 2008 (Terdiman, 2008). After enjoying 8,000% growth in the past five years Wikipedia boasted 55,820,000 unique visitors in April 2008 (Johnson, 2008).

Wikipedia began as a side-project of 'Nupedia', an expert-led collaborative encyclopaedia (Sanger, 2000) whose cumbersome seven-stage approval process left it with only 25 published articles at the end of nearly two years of operation despite a plethora of motivated volunteers (Sanger, 2005). The Nupedia team adopted existing wiki technology to create the prototype Wikipedia simply as a way of getting the public to 'add entries that would then be "fed into the Nupedia process" of authorization' (Poe, 2006, p. 3). Wikipedia articles soon began refining and multiplying themselves with a self-perpetuating energy and Nupedia was quietly abandoned (Sanders, 2005). Wikipedia was certainly not the result of a UCD process, even though the collaborative nature of a wiki meant that the early evolution of Wikipedia was hugely influenced by the users themselves (Sanders, 2005).

Summary

With the possible exception of MySpace, none of these leading social media services were the result of a UCD process. The closest the design histories get to a UCD process is the repeatedly cited responsiveness to user feedback. Another striking pattern is the preponderance of sites which emerged semi-accidentally or from the founders' desire to create a service which met their own needs.

See Table i for a summary of these findings.

Table i: Summary of case study findings

Service	Was the service designed using a UCD process?	Was the evolution of the early service based on user feedback?	Was the early design determined largely by the founders' own tastes and needs?
Basecamp	No	No	Yes
Blogger	No	Unknown	Yes
Craigslist	No	Yes	Yes
Delicious	No	Unknown	Yes
DeviantArt	No	Yes	Yes
EBay	No	Yes	No
Facebook	No	Unknown	Unknown
Flickr	No	Yes	Unknown
FriendFeed	No	Unknown	Yes
Gaia Online	No	Yes	Yes
Last.fm	No	Unknown	No
Livejournal	No	Yes	Yes
MySpace	Unknown	Yes	No
Skype	Unknown	Unknown	No
Twitter	No	Unknown	Yes
Wikipedia	No	Yes	No

Chapter six: Synthesis of findings

The conclusion of Chapter four was that although the UCD approach could encounter practical difficulties, in the form of insufficient resources and the difficulty of prototyping social media, it was theoretically valid and coherent—the argument that good design required a focus on user needs, backed by a real understanding, seemed strong. The conclusion of Chapter five was that the most successful social media services were not designed through a UCD process. If UCD is important in theory, why doesn't it seem necessary in practice? This chapter proposes six explanations for this apparent contradiction.

Self-centred design is a valid approach

Chapter five is replete with examples of designers designing for themselves and finding their designs to be immensely popular with others. The designers' needs turned out to be the same as the users' needs. When Joshua Shachter solved his own information management problem, millions of others were waiting for someone to solve the same problem. When Meg Hourihan, Evan Williams¹ and Brad Fitzpatrick wanted an easier way to update people about what they were doing, millions of others wanted the same thing. Of course this certainly does not mean that self-centred design is a good approach for all projects, but it does show that it can—often, in social media's case—be entirely suitable.

This would appear to mean that the overall conclusion of Chapter four—that the reasoning behind UCD is powerful—is wrong. However, the specific conclusions of Chapter four which were favourable to UCD showed only that an understanding of user requirements is very important. It was not concluded that UCD *techniques* were the most appropriate way for attaining this understanding of user requirements. What the case studies show is that self-centred design can be a successful way of designing for user requirements, because of the similarity of the designers' requirements and future users' requirements.

This apparent paradox, that self-centred design is a case of designing for well-understood user needs is acknowledged explicitly by Basecamp's cofounder Jason Fried:

I'm a big believer in investing in what you know and what you need. We invested our time, energy, and focus into building a product that we knew we needed to run our own business (Fried, 2005)

We're like chefs. We make food that we think tastes good and that we believe in. We make it for customers who have the same sensibilities that we do. (Fried, 2008)

User research is unnecessary when the designer is already familiar with the relevant users and activities

Not all the case studies described a self-centred design process but in all cases the designers can be said to have had a good (or good-enough) understanding of the user requirements. In the cases of Facebook, Last.fm and MySpace, the designers had a good understanding of their target users—students, music fans and musicians and their fans respectively—through their own personal experiences (see Chapter five for details). In the cases of eBay, Flickr, Skype and Wikipedia the

1. Evan Williams cofounded Blogger with Meg Hourihan.

target users were far too broad and diverse a group for anyone to have a holistic understanding of them but all four services are focused on activities which are common to virtually all web-users: buying and selling, photo-sharing, making phone calls and looking up articles in encyclopaedias. These activities are so well-understood and nearly-universal in the developed world that it simply wasn't necessary for the founders to know any more than they already did. Their own everyday experiences were enough to give them a good understanding of the user requirements involved in the activities they chose to enhance.

Again, UCD seems unnecessary not because of its focus on user requirements, but because of its stipulations regarding how those user requirements need to be acquired. Personal experience is often an adequate substitute for user research.

The nature of social media offsets the need for user research

One thing that is striking in the sixteen case studies is the credit which most of them gave to their users for shaping the design of the site. Compared to traditional media it is very easy for users to voice their opinions about social media and for users' online actions to be observed (via web traffic analysis (Diamond, 2003)). The likelihood of users voicing their opinions is particularly high in the case of social media because, by definition, it encourages user expression. The requests of those users who take the initiative to give feedback and the observation of users' digital imprints certainly provide less insight than UCD observation techniques, but, as the case studies show, they are still very valuable and, at the very least, highly convenient.

The nature of social media discourages early prototyping

Added to these characteristics is the fact that, in common with other online media, it is very easy to redesign social media services compared to traditional products. The user-centred design process grew out of traditional 3D product design, where there is an immense gulf—financial and technical, between a prototype and a working product released to the public. In contrast, on the Web the distinction between an *online* prototype and a finished product is made almost arbitrarily. In many cases, web companies explicitly embrace a spirit of prolonged prototype. This is evidenced by the continuing beta status of many well-established Google products (Google, 2008) and Flickr's perpetual 'gamma' phase (Flickr, 2008).

While post-development prototyping is easier with online media, it is to be remembered that pre-development prototyping is harder in the case of social media (see Chapter four). Thus the nature of social media tends to encourage the suspension of pre-development prototyping in the knowledge that the most valuable results issue from post-development prototypes.

An emphasis on simplicity offsets the need for a user-centred design process

Basecamp stands out amongst the case studies because of its dismissive attitude to user feedback. Its nonetheless immense popularity can be partly explained by its founders' belief 'that there is beauty and wisdom in Web-hosted, bite-size software built to accomplish narrow tasks' (Park, 2008). As one satisfied Basecamp customer put it, it works because it 'has almost no learning curve; and the learning you do have to do is not intimidating' (Portagemedia, 2008). Such sentiments are mirrored in Skype cofounder Niklas Zennström's explanation for Skype's success:

Skype is easy enough to use so that people don't need to be tech savvy... If you can use a Web browser, you can use Skype. (Zennström, 2004)

Anything which conscientiously focuses on providing only the broadest and most essential features in a simple, easy to grasp interface is very likely to be highly usable. It seems that an emphasis on simplicity and an awareness of usability principles¹ can be adequate substitutes for guaranteeing usability through usability testing.

Implementing a user-centred design process is often not worth the required time and expense

The above arguments show that there are potentially successful alternatives to a UCD process. However they do not show that a UCD process is damaging or that the above approaches would not be more effective if they were supplemented by the techniques of a UCD process. As argued in Chapter four, for a designer with an accurate understanding of the purpose of UCD techniques, a UCD approach is *always* beneficial to good design. However, good design is not the only factor contributing to the success of a product: marketing, investment, expenses, speed, luck and so on are vital. Most of these factors are not affected by the design process. The exceptions are expenses and speed and it is their influence that makes a UCD process frequently unsuitable for the design of social media. Where alternatives to a UCD process are available it must be asked whether the benefits of replacing or supplementing these alternative processes with a UCD process is worth the extra time and cost that a UCD process entails². It is possible to answer that on the basis of the history of social media so far the answer is, in the main, *no*.

Some social media projects still require a UCD process

'In the main' is not always. Of the six explanations of the successful design of social media services, in spite of the absence of a UCD process, given in this chapter, only two were tied to the nature of social media. This suggests that UCD processes are not *inevitably* unsuitable for social interaction design.

It cannot be imagined that for every potentially successful social media service there is an available designer with sufficient relevant personal experience to be able to design it without user research. Nor can it be imagined that all social media services can be designed in the simple and straightforward form that allowed Basecamp to prosper. Some activities are necessarily complex.

1. Though the terms are often taken to be synonymous, UCD is not the same as usability (Isensee, Righi & Vredenburg, 2006) and, moreover, awareness of design principles is not the same as implementing a design process.

2. See Chapter four for the argument against UCD on the basis of its expense and time-consumption.

While detailed futurecasting of social media is beyond the scope of this dissertation, it is worth noting that the rise of niche social networking¹ (Kirkpatrick, 2007) and enterprise 2.0² (Perez 2008 a) are likely to increase the necessity of user research in social interaction design. Not every niche group will produce a designer capable of creating a social network for it and, needless to say, a designer cannot rely on common knowledge to design for a *niche* group. Likewise not every enterprise has online communication needs as simple and straightforward as those Basecamp caters for. Of the increasing number of businesses which recognise the value of social media (Barnes, 2008, Perez, 2008 a) many may be highly complex and specialised organisations that require a specialised solution.

A simplified and abbreviated form of UCD process is much more likely to be suitable

UCD is not an 'all or nothing' approach. The UCD process can be broken down and simplified so that only the aspects which are useful need be used. As pointed out in Chapter four, some form of early usability testing of an interface is invariably rapid and valuable, even if the full UCD process is not used. Indeed, design consultant Robert Hoekman (2007), criticises UCD for its consumption of time but strongly recommends simple usability tests. So while the UCD process as a whole is frequently unsuitable, it is difficult to imagine a project where every *component part* is unsuitable.

Summary

Whether UCD processes are suitable or not depends on six factors, two of which are tied to the nature of social media:

- Whether or not the service is something the designer would wish to use him or herself.
- Whether or not the designer is already familiar with the relevant users and activity.
- The ease with which user feedback is elicited and aspects of user behaviour may be observed in social media.
- The difficulty of pre-development prototyping and relative ease of post-development prototyping in social media projects.
- Whether or not simplicity and other usability principles are emphasised in the design.
- The time and other resources consumed by the design process.

The suitability of using a UCD process in social interaction design must be decided on a case-by-case basis, with all six factors being taken into consideration. Based on the evidence of the case studies it is considered that a UCD process is usually unsuitable for social interaction design. However, to this, two disclaimers must be added:

- Some social media projects will always require a UCD approach, and the number of such cases is likely to increase as social media services become more specialised.
- The UCD process can be broken down into component parts and those parts simplified. Thus in cases where the process as a *whole* may be unsuitable, a simplified and abbreviated version of it may still be suitable.

1. 'Niche social networking' refers to social networks catering for a very specific group of people, such as people suffering from a particular genetic disorder.

2. 'Enterprise 2.0' refers to social media services designed to be used in a work environment.

Chapter seven: Conclusion

The user-centred design process is founded upon a powerful and arresting insight: that the purpose of design is the satisfaction of user requirements. Understood correctly, this insight withstands criticism: no other conception of good design is as coherent or as valuable. But the UCD process is more than its foundation, and, far from being a universal principle, the process as a whole is of limited value to social interaction design. This limitation stems principally from the existence of alternative approaches to satisfying user requirements, alternatives that have proven to be the motor force of social media's brief history. These alternatives are made easier by the nature of social media itself, offsetting the need for UCD techniques and making the costly and prolonged pre-development design phase required by it less attractive. The result is a current state of affairs, which future developments may well reverse, in which the user-centred design process, taken as a whole, is rendered generally unsuitable for social interaction design by the existence of cheaper and nimbler alternatives of proven efficacy.

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Appendix i: Transcript of interview with Matthew Stephens

Conducted via Google Talk on 4 August 2008

- 22:17 **matthewlarn:** hi Nicolas
i'm really busy most of the time, but if you ask the questions one at a time, i'll answer as i can
- 22:18 **Nicolas:** Hi Matt, that's really nice of you
okay here goes
Before development of deviantArt, was any research conducted on the target user group?
- 22:19 **matthewlarn:** Not really.. At the time, I was barely 18 and the idea of user-centered design and research was a foreign concept to me... However, as the design was constructed, it was constantly tested by the early users
- 22:21 **Nicolas:** so the testing was done when it was a functioning website? not on semi-functional prototypes?
matthewlarn: that's right.. but every new version since then was done with the proper prototyping and user testing
- 22:22 we definitely learned our lesson on that
Nicolas: and how did you gather the original testing group?
- 22:23 **matthewlarn:** well.. again, it was a learning process, but basically we simply asked the community for feedback by giving volunteers beta access
- 22:24 **Nicolas:** did you create personas and scenarios, maybe without realising, when creating the original public version of the site?
- 22:25 **matthewlarn:** definitely. we had an idea of who we expected to use the site, because we used other sites, like deskmod.com and skinz.org
so we knew what had worked and what hadn't based on our experiences on those sites and we knew the types of people we'd be catering to
- 22:26 **Nicolas:** and would it be fair to say that, as well as designing for others, you were designing for yourself?
matthewlarn: absolutely
Nicolas: as in, you and scott wanted to use something like deviantart for yourselves?
- 22:27 **matthewlarn:** i was the one who came up with the idea, because it was something i wanted so badly
Nicolas: what were the main things that were so lacking in the other sites?
- 22:28 **matthewlarn:** basic interactions were done poorly.. and the social networking aspect.. i knew that artists were, by their nature, emotional beings
so we did our best to give them an outlet for their creativity in as many aspects as possible which is why we added the journal, favorites, user comments, etc
- 22:31 **Nicolas:** that's very interesting. The opinion I'm coming to my dissertation is that user-centered design is very useful, but that the 'you can't design for yourself' axiom isn't always true, because most web 2.0 sites have been that way - the designers' needs turn out to be very similar to the user's needs
would you say that's true?
matthewlarn: i would agree with that. it all depends on who the end user is

if you are designing for a team of engineers

22:32 your UI will be very different than a design for children or stay-at-home moms
neither of which are likely to be the same as the designer

22:34 **Nicolas:** some people have criticised user-centered design for letting designs be too
distracted by individual's specific demands rather than a single coherent designer's vision
and also for narrowing down a single type of person too much

22:35 what's your personal take on user centered design?

22:37 **matthewlarn:** a good designer should be able to take feedback from multiple users and turn
that into a single, coherent vision
but yea, it's up to the designer to make that happen. it's not the concept that is wrong.

22:39 **Nicolas:** Okay and finally, you mentioned that deviantArt learnt it's lessons and user testing
became a key part in it's evolution

22:40 could you roughly outline the process used to evolve it?

22:42 **matthewlarn:** before each new version, we spent more time testing and asking users to help
out with the process...
i left before i could perfect it, but i wanted to get more non-community members involved

22:45 **Nicolas:** okay i think that's it. I could ask plenty more questions of course but that's all the
ones I really wanted to ask of you. Thanks very much once again! It was exceedingly helpful
and I really appreciate you taking the time to help me out as I know you must be very busy.

22:46 **matthewlarn:** :) no problem
good luck
i'd love to read your final dissertation

22:47 **Nicolas:** well I'd be very happy to email it you
matthewlarn: yea i'd like that