Now with Added Experience?

Mark Blythe [a] , Marc Hassenzahl [b] & Effie Law [c]

[a] Department of Computer Science, University of York, York, UK

[b] Ergonomics in Industrial Design, Folkwang University, Essen,
Germany

[c] Department of Computer Science, University of Leicester,
Leicester, UK

PLEASE SCROLL DOWN FOR ARTICLE

Taylor & Francis
Taylor & Francis Group

Now with Added Experience?

MARK BLYTHE†*, MARC HASSENZAHL‡ and EFFIE LAW§

†Department of Computer Science, University of York, York, UK
‡Ergonomics in Industrial Design, Folkwang University, Essen, Germany
§Department of Computer Science, University of Leicester, Leicester, UK

1. Introduction

The showers at Aqusana health spas are accompanied by signs, which explain the different sorts of "experience" they provide. If you select the "tropic" setting, you are directed to "surrender yourself to tropical rain". "Fresh" promises "a tingling, refreshing and revitalising experience". The steam and sauna rooms are likewise "experiences". The "Finnish experience" is "wonderful for both body and mind". The "Laconium" was a favourite with the "Roman patricians" and is an "ideal starting point for the whole spa experience" (www.aqasana.co.uk). Ambient music and cover versions of songs like "I'm not in love" are piped into each room. This makes the whole thing either more relaxing or annoying depending on how much you like instrumental versions of 10CC. It has long been possible to adjust the temperature and force of a shower setting but marketing this as a "cold experience" is a relatively new phenomenon (e.g. Schmitt 1999).

None of this will surprise anybody working in the field of Human-Computer Interaction (HCI). The term "user experience" is now the default label for almost every study in HCI. It has succeeded usability as a focus for interaction design in both academia and industry. People who used to think of themselves as human factors experts or usability engineers now find themselves with job titles like "user experience engineer" or "experience architect". One explanation for the shift of focus is the radical change in computing technologies. It is easy to forget that technologies like Youtube, Facebook, Twitter, Google Earth and the iPhone are less than five years old. It is not only the pace of technological change which is unprecedented but also the speed of distribution and take-up. These technologies impact on our home, working and civic lives to such an extent that a term as wide as "experience" may be necessary to encompass the various and complex aspects of interaction now being studied.

In some ways, tagging a product or service with "high-quality user experience" (or whatever elegant adjective is employed to qualify this loosely defined term) is supposed to magically boost the interest of potential users in purchasing the things concerned. One may already challenge this basic

---

*Corresponding author. Email: mblythe@cs.york.ac.uk

assumption (Diefenbach and Hassenzahl 2009). More importantly, one may question whether the "agency" deploying the tag has a clear understanding about the notion of user experience at all. In other words, the agency may simply pay lip service to what is propagated as a critical characteristic of a product or service. Indeed, the lack of a unified framework or even a consensual definition of user experience has already triggered a series of research activities (e.g. Forlizzi and Ford 2000, Hassenzahl 2003, McCarthy and Wright 2004, Law *et al.* 2009), which contribute to increasing the awareness of the theoretical and practical issues pertaining to user experience. However, there is much (healthy and fruitful) debate around the concept of user experience and an integrated view or a shared definition is something still to be accomplished.

Why is user experience so difficult to define let alone design? Are we posing the wrong questions or wasting our efforts trying to attain something impractical? This editorial will briefly highlight some of the debates around notions of user experience and introduce four papers and a note, which address them in very different ways.

2. The commodification of experience

The focus on experience began in business studies and marketing. In *The Experience Economy*, Pine and Gilmore (1999) argued that capital had entered a new stage of production: after the manufacturing economy came the service economy, next, they claimed, was the experience economy. Businesses could no longer compete merely on price for standardised goods; they were now required to supply differentiated experiences. At around the same time that Pine and Gilmore's book was published, high-street stores began to sell experiential gifts like parachute jumps in boxes. Of course there was no chute in the box, on sale was a pre-organised itinerary to be given as a present. Here then was the experience economy at work and it looked like something new. There was no product, there was not even a service for sale— unless one considered being goaded into jumping out of an aeroplane a service. What was on offer was a possibility, a potential event.

An experiential purchase is not something one primarily owns; it is something to live through, to remember. This highlights emotion, universal need fulfilment and sensuality much more than the more "practical" world of products and services. This difference is subtle, but has a profound effect: taking a shower cleans—efficiently—a "shower experience" promises something more. A small change in the representation of the product may make a big difference. But Pine and Gilmore go further. In prophetic mode they tell us that after the experience economy will come the transformation economy. As in the school, the gym and the "detox farm" no transformation can be guaranteed. Nevertheless they argue that in the twenty-first century the products that sell best will be those that:

> more than anything else manifest their owner's access to the best knowledge, information and accumulated wisdom to be had. (Pine and Gilmore 1999, p. 191)

Slavoj Zizek, who has been described as "the Elvis of cultural theory" makes a similar argument from a position of condemnation rather than celebration. He argues that products are no longer advertised for their functional or even symbolic value as status symbols. Products are now sold as a means to support the customer's "true self". Landrovers are sold as keys to freedom, cups of Starbucks coffee are marketed as ethical acts because a fraction of the profit goes towards some development scheme or other. No longer do we have consumerism on one side and meaningful life on the other. For Zizek consumerism is penetrating meaningful life itself. Commodities are no longer a supplement to our "authentic life" they are themselves constitutive of authentic life (Zizek 2008).

In "user experience" research experiential and transformational notions are often highly interrelated. For example, Bill Gaver and colleagues (2004) propose experiential products within their framework of "ludic design", such as the drift table, but take a particular anti-utilitarian stance. By that, their product sends a particular message aimed at changing its user. "Take your time, experience, explore, and understand" is the more or less implicit message.

The term "post-materialism" was popularised by the American sociologist Ronald Inglehart who argued that populations who have lived through sustained periods of affluence and material wealth become increasingly interested in values such as personal improvement, general spirituality and protecting the environment (Inglehart 1977, 1997). Going further, the psychologist Oliver James has argued that western consumers now suffer from "Affluenza" where steady increases in material wealth result in greater feelings of unhappiness and worthlessness (James, 2007). Post-materialism has been criticised as a very material form of anti-consumerism. Ultimately, it is comfortably incorporated into the experience economy—you are unhappy because consumerism is empty, here consume these experiential products instead.

Under the umbrella of user experience we can begin to think of entirely post-materialistic products, touching the very core of our selves, but "useless" in more traditional pragmatic ways. Alice Wang (2009), for example, suggested a weighing machine called "white lies". She explains, "This weighing scale allows one to lie to him/herself. The further back you stand, the lighter you become. The user can gradually move closer and closer to reality." (p. 31). It is easy to see the point of this concept, the way it reflects psychological and behavioural issues around weight, dieting, self-esteem, beauty ideals and its potential power to "transform" its user. It is a product, but it emphasises the experience of weighing, embedded in personal practices. Perhaps then, with a suitable approach, we can design experiential, transformational, post-materialistic products.

3. Implications for design

HCI is an applied discipline. Whether its research is oriented to psychology, sociology, design, engineering or computer science, it is expected to have some

form of utilitarian practical value. As Paul Dourish points out, many ethnographic papers in HCI end with a section called "Implications for Design" solely because without it, reviewers would demand to know how the work was relevant to the field (Dourish 2006). Not only is there an injunction that research in HCI must have some pragmatic, utilitarian value, there is also an implicit demand for the possibility of some sort of commercial development.

When researchers are exhorted to make their work more relevant to design it is important to ask: whose design? Often the implicit answer is commercial, industrial or military design. However, some work in HCI seeks to serve non-profit organisations like charities, national state services, museums, art galleries and so on. Often the best design innovations in HCI are positioned carefully as art objects rather than product prototypes. The drift table for instance was exhibited at Tate Britain rather than furniture showrooms. In this issue research sponsored by Philips is situated in an art gallery. Why? Although commercial research labs might be expected to focus even more exclusively on utilitarian outcomes, the space chosen to develop new products is not the home or some other recognised market but an art gallery where, nominally at least, the concerns are not primarily commercial. Perhaps researchers interested in broad conceptions of experience locate their work in art galleries because some aspects of user experience may ultimately entirely resist commodification.

Indeed Pine and Gilmore make just such a claim at the end of their book. Noting that the ultimate transformations are religious, they speculate about whether the sale of salvation might not be the ultimate end of the experience economy. Researchers in HCI are increasingly interested in designing for spirituality. Susan Wyche and her colleagues, for example, have created an innovative phone application which functions as a call to prayer for Muslims (Wyche *et al.* 2008). Although such an app seeks to address spiritual needs, it does so in an interestingly material way. But it is important to ask: what is experience when it is not a commodity? Further, was it ever a commodity at all?

4. Is "experience" a type of commodity?

Marx defined a commodity as "an external object, a thing which through its qualities satisfies human needs of whatever kind" (Marx 1976, p. 125). For Pine and Gilmore a commodity need not be an external object, it may rather be an event, an internal subjective transformation. Although this formulation may look new, it is actually an older source of profit than the one Marx described. Marx's analysis of commodity production focussed on the relatively new forms of wealth creation that followed the industrial revolution—the creation of surplus value through the exploitation of labour. Prior to the industrial revolution, wealth was achieved through the ownership of resources—land-owners charged peasants for the use of their land and property. Zizek has argued that the new forms of capitalism exemplified by Bill Gates mark a return

to this form of capitalism. How, he asks, did Bill Gates become the wealthiest man on the planet? Not by exploiting his workers, actually he treats them rather well. Nor did Gates produce some "external object" that everyone needed, as software pirates demonstrated very well the distribution of software does not depend on the exchange of physical objects. Gates' fortune was amassed by renting licences to use software. Through software licences, Microsoft rents us the right to use technologies which have become the lingua franca of the western world. For Zizek, the common land of human communication was in this sense privatised: "if Bill Gates were allowed a monopoly, we would reach the absurd situation in which a private individual would literally own the software texture of our basic network of communication" (Zizek 2008, p. 429). Is this not also the way that experiences as commodities are conceived? To use Pine and Gilmore's favourite example of the experience economy of Disneyland: we must rent our time in the magic kingdom.

The creation of an experience—something with a discrete beginning, middle and end, a chunk of time cut off from the rest of life—depends on the construction of meaning. Taking an "experience shower" entails more than just getting wet or clean. Meaning must be constructed—this is like a tropical rainfall, this is like mist in a jungle, this is the sort of thing that Roman patriarchs enjoyed. Experience must be narrated, described and interpreted. By that, experience design becomes intimately concerned with the construction of meaning. But experience is not limited to sense making. Experience ties together motivation, action, emotion and sense making—it is the unification of the processes integral to human beings. Experiences will be remembered and communicated; imagined experiences are the ultimate drivers of our actions. In other words, experiences constitute our past, fill our social lives and guide the way to our future.

It is important to remember that experience as a commodity, something sellable, is a metaphor and like any metaphor it conceals some elements of what it describes and emphasises others (Lakoff and Johnson 1980). There are other ways of conceiving of experience. In Carol Reed's film Oliver!, when the Beadle is confronted with his misdeeds, he attempts to blame his wife. He is told that in the eyes of the law he is the more guilty of the two for the law supposes that she acts under his direction. The Beadle replies that if that's what the law supposes then the law is an ass and a bachelor, heading towards the door he adds "and the worse that I wish the law is that its eye may be opened by experience!" pausing on the way to the door he defiantly cries "by experience Sir!". The Beadle at this point is not wishing the law well. The poet William Blake spoke of experience in terms of pain but also learning and wisdom. There are then other means of conceiving of experience than as something to be simply bought and sold.

The commodity metaphor of experience seemed to resonate instantly with HCI professionals. This may be because despite all assurances from professionals, the field of interactive technologies is still one of technology push. Every day, engineers, researchers, designers develop new technologies and each is pushing desperately for a sellable application. This and the urge of almost any

designer to please her or his audience, leads to a view of experience as a designable commodity, to be delivered to consumers—an instant feeling, instant joy.

We believe that the complexity of experience (and transformation) calls for a more cautious approach. The challenge for those concerned with designing (for) experience in interactive products is shaping meaning through action with an artefact. This is a demanding task and the dominance of the commodity metaphor may be limiting rather than helping. This is because it understands experience as an ingredient to a product, an exotic, luxurious, slightly superfluous spice, a synonym for "emotions added to practicality" and higher prices. This does no justice to the concept. Experience was always central to human lives; it is in no way an invention of a particular industry. What might have changed is the value we attach to experiences in comparison to material possession (Boven and Gilovich 2003).

5. Understanding versus designing (for) experience

Experience is the continuous commentary on the current state of affairs; a stream of thoughts, feelings and actions. It combines many different processes into a coherent, meaningful entity (e.g. McCarthy and Wright 2004). The products we design are only a small part of this; they can be triggers for an experience, they may influence or even alter experiences, but they are not experiences themselves. The experience is created elsewhere—at a place beyond designers' complete control.

However, to design for experience needs an understanding of experience, which can only be achieved through its study and representation. The philosophical schools concerned with experience, for example, phenomenology and pragmatist philosophy, often stress the unity of experience, its indivisibility. Accordingly, widely recognised work on User Experience based on these approaches (e.g. McCarthy and Wright 2004) also stress this indivisibility. This is further fuelled by a general post-cognitivist stance, rejecting the idea of "atomising" human experience into separate, mechanistic processes. Nevertheless, this presents a problem: if we adhere strictly to indivisibility and pure description, our understanding of experience, its use to guide design, may become limited.

The problem is one of representation and the critique touches the way representation shapes our understanding of phenomena, in the same way that metaphor does. However, experience will only be true the moment it is experienced. Every other account is a representation, even if it is a first-person narrative given by the "experientor". Representations may differ with respect to their richness, their plausibility, their helpfulness in understanding a phenomenon and so on. And the question of which representation is appropriate depends on its purpose: guiding the design of a particular product for a particular context needs a different representation than a general model trying to identify, for example, broad categories of experiences applicable to many situations.

Representations are always reductions; but they are not necessarily dangerous. We need them to capture and communicate our knowledge about experience design. What is dangerous is "to confuse the meal with the menu" as Kaptelinin and Nardi (2006) put it in their discussion of activity theory. Models, theories, reductions can be helpful and necessary, but they are neither the reality nor are they neutral or objective. Being aware of this is crucial.

Over the last decade researchers in HCI have begun to address areas such as fun, enjoyment, beauty, aesthetics and affect. As users become more concerned with the social and environmental impact of new technologies user experience is being conceived in still wider terms to include such topics as ethics, politics and sustainability. This special issue brings together four papers and one note which directly address aspects of experience which 10 years ago would have been far outside the scope of HCI.

6. Special issue

In the first paper of the collection, Jonas Lowgren provides four concepts that characterise interaction aesthetics: pliability, rhythm, dramaturgical structure and fluency. This paper is an example of a relatively new kind of study in HCI: interaction criticism. Interaction criticism is a term coined by Jeffrey Bardzell (2009) to signal an approach to evaluation which draws on literary and critical theories which originate not within traditions of social sciences but the humanities. Although aesthetics is a new area of study for HCI, it is far from new in the humanities. There is a danger that HCI may spend many years re-inventing theoretical positions with long histories in traditions like the history of art or literary studies. This is not to say that aesthetic interaction and aesthetics are the same thing. Nor is it to argue that other methodological approaches such as lab-based experimentation will be unable to shed new light on old problems. It is, however, to argue that there must at least be an engagement with disciplines which have considered problems like aesthetics for hundreds of years. Interaction criticism seeks to draw on multiple perspectives grounded in traditions very different to those familiar to HCI. Not only does this paper make a solid contribution towards articulating the notion of interaction aesthetics, it is also an excellent example of what interaction criticism should look like and clearly demonstrates its value to HCI with insightful discussions of new technologies such as Brian Eno's iPhone application Bloom.

A common theme threading through the contributions to this special issue is understanding the role of emotion in the design and use of technology. It is addressed with a mix of analytic, empirical and personal reflective approaches. The one undertaken by Lottridge and Moore, more precisely, is philosophical. Whilst recognising the advantage of the multiple perspectives that different researchers brought in to comprehend human emotions, the authors express their concern about the confusion this diversity of viewpoints engenders, especially when it renders the task of making sense of the literature particularly difficult. To resolve this challenge, Lottridge and Moore propose

a framework to position diverse accounts of design with reference to their underlying epistemological stances. Specifically, they have identified four types of knowledge claims (viz. post-positivist, constructivist, pragmatist and participatory) and categorise accordingly seven published papers representing a range of approaches to research on emotions. Like the other authors in this special issue they propose to look beyond disciplinary boundaries and to engage researchers and practitioners into scientific discourses on the validity, meaning and significance of diversity for advancing the field.

In describing the design and evaluation of an affective interactive art system entitled "Mood Swings", Bialoskorski and her colleagues introduce a valuable approach to understanding the emotional experience of interacting with such an artwork. Underpinning their research findings is the key assumption that types of emotion are associated with certain characteristics of bodily movements, which can be mapped to different colours. In analysing the empirical data of their evaluative study of Mood Swings installed in a museum of contemporary art with 36 visitors, the authors adopt the analytic framework "Trajectory of Interaction" (ToI) developed by Costello *et al.* which comprise five major phases, viz. response, control, contemplation, belonging and disengagement. There are methodological concerns typical of qualitative data studies: inherent drawbacks of the concurrent think-aloud technique, reliance on a single coder without inter-rater reliability, and a lack of triangulation with different quantitative measures. These recurrent issues continue to present challenges not only for the UX community but also to the wider HCI community.

Petersen *et al.* consider the concept of playful photography as an important area for HCI. The paper provides an overview of three related studies which develop the concept through ingenious designs. Context photography allows photographers to capture sound and also movement through graphical effects. Autonomous wallpaper allows users to send their photographs to a large living room display so that their images can decorate the room. Squeeze is an interactive sack chair, which provides novel ways of browsing photographs. The discussion of this work connects with notions of interaction criticism. The authors consider playful photography with reference to Susan Sontag, perhaps the greatest American critic of her generation, and Roland Barthes, a seminal figure in the development of semiotics. These connections enlarge the theoretical space of HCI in interesting and provocative ways but also indicate how great the challenge of fully incorporating them can be.

Finally, the note by Kolko and Schoenholz provides some rich insights into the way design practitioners are currently thinking about user experience. It is interesting to note that although there are differences in approach between industry and academia many of the concerns are the same.

<div align="right">
Mark Blythe
Marc Hassenzahl
Effie Law
</div>

References

J. Bardzell, "Interaction criticism and aesthetics", in *Proceedings of the 27th International Conference on Human Factors in Computing Systems (CHI'09)*, Boston, MA, USA, April 4–9, 2009, New York: ACM Press, pp. 2357–2366, 2009.

L.V. Boven and T.D. Gilovich, "To do or to have? That is the question", *Journal of Personality and Social Psychology*, 85, pp. 1193–1202, 2003.

S. Diefenbach and M. Hassenzahl, "The "Beauty Dilemma": beauty is valued but discounted in product choice", in *Proceedings of Conference on Human Factors in Computing Systems (CHI 2009)*, April 4–9, 2009, Boston, USA, New York: ACM Press, pp. 1419–1426, 2009.

P. Dourish, "Implications for design", in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI'06)*, Montréal, QC, Canada, April 22–27, 2006, New York: ACM Press, pp. 541–550, 2006.

J. Forlizzi and S. Ford, "The building blocks of experience: an early framework for interaction designers", in *Proceedings of Designing Interactive Systems (DIS 2000)*, Brooklyn, USA, August 2000, New York: ACM Press, pp. 419–423, 2000.

W.W. Gaver, J. Bowers, A. Boucher, H. Gellerson, S. Pennington, A. Schmidt, A. Steed, N. Villars, and B. Walker, "The drift table: designing for ludic engagement", in *Proceedings of Conference on Human Factors in Computing Systems (CHI 2004) Extended abstracts*, Vienna, Austria, New York: ACM Press, pp. 885–900, 2004.

M. Hassenzahl, "The thing and I: understanding the relationship between user and product", in *Funology: From Usability to Enjoyment*, M.A. Blythe, K. Overbeeke, A.F. Monk and P. Wright, Eds., Dordrecht, The Netherlands: Kluwer, 2003, pp. 31–42.

R. Inglehart, *The Silent Revolution: Changing Values and Political Styles Among Western Public*, Princeton, NJ: Princeton University Press, 1977.

R. Inglehart, *Modernization and Postmodernization: Cultural, Economic, and Political Change in 43 Societies*, Princeton, NJ: Princeton University Press, 1997.

O. James, *Affluenza*. Vermilion, London: Random House, 2007.

V. Kaptelinin and B.A. Nardi, *Acting with Technology: Activity Theory and Interaction Design*. Cambridge, MA: MIT Press, 2006.

G. Lakoff and M. Johnson, *Metaphors We Live By.* Chicago: University of Chicago Press, 1980.

E.L-C. Law, V. Roto, M. Hassenzahl, A. Vermeeren and J. Kort, "Understanding, scoping and defining user experience: a survey approach", in *Proceedings of Conference on Human Factors in Computing Systems (CHI 2009)*, April 4–9, 2009, Boston, USA. New York: ACM Press, 2009.

K. Marx, "Capital", in *Volume 1: A Critique of Political Economy*, B. Fowkes (trans), Middlesex, UK: Penguin Books, 1976.

J. McCarthy and P.C. Wright, *Technology as Experience*, Cambridge, MA: MIT Press, 2004.

J. Pine and J. Gilmore, *The Experience Economy: Work is Theatre and Every Business is a Stage.* Boston, MA: Harvard Business School Press, 1999.

B.H. Schmitt, *Experiential Marketing*, New York: Free Press, 1999.

A. Wang, "Asimov's First Law/Alarm Clocks", in *Proceedings of the Third International Conference on Tangible and Embedded Interaction (TEI'09)*, February 16–18, 2009, Cambridge, UK, New York: ACM Press, pp. 31–34, 2009.

S.P. Wyche, K.E. Caine, B. Davison, M. Arteaga and R.E. Grinter, "Sun dial: exploring techno-spiritual design through a mobile islamic call to prayer application", in *Proceedings of CHI'08*, April 5–10, 2008, Florence, Italy, New York: ACM Press, 2008.

S. Zizek, *In Defence of Lost Causes*, London, New York: Verso, 2008.

The NRHM publishes three issues a year and includes a mixture of Special Issue and open theme papers. Authors are invited to submit open theme papers relevant to the general scope of the NRHM at any time. Proposals for future Special Issue themes are welcome and should be emailed to the Editors.

NRHM submissions and reviewing are conducted via ScholarOne's Manuscript Central, the Taylor & Francis journal management system (http:// mc.manuscriptcentral.com/tham). The NRHM is interested in exploiting possibilities of the digital medium and authors who wish to include a digital component are encouraged to contact the Editors with any questions.

Online articles are available from the journal's website (http://www.informa world.com/tham) in both PDF and HTML formats. The Introduction to an NRHM issue is available free, while articles can be viewed by subscribers or purchased individually.