

What if HCI Becomes a Fashion Driven Discipline?

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ABSTRACT

Recent research shows that fashion already exists in the HCI domain and influences and affects design and designers' thinking and practices throughout the design process. In this note, we draw our insights from fashion related research within HCI and interaction design, provide some observations about fashion-related design and research practices, raise questions about our field as moving forward towards fashion driven discipline.

Author Keywords

Design; Fashion; Practice; Research

ACM Classification Keywords

H.5.m. Information interfaces and presentation (e.g., HCI):
Miscellaneous.

INTRODUCTION

Over the past few decades, the development of HCI has been highly informed and influenced by science-driven disciplines, mostly from behavioral science and computer science. The design of technology is in many cases a consequence of technological advancements, lab-based experiments and user research. Lately we have also seen a strong influence from what is called 'big data'. A general term that is used to describe work in this nature is "interaction science" [7]. In all these areas there is a strong belief in research-driven progress. Even when it comes to user-oriented approaches, it is believed that good research will reveal the real and true need and wants of people.

At the same time, other aspects that can be seen as "anti-science" have become more exposed and spread across the HCI academic and industry communities. One of these aspects is the notion of fashion. Recent research on fashion in relation to interaction design indicates that fashion not only already exists in HCI, but also has become an unavoidable force in influencing many of the decisions and

judgments made by HCI practitioners and researchers [11]. More specifically, research on fashion indicates that the field is already at a stage where fashion affects designers' design thinking when it comes to design methods, functionality, user experience and visual experience [3, 10].

Our research is motivated by two research questions: what would it mean to HCI and interaction design if it becomes fashion driven disciplines instead of science-driven disciplines? And is there anything we have to do/change if that happens?

Our paper draws on previous research with a focus on fashion, such as the fashion thinking framework by Pan and Blevis [11], fashion and information by Fortunati [4], social institution of fashion by Kawamura [8] etc. We believe that fashion related concepts and research offer an alternative lens/perspective that can open up new discussions in HCI by making it possible to identify new issues, challenges and opportunities.

In our paper, we are NOT trying to argue whether or not HCI should become a fashion-driven discipline. We are neither trying to prove that this is actually happening. Instead, our purpose is to examine and explore what might happen if our field becomes a fashion driven discipline as well as develop some potential answers to these questions.

The contribution of this note falls into the following categories:

- Briefly explore the state of art of fashion and fashion related concepts in the field of HCI,
- Provide some examples from industry and academic on how fashion affects HCI design and research,
- Develop some possible questions and actionable items for our field, especially for the academic community that would be relevant if our field is moving towards a fashion driven discipline.

WHAT DOES FASHION THINKING MEAN TO HCI?

In this note, we are not only talking about fashion in terms of clothing and related accessories, but the broad concept of fashion. Fashion in our paper is concerned with a wide range of design and lifestyle choices and practices that operate at scale. It is possible to see how fashion could

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influence HCI in different ways. First of all, the concept of fashion can be seen as affecting how the field understand, critique and create new designs and products in the digital and technology world. Secondly, there may be a form of fashion *within* the field of HCI itself. For instance, there might be certain methods and approaches that are seen as fashionable in comparison to others. In this work we primarily focus on the first notion of fashion, that is, how fashion may influence the design of new products and services.

Fashion and Interaction Design Practice

HCI is to a large extent a human-centered field. A lot of research is devoted to the task of understanding the user, the problem space, and the opportunity space. There are numerous books, papers and talks regarding what research methods to use, when and how to use them [e.g. 5, 6]. These research methods are based on previous research outcomes and seen as scientifically sound research approaches that deliver trustworthy results.

However, in most fashion fields (such as clothing, automobile industry, branding and advertising), a good design is not based fully on research but also on other factors, such as individual creativity, timing, style, taste, etc. However, this already happens in our field too. One notable example from the technology industry is Apple, which is considered as the most fashionable company in IT world, only run one survey with only one question before its first product launch. The question was “will you recommend this to your friend?”

While the tradition and culture in HCI is based on research, looking for scientifically sound solutions, fashion is recognized as being more subjective, aesthetically oriented, and driven by creativity and opportunity [1].

Fashion is sometimes seen as something that leads the general design directions in practical design field. This also happens in the field of HCI. For example, since Pinterest started using tile design for their main site, many other companies started to follow Pinterest. Another example is “flat design”, as the minimized and “flattened” aesthetic was pioneered and typified by the work of the Bauhaus school. For the past decade, skeuomorphism, which encourage design cues coming from the physical world, has been Apples’ key design principle and dominant and emulated by many other UI designs. With flat design gaining increasing popularity and becoming the new ‘fashion’, Apple changed its design principle and started to adopt flat design in its new operating system (iOS 7).

Fashion thinking is applicable to both the academic field and industry. It cultivates in a body of work, both practical and conceptual, that has relevance for both design and research. Fashion is obviously in most areas of consumption related to notions such as brand, business strategy, marketing, practices etc. [2].

We are convinced that fashion aspects are becoming increasingly important and crucial in interaction design practice. When the next smart-phone is not about a new functionality or mode of interaction, maybe the remaining design challenge is about its fashion qualities (e.g., style, appearance, brand, business strategy, marketing etc.).

So, it seems as if there are at least signs and indications that the field of HCI is becoming more fashion oriented? If so, what does it mean?

We will first examine possible answers to the first statement that HCI is becoming more fashion oriented. It is possible to see three potential answers:

First, “*I don’t believe it*”. Some people may be skeptical about the argument that our field is moving towards fashion. They don’t believe that our field has been or will become a fashion driven discipline. If this is the answer then we don’t need to do anything about it. As a field, we can just keep on doing what we already are doing.

A second possible answer is: “I believe it, but it is not good and has to be prevented”. This answer means that people believe, to some extent, that our field is moving towards fashion or has the potential in doing that. But they hold negative attitudes towards fashion, and think we should do whatever we can to fight it. It is however not easy to imagine what are some possible things to do to prevent fashion to get more influence. Should the field embrace even more research-based, scientific based methods and approaches? Or are there any other responses?

A third possible answer is, “I believe that our field is moving towards fashion and it is something we as a field have to recognize and work with.” If this is the answer, what should the field do to critically embrace fashion and to help our field to move forward?

It is obvious that the way HCI and interaction design will develop in the coming years relies on how the field will relate to the statement above. We are convinced that the first two answers are not constructive and will only lead to a continuation and a build up of a conflict already present in the field. We would argue that there is enough evidence to make the last answer the most appropriate.

In the next three sections, we will describe how fashion might affect our field in terms of HCI practices, HCI education and related discipline, as well as postulate some research questions and actionable items to answer the question—what will happen if our field becomes fashion driven discipline.

Fashion and HCI Practices

Previous research by [11] indicates that fashion does not only play a role when it comes to the outcome of interaction design, but also when it comes to which methods to use when doing interaction design and research. From the study, practitioners expressed that their design decisions are sometimes influenced by what is the current most popular

design method or research method. At the same time, their design thinking seems to be highly influenced by those they see as lead designers in the field. Those who are considered as the fashion stars in IT world, such as Jonathan Ive—the lead designer from Apple, Tim Brown from IDEO, to name a few. Even in the HCI research world, it is possible to think in terms of research celebrities that may have a fashion like influence, such as Don Norman, Bill Buxton etc. The practitioners report that by following or subscribing the lead designers' and researchers' blogs or even social network, they are able to learn about design thinking, design and research skills and thoughts shared by these lead designers and researchers.

Considering this, we propose a few questions for our field to think about

- When doing HCI research and practice, to what extent is the selection and use of methods based on whether or not they are fashionable? And does it matter?
- To what extent is the field following lead designers or researchers when doing design and research? And, again, does it matter?

We discuss three possible answers to the questions above:

First, if we agree that fashion does exist in HCI design and research, next step can be coming up with certain criteria for our field to decide which design or research methods are fashionable and why. Some possible criteria include whether the method represents a new and modern style, whether the method helps solve current research and design problems, how popular the method is, etc.

Second, it is possible for us to find out which methods are fashionable or even which method is the most fashionable by following what the leading IT design firms or worldwide famous interaction designers or researchers are doing. Here we are not arguing that following or using methods that are fashionable would lead to successful designs. Rather, we believe that being aware of the methods that are fashionable may help us understand design and research methods as well as the problem space from a different angle, which may in turn help address design and research problems from a fashion perspective.

Third, what are the differences between those design and research studies that consider fashion from those that do not? What kind of impact does fashion have in design and research studies? These questions may also be useful when it comes to evaluate and critique a design and research during design process, which may give us new insights as well.

Fashion & HCI Education

This section is about what HCI education might do or change if our field is moving towards a fashion driven discipline. In traditional HCI education, students take courses and learn about HCI theory, design and research

methods, interaction design skills, and so on. HCI curriculum is focusing on teaching students to be a creative thinker, experienced scholar and skillful designer who can address real world problems by creating and designing functional, intuitive and delightful tools and experiences. In apparel and fashion design, for instance, students learn sets of skills, methods and processes that are more focused on fashion (clothing) products. They study texture, color, materials and lighting as basic elements of designing a piece of cloth. They also focus on marketing and sales strategies and analyze how economic, political, socio-cultural and technological differences impact on fashion design [9]. It is possible that HCI education can learn from fashion design education and make certain changes. However, this is only if the ambition and purpose is to further develop HCI into a fashion field.

Considering this, we propose a few questions for our field to think about:

- Should we change the overall curriculum for interaction designers to be more aligned to what is offered by fashion and apparel design program?
- What should we, as academic community, do in education to support industry to better utilize fashion in HCI design and research?

We discuss two possible answers to the questions above:

First, if we agree that we should do something to incorporate fashion in HCI education, we need more fully understand what other fashion design programs do nowadays. Things to learn from them might include what courses they are offering to students, what skills they require students to have, what their design philosophy is and what kind of fashion design process they teach etc.

Second, after fully understanding what other fashion design programs are doing, think about what we, as the HCI community, should do to adopt those intellectual assets and adapt to our field. Of course, this raises a lot of extraordinary difficult questions, related to scholarly and pedagogical traditions and cultures.

Fashion and Related Disciplines

HCI is a blended community of researchers, scholars, and practitioners from both academic and industry. With an expansion of our field and a growing diversity of our design and research community, the question is how much can we learn from other fields? Due to the highly interdisciplinary nature of HCI, our field has been highly collaborative and mixed with researchers from various fields, including psychology, sociology, computer science, statistics, humanity, art and design. According to Kawamura, fashion is a social constitution that consists not only of fashion designers, but also consumers, models, advertising, media, and branding [K]. When doing design and research, we always rely on plentiful of principles, guidelines, laws and rules that serve as universal truths. At the same time, we

also seek ideas, inspirations, styles and patterns from other fields such as art, architecture and fashion.

Considering this, we propose a few questions for our field to think about:

- should we incorporate more from the existing fashion industry, such as fashion designers, marketers, advertisers, etc., into our field?
- Should we consider incorporating scholars and practitioners from other disciplines, in particular fashion, in order to learn more from them?

If we believe that our field is highly interdisciplinary and also that we are moving towards fashion driven discipline, we might want to embrace collaboration with researchers and practitioners from other disciplines. Such collaboration can be promoted by inviting other researchers and practitioners to our conferences, inviting them to submit to our journal, inviting students and teachers from fashion design programs to collaborate with HCI students and teachers and work on the same projects, as well as inviting established fashion researchers and designers to give talks and demos in conferences and universities.

DISCUSSION

Here we would like to provide some general discussion about possible impacts if our field becomes fashion driven discipline.

Scale

Fashion is a force in society that targets change at great scale, in contrast to design for individual behavioral change. Designers ability is primarily to design for the ultimate particular, that is, for a specific situation, specific purpose, specific user, etc. Fashion is a force that lives on another scale. It affects social consensus, community practices, social discourse. If our field becomes a fashion driven discipline, will fashion have an impact on the scale of HCI and on its purpose? It is also possible to ask the opposite question, to what extent is HCI already part of shaping what is considered as fashionable in our society, not only when it comes to interactive artifacts but any other product.

Separating Research and Practice

Fashion is a highly practical and is focused on creating rather than researching. If the field becomes more fashion oriented, will it lead to a stronger separation between research and practice (industry)? What that might mean and lead to? Will we see a similar development to what we have seen in other disciplines where scholarly research is separated from creative work (such as with creative writing and comparative literature). As for now, it seems as if HCI is balancing somewhere in between. For instance, the CHI conference accepts both scholarly work as well as creative work, but will it expand that to also include work of fashion?

CONCLUSION

In this paper, we have presented some examples and thoughts on our field when it comes to the relation between fashion and science. We have also raised some questions and discussed some possible answers about what we could think about, do or change if our field becomes a fashion driven discipline. There are, of course, other topics not covered in this note, such as what makes the latest technology fashionable or not fashionable, is it necessary to compromise between fashion driven aspects and scientific aspects or can they live together. In this note, we propose more questions than we answer. However, we believe that these questions may serve as inspiration and be seen as a starting point for the HCI community to think about fashion and it's role in our field.

REFERENCES

1. Barnard, M. 2002. *Fashion as Communication*. Psychology Press.
2. Carroll, Barbara A., and Aaron C. Ahuvia. 2006. Some Antecedents and Outcomes of Brand Love. *Marketing Letters* 17(2): 79–89
3. Fletcher, Kate. 2012. Durability, Fashion, Sustainability: The Processes and Practices of Use. *Fashion Practice: The Journal of Design, Creative Process & the Fashion* 4(2): 221–238.
4. Fortunati, Leopoldina, (2005). *Mobile Phones and Fashion in Post-modernity*, *Teletronikk* 3.
5. Goodman, E., Kuniavsky, M., and Moed A. 2012. *Observing the User Experience: A Practitioner's Guide to User Research*. Morgan Kaufmann; 2 edition (September 21, 2012)
6. Hanington, B. and Martin, B. 2012. *Universal Methods of Design: 100 Ways to Research Complex Problems, Develop Innovative Ideas, and Design Effective Solutions*. Rockport Publishers; 1.2.2012 edition
7. Howes, A., Cowan, B. R., Janssen, C. P., Cox, A. L., Cairns, P., Hornof, A. J., Payne, S. J., and Pirolli, P. 2014. Interaction science SIG: overcoming challenges. In *CHI EA '14*. ACM, New York, NY, USA, 1127-1130.
8. Kawamura, Yuniya. 2005. *Fashion-ology: An Introduction to Fashion Studies*. Berg.
9. Lamb, J. & Kallal, M.J. 1992. A Conceptual Framework for Apparel Design. *Clothing and Textiles Research Journal* January 1992 vol. 10 no. 2 42-47
10. Pan, Y. and Blevis, E. 2014. Fashion thinking: lessons from fashion and sustainable interaction design, concepts and issues. In *Proc. DIS '14*. ACM, New York, NY, USA, 1005-1014.
11. Pan, Y., Roedl, D., Blevis, E., and Thomas, J. 2012. Re-conceptualizing fashion in sustainable HCI. In *Proceedings of the Designing Interactive Systems Conference (DIS '12)*. ACM, New York, NY, USA, 813-815