
Made for Sharing: HCI Stories of Transfer, Triumph and Tragedy

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Abstract

Recent studies on how traditional HCI methods are applied in practice entail re-conceptualization of the nature of such methods, leading to the notion of 'method-as-set-of-resources'. Re-usable resources provide some, but not all, of the required resources for design work. Others must be provided within design work contexts. The expanding scope of use contexts alongside the shift of emphasis to user experience calls for the development of alternative HCI practices. These two trends can influence each other. Understanding, via structured case studies, how HCI professionals transfer the same (set) of design and evaluation methods across use contexts in terms of appropriating and configuring method-resources can provide applied knowledge for: (i) creating new methods, (ii) training novices, and (iii) laying a firmer groundwork for formal analysis of HCI methods. This workshop aims to bring together HCI professionals who have method-transfer experience and knowledge to share, analyze and synthesize insights so gained.

Keywords

Methods; Transfer; Approaches; Resources; Use Context; Usability; User experience;

ACM Classification Keywords

H.5.2 [Information Interfaces and Presentation]: User interfaces;

Introduction

The shift of emphasis in the field of Human-computer Interaction (HCI) from usability to user experience (UX)

Research Questions

The workshop will explore transferring “methods-as-configurable-combinational-resources” [16] (cf. “plans-as-resources-for-situated actions” [12]), which involves analysis, appropriation, adaptation and synthesis of re-usable resources [16]. We will use narratives [1] to expose the complexity of the following:

- *Perception and assessment of the role of methods in real-life design and evaluation settings:*
 - How do HCI professionals plan, resource and apply a (combination of) HCI method(s) to meet the goals and needs of a specific project and client?
 - Which re-usable resources are found most crucial for supporting high design quality work?
- *Externalization of HCI professionals’ repertoire for modifying resources of an existing HCI method by taking into account contextual factors of a new project:*
 - How do HCI professionals modify re-usable resources for the method(s) that they normally use when transferring to a new usage context?
 - How do HCI professionals apply their repertoire to guide resource selection, modification and combination?
- *Compatibility with new contexts:*
 - Which re-usable HCI resources method have proven to be robust (i.e. requiring no change yet remaining useful) or volatile (i.e. entailing substantial modification) when applied across usage contexts?
 - Which resources for existing HCI approaches, modified or otherwise, have been (in)compatible with new usage contexts (e.g. social media)?

challenges HCI professionals to deal with the expanding scope of interaction design. Transferring ‘old’ methods, with which HCI professionals are familiar, to new contexts can be a practical ‘intermediate’ solution. Indeed, it is observed that UX methods are largely drawn from the existing usability work ([3], [13]). However, more fit-for-purpose-and-context HCI methods should be created. Developing such methods entails a viable research programme, which can be built upon insights gained from success as well as failure cases of method transfer. Unfortunately, little is known about the process of such transfer, despite a set of related studies on usability practice in reality.

Understanding *which, why, who, what, when, where* and *how* (six *W* and one *H* questions) HCI methods are deployed by HCI professionals has been researched for about two decades; pioneer studies include [4]. More recently, two international projects networking a large group of HCI researchers and practitioners in Europe, MAUSE¹ and TwinTide², have dealt with the six *W*s and one *H* questions pertaining to usability evaluation methods (UEM) and to UX design and evaluation methods (UXDEM), respectively. Among different challenges tackled by the two projects, comparing UEMs and transferring UXDEM across a range of usage contexts have been seen to be fraught with difficulties.

With this workshop, we aim to gather practitioners and researchers together from the wider HCI community to examine issues on method-transfer based on the perspective of approaches and resources, and case study analyses.

¹ <http://www.cost294.org> (2005-2009)

² <http://www.twintide.org> (2009-2013)

Related Work and Relevance to the Field

The view on the nature of HCI methods, including UEM and UXDEM, has evolved with the ongoing discussions within and outside the projects, and been crystallized in the recent publication of Woolrych and collaborators [16]. Accordingly, rather than treating a HCI method as an irreducible whole consisting of prescriptive procedural instructions, it is more appropriate to see a HCI method as a set of constituent resources, such as problem merging, heuristics, analysis, reporting formats, and task selection (for details see [16]). Only some of these resources pre-exist specific design work (often grouped into named *approaches*). Incomplete resources for an approach are configured and combined according to several contextual factors, scoped by project characteristics or organization where method-resources are instantiated.

As well as focusing on resources, [16] proposes a four-stage research program towards formal experimentation on resource choice and use within usability and UX work. The first and foremost stage is to capture the relevant rich context (e.g. designers’ repertoire, corporate culture, product attributes) with detailed, well-structured case studies [16]). For instance, case studies on cognitive walkthrough were conducted by John and colleagues ([5]). However, wider use of this research strategy is needed.

Several studies on investigating professional usability practice have mostly employed questionnaires (e.g. [2], [8], [14]), which, albeit lacking in contextual details, provided some useful insights into *which* and *why* (and to a limited extent *how*) HCI methods were applied in practice. In contrast, there are only a few studies attempting to study usability work in its full dynamic complexity. Furniss, based on in-depth

A. Method-Resources (examples)*

1. Participant Recruitment
 2. Task selection
 3. Reporting format
 4. Problem identification
 5. Problem classification
 6. Analysis
 7. Heuristics
 8. Thinking aloud protocol
- [Others]

B. Contextual Factors (examples)*

1. Business goal
 2. Design purpose
 3. Development context
 4. Team skills
 5. Corporate culture/values
- [Others]

* Source: adapted from [16].

It is expected that a subset of the items listed will be used in a contributor’s story. The contributor will specify [Others]. Items serve as signposts, guiding storytelling as well as analysis.

Example story:

"When I was working in company X, I recruited participants by asking people at lunch to try my prototype, but when I moved to company Y, I had to recruit people from outside the company as a budget was available for this purpose..."

A simple example of an analysis:

Item	Original Context	New Context
A1 :	Internal users	External users
B5 :	Low budget: convenience sample	Good budget: more representative

Fig.1: Guidelines for case study and example of analysis

interviews with practitioners, built a model of *how* contextual factors influenced the selection and application of UEMs [7]. Similarly, Lárusdóttir and her colleagues [9] looked at how UX related activities could be integrated into Scrum projects by intensively interviewing two UX specialists. Folstad and associates [6] also conducted interviews with usability professionals, though smaller in scale and scope, to understand how practitioners analyzed usability data.

No published research has focused on collecting cases that describe how practitioners *transfer* re-usable HCI approaches into new contexts. The process involves tacit knowledge and strategies, which will become more conscious and easier to externalize when the usage context changes [10], stimulating HCI professionals to reflect on the resources and settings for further adaptation. Such reflections and related knowledge and strategies are an integral part of a case study. Meta-reviewing a critical mass of such case studies will lead to a body of applied knowledge that is very valuable for: (i) educating and training novice HCI professionals; (ii) developing innovative HCI methods to address new usage contexts; (iii) laying the foundation work for formal comparisons of design and evaluation methods [16].

Participants will be provided a template with guidelines (Fig. 1) for narrating their case studies in 4-6 pages (SIGCHI format). To facilitate the process of storytelling and cases to be described in highest possible detail, participants will also be offered the option to submit audio files of 15-20 minutes (e.g. recorded with smartphone), which will be transcribed prior to the workshop.

Workshop Goals

- To collect and meta-review well-structured case studies of professional HCI practices for constructing applied knowledge for adapting and combining resources of sets of methods to deal with contextual constraints. This will be valuable for:
 - educating and training novice HCI professionals;
 - developing innovative HCI approaches to address new usage contexts;
 - laying the foundation work for formal comparisons of HCI practices;
- To deepen the understanding of how HCI professionals conceptualize HCI methods (i.e. properties, assumptions, relevance);
- To enable HCI professionals to reflect on their practice (cf. reflective practitioners [11]) by externalizing their tacit knowledge, values and strategies in relation to the roles methods play in their work in reality.

Intended Audience

The workshop aims to attract HCI professionals who have experiences of designing and evaluating different interactive products, systems, or services in different domains/organizations or different projects within the same domain/organization. Contributors are invited to describe their attempts to apply the same (set of) method-resources to different usage contexts. HCI researchers who have knowledge and skills in analyzing case studies can also be contributors of the workshop. We also invite researchers with theoretical positions on the nature of interaction design work to submit position papers on frameworks for understanding methods, approaches and re-usable resources and their relation to design work in specific project settings.

Outcomes

The major outcome of the workshop is a collection of structured case studies on HCI professional practice - a body of applied knowledge leading to a deeper understanding of the nature of HCI methods and their role in practice, and, more specifically, how resources of such methods are re-appropriated and re-configured when they are transferred across different usage contexts. The case studies, the analysis approaches, analysis results, the poster, and agenda for future work on this inquiry will be compiled as the workshop proceedings accessible to the wider HCI community. The workshop website will remain a hub for augmenting as well as sustaining collaboration to further explore this highly relevant research topic on transferring HCI approaches beyond the lifetime of the project TwinTide, which is entering its final year.

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