

# Beyond Theory: A UX Outcomes Casebook for HCI Education

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## ABSTRACT

The CHI community has expressed a growing interest in creating and sharing educational materials related to User Experience (UX) outcomes, particularly emphasizing summative research. Based on insights gathered at a CSCW 2003 workshop on understanding and evaluating UX outcomes at scale, we identified two areas of focus: (1) the need to develop Human-Computer Interaction (HCI) educational resources for UX, specifically focusing on summative methods and industry practices, and (2) the opportunity to further review and discuss the potential of a casebook—a textbook centered around case studies. This Special Interest Group (SIG) at CHI 2024 aims to directly address these opportunities by bringing together a community of academic and industry researchers for the exchange of ideas, ultimately guiding the development of educational resources that equip HCI students with strong summative research skills as they enter the UX field. At the SIG, we will discuss HCI educational resources for UX outcomes and present a casebook outline, gathering feedback, insights, and interest regarding the proposed case studies and general format.

## CCS CONCEPTS

• **Human-centered computing**; • **Human computer interaction (HCI)**; • **Empirical studies in HCI**;

## KEYWORDS

HCI education, UX outcomes, HCI evaluation, UX health metrics, Summative research, Industry research, Case studies, Casebook, HCI learning resources

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## 1 BACKGROUND

Evaluating applications from a summative perspective is an important component for industry UX researchers. Currently, we believe our field falls short by expecting HCI and UX researchers to learn these skills on the job. Instead, we suggest providing these researchers with the required expertise while studying HCI or UX in academia.

UX research (UXR) metrics encompass a diverse range of user-centered metrics that collectively signify the effectiveness, efficiency, satisfaction, and overall quality of a user's engagement with a product or service. These metrics are often used to measure the success of UX improvements after a feature or product is shipped, identify new innovative opportunities, and decide which UX improvements to invest in.

Despite the critical role played by components such as UX outcomes, UX metrics, and UX health in HCI research and design, these aspects have not yet been given a central focus in HCI courses [8]. Current HCI and UX educational resources predominantly concentrate on methods (e.g., [13]), methodologies (e.g., [4][12]), and the overarching goal of democratizing (e.g., [11]) or navigating a UXR career (e.g., [1]).

This SIG and the casebook concept are an extension of a CSCW 2023 workshop on UX outcomes [8]. The workshop brought together 22 participants (9 academic researchers and 13 industry researchers) to discuss academic and industry challenges and opportunities around understanding and evaluating UX outcomes at scale [8]. The workshop highlighted concerns related to educational resources, the practicality of case studies, challenges in integrating UXR into product development, and issues with aligning summative metrics among UX researchers. Participants emphasized the significance of learning new tools in context rather than in a generic application, particularly in the context of case studies. They noted that case studies effectively illustrate the challenges of applying methods, making them valuable for learning.

These workshop findings played a pivotal role in guiding our decision to develop a casebook. Traditionally, casebooks include excerpts from legal cases illustrating the application of specific laws. Casebooks have achieved market dominance, generations of respect, and are now seen as the “written centerpiece of legal

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education” [2]. Student evaluations of casebooks over the years have also demonstrated significant promise. For instance, Shapiro [15] discovered that students reported more engaging assignments in casebooks, rating them as more helpful compared to hornbooks (hornbooks resemble the typical textbooks found in traditional HCI classrooms, focusing on summarizing, and explaining theoretical aspects of the law).

Additionally, the potential of including case studies as a learning tool for HCI has been discussed in the past (e.g., [3]). HCI case studies offer more authentic learning experiences, suggesting their capacity to engage learners deeply (compared to traditional teaching methods) by enabling practical learning through real-world contexts [3][10][16].

Our proposed textbook aims to adopt the casebook model by examining case studies that showcase the application of UXR. This approach allows for a comprehensive understanding of industry contexts and provides blueprints for developing the expertise necessary to navigate the path toward becoming a strategic UX partner.

The SIG will foster dialogue among established industry researchers and academics to explore significant educational opportunities within UX outcomes, including ways to enhance access to such opportunities, and to review a casebook concept in detail. We will also be presenting the casebook outline to collect feedback, insights, and interest around the proposed case studies.

## 2 DRAFT OUTLINE OF TEXTBOOK CONCEPT (CASEBOOK)

This casebook is intended to be a comprehensive resource for understanding and applying UX metrics in various contexts. Its structured approach, real-world case studies, and focus on practical application make it a pivotal resource for enhancing knowledge and skills in UX outcome evaluation. Below we provide a draft outline of the casebook’s five sections we are currently proposing:

### A. Introduction to Metrics

Provides a comprehensive overview of UX evaluation strategies, including establishing a playbook, consideration of OKRs, metric selection, and organizational integration, and strategies for developing a metrics-focused approach.

### B. Benchmarking

Provides real-world examples from benchmarking studies that illustrate the entire process—from the design and execution of benchmarks to how the results are shared. These case studies demonstrate how benchmarks are crafted, implemented, and communicated. They showcase instances of pinpointing areas for enhancement, monitoring advancements toward objectives and targets, and conducting competitive analysis.

### C. Establishing and Leveraging Data from UX Metrics

Explores case studies that thoroughly describe analysis and diagnostic methods relating to summative methods, highlighting the meticulous and precise approaches applied in these processes. These examples illustrate effective ways to enhance rigor and confidence in analyzing user experience outcomes.

### D. Evaluating Artificial Intelligence

Explores the transformative influence of AI in shaping the future across various industries. The presented case studies delve into understanding challenges faced by practitioners, examining the concept of AI trust, and assessing the effectiveness of AI systems.

### E. Creating Case Studies

Outlines the process of creating case studies, enabling readers to share their own experiences upon entering the industry. With this casebook and knowledge of how to contribute valuable experiences, we envision the potential for it to act as a catalyst for change in addressing the HCI educational resource challenge.

## 3 INDUSTRY IMPACT

The shortage of educational materials in HCI that emphasize real-world application of summative outcome measurement has a cascading impact on UXR teams within industry. Specifically, when UXR teams face challenges effectively gathering summative data to inform future UX improvements, assessing the impact of user challenges on the overall user experience, and establishing a consistent method for quantifying UX, they struggle to present a comprehensive picture of their product. This limitation negatively impacts their ability to advocate for the user and influence company strategy. Consequently, this gap can perpetuate a cycle where UX research takes on a secondary, supporting role instead of leading. Therefore, it is critical to bridge this educational gap, empowering HCI and UX professionals to have a greater influence in developing a comprehensive understanding of their product, including summative aspects. This, in turn, will benefit end-users, products, and the organizations.

## 4 EDUCATIONAL RESOURCES LANDSCAPE

The existing educational materials in the field of HCI primarily concentrate on methodology (e.g., [4][12]) and methods (e.g., [5][13]), taking a traditional approach that emphasizes establishing a theoretical foundation rather than delving deeply into real-world use cases. Furthermore, materials on UX research tend to also focus on topics such as methods, navigating the discipline (e.g., [1]), and the democratization of research (e.g., [11]). These resources offer guidance on fostering collaboration with teams closely connected to the research function, enhancing their ability to collectively gather meaningful insights. Moreover, democratization goes a step further by emphasizing the empowerment of others to conduct lightweight research. While these materials play a significant role in HCI and UX education we emphasize the importance of making available practical applications to foster the growth of UX research as a discipline. Neglecting the context and backgrounds, conflicts that arise, and real-world impact poses a risk of losing some of the most valuable learning opportunities. We are confident that this shift will promote a more comprehensive approach to developing stronger and more robust UX researchers.

## 5 GOALS OF ORGANIZING

The objectives of organizing this Special Interest Group (SIG) are:

1. To explore ways to enhance the availability of educational opportunities within UX outcomes for academic students, academic researchers, and industry researchers.
2. To present a casebook concept and a detailed outline of curated case studies to collect feedback, insights, and interest.

## 6 EXPECTED ATTENDEES AND RECRUITMENT

Based on the topic of this SIG, the make-up of SIG CHI, and our experience running a CSCW 2023 workshop on UX outcomes, we expect the event to be attended by the following:

- SIGCHI attendees who were organizers or participants from our CSCW 2023 workshop (n=22) [7]
- SIGCHI attendees who have proactively signed up as interested in attending our UX Outcomes SIG (n=10) [6]
- SIGCHI attendees who teach HCI/UX research or design courses, or plan curricula for these courses
- SIGCHI members who conduct research (including students) or teach within the HCI/UX space
- SIGCHI members who are doing research or teaching within the Analytics and Data Science spaces (e.g., [14])
- SIGCHI members who have written industry case studies (e.g., [9])

This event will be open to all attendees, not just those listed above. To ensure wide participant recruitment, we plan to distribute our recruitment posts across mailing lists associated with SIGCHI, IEEE, and other scholarly organizations focused on studying UX outcomes. Additionally, we intend to request authors presenting papers on UX topics at CHI to promote the SIG at the conclusion of their lectures. We will also leverage our established professional networks by posting recruitment messages to maximize outreach and engagement.

## 7 MEETING AGENDA

Prior to the SIG, pre-selected authors will be asked to prepare a 200-word abstract of their case study. The session will be scheduled for a duration of 75 minutes and will encompass several activities.

We will begin the SIG with a brief 5-minute introduction to review the meeting's objectives. Pre-selected authors will then present an abstract of their proposed case study via a 5-min presentation to invoke conversation on emerging themes across the case studies.

Following these presentations, we will engage in a discussion, exploring topics such as:

- Various approaches to make educational resources more accessible to academic students, academic researchers, and industry researchers in the field of UX outcomes
- Barriers associated with integrating these topics into educational institutions
- Discussions around the concept of a casebook for HCI education
- Relevance and interest of the proposed case studies

During the discussions we will use a Miro board for participants to share both their presentations and their insights.

## 8 EXPECTED OUTCOMES AND NEXT STEPS

We anticipate receiving a high volume of case study abstract proposals. Following the SIG meeting, we will select the proposals that will advance to the next stage. To facilitate ongoing research in this field, we plan to share the Miro board with SIG attendees and make it publicly accessible. This initiative is particularly aimed at those interested in UX outcomes and who participate in CHI, providing an excellent platform for community building. Post-SIG, we intend to hold virtual meetings every 3-4 months with the attendees to discuss and update the progress of the book's preparation and publication.

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