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COURSE

Building The Next Generation of Practitioners: What Is Broken In HCI Teaching (And How We Might Fix It)

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Building The Next Generation of Practitioners: What Is Broken In HCI Teaching (And How We Might Fix It)

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Abstract

Designing effective Human-Computer Interaction (HCI) curricula in Higher Education presents a range of challenges and constraints. Some challenges stem from the nature of HCI as a discipline; an inherently interdisciplinary field that encompasses a complex array of theories, practices, and methodologies. With a closer focus on user-centred design, the challenges are exacerbated due to the need for authentic user engagement and the lack of time and resources for iterative development and testing. Additionally, some challenges relate to students' mindset, particularly a tendency toward tool-centric thinking, which often undermines the contextual relevance and user needs. And finally, it is crucial to recognise the African context within this landscape, considering educators' and students' own experiences, culture, and resources. This interactive course invites educators to explore these challenges through engaging discussions, exchanging knowledge, and learning more about the latest literature trends in the research community, hoping to leave with inspired solutions and practical workarounds to deliver high-quality HCI curricula in the African continent and beyond.

CCS Concepts

• **Human-centered computing** → Human computer interaction (HCI); • **Social and professional topics** → Professional topics; Computing education.

Keywords

Teaching HCI, Higher Education, Human-Computer Interaction, User-Centered Pedagogy, Creative Industries Education

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1 Introduction

There are many challenges HCI educators face in delivering high-quality and effective HCI education. Some stem from the complex and interdisciplinary nature of the HCI field itself [1–5], while others are faced due to student-related factors such as mindsets and expectations [6]. Additionally, challenges may also arise from the broader contextual influences, including cultural norms, institutional settings, and the personal experiences and values of both educators and students [7–11]. In this course, attendees will explore six HCI education problems in Higher Education. In the first round of discussions, attendees will be split into three groups to discuss problems 1, 2, or 3. Then, in the second round of discussions, attendees will be divided into three new groups to discuss 4, 5, or 6. Below is a small overview of each HCI education problem.

1.1 Problem 1: Resizing The HCI Design Cycle

The HCI design cycle — from user research and problem framing to prototyping, testing, and iteration —poses significant challenges in education [12–15]. This process demands a wide range of cognitive, technical and interpersonal skills that can be overwhelming for students, especially within the time constraints of a single module or term. The question remains: how might we resize the HCI design cycle into manageable, pedagogically effective segments that still preserve its core principles?

1.2 Problem 2: Overcoming The Barriers in Client Briefs & Client-Led Projects

There exist many benefits of integrating client-led briefs and projects in HCI education, including the opportunity for students to work on meaningful real-world projects and establish industrial connections for the future [1, 2, 4, 5]. However, when it comes to the logistics of facilitating client-led projects, it can become challenging to implement for many reasons. For instance, industry professionals often do not see the appeal in engaging with students, due to the lack of time, competing priorities and deadlines, and finding reliable clients who would be willing to maintain engagement throughout the duration of the module can be challenging [2]. As such, there is a need to find novel solutions that would give the students the experience of working with a client without an actual client.

1.3 Problem 3: Addressing The Elephant In The Room [That is Ethics]

Involving users throughout the design process is a core principle in HCI – even the terms "User Experience (UX)" and "User-Cantered Design" reflect this focus [3]. As such, HCI teaching in Higher Education must emphasise this focus not only in theory, but also through practice, by working on a real-world design problem and

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engaging with real end-users. Such goal is common among most HCI educators; however, it can be challenging to design, select, and carry though real-world problems design that pushes students to involve real-end users (who are not their peers) and yet obliges with the HCI (and University) ethics. Furthermore, students often lack in-depth understanding and knowledge of the ethical repercussions of engaging with real-end users.

1.4 Problem 4: "But I Want to Use VR!" – Getting Rid of The Tool Oriented Mindset

Many students jump to designing solutions that are in line with their technical skills or interests, overstepping the actual needs of end-users, the context of the design problem, and the application landscape. As such, it can be challenging to get students to brainstorm for solutions that are not oriented around specific technologies or tools.

1.5 Problem 5: Tackling The Most Complex Component of HCI – Empathy

In the HCI community, empathy is seen as an essential bridge connecting designers and users, by knowing the users, feeling the users, and empathising with the users [4, 6]. However, empathy is not easily taught; it's a complex of personal and interpersonal affective and cognitive skills, combined with theory, principles and methodologies. As such, the challenge in HCI education is to help students obtain empathy skills and learn how to capitalise on these skills to integrate empathy as a core principle in understanding user needs and during user testing and evaluation.

1.6 Problem 6: Addressing The New Elephant In The Room [That is AI]

In the realm of education, generative AI is impacting teaching and learning directly or indirectly across most if not all subjects and disciplines in Higher Education [16]. Yet, there is so much to understand about generative AI in the context of Higher Education. First of all, is unclear how generative AI can be used to support learning, especially when most conversations around AI and learning are centred around plagiarism [17]. Second, it is unclear in what ways Generative AI could offer solutions for constraints and barriers in logistics, access to resources, and contexts. Thirdly, it is not clear how educators can offer realistic (and applicable) boundaries on how AI can be used in student learning and assessment.

2 Learning Objectives

The course aims to meet the following Learning Objectives (LOs):

1. Identify and critically discuss key challenges in teaching HCI in Higher Education.
2. Examine the specific needs, constraints, and opportunities in shaping HCI education within the African context.
3. Explore and evaluate existing strategies for addressing common pedagogical, logistical, and curricular challenges in HCI teaching.
4. Share, reflect, and discuss personal experiences, workarounds, and best practices for delivering high-quality HCI curricula in Higher Education.

Furthermore, the course aims to present the following benefits for its attendees:

1. Gain a fresh pedagogical perspective: from gaining awareness on the latest works of research in the HCI education community, to collaboratively brainstorm for inspired solutions and workarounds, attendees will explore new ways to approach challenges and constraints in teaching HCI.
2. Discover and share context-relevant perspectives: through knowledge exchange and experience sharing, attendees will identify practical solutions and workarounds that consider the realities of the African context.
3. Engage with current research: attendees will gain insights from recent literature in HCI pedagogy to inform and inspire evidence-based solutions.
4. Enhance one's teaching practices: attendees have the opportunity to reflect on their own teaching practices and may decide to adopt solutions that aim to enhance their teaching practices.
5. Build a supportive peer network: The interactive activities in this course are designed to foster connection, mutual learning, and long-term professional relationships with like-minded people.
6. Explore research and collaboration opportunities: attendees might find exciting research and scholarship opportunities and collaborations, aiming to explore or test novel approaches to teaching HCI in Higher Education.

3 Target Participants

This course is designed for early and mid-career HCI academics in Higher Education, particularly academics who teach or assist in delivering modules.

4 Proposed Length of The Course

The course is intended to be two hours long.

5 Planned Activities

The total duration of the course will be 2 hours. Table 1 provides a detailed breakdown of the course activities.

6 Course Evaluation

A course evaluation form will be available as an online form. Submission will be anonymous.

Learning Outcomes & Applications:

- To what extent did the course content reflect real challenges you face in HCI teaching (likert-scale 1-5 where 1= not at all and 5=completely).
- Which challenges you felt were most relevant to your teaching context? Please elaborate (open-ended).
- Can you list one (or more) topic, challenge, or constraint you felt were missing or under explored in this course? (open-ended).
- The course intended to meet the following Learning Objectives [include list]. To what extent did you feel you achieved the course's Learning Objectives? (likert-scale 1-5 where 1= not at all and 5=completely).

Table 1: Course Plan Breakdown

Time	Duration	Main Activity	Description	Format & Material
00:00 – 00:20	20 min	Introduction	The instructor introduces themselves, their experience, and relevant research interests. Introduction to the course topic, aims, and context. Introduce the first round of HCI teaching problems (problems 1, 2, and 3 – see Section 1 for further information)	Presentation
00:20 – 00:40	20 min	Breakout Groups (1)	Attendees are asked to read the 1-page document provided for them, which describes the teaching problem more in-depth, supported by relevant literature. Attendees are then asked to brainstorm for possible workaround, with considerations to their personal experience, and the constraints, needs, and opportunities within the African context.	1-page document, flipcharts, markers, post-its notes.
00:40 – 00:55	15 min	Discussion	Each group will present their results to the attendees (3 min per group). The instructor will present a short presentation on evidence-based solutions and the latest research available in relations to problems 1, 2, and 3. Introduce the second round of HCI teaching problems (problems 4, 5, and 6 – see Section 1 for further information) It will be encouraged that attendees change their group combinations to maximise the opportunity of meeting and working with new individuals.	Presentation
00:55 – 01:15	20 min	Breakout Groups (Round 2)	Attendees are asked to read the 1-page document provided for them, which describes the teaching problem more in-depth, supported by relevant literature. Attendees are then asked to brainstorm for possible workaround, with considerations to their personal experience, and the constraints, needs, and opportunities within the African context.	1-page document, flipcharts, markers, post-its notes.
01:15 – 01:30	15 min	Discussion	Each group will present their results to the attendees (3 min per group). The instructor will present a short presentation on evidence-based solutions and the latest research available in relations to problems 4, 5, and 6.	Presentation
01:30 – 01:35	05 min	Concluding Thoughts	Summary, conclusions, and future work.	Presentation
01:35 – 01:45	10 min	Personal Reflection	Attendees will be asked to take a moment and write down their thoughts in relation to their own teaching practices and what takeaways stood out for them that they might consider adopting.	Online Form
01:45 – 02:00	15 min	Course Evaluation Q&A	Attendees will be asked to fill out a course evaluation.	Online Form

- To what extent did the course acknowledge and engage with the African context of HCI education? (likert-scale 1-5 where 1= not at all and 5=strongly).

The African Context:

- Can you give one example (or more) on how you felt the African context in HCI education was considered, discussed, or acknowledged? (open-ended)
- What issues would you like to see further explored in future courses? (open-ended)

Course Facilitation & Format:

- How would you rate the facilitation and delivery of the course? (likert-scale 1-5 where 1= poor and 5=excellent).
- Can you elaborate on your answer for the previous question? I.e., why did you decide to rate the facilitation and delivery of the course as so? (open-ended)
- What was your favourite thing about the course? Please explain why so? (open-ended)
- What are your least favourite thing about the course? Please explain why so? (open-ended)
- What would you suggest improving for future iterations of this course? (open-ended)

7 Reading lIST

- Tabbaa, Luma, Michael Green, and Blaine Epsley. "Overcoming the barriers in client-based learning: a case study." ICERI2023 Proceedings. IATED, 2023.
- Shaimaa Lazem and Susan Dray. 2018. Baraza! human-computer interaction education in Africa. interactions 25, 2 (March-April 2018), 74–77. https://doi.org/10.1145/3178562
- Anicia Peters, Hafeni Mthoko, Shaimaa Lazem, Heike Winschiers-Theophilus, and Maletsabisa Molapo. 2019. My heart is in Havana: designing with marginalized African communities. interactions 26, 5 (September-October 2019), 86–88. https://doi.org/10.1145/3344945
- Sonwabo Mzolisi Mdwaba, Attlee Gamundani, Nobert Jere, Relebohile Bulane, Tanaka Jere, and Nation Madikiza. 2024. Decolonizing the Computing Curriculum: Aligning Stakeholders for an African-Centric Education. In Proceedings of the 4th African Human Computer Interaction Conference (AfriCHI '23). Association for Computing Machinery, New York, NY, USA, 278–284. https://doi.org/10.1145/3628096.3629070
- Francisco Nunes, Joana Couto Silva, Beatriz Félix, Ricardo Melo, Heike Winschiers-Theophilus, Naveen Bagalkot, Nervo Verdezoto, Shaimaa Lazem, Alastair Van Heerden, Thulani Ngubane, Sarina Till, and Melissa Densmore. 2024. African Co-Design: Past, Present, and Emerging. In Proceedings of the 4th African Human Computer Interaction Conference (AfriCHI '23). Association for Computing Machinery, New York, NY, USA, 316–318. https://doi.org/10.1145/3628096.3629080
- Makuochi Nkwo, Muhammad Adamu, Abdullahi Abubakar Kawu, Hafeni Mthoko, Shaimaa Lazem, and Anicia Peters. 2024. Baraza II: Expanding African HCI Communities and Curriculum. In Proceedings of the 4th African Human Computer Interaction Conference (AfriCHI '23). Association for Computing Machinery, New York, NY, USA, 291–294. https://doi.org/10.1145/3628096.3629073
- Anicia Peters, Zayira Jordan, Luiz Merkle, Mario Moreno Rocha, Jose Abdelnour Nocera, Gerrit C. van der Veer, Susan Dray, Jennifer Preece, and Elizabeth Churchill. 2016. Teaching HCI: A Living Curriculum? In Proceedings of the First African Conference on Human Computer Interaction (AfriCHI '16). Association for Computing Machinery, New York, NY, USA, 267–270. https://doi.org/10.1145/2998581.2998618
- Kroeze, Jan H. (2022). Africanization of HCI Teaching and Learning. In: Ardito, C., et al. Sense, Feel, Design. INTERACT 2021. Lecture Notes in Computer Science, vol 13198. Springer, Cham. https://doi.org/10.1007/978-3-030-98388-8_44
- Kang, Jin, Noemi M. Roestel, and Audrey Girouard. "Experiential Learning to Teach User Experience in Higher Education in Past 20 Years: A Scoping Review." Frontiers in Computer Science 4, (2022): 812907. Accessed July 1, 2025. https://doi.org/10.3389/fcomp.2022.812907.
- Elizabeth F. Churchill, Anne Bowser, and Jennifer Preece. 2016. The future of HCI education: a flexible, global, living curriculum. interactions 23, 2 (2016), 70–73. https://doi.org/10.1145/2888574
- Wendy Roldan, Xin Gao, Allison Marie Hishikawa, Tiffany Ku, Ziyue Li, Echo Zhang, Jon E. Froehlich, and Jason Yip. 2020. Opportunities and Challenges in Involving Users in Project-Based HCI Education. In Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems (CHI '20). Association for Computing Machinery, New York, NY, USA, 1–15. https://doi.org/10.1145/3313831.3376530

References

[1] J. Fletcher-Brown, K. Knibbs, and K. Middleton, 'Developing "employagility": the 3Es case for liveclient learning', Higher Education, Skills and Work-Based Learning, vol. 5, no. 2, pp. 181–195, May 2015, doi: 10.1108/HESWBL-05-2014-0011.

[2] A. L. Parsons and E. Lepkowska-White, 'Group Projects Using Clients Versus Not Using Clients', Journal of Marketing Education, vol. 31, no. 2, pp. 154–159, Aug. 2009, doi: 10.1177/0273475309334169.

[3] Wendy Roldan, Xin Gao, Allison Marie Hishikawa, Tiffany Ku, Ziyue Li, Echo Zhang, Jon E. Froehlich, and Jason Yip. 2020. Opportunities and Challenges in Involving Users in Project-Based HCI Education. In Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems (CHI '20). Association for Computing Machinery, New York, NY, USA, 1–15. https://doi.org/10.1145/3313831.3376530

[4] Roldan, W., X. Gao, A. M. Hishikawa, T. Ku, Z. Li, E. Zhang, J. E. Froehlich, and J. Yip. 2020. "Opportunities and Challenges in Involving Users in Project-Based HCI Education." Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems, 1–15. https://doi.org/10.1145/3313831.3376530

[5] L. Tabbaa, M. Green, B. Epsley (2023) Overcoming The Barriers in Client-Based Learning: A Case Study, ICERI2023 Proceedings, pp. 2342-2348. https://doi.org/10.21125/iceri.2023.0646

[6] Park, H.J. and Lee, J.H., 2025. Nurturing an empathic mindset in human–computer interaction education: an integrative review of empathy enhancement strategies. *Journal of Further and Higher Education*, pp.1-16.

[7] Shaimaa Lazem and Susan Dray. 2018. Baraza! human-computer interaction education in Africa. interactions 25, 2 (March-April 2018), 74–77. https://doi.org/10.1145/3178562

[8] Anicia Peters, Hafeni Mthoko, Shaimaa Lazem, Heike Winschiers-Theophilus, and Maletsabisa Molapo. 2019. My heart is in Havana: designing with marginalized African communities. interactions 26, 5 (September-October 2019), 86–88. https://doi.org/10.1145/3344945

[9] Sonwabo Mzolisi Mdwaba, Attlee Gamundani, Nobert Jere, Relebohile Bulane, Tanaka Jere, and Nation Madikiza. 2024. Decolonizing the Computing Curriculum: Aligning Stakeholders for an African-Centric Education. In Proceedings of the 4th African Human Computer Interaction Conference (AfriCHI '23). Association for Computing Machinery, New York, NY, USA, 278–284. https://doi.org/10.1145/3628096.3629070

[10] Francisco Nunes, Joana Couto Silva, Beatriz Félix, Ricardo Melo, Heike Winschiers-Theophilus, Naveen Bagalkot, Nervo Verdezoto, Shaimaa Lazem, Alastair Van Heerden, Thulani Ngubane, Sarina Till, and Melissa Densmore. 2024. African Co-Design: Past, Present, and Emerging. In Proceedings of the 4th African Human Computer Interaction Conference (AfriCHI '23). Association for Computing Machinery, New York, NY, USA, 316–318. https://doi.org/10.1145/3628096.3629080

[11] Makuochi Nkwo, Muhammad Adamu, Abdullahi Abubakar Kawu, Hafeni Mthoko, Shaimaa Lazem, and Anicia Peters. 2024. Baraza II: Expanding African HCI Communities and Curriculum. In Proceedings of the 4th African Human Computer Interaction Conference (AfriCHI '23). Association for Computing Machinery, New York, NY, USA, 291–294. https://doi.org/10.1145/3628096.3629073

[12] Anicia Peters, Zayira Jordan, Luiz Merkle, Mario Moreno Rocha, Jose Abdelnour Nocera, Gerrit C. van der Veer, Susan Dray, Jennifer Preece, and Elizabeth Churchill. 2016. Teaching HCI: A Living Curriculum? In Proceedings of the First African Conference on Human Computer Interaction (AfriCHI '16). Association for Computing Machinery, New York, NY, USA, 267–270. https://doi.org/10.1145/2998581.2998618

[13] Kang, Jin, Noemi M. Roestel, and Audrey Girouard. "Experiential Learning to Teach User Experience in Higher Education in Past 20 Years: A Scoping Review." Frontiers in Computer Science 4, (2022): 812907. https://doi.org/10.3389/fcomp.2022.812907.

[14] Elizabeth F. Churchill, Anne Bowser, and Jennifer Preece. 2016. The future of HCI education: a flexible, global, living curriculum. interactions 23, 2 (2016), 70–73. https://doi.org/10.1145/2888574

[15] Wendy Roldan, Xin Gao, Allison Marie Hishikawa, Tiffany Ku, Ziyue Li, Echo Zhang, Jon E. Froehlich, and Jason Yip. 2020. Opportunities and Challenges in

Involving Users in Project-Based HCI Education. In Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems (CHI '20). Association for Computing Machinery, New York, NY, USA, 1–15. https://doi.org/10.1145/3313831.3376530

[16] Ahmed Kharrufa and Ian Johnson. 2024. The Potential and Implications of Generative AI on HCI Education. In Proceedings of the 6th Annual Symposium on HCI Education (EduCHI '24). Association for Computing Machinery, New York, NY, USA, Article 10, 1–8. https://doi.org/10.1145/3658619.3658627

[17] King, M.R. and ChatGPT, 2023. A conversation on artificial intelligence, chatbots, and plagiarism in higher education. *Cellular and molecular bioengineering*, *16*(1), pp.1-2.