Chapter 1. Building Relationships Across Professional Spheres in Academic-Industry Collaborations: A Cross-case Synthesis

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Abstract. This chapter presents an examination of eight individuals who have worked on industry-academic collaborations, specifically in user experience (UX). By analyzing experiences and approaching industry-academic collaborations in UX, we compare commonalities and differences, and present a synthesis that puts each case in conversation. To collect experiences, we interviewed eight UX professionals who have collaborated across academic and industry spheres on projects. We coded our findings to find connections between their experiences. We created experience maps from their collaboration stories, processes, and timelines, and then used the experience maps to assemble a broad view of the cases. Our data shows that collaborators often engage in similar recursive activities, such as building and investing in relationships, locating problems to solve, and discovering mutual benefits. While some of these projects can present unique challenges that are contextual to workplaces, such as differences in language/what constitutes research, priorities/mindsets/interests/goals, project scope or loss of interest, concurrence/divergence of the work, international education differences/cultural differences, they are valuable projects that inform academic and practitioner spaces. By providing useful cases and analysis, the chapter presents common pathways for readers to consider.

When we started the research for this chapter, the main challenge we faced as collaborators was not interpersonal.[1] Keith and Ben had been working on projects

1. We would like to thank our collaborators Eric Rodriguez, Dawn Opel, and Emily

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related to industry-academic collaboration for the last three years.[2] Meanwhile, Jen and Casey had recently collaborated on a professional development workshop for the experience architecture program at Michigan State. We generally got along well and enjoyed interacting with each other. Our main challenge was learning *how* to best collaborate across different professional spheres, professionalization goals, and reward systems. Quite literally, our jobs paid each of us to do different things and fulfill different roles, and that is a powerful motivating force and an equally hefty deterrent. We also realized that these very challenges could be a useful lens for a research project meant to help others consider some best practices for collaborating across industry and academic spheres. As a result of this realization, we began working together through a series of inquiry activities that asked questions about how to ethically and effectively start and sustain successful industry-academic collaborations. Ultimately, these questions emerged in an IRB-approved study that produced the data we report on in this chapter.[3] In this chapter, we present the full findings from our research collaboration as a cross-case synthesis, exploring and validating how user experience (UX) professionals—some in industry and others in academia—learned to effectively collaborate across disciplines and professional spheres. The eight professionals we interviewed for our research have worked either as academics and as industry practitioners, and in some cases have been in both roles. Each participant provides insight into building and sustaining relationships associated with UX research and education, including the work that goes into expanding the field for the future.

What follows in this chapter is a discussion of our research *and* our work together on how to best start and sustain industry-academic collaborations. The chapter begins with a brief literature review that focuses on how those working in UX and the closely related field of technical communication have discussed best practices in previous work. The chapter continues by offering a description of our methods and analytical procedures. Next, the chapter reports on the results of our case study, exploring and validating shared collaboration approaches that emerge in each case. The results note that practitioners and academics view their collaborations as a win-win scenario in terms of community partners, supporting students, and building better and more concrete bridges between both spheres. After the chapter discusses the results, it presents the implications of what was learned from the research. The chapter ends by arguing UX professionals to approach

Bowman for early support of this project. Thank you, also, to our participants for the valuable feedback.

2. Unfortunately, some of our research collaborators were not available to co-author this chapter, but deserve credit for contributing to the project. Much deserved credit goes to Eric Rodriguez, Dawn Opel, and Emily Bowman, each of whom helped intellectually shaped the work.

3. Also, in 2017 we presented at the User Experience Professionals Association conference in Toronto, Canada to solicit feedback on our work, and later followed up that presentation with an article in *User Experience* magazine (see Instone, et al., 2017).

collaborative work as a process of intentionally developing values that synthesize ideas, skill sets, and professional spheres.

What is Industry? Rethinking Professional and Cultural Contexts

In 1998 George Hayhoe called in people working in industry and academia to address the growing divide between professional spheres. Hayhoe (1998) explained, "Without cross-fertilization, both academe and industry face the prospect of sterility" (par. 16). To combat this sterility, Hayhoe argued industry practitioners and academics needed to be willing to learn from each other and find value in doing so. Hayhoe's urgent call to address the growing industry-academic divide has been echoed in technical communication (TC) and user experience (UX) scholarship over the years (e.g., Dicks, 2002), and the outcome of this call can be seen in edited collections by a variety of scholars, such as Barbara Mirel and Rachel Spilka (2002) and Tracy Bridgeford and Kirk St.Amant (2015), respectively.

An important theme emerging from the scholarship are the power relationships that are created between academics and practitioners. A good example of the power dynamics is discussed in Anthony Paré's (2002) account of working with Intuit social workers to define problems together, rather than the inverse, where a researcher or research team working alone defines problems for their participants. The latter approach not only unnecessarily created power distance, but it also assumed roles that foolishly relegated participants to expert or novice. Defining how collaboration could occur so strictly seemed an awkward approach, as Paré noted, because the outcome of the work made very little change at the workplace due to the absence of a meaningful collaboration occurring. There have been additional calls for academics to change their mindset when approaching collaborations with industry. For example, Deborah Bosley (2002) explained that academics "tend to separate themselves from practitioners in unproductive ways" (p. 27). Rather, Bosley would like to see "short-term" approaches adopted, wherein smaller projects could be started en route to more robust collaborations in the future. In this approach, large-scale collaboration is something a team could build toward.

In addition to discussions of cultural differences between industry and academia, published scholarship importantly pushes at the boundaries of what professional contexts can be defined as "industry." For example, scholars like Jeffrey Grabill (2007) have a history of work that focuses on intersections between computing technology, infrastructure development, and community change. Industry practitioners like Keith Instone (2005) have also been doing similar community building work in professional spaces by encouraging professionals to come together under the umbrella term UX regardless of workplace context. Even more recently, John Spartz and Ryan Weber (2015) argued that TC defines industry too narrowly. As a result, the authors claim the field often overlooks too many professional contexts, such as entrepreneurial ventures. In the same collection, James Dubinsky (2015)

made a similar argument explaining that industry should also include community engagement, which is a key feature and expectation of land grant institutions.

The experience of marginalized people and identities have also been discussed as essential to understand when imagining how collaborations are designed and who they are designed to include. For example, Laura Gonzáles and Heather Turner (2019) explained that women and people of color experience a different set of challenges when working to start and sustain industry collaborations. They highlight the importance of communicating ethically, including listening and practicing empathy, as one way to learn about, encounter, and overcome such issues. Additionally, they explain that collaborations must work to understand the amount of labor and obstacles people from historically marginalized populations face when choosing to engage a project across professional spheres. Much of the labor women and people of color do was invisible, the authors explained, and was deeply influenced by the weight of embedded systems of oppression, such as colonialism, which were not always visible to fellow collaborators. Rebecca Walton and colleagues (2019) further help to position technical communication, and thereby UX, as deeply tied to the work of social justice. They demonstrate how coalitional approaches are needed to sustain change in communities and organizations, and that we must take on this work intentionally and by reflecting and working to understand what they refer to as the 3Ps, or how power, positionality, and privilege function in the work we do. While our chapter does not directly address marginalized people and identities, we wish to highlight these discussions as essential as context for our findings about building productive and reciprocal relationships across professional spheres.

Finally, the scholarship argues for the importance of building relationships as a ubiquitous element of successful collaboration. For instance, Instone and colleagues (2017) discussed how collaborators have to be open to learning each other's language and trying out different kinds of informal collaborations (such as guest lecturing in a classroom or running a professional development workshop). In this work, the emphasis was on interested individuals showing up to places where they don't usually go, like conferences or meet-ups. Similar sentiments were expressed in Jason Palmeri and Paul Tuten's (2005) description of their collaborative work together, where they observed their own commonalities and differences and worked to stay in dialogue about them throughout a project. Their work included paying attention to emergence and its relationship to difference, and to be intentional about responding to it. Still others discussed how relationships can lead to professionalization, internships, and mentoring relationships across professional spheres (Gonzáles, et al., 2017; Katz, 2015; Smith, 2015).

Research Questions

When we first began to work together in 2017, we started by posing questions similar to Palmeri and Tuten (2005) about our own collaborative approaches and

how to best sustain them in reciprocal ways. Instead of documenting interactions with each other, however, we began to ask how other UX professionals worked together effectively and what that could teach us about how to best work together. We approached our interviews with research questions like:

- What would a broader look across multiple professionals show us about how to successfully start and sustain industry-academic collaborations in UX?
- What are some of the commonalities and differences across experiences?

To answer these questions, we developed a research study to collect experiences through semi-structured interviews with individuals who had participated in industry-academic collaborations.

Collaborating on Methods, Data Collection, and Analysis

Designing Procedures

We began collaborating on our interview instrument (see Appendix A) using iterative design approaches. We worked through questions together in several drafts, and then ultimately developed our ideas into an interview instrument. When submitting a proposal to the IRB, some of our collaborators were required by our institution as community members on a research team to complete research ethics training prior to initiating the study.

Participants

To locate participants, we used a convenience sample to make sure to capture rich experiences from those who we knew had sincerely engaged in industry-academic project work. Our eight participants were all at different stages of their careers and had engaged in different projects that we categorized by smaller one-offs (i.e., a guest lecture) all the way to larger, sustained projects (i.e., running a usability lab at a university). Also, we sought participants who worked both in universities and in industry contexts and could speak to working in both intellectual spaces. Notably, the participants often blurred the lines between these contexts in their professional lives, frequently working with/in both spheres.

Interview Procedures

Co-authors Keith and Ben conducted the interviews together. Each interview was audio recorded to create transcriptions and facilitate coding the results. Some participants offered interview answers by filling out our interview instrument and also participating in an interview. One participant chose to provide responses

only in writing and chose not to participate in an interview. Since our interview protocol was written for this type of response, we felt the interview was still quite comprehensive and enriched our findings.

Data Analysis Procedures

First, we coded our findings to understand what Robert Yin (2013) called logic models (i.e., "The logic model deliberately stipulates a complex chain of events over an extended period of time."). Then, following the work of Jennifer Ismirle (2018), we assembled our interview data into experience maps (i.e., stages of a time-bound experience with a system, product, or service) that represented the collaboration experience of each participant. We chose experience maps because they help to identify moments of opportunity and pain points for engaging in a particular activity. In this way, it allowed us to better understand how each participant experienced academic-industry collaborations so that we could focus on further modeling the results beyond the themes. To make the experience maps uniform, we started with a template that could be altered to fit the interview results ethically and appropriately, and to account for a range of emergent experiences (see Nguyen et al., 2018). The experience maps helped us visualize the interview data to assemble our cross-case synthesis and consider the individual experiences as part of a larger dataset.

Cross-case Synthesis Procedures

To present our cross-case synthesis (i.e., an analysis and synthesis of multiple case studies to provide a better understanding of a broad system), we took each of the eight visualizations we assembled and combined them into a single table that represented a collective experience of all eight participants. Because of the immense amount of data we had to grapple with, we broke up each stage of the experience map into smaller tables (see Tables 1.1–1.6). To curate each table effectively and to honor the variety of experiences, we removed repeated ideas as we synthesized what we learned. Finally, while assembling each table of the overall experience map, we continued to work to sort and organize findings to make sure we were collectively synthesizing ideas presented by each interview. What we present in the next section of this text shows details about each participant prior to discussing what we learned from them.

Participants, Contexts, and Activities

In this section, we provide an overview of our participants and a summary of their individual contexts and engagement with industry-academic collaborations. The information in this section is helpful as a primer for understanding the cross-case synthesis presented in the following part.

Table 1.1. Participants Summary

	Job	Connections	Benefits	Importance
P1	Corporate manager	Bridging industry and academia	Everyone involved	Industry needs can supercede all other needs
P2	HCI researcher at a university	Share research with industry for collaboration	Brings academics and practitioners together	Understanding between both spheres
P3	Professor at a university	Attends events to understand current trends in industry	Publications and conference talks	Collaboration across the university and industry
P4	Consultant and adjunct professor	Connect academics and students with industry	Networking and problem solving	Inspire rather than just distribute knowledge
P5	Professor and UX researcher	Find similar personalities for collaboration	Leads to passion projects	Build trust in relationships between academia and industry
P6	Consultant	Share UX research with practitioners	"do science right"	Paths to specific solutions
P7	University lab director	Lab clients and graduate students	Deliverables for clients; work for graduate students	Consistent support between academia and industry
P8	Corporate UX manager	Curriculum educates students and informs community	Recruit talent	Synthesize the best of academia and industry

Participant 1 (P1) was a corporate manager who had recently started working for a university in an instructional role (see Table 1.1). On the interview instrument, P1 wrote about the importance of win-win value propositions as a way to fund and guide industry-academic research that had the potential to transform technologies and markets. P1 gave several examples of large-scale projects and collaborations, including some at corporations like Amazon and innovation centers like Bell Labs. In these projects, the goal was to bring some sort of technological innovation to market, and to work across industry and academic contexts to do so. In other words, the point of collaborating in this way was to find people interested in doing transformational work and who could persist through several rounds of ideation that would begin with workshops and move on to seeking funding. Then, the team would do the work and bring it to market.

When doing this sort of work, P1 described the importance of transactional interactions and relationships aimed at creating future opportunities for everyone involved. If there was an aligning principle of each team, it was this: to transform

technologies while maximizing the unique benefits to everyone involved. However, P1 also reflected that, when it came to issues of power or timeline, business needs would take precedence over individual or academic needs. In other words, the transformational project work was of most importance, while the benefits to each individual collaborator was a close second. Even so, P1 seemed to believe it was important to assemble a team that was dedicated to supporting individual benefits as its central mindset because of issues of reciprocity and maintaining relationships in the future.

Participant 2 (P2) was an HCI (human computer interaction) researcher at a university who described collaborations in the context of observing industry practitioners to learn about their practice (e.g., using the organization as a field site), and this type of collaboration could involve some free consulting or data collection as a starting point in hopes for collaborations or partnerships in the future (see Table 1.2). In terms of finding connections, P2 attended events and gave talks (conferences, meet-ups, etc.), and utilized established university connections/networks to interact with practitioners to understand their interests and what's "new and exciting." When building relationships, P2 described focusing on the importance and challenge of finding a shared topic of interest for both sides. They also focused on working with larger organizations for stability and capacity and middle-level practitioners who had time for collaborating, and they found it helpful to work with practitioners who had some form of academic research background and appreciate the academic perspective and mindset.

To get collaborative projects started, P2 would share their research with industry practitioners to help bridge the divide. They also mentioned being involved with starting a conference focused on bringing academics and practitioners together and considering how to appeal and support both spheres. With this in mind, P2 also described a number of challenges to consider: how to bring academics and practitioners together at the same events; how to align interests and find mutual benefits with different mindsets; how to overcome differences in language; how to manage motivating factors (e.g., publications); and, how to manage time scale and long-term value (e.g., no immediate benefits or results).

Participant 3 (P3) was a professor at a European university who had transitioned from being a practitioner earlier in their career (see Table 1.3). P3 had been involved with a variety of university research projects for industry with a design result as the end goal and thought their previous experience as a practitioner helps them connect with industry practitioners as well as bringing in their academic perspective to projects. For these projects, the benefits were in the form of reports and publications, talks at conferences, and serving as a bridge between academia and practitioners. P3 also described collaborations in the sense of universities, such as teaching students about methods and tools as well as an overall strategic perspective, and involving students in industry projects for them to gain

practical real-world experience and get critique from practitioners when trying to use what they have learned.

To facilitate collaborations, they attended events (conferences, workshops, etc.) and would meet with practitioners to connect and advocate for collaborations, and they were interested in finding out what is going on in industry. P_3 also described a number of challenges and frustrations when engaging with practitioners or when working on projects even when the desire for collaboration and engagement is present, such as business goals and academic goals not aligning easily, and timing and benefit issues (e.g., being brought in on projects too late to be meaningful, constraints of role to feedback too late to be considered for industry timeline, etc.). In addition, P_3 described considering ideas for collaborations across university departments/disciplines and developing innovations within the university, such as the creation of a lab/studio, although this involved considering challenges beyond simply deciding on a space and acquiring equipment/technology.

Participant 4 (P_4) was a consultant and adjunct professor who spent time working in both industry and academia at different times and purposes (see Table 1.4). As a result, P_4 seemed to have an important understanding of individual needs of each work context. In the interview, P_4 discussed the importance of serendipity in industry and academic collaborations. At the same time, serendipity was something that grew from intentional interactions at conferences and other professional gatherings. P_4 relied on host organizations, like conferences, to help locate potential collaborations. Creating the space for discussion allowed serendipity to occur, and for partnerships to form. When discussing engagement, P_4 talked about a framework that focused on "lighting a fire" rather than "filling a bucket." In other words, inspire people to work on projects that compel them rather than trying to fill them up with knowledge or opportunity that won't necessarily help them.

Once a partnership was formed, P_4 discussed the importance of talking through mutual benefits and seeking funding, including for students. Professional gatherings were important to P_4 because they created opportunities for networking and to learn about problems, such as broad-scale technology issues or smaller-scale collaborations like assembling a space for conversations. In this latter scenario, funders can be the very professional communities that host conversations meant to lead to collaborations and the problem they are trying to solve is the lack of industry-academic collaborations in their professional community. Understanding the different kinds of problems could lead to finding people who want to work on these issues and/or have the bandwidth to do so.

Participant 5 (P_5) was a professor who had experience teaching and researching UX (see Table 1.5). P_5 focused on collaboration and building relationships as key components to expanding research, making connections, and supporting projects. In the interview, P_5 stressed the need to find personalities that match for successful collaboration, but with an understanding that everyone will eventually find

and develop their roles within the team. While some team dynamics might not be perfect, and while some projects might not be perfect, P5 believed that such interactions are a way to eventually locate projects individuals are passionate about.

As these passion projects become more apparent, P5 did not see a lack of funding as a roadblock. Such issues can find workarounds like finding necessary hardware and software to do transformational work. Essentially, if someone cares about a certain project or topic, they can find like-minded people they had worked with in the past, or find new ones, who would help or be interested in working together. This approach supported the balance between practitioner and academic as an iterative process that can be refined during each new project approach, including how to find collaborators. P5 continually stressed the importance of collaboration and the need to build trust in relationships in academia and industry.

Participant 6 (P6) was a consultant who specialized in synthesizing academic research related to user experience (like cognitive psychology) and sharing it with practitioners (see Table 1.6). P6's consulting engagements were driven by clients who wanted more scientific rigor, such as doing quantitative user research without as many shortcuts that are common in industry. P6 saw it as part of their mission to debunk "bad science" that had proliferated as UX practice has grown.

P6's collaborations across academia and industry had been centered around the ability to translate between and operate in both worlds simultaneously. At the heart of the collaborations was a shared desire and ability to "do science right". One of the key criteria for collaboration was finding clients who want to invest time and money to gain broad insights on the path to specific solutions.

Participant 7 (P7) was a university lab director with unique experience as a practitioner, educator, administrator, and mentor (see Table 1.7). P7 was balanced between running a lab that would take on clients, while also employing practitioners and graduate students to work for the lab and take classes in the program. In the interview, P7 stressed the importance of this balance and the responsibility to clients, grad students, the program, and practitioners. The systems in place to support such interactions were complicated, but simple in execution. Many interactions between clients and grad students supported the eventual hiring of graduate students after they left the lab and the program.

The lab structure generated a collaborative mentoring architecture that built on consistent support between academia and industry. P7 explained that it also balanced the need for self sufficient funding via clients and supported graduate students. Running the lab could be complicated at times given that some clients seek out the college atmosphere and the chance to connect with academia, while others are not interested in such connections and prefer a less traditional university experience (i.e., some students prefer lab and professional development work). P7 found this balance challenging, but also rewarding as it gave the lab a chance to be a bridge between industry and academia.

Participant 8 (P8) was a UX manager at a company who also taught boot camps because they were passionate about project-based education in a job-like setting

(see Table 1.8). P8 developed bootcamp curricula and taught in order to give back to the community. Additionally, P8's employer supported their teaching "on the side" because it gave the company access to the best talent for recruitment purposes.

In our discussion with P8, they explored how to effectively collaborate with higher education institutions to synthesize the best of both worlds. That is, to establish the credibility, consistency, and long-term value of a university degree and the flexibility, immediacy, and applicability of industry training.

The Five Stages of Experiencing Industry-Academic Collaborations

Experience maps are often used as a method for visualizing a customer's experience with a product or service. When assembling experience maps, user researchers tend to focus on five stages, each with its own goal: doing, thinking, feeling, experience, and opportunities (see Kalmbach, 2016). The "doing" stage consists of actions our participants recounted to us, while the "thinking" stage included their rationale for doing that activity. The "feeling" stage of an experience map documents how participants responded emotionally while they were completing an activity. The first three terms are verbs, whereas the last two terms are summative: the "experience" category is how to describe or categorize the work done by users under the doing, thinking, and feeling stages, and the "opportunities" category focuses on the kinds of interventions that might occur or the kinds of next actions that are possible.

For the purposes of the experience maps presented in this section of our chapter, each stage catalogs the actions participants took throughout a collaborative lifecycle. That is, our interview protocol asked questions about getting started, sustaining and maintaining, and outcomes of engaging in industry-academic collaborations. In positioning each stage as a series of goal-oriented moves that occur on a timeline, we assembled representative examples from each section to help readers see how different pathways for collaboration can converge. In other words, what we present is meant to show how different experiences lead to a cohesive whole.

Table 1.2 represents the "doing stage" or what participants shared they did to begin a collaboration. For example, an individual might begin a collaboration by hosting or attending a workshop or discussion. Then, as they work to find a collaboration, they look for the right space or moment to begin discussions. During those moments, their next step is to find shared interests until they can find a project to pilot together. Sometimes the projects are large-scale that involve grants and/or corporate funders, and other times they are smaller-scale, such as guest lectures or presentations. The last stage is sharing the information learned from the collaboration in some way—through implementing or changing new products to publishing and/or presenting work at a conference or in a journal.

Table 1.2. Doing Stage of Experience Map

Foundation	Finding	Relationship	Collaborating	Maintaining
P1: Host workshops or discussions.	P4: Create space for collaborations to occur.	P2: Find shared interests.	P8: Pilot something together.	P3: Share work together in some way.

Table 1.3 represents the "thinking stage" or what participants did in terms of contemplation related to goals, connections, work, and collaboration. The Thinking Stage is particularly important because it demonstrates values and perceptions of the circumstances surrounding collaborative activities. In Table 1.3, collaborators begin by defining how the project can contribute to larger individual and organizational goals. Then, they try to find any groups of people who have already begun doing the work. As they work to build relationships, they try to make sure the timeline works for everyone. As the work gets done, collaborators start looking for outcomes that solve problems for people. Finally, as they finish a collaboration, a goal is to find new opportunities emerging from the work that was done together.

Table 1.3. Thinking Stage of Experience Map

Foundation	Finding	Relationship	Collaborating	Maintaining
P5: Define value adds to legitimize the project.	P2: Locate established relationships or networks.	P6: Learn if timing for project work is shared by all.	P4: Try to solve some kind of a problem for people.	P1: Find the opportunities emerging from the collaboration for next steps.

Table 1.4 represents the "feeling stage" and provides a sense of what participants were feeling as they began and engaged in collaborations. We found that some participants didn't really talk much about how they were feeling as engaging in the work. This may be because there wasn't an exact prompt in our interview protocol asking about emotional response, but also, we found some participants naturally talked about how they were feeling in the data. In this way, Table 1.3 is representative of the participants who discussed how they were feeling during collaborations. The timeline we assembled begins with Participant 4, who notes feeling that interests and values have to be shared as foundational to their work on collaborations. When finding a collaboration, Participant 7 noted having to downplay the role of their university, as it can be read positively or negatively. In building relationships during a collaboration, the idea of getting along well surfaced, as did feeling like small-scale collaboration is useful when/if it brings about funding for research that can be highly impactful. Finally, when a collaboration concludes, Participant 8 notes the importance of feeling like they must continue to learn—to not depend on the collaboration to do that work for them.

Table 1.4. Feeling Stage of Experience Map

Foundation	Finding	Relationship	Collaborating	Maintaining
P4: Interests in content creation & knowledge generation has to be shared.	P7: Downplay the university's role, depending on the client.	P5: Ask questions like, do you really want to work with this person?	P6: Have to find funding to do the "real" research.	P8: Keep learning after the collaboration is completed.

Table 1.5 represents the "experience stage" and provides insight into how experiences were recorded by those impacted by them personally. While this may appear redundant at first, the experience stage is how the data explained what it was like for participants to engage in collaborative work. In this way, we chose to highlight discussions that summarized experiences in particular ways. The foundational element of industry-academic collaborative experiences for P6, for example, was to locate the balance between scientific rigor and operational research. What P1 found was that the experience of a collaboration is highly dependent on who is in the lead. As well, P4 notes that relationships are formed when people are already intrinsically motivated to do so, while P7 notes that publishing often requires permission of funders and collaborators. Finally, P2 explains their experience as staying involved in conversations as a way to collaborate when it makes sense.

Table 1.5. Experience Stage of Experience Map

Foundation	Finding	Relationship	Collaborating	Maintaining
P6: There has to be a balance between scientific rigor and research that is operational.	P1: Depends on who is in the lead.	P4: People come together from different sectors because they want to.	P7: Publishing results often needs permission.	P2: Keep up conversations & consider potential collaborations.

Table 1.6 represents the "opportunities of collaboration" stage where the opportunities, presented through collaboration, are explored by the participants. In this table, we summarize the opportunities our participants perceived as they moved through a project. As with the other maps, the opportunities presented themselves uniquely depending on circumstance, work context, and individual motivations. We chose to focus this sample on talent acquisition and development. For instance, P7 explained one important aspect of collaborating was to "steal talent." Each participant discussed how important it is to shape collaborations in ways that help bring talent together, or to mentor students towards future careers and successes. Focusing collaboration on professional development activities seems to be a viable "win-win" for many working in user experience in particular.

Table 1.6. Opportunities of Collaboration

Foundation	Finding	Relationship	Collaborating	Maintaining
P7: It's okay to steal talent—the field is built that way.	P1: Win-win opportunities to build relationships with students & help educate them. It also creates a talent pipeline.	P8: Grow your team (pick from the best).	P4: Professional development & individual success is an important motivation for industry collaborators.	P5: Passion for projects beyond what is in it for you.

Table 1.7 represents the "challenges of collaborations" stage and explains the perceived challenges of collaborating that participants experienced in their spheres. The results in this section particularly demonstrate how, once again, values, relationships, and work contexts are at the center of effective collaborations. P2's comment that we have to find mutual benefits and combine people in convenient and unusual ways demonstrates a value for reciprocal relationships between individuals while P3's comment about showing academia what it should pay attention to demonstrates a focus on the workplace as a sorting mechanism. While many of these challenges seem predictable, the reality is that different organizations reward employees in increasingly different ways. While the opportunities seem to supersede the challenges, it is worth noting that the labor of grassroots engagement falls almost exclusively to the collaborators, and not on the organization or institution.

Table 1.7. Challenges of Collaborations

Foundation	Finding	Relationship	Collaborating	Maintaining
P3: Trying to show academia that they need to pay attention to what the practice is doing. Business & academic goals don't always align, so a chance for the right project may never come.	P2: It can be difficult to get higher profile talk opportunities to reach practitioners at their events & academic conferences may not be easily accessible to practitioners.	P3: Bureaucratic pitfalls & timing. You may start on industry projects too late for them to be meaningful.	P2: Practitioners may not be interested in potential disruption of the main business of their day-to-day work. While academics may be able to give insights into this work, there are often no immediate benefits for either.	P3: Higher education administrators may need to buy things to create a studio space, but the design of space and maintaining it is beyond typical university goals & research support.

What Did We Learn? Themes Presented Across the Tables

We started off this chapter asking two research questions:

- What would a broader look across multiple professionals show us about how to successfully start and sustain industry-academic collaborations in UX?
- What are some of the commonalities and differences across experiences?

In the below section, we share summaries of what our cross-case synthesis taught us as a collaborative team. We share these considerations as common elements of the collaborations we learned about through our interviews. Additionally, these considerations offer readers multiple perspectives on where to start and what to pay attention to when working on a collaboration across professional spaces. We find it particularly important to think about how values traverse these considerations.

Win-Win Scenarios

Our cross-case synthesis helps us see that significant parallels exist between academic and practitioner professional spaces, including a focus on how to negotiate a win-win scenario for everyone involved. For example, P7 saw distinct win-win scenarios as clients were able to get excellent support and research from well-trained graduate students and practitioners, while graduate students were able to get real-world experience by working with clients, receiving feedback, and networking with industry practitioners in a way that generated a possible line on employment after graduation. P1 also felt relationships with students were important and worked hard to help educate them to develop a sustainable talent pipeline. In doing so, these professional pipelines could create more opportunities for everyone involved. Such collaboration worked well when the goals and subsequent motivations of teams were compatible and on the same page.

Transforming Knowledge Is the Goal

Other parallels presented themselves within both professional spheres, such as transformation (of knowledge or technology) as a motivation. For example, P6 viewed themselves as a bridge between academia and industry. P6 found that clients would seek a better and more informed sense of UX research than the "bad science" that is currently out there. P6 also saw such interactions as a chance to transform UX research and ground it in methodologies that ensure scientific rigor. Meanwhile, P8 believed there were better ways to bridge curriculum between industry and academia, such as practitioners and academics co-teaching and sharing knowledge in other professional spaces, which can lead to a transformation for what it means to teach UX by finding a balance between the practical and theoretical.

This balance can also lead to benefits for local communities and industry by developing talent pipelines. In this way, new educational approaches can transform more traditional academic spaces that focus on critique with practical applications.

Reciprocity and Future Action

The data also showed that, as collaborations emerge between industry and academia, interactions must be centered on reciprocity and future opportunities for the broader UX community. For instance, P3 stressed the importance of keeping open connections and conversations between practitioners and academics. P3 also noted that attending conferences, networking, and staying informed about what is happening in industry can help guide academic programs with issues currently being investigated by industry. As well, P2 also articulated the importance of such networking as it provided an opportunity to learn from different spaces. P2 further acknowledged that it can be difficult to get high profile presentation opportunities to reach practitioners at their events because of a disconnect of language ("academic speak"). At the same time, academic conferences may not be easily accessible to practitioners for the same reason.

Individuals and Relationships

One of the ways to create a sustainable space for collaboration across industry and academia was to invest in individuals and relationships. P6, as a single-person consultant, cultivated complex and essential relationships with strategic partners who understood the work they were doing. Part of this work centered on translating academic research into insights for practitioners to better explain the benefits of such rigorous scientific research. As well, P7 was invested heavily in relationships with clients and students. By securing clients who understood and appreciated their lab model, they were able to charge an amount to sustain the lab and recruit excellent graduate students. By supporting, hiring, and training excellent grad students, the lab is able to reinforce their reputation and secure clients willing to pay for their work. As a result, sponsorship and support were a viable way to fund different initiatives and investments in programs. P2 found it important to make connections at conferences, workshops, talks, and meet-ups. P2 did their best to find out what was exciting for professionals, what they were interested in, and how these projects benefit industry and academia in a way that gets buy-in from both sides. This type of buy-in could lead to funding streams outside of the usual academic models. For instance, P8 designed a system where bootcamps were funded.

Collaboration Across Professional Spaces

As was expected, collaboration between practitioners and academics was an essential feature of UX as a field. As noted in the previous paragraph, P8 explained

that collaboration can be grounded in education and teaching, and as a result, P8 offered bootcamps as a means to explore a passion for project-based education in a job-like setting. Also, running the bootcamps were a chance to collaborate with those willing to learn more while also generating a possible talent pipeline for P8's business. P3 stressed the importance to meet with industry to discuss and advocate for collaborations that can combine the academic perspective with practitioner experience. These types of collaborations could be informative in terms of better understanding overlaps, but they could also lead to possible funding for projects both academics and practitioners find beneficial. P5 conducted extensive research, but found that the most rewarding research centered on projects they worked with others who had similar passions and interests. The idea of first building collaboration and then securing funding was important to each participant, but manifested itself in different ways.

Consider Funding

The need for funding was found to either play a heavy role, a limited role, or no role at all in the spaces of the participants. Funding for P7 was crucial in that without it, they could see possible intrusion from upper administrators focused on making changes. So, by being self-funded, they could control their own labs, who they hired, the clients they would take on, and so on. Any money offered or supplied by outside forces would come with possible demands for change from those outside forces. Funding, for P7, appeared to mean independence. For P5, funding was not as important as the passion for the project work. Funding served as an opportunity to secure a passion project and the chance to work with someone who might have the same passion *and* an ability to locate for funding for the work. P3 mentioned funding in a limited capacity. The end goal of building relationships between practitioners and academics was to make connections with industry and bring an academic perspective to industry projects. Similarly, P1 discussed the complexities of collaboration and that while important and beneficial in some capacity, businesses were the ones who benefit from the intellectual property (IP) generated from such collaboration. P1 also acknowledged that business needs would often take precedence over individual or academic needs. As a result, meeting the project outcomes was most important, and the benefits to each individual collaborator would always be a secondary concern.

Discuss Who Owns Intellectual Property

Knowledge outcomes were at the center of many collaborations, but each collaboration varied by who owns the outcomes and intellectual property. P4 noted that business needs tended to outweigh academic needs and that innovation can be stifled in such circumstances, but all work should have an end goal where

everyone benefits. P7 conducted extensive research in their lab, and while the collaboration was productive between the clients and the lab, it was negotiated via financial compensation. Thus, as clients pay for the work to be done, all work and outcomes would be owned by the clients who paid for it. For others like P2 and P3, collaboration outcomes were not so much about ownership as they were about finding ways for everyone to benefit from the work.

Conclusion: Transformational Collaboration Awaits You

What this research project ultimately taught us is that Instone's (2005) invitation to practitioners and academics to come together under the umbrella term UX is indeed coming to fruition, but that reciprocal and respectful relationships must continue to be developed outside of individual professional spheres. As noted in our literature review, scholarship on industry-academic collaboration called on us to work together—to collaborate toward more just futures, products, and services. In other words, the call was to work together across workplace contexts to make the world a better place. The research in this chapter explains the experiences of making that sort of collaboration happen across a range of professional environments by people who intentionally work in both industry and academia. We also believe our work demonstrates that those of us working in UX must develop a better sense of our values for collaborating, to what ends and purposes, and to continue to find ways of engaging critically and effectively. As a research team, we practiced the development of our own values by asking questions about how to be better collaborators. We didn't rely on our own experiences and values to lead us to these answers, but intentionally designed a study to help us make sense of and question our own individual practices and theories.

We don't advocate for others working in UX to necessarily take the same approach as we did here, as we recognize the very real constraints people face when working to collaborate in the kinds of precarity many UX professionals experience today. However, we do suggest that we continue to formulate coalitional approaches across academic and industry intellectual spaces to *synthesize* unique contexts, values, constraints, and beliefs. Furthermore, we believe, as Walton and colleagues (2019) explain, that we must work to build and maintain such coalitions over the long-term in mutually beneficial ways. Our work teaches us we may not reach a consensus of ideas, but perhaps we can reach a synthesis of them. A synthesis points us towards futures and collaborations where ideas are iterative: recombined, reevaluated, and reimagined. In this way, our idea to conduct a cross-case synthesis to analyze collaborative work in different professional spheres as timely for us not as practitioners or academics, but as people who want to make the world a better place under the umbrella of UX. We cannot hold steady to professional spheres and identities to do this sort of broad-scale, large impact work, but we know this already. In fact, one way we've managed to do this work is through collaborating on the XA major

at Michigan State University. In the end, we don't compel readers of this chapter with a call to action; rather, we compel you toward synthesis. Respectfully synthesize your knowledge, skill sets, and experiences with those whom you do not normally work with. Meanwhile, waiting somewhere, is a coalition who could use your help.

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Appendix A: Interview Protocol

These are questions we would like you to answer for our research in academic-practitioner collaboration in the context of user experience. You can glance over the questions to help you prepare for our discussion, or you can type your answers into this document and email it back to us. There are lots of questions, and some are somewhat redundant, so feel free to skip some questions if you think you have already answered them.

1. General stories of your collaborations

   A. What kinds of collaborations have you been a part of which have involved both academic faculty and UX practitioners? How would you classify these academic-practitioner collaborations?

   B. What motivated the collaborations? Were the collaborations always intentional or was there sometimes an element of serendipity?

   C. In general, who was involved in the collaborations? What fields or areas of practice? How would you describe the roles of people and/or organizations in the collaborations?

   D. How did the collaborations evolve over time? What factors influenced that evolution?

2. Summarize a few of your collaborations

   We know that you may have participated in several collaborations that were partnerships among academics and UX practitioners, but we would like you to focus on just a few of them for the next sets of questions.

Table 1.8. Collaboration Descriptions

	Collaboration #1	Collaboration #2	Collaboration #3
Name & short description			
Category/type			
Motivation			
Your role			
Roles by others involved			
Evolution over time			

3. Tools, assets & resources to support the collaborations

Tell us about the various tools, assets, and resources you used to make the collaborations happen. Examples might be grant funding, communication technologies, information resources, and meeting spaces.

Table 1.9. Collaboration Details

	Collaboration #1	**Collaboration #2**	**Collaboration #3**
Funding			
Technologies			
Information sources			
Meeting spaces			
Additional examples			
What you provided			
What others provided			
Most essential one & why			

4. Activities & processes to support the collaborations

Tell us about how these collaborations came to be and how they were carried out.

Table 1.10. Collaboration Implementation

	Collaboration #1	**Collaboration #2**	**Collaboration #3**
What was the genesis of the collaboration and how was it established?			
How did you get buy-in from the various stakeholders?			

	Collaboration #1	Collaboration #2	Collaboration #3
Who was the lead on the collaboration and how was it managed once it began?			
What were the steps in the process, at a high level?			
How did you know when it was finished?			

5. Outcomes and benefits of the collaborations

Next, think about the outcomes and benefits of each of the collaborations.

Table 1.11. Collaboration Benefits

	Collaboration #1	Collaboration #2	Collaboration #3
What were the most important outcomes?			
What were the benefits for your organization?			
What were the benefits for you personally?			
What were the benefits for students?			
What were the benefits for other stakeholders?			
What was the most difficult challenge that had to be overcome?			
What is the most important lesson you learned?			

6. Overall reflections

Finally, let's return to the big picture of academic-practice collaborations in UX.

A. In the end, were your collaborations worth it? Why or why not?

B. If you wanted to try to convince other people to create their own

collaborations, what would you tell them? Why should they do it?
C. What is the biggest challenge that people should expect if they attempt their own collaborations?
D. What is your one "secret weapon" that has been the most useful for you in your collaborations?
E. What sort of situations, contexts, qualities, or projects would trigger you to consider another academic-practitioner collaboration? How do you know when a collaboration is worth pursuing?
F. Feel free to add in any other comments that come to mind about UX academic-practitioner collaborations.

One last question! Select one:

□ I choose to remain anonymous: do not use my name when reporting results
□ You can use my name when reporting results of the research

Thanks! If you are filling this out on your own, please email this to _____. If you want to do phone/online chat interview, send _____ some of your preferred meeting times.