

EXPLORING THE KNOWLEDGE CREATION PRACTICES OF UX DESIGNERS ON STACK EXCHANGE

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ABSTRACT

The contours of user experience (UX) design practice have been developed by a diverse array of practitioners and academics in an array of disciplinary traditions, leaving UX without a coherent and agreed upon body of disciplinary knowledge or a concrete path to become a professional. Consequently, UX designers rely upon online knowledge resources to develop and maintain their competence. In this work-in-progress, we conducted an exploratory investigation of question and answer (Q&A) communication within the UX Stack Exchange community, analyzing the topics that UX designers have raised in questions and answers. Our preliminary analysis contributes a typology of knowledge needs that were articulated by UX designers as a support for their practice. Drawing on prior work, we discuss three distinctive characteristics of UX knowledge desired by designers.

BACKGROUND

User experience design (UX) lacks what can be considered a coherent body of disciplinary knowledge [7], and there is not a concrete path to become a UX professional. Both junior and senior UX designers face unique challenges in developing and maintaining their UX design knowledge over time [2]. In efforts to overcome these knowledge challenges, UX designers increasingly rely upon distributed online resources such as social media and online communities to learn and share design knowledge [3,5,8]. In parallel, design researchers have also called for more attention to understanding practitioners' actual design practices [7], bubbling up knowledge from their work [4].

We consider UX designers' online communication to be a valuable resource in characterizing UX knowledge, with a potential for use in UX research and education. In this work-in-progress, we focus on a UX question and answer (Q&A) online community within Stack Exchange. We conducted an exploratory analysis of nine years of Q&A communication to understand the knowledge needs of UX designers in actual practice. The typology of knowledge needs yields a preliminary understanding of online Q&A of UX designers, allows cross-comparison with prior work on practitioners' understanding of UX.

METHOD

Our study site is the user experience community supported by Stack Exchange. We used the official Stack Exchange API to collect Q&A communication among UX practitioners from September 2008 to September 2017, including a total of 21,216 questions, 56,486 answers, and 9,936 unique authors who had written at least one question or answer. These data were stored in a local MySQL database for analysis. We used emergent thematic analysis [2] to code the types of knowledge that UX designers seek help with. We randomly selected 200 posts, distributed equally over time, to generate a suitable volume for qualitative coding.

FINDINGS

We identified thirteen primary topics among the 200 Q&A threads. The "other" category contains knowledge that is not specific to UX, such as software standards, domain naming strategies, and legal issues.

Strong connections with UI, IxD, and usability. 34% of Q&As focused upon the design of a specific interface element such as a button, a list, or a menu, 19.5% on the design of patterns of interactions between users and systems such as click, unselect, and mouse hover, and 18.5% on usability issues concerning how to make an object easy to use and learn.

Blurry knowledge boundaries. While community policies clearly stated that "off topic" questions would be closed, the discussions seemed open and inclusive to many branches of knowledge that have received increasingly more attention, such as persuasion and privacy/security topics.

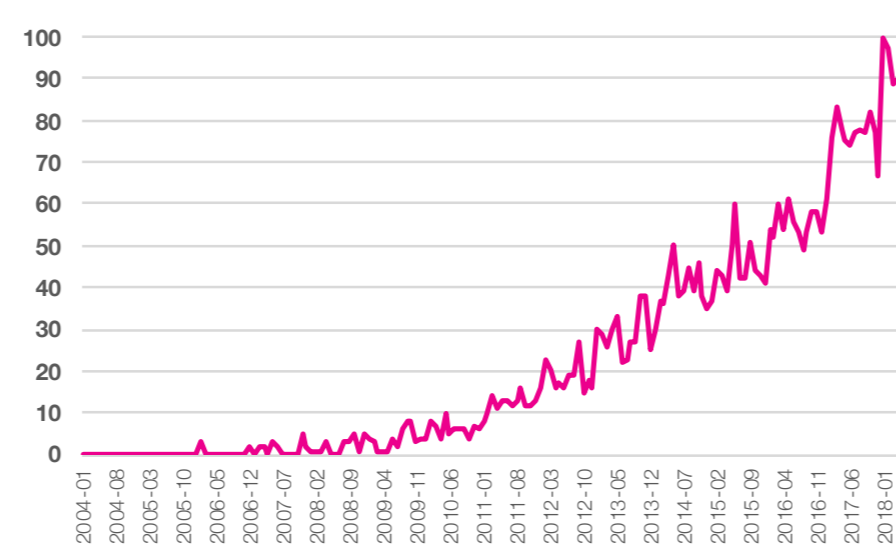


FIGURE 1. GOOGLE TRENDS FOR "UX DESIGN"

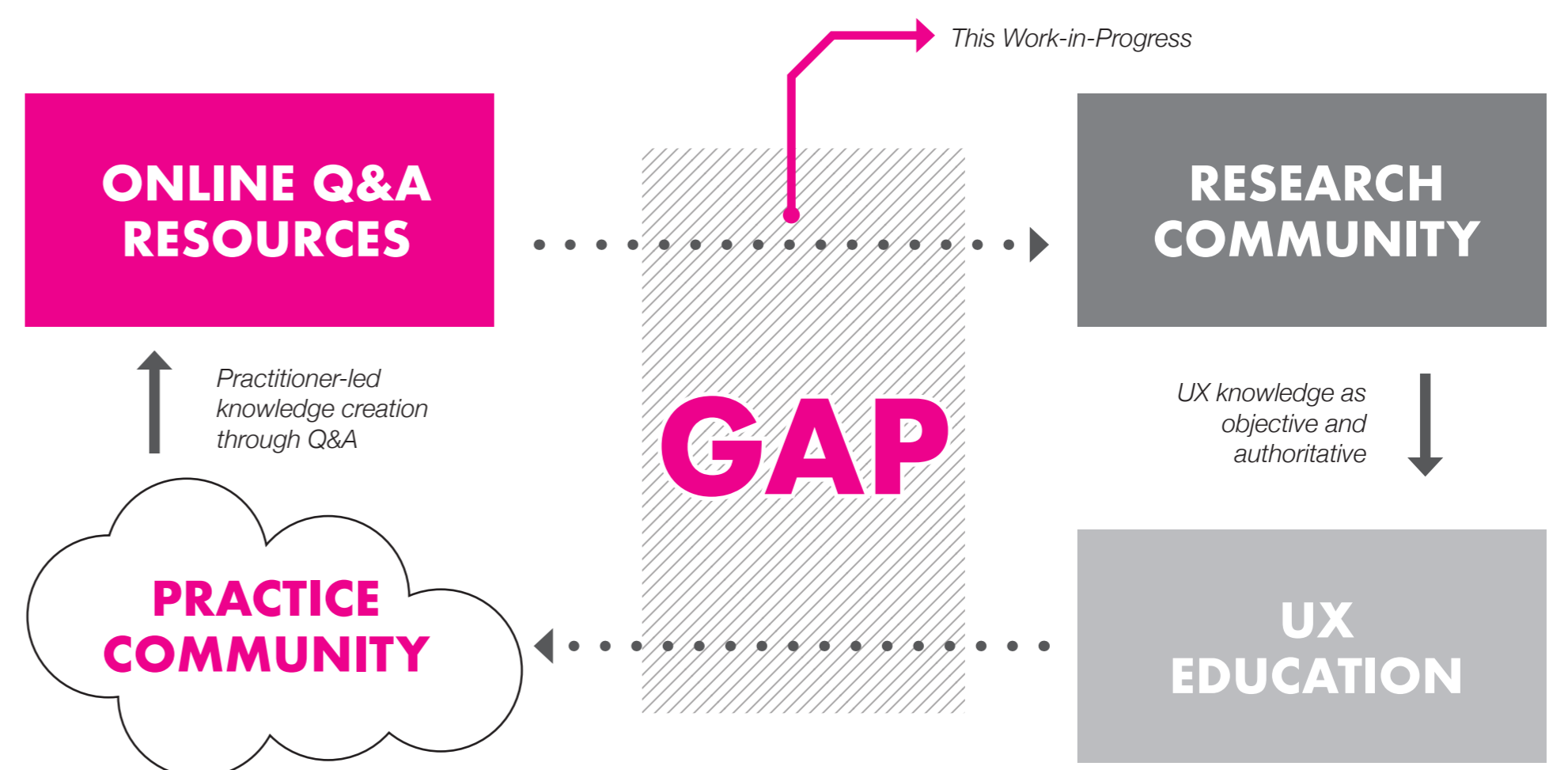


FIGURE 2. PRACTICE-LED RESEARCH ON UX DESIGNER Q&A ACTIVITY.

Practice-oriented. All knowledge topics were practice-oriented in the sense that they reflected distinctive and authentic design goals or design contexts. Few Q&As there were dedicated to either defining or theorizing UX in an academic tone. Instead, UX practitioners tended to be pragmatic and solution-oriented.

DISCUSSION

Acknowledging the breadth of UX knowledge, we suggest that researching designers' Q&A provides a way of capturing the paradigms, links, and trends within UX. Other sites may have different and complementary roles to play based on their different socio-technical affordances as well as UX designers' learning practices.

Our study captured designer interactions in settings where everyday design practices took place, with similarities to knowledge transfer between designers in offline design settings such as a studio. Online Q&As represent a collaborative community where a large number of members can edit or upvote both questions and answers, with the shared community goal of building "a library of detailed answers."

Our analysis points towards a contribution to nascent UX pedagogy by identifying the primary types of knowledge needs of UX designers. This typology raises the question of how future UX designers should relate to present and relevant topics of interest; to what degree should UX pedagogy be oriented towards present, pragmatic concerns versus potential UX futures that are still ill-defined?

TOPICS	%	EXAMPLE QUESTIONS
User interface design (UI)	34%	Close Button on Drop down carts - better for UI/UX or not?
Interaction design (IxD)	19.5%	How should user unselect a date from a calendar?
Usability	18.5%	Web Usability: pagination and column sort
User mental model	7.5%	Is it possible to make a game design, where I can respect the user's intellect?
Design process	5.5%	How do you keep track of the process of an UX project?
Privacy/security	2.5%	should there be a 2-step process when asking for permission to user data?
Accessibility	2%	What type of users use exclusively the keyboard to navigate a site?
Information architecture	2%	Categories Description: Secondary Information for Categories
Persuasion	2%	When to ask the user the complete a survey via an email?
Visualization	2%	How to visualize data with extreme value differences?
UX knowledge resource	1%	What book would you recommend as a decent 'intro to UX' aimed at non-practitioners?
UX team	0.5%	Should the UX team be organizationally with IT or Product Management?
Other	3%	What kind of legal protection can I obtain for a user interface design?

FUTURE WORK

Future directions might include additional longitudinal analysis across the dataset to document evolutionary trends in UX knowledge, facilitated by computational methods. Building upon this analysis, we can map out more recent knowledge branches that are substantial or gaining importance, investigating how collaborative digital technologies support UX designers collectively generate design solutions [1,6].

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