

Sprig

The UXR Guide to AI: All the tools you need and the ones you don't

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About the Author

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Introduction

It would be an understatement to say that the role of AI in research is disputed. Many researchers argue that AI simply cannot conduct research and that the results of AI-supported research are inaccurate. Others argue that AI could enhance (or even replace) the role of UX researchers.

By working with the right company and the right tools though, researchers can augment their work and their results - showing the value of research even at a time when businesses are considering cutting research departments.

Read on to learn how you can combine the power of research and the power of AI.

What is AI?

Artificial Intelligence refers to the development of computer systems capable of performing tasks that typically require human intelligence. It involves the creation of intelligent machines that can learn, reason, problem-solve, and adapt to new situations.¹

AI systems are designed to simulate human cognitive abilities, including perception, learning, language processing, and decision-making.²

AI technology can be categorized as weak AI or strong AI. Weak AI refers to AI systems designed to perform specific tasks within a limited domain. These AI systems are focused and specialized, excelling in specific applications but lacking broader general intelligence.

Weak AI operates by employing algorithms, rules, and pre-defined data patterns to accomplish its designated task. Examples of weak AI include voice assistants like Siri or Alexa, recommendation systems, and image recognition tools.³

On the other hand, strong AI, or general AI, refers to AI systems that are classified as building human-level intelligence and could perform intellectual tasks a human can. Strong AI aims to replicate not only specific tasks but also the comprehensive cognitive abilities and adaptive reasoning of a human mind.⁴

1 "Strong AI." IBM. Accessed on 27 June 2023, <https://www.ibm.com/topics/strong-ai>

2 "Definition of AI." Tech Target. Accessed on 15 May 2024, www.techtarget.com/searchenterpriseai/definition/AI-Artificial-Intelligence

3 "Strong AI." IBM. Accessed on 27 June 2023, <https://www.ibm.com/topics/strong-ai>

4 "Strong AI Versus Weak AI: What's the Difference?" BuiltIn. Accessed 15 May, 2024, <https://builtin.com/artificial-intelligence/strong-ai-weak-ai>.

AI and the UX Researcher

Regardless of the type of AI system, the technology is still inchoate in its form. Despite the excitement over its potential to improve research and the anxiety that it might replace the role of people, the technology is simply too young for us to fully understand its impact.

As a new technology, it also still requires the assistance of people to perform most, if not all, tasks, including conducting or analyzing research.

The technology serves as inspiration for researchers - not full-proof guidance or leadership, according to George Whitfield, CEO of FindOurView, an AI-powered insights platform.

“It's just going to be like a happy-go-lucky-little helper bot that's going to have some naive perspectives on things and some really very surprisingly well informed perspectives, but not necessarily making the right call from the expert judgment of a user researcher,” said Whitfield.⁵

When researchers use AI systems that have been built with the input of researchers, they will see improved data and results. For example, when the product experience company Sprig built their AI Analysis tool, they brought in UX researchers to help create the MVP and ensure that the final outputs were accurate.

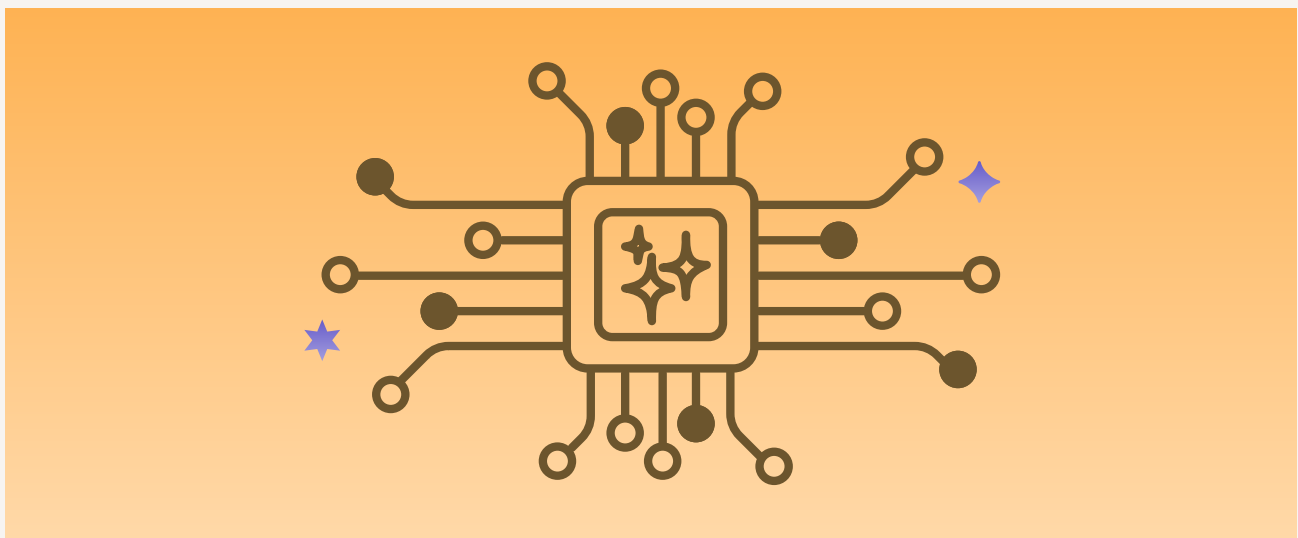
5 “Harnessing AI for Better Insights.” UserInterviews. Accessed 12 April 2024, <https://podcast.userinterviews.com/episodes/143-harnessing-ai-for-better-insights-with-george-whitfield-of-mit-and-findourview>.

AI and the UX Researcher

Sprig offers in-product Surveys to learn from specific groups of users in the moments that matter, so you are capturing their real-time insights. Sprig's AI then summarizes text, voice, and video responses into actionable themes.

When the company first launched Sprig AI, they had UX researchers validate all early AI analysis and used their feedback to directly improve the models used. Their earliest data set was created solely by UX researchers from scratch.

Thanks to the input of research professionals, Sprig offers a tool that summarizes tens of thousands of survey results and reduces the time spent analyzing raw data, empowering researchers to use the time they gained back to focus on synthesis, triangulation, and disseminating actionable recommendations to their stakeholders.



The Perception & Potential of AI

In recent years, the integration of AI into various domains has sparked both fascination and apprehension. The realm of UX research and product development is no exception, as professionals navigate the promises and pitfalls of AI-powered tools.

Let's talk through the perception of AI and the potential of the technology to transform research.

Growing Interest Amid Anxiety: There's a surge of interest in AI amongst researchers to understand AI. Google search trends show a jump in searches related to "UX Research AI" by 150% from 2022 to 2024. Many researchers are considering how to leverage AI to enhance user-centric practices and also how to actively incorporate AI into their workflows to varying extents.⁶

According to a study by User Interviews that polled 1093 UX professionals, 77% of respondents are using AI to some extent in their workflows.⁷ Notably, the UXR segment emerged as the most cautious demographic regarding AI integration.

One of the concerns by researchers is that the technology will create "bot-centered" research inside of "human-centered" research.

⁶ "AI UX Research Trends." Adam Fard. Accessed 14 May 2024, <https://adamfard.com/blog/ai-ux-research-trend>.

⁷ Not peer-reviewed; no access to the survey questions or recruitment criteria to vet methods.

The Perception & Potential of AI

“If we take the U out of UX [by utilizing AI Users,] it’s not user-centered or customer-centric. It’s bot-centered research or design,” says UX researcher Debbie Levitt with Delta CX.

“It can easily lead to poor or incorrect strategies, decisions, products, or services. I imagine a future meeting about a project failure where someone in leadership asks why we thought this project was a good idea. Someone will say that we saved time and money by working with AI instead of users,” she adds.⁸

Furthermore, researchers highlight the risk of AI creating an echo chamber for business leadership and serving employer needs over the needs of the user.

“How much do my employer’s needs, KPIs, and goals align with serving people? That’s exactly [the researcher’s] job. [The researcher] should be the one who is squarely in those conversations and helping the client or employer negotiate and understand that,” said the advisor and tech researcher Tricia Wang on Rosenfield Review Podcast.

“The reason I think AI forces this is because when you’re in the culture of the user, where users are passive and the KPIs are meant to keep users engaged for as long as possible and get them to produce as much data, then if you add AI on top of that, I think it’s only going to exacerbate what we already have.

⁸ “AI Users Are Neither AI or Users.” Debbie Levitt. Accessed 17 May 2024, <https://rbefored.com/ai-users-are-neither-ai-nor-users-c701f32fbbc4>

The Perception & Potential of AI

“Which is a long multi-century effort to engineer consent of the masses...to engineer people, to sway people...it will only do more of what we already know, than what we already see.”⁹

These perspectives underscore the ethical and strategic considerations inherent in AI-infused UXR practices. Several challenges also hinder their seamless integration into UXR workflows.

The Nielsen Norman Group identifies various limitations, including the inability of most AI tools to process visual inputs, generate contextually relevant insights, or maintain reliability and usability. Moreover, concerns regarding bias and lack of validation pose significant obstacles to the credibility and efficacy of AI-driven UXR approaches.¹⁰

Potential Benefits of AI: Despite the potential hesitations around AI, there are clear use cases for the technology - especially when the AI system has been built in partnership with researchers.

Efficiency stands out as the foremost benefit cited by professionals leveraging AI in their research endeavors. AI streamlines processes such as analysis, synthesis, and content creation, thereby augmenting productivity and scalability.

⁹ “Angry and Passionate About What AI Means to Researchers.” Rosenfeld Media. Accessed 17 May 2024, <https://rosenfeldmedia.com/podcasts/angry-and-passionate-about-what-ai-means-to-researchers/>

¹⁰ “AI Powered Tool Limitation.” Nielsen Norman Group. Accessed 17 May 2024, <https://www.nngroup.com/articles/ai-powered-tools-limitations/>

The Perception & Potential of AI

The research community argues though that AI technology would need future iterations to truly serve researcher needs. Here are six key iterations as identified by Nielsen Norman Group:

- **Incorporating Diverse Data Sources:** These AI research tools should be designed to accommodate a wide range of contextual information, such as study goals, research questions, participant details, and prior research findings. This flexibility allows for a more comprehensive analysis.
- **Supporting Edits and Collaboration:** Effective AI tools should allow researchers to easily edit and correct the system's outputs. Collaboration between AI systems and human researchers is crucial, especially given the current dependence on transcripts. While AI technology is advancing, these systems still require human guidance to ensure their accuracy and relevance.
- **Providing Clear References for Validation:** Researchers need mechanisms to cross-check the AI system's conclusions. This means the tools should offer clear references that indicate the source of specific insights, such as a particular session or an observer's note. This feature helps researchers validate AI-generated findings and maintain data integrity.
- **Emphasizing User Experience and Reliability:** Despite using advanced technology, these AI tools must prioritize usability. A smooth user experience is crucial, particularly for innovative technology. Reliability in operation and design should be a given.
- **Supporting Video and Webcam Analysis:** For comprehensive usability testing, AI tools must be capable of processing visual inputs like video footage and webcam recordings. Tools that claim to analyze usability based solely on transcripts are likely missing critical context.
- **Ensuring Accurate Promotional Claims:** AI research tools must present honest and accurate information about their capabilities. Misleading or exaggerated promotional claims can lead to disappointment and mistrust. Accurate marketing is essential for establishing credibility in the AI research tool market.¹¹

By addressing these enhancements, AI tools can evolve into invaluable collaborators, augmenting rather than supplanting human expertise in the pursuit of user-centric innovation.

¹¹ "AI Powered Tool Limitation." Nielsen Norman Group. Accessed 17 May 2024, <https://www.nngroup.com/articles/ai-powered-tools-limitations/>

AI Tools That Support the Work of Researchers

Let's jump into the AI tools that can make your life easier as a researcher:

Confluence and Notion: Suggesting Research

Platforms like Confluence and Notion utilize AI algorithms to suggest relevant pages or files based on your search history or previous interactions.

By analyzing page content and behavior patterns, machine learning and AI can recommend which resources are most likely to be useful to the researcher, streamlining the information retrieval process. This feature can also help stakeholders discover connections and prevent duplicative work.

Dovetail and Marvin: Transcription + Note-taking

AI-powered transcription tools such as Dovetail and Marvin can automatically transcribe audio recordings or meetings, saving researchers significant time and effort.

Additionally, AI assistants like Otter.AI can generate meeting notes, written and audio summaries, action items, and even assist in email and status updates, thereby augmenting the productivity of UX researchers.

AI Tools That Support the Work of Researchers

Sprig: Sentiment Analysis

AI-driven sentiment analysis tools like Sprig AI can analyze qualitative data from user surveys, providing insights into users' emotions, opinions, and preferences.

Additionally, Sprig launched AI Analysis for Replays, which leverages the power of AI to review and organize Replay clips into themes based on specific actions your users take in your product.

By categorizing your Replay clips based on user behavior patterns and pain points, AI Analysis for Replays is a powerful tool for product and research teams. Here are some of the key benefits you can expect:

- **Scalable Insights:** It can be near impossible to watch every session recording that's captured in your product. But with Sprig AI, every clip is analyzed. They will get grouped into key themes to give you a quick and holistic understanding of how users interact with your product.
- **Time-Saving Analysis:** Sprig's AI-generated themes also help you quickly find user behavior patterns so you can spend your time putting those insights into action.
- **Better User Understanding:** Lastly, you can automatically uncover otherwise hidden, yet incredibly valuable insights on your users' behavior, needs, and pain points by using Sprig AI to analyze vast amounts of data.

AI Tools That Support the Work of Researchers

Miro and FigJam: Ideation + Mapping

Collaboration platforms such as Miro and FigJam use AI features to assist in ideation and mapping exercises.

AI algorithms can help organize and categorize ideas, facilitating brainstorming sessions and concept development. These summaries can make brainstorming sessions more fruitful and shorten the time spent analyzing the thoughts of your team or contributors.

Sprig, Maze, Dovetail and Qualtrics: Data Analysis and Trend Identification

By automating the process of data analysis, these tools allow researchers to focus more on interpreting insights and deriving actionable recommendations.

These tools also spot potential trends related to user preferences or behaviors, helping researchers inform decisions during the product development process and strengthening their voice with stakeholders.

AI Tools That Support the Work of Researchers

Marvin: Asking Questions about Transcription

Lastly, AI-driven platforms like Marvin can facilitate interaction with transcribed content by allowing researchers to ask questions and receive relevant responses.

This feature enhances the discoverability and usability of transcribed data.

AI Tools with Questionable Capabilities

Let's dive into the AI tools where the marketing claims are potentially stronger than the real capabilities.

Insight Generation

The Claim: Some companies claim to “generate insights” instead of analyzing data. Essentially, they argue that AI can create the same insights as a human researcher would.

AI Tools with Questionable Capabilities

Consider: The powers of UX researchers come from the combination of our education, training, and work history; to recognize and interpret data in ways only a human with lived experience can. What this likely amounts to is a recipe for misinterpreted, non-contextual, and unempathetic “insights” that ultimately feed into the dreaded feature-factory approach to product development; certainly with no UX strategy created by trained professionals.

Eliminate Human Bias

The Claim: AI-powered insights tools reduce human bias.

Consider: It is important to note that AI can introduce its own element of bias, so the system is best leveraged as a supplement, not a substitute, of human-based analysis.

Understands Customers Emotions

The Claim: (AI) deeply understands customers’ thoughts and emotions.

AI Tools with Questionable Capabilities

Consider: What level is deep enough for understanding to occur? What does it mean to understand thoughts and emotions? Can something inorganic truly understand – let alone, deeply understand – something as uniquely attributable to the most complex organism on our planet? Claims such as this one should immediately cause intense skepticism and disregard. AI as it exists today does not come close to understanding thoughts and emotions.

Understand How to Influence Users

The Claim: Recurrent neural networks understand what your users are going to do next and how to best influence them.

Consider: While recurrent neural networks are uniquely valuable for predicting what may come next because it precisely stores what happened previously, understanding requires empathy and the ability to incorporate other important sources of information needed (e.g., principles of learning, historical context). The latter is also true for determining how to influence users, as well as ethics and morality. UX researchers should see AI as a tool to support or augment their understanding of users and their expertise on behavior-change design rather than believe the AI can do that for them.

AI Tools with Questionable Capabilities

Building charts, cohorts, or formulas

The Claim: AI can build charts, cohorts, and formulas to help researchers better understand data.

Consider: UX researchers should hesitate to trust early AI-technology to interpret or recommend things they themselves are having trouble understanding. It is possible the feature does what it says with high reliability and accuracy; just make sure you take the time to assess whether it does.



How to Evaluate AI Tools

Given the claims of companies, how do you evaluate AI tools? Here are five key questions to ask:

- **Which model does it use and how is your data protected?** Which model an AI uses determines how it developed to where it is today, and how it will further develop based on how it handles new and outlier data. In practice, knowing how your data is protected means identifying whether your data stays within a self-contained classroom where the AI is further trained using your account data and never shares or incorporates those learnings with an external audience.
- **What guardrails are built into the tool?** For example, how does the tool support the researchers' recognition of AI hallucination? Does it provide access to references (what raw data led to its output)? How can the researcher quickly fact-check?
- **How does the tool speed-up repetitive, low-risk tasks?** For example, does it manage tasks such as correcting spelling and grammar, writing lists/summaries of the participant pool or providing descriptive summaries of results or potential themes?
- **Can it learn from and repeat your actions** to the rest of a document or dataset, without changing the intention or application of those actions?
- **How can I use the feature to cast a wider net with my deep understanding of the business and user contexts?** For example, does it rapidly apply definitions and parameters you gave it to your large dataset?

Navigating AI in UX Research: A Path Forward

AI is reshaping the landscape of UX research, offering both exciting opportunities and significant challenges. While AI tools promise efficiency and automation, their capabilities are still in early development stages, and their limitations demand careful consideration.

To make the most of AI in UX research, researchers should collaborate closely with AI developers, providing feedback to ensure these tools are designed to meet real-world needs. The involvement of researchers in creating AI-driven tools, as seen with Sprig, demonstrates that human input is crucial to AI's effectiveness and accuracy.

Ultimately, AI is best viewed as a complement to human expertise, not a replacement.

By embracing AI's potential while maintaining a critical perspective, UX researchers can harness the technology to enhance their work, creating more user-centered products and experiences. As the field matures, the focus should remain on developing AI systems that augment human capabilities and maintain the core values of UX research: empathy, reliability, and user-centered design.