

UX Researchers in an AI Enabled World: What do we do for work?

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When I started in this field, in 1977, we were just trying to make stuff easier to use. Then, starting in 2000, we pushed for institutionalized UX operations and worked to deliver much of that work remotely. Although challenging, we did pretty well.

When we initially got AI, I was very skeptical. Now, I'm enthusiastic. Sure, AI isn't perfect, but human UX practitioners aren't either. While AI can hallucinate, some of my staff can too. At UX4, we have an AI platform specific to UX research. However, I don't advocate just selling access to the platform. Instead, I think the platform usually needs to be bundled with a team of UX specialists who can create an effective co-bot research cell. Then, what do humans do?

What UX Researchers Will Do for Work

Stakeholder Interviews

It is not trivial to get the focus of an ecosystem model correct. We need a human-oriented picture of:

- Executive intent
- Differentiated UX North Star
- Solution space and market domain
- Degrees of design freedom
- Known problems and opportunities
- Organizational DNA and solution history

The initial context requires collaboration between UX specialists and the executive sponsors, product managers, and marketing team. The human-centered perspective on these topics is critical to shaping the ongoing research and design. Good UX staff see the space differently than executives, managers, and engineers. And they translate from a human-centered perspective.

GUPs Designation

I always say that personas are for amateurs; they are a great way to explain to non-UX folks why a design has issues. But they don't have the depth and description of distributions that a user profile has. They don't define a full set of cultural dimensions, mental models, or social narratives and they don't indicate how much of the population is focused on self-actualization vs. safety. Therefore, we need Generated User Profiles (GUPs).

Generated User Profiles (GUPs) Show Distributions – Not Just an Example

The screenshot shows a software interface for managing user profiles. At the top, there is a navigation bar with links for 'HOME', 'UX LISTING (USER PROFILES)', and 'TRIAL ATTORNEY - AI GUP-U4F'. To the right of the navigation are buttons for 'Explore This' and 'More...'. Below the navigation is a horizontal menu bar with tabs: 'Overview', 'Roles', 'Mental Models', 'Skills & Knowledge', 'Motivation', 'Culture', 'Physical', and 'Gallery'. The 'Skills & Knowledge' tab is currently selected. On the left, there is a sidebar with a 'Overall Motivational Focus' section containing 'Drives and Blocks', 'Attitudes', and 'Design Trends'. The main content area contains two charts:

- Maslow's Hierarchy of Needs:** A 5x8 grid of squares. The rows are labeled 'Self Actualization', 'Esteem', 'Love/Belonging', 'Safety', and 'Physiological'. The columns are labeled with numbers 1 through 8. Most squares are green, indicating a high presence of the need across most categories.
- Max-Neef Fundamental Human Needs:** A 9x8 grid of squares. The rows are labeled 'Subsistence', 'Protection', 'Affection', 'Understanding', 'Participation', 'Leisure', 'Creation', 'Identity', and 'Freedom'. The columns are labeled with numbers 1 through 8. Similar to the Maslow chart, most squares are green, showing a general distribution across the needs.

The UX Team needs to start with the market definition and segmentation. They should consider the organization's DNA and design degrees of freedom, and they also need to set up the queries that yield an appropriate set of GUPs.

GUPs Content Loading, Refinement, and Further Study

GUPs are a step towards ecosystem understanding. Loading previously developed data helps the quality of the profile. At minimum, the GUPs data should be reviewed and refined by experienced UX staff.

Beyond inspection of the GUPs, the UX Team often wants higher quality data. I feel like the GUPs are cheap, fast, and better than nothing; we can always improve that data with additional studies and use various kinds of studies to validate the GUPs and get more depth in our understanding.

A GUP Can be Directly Queried with a Specific Question

The screenshot shows a GUP interface with a user query and two data visualization charts. A large black arrow labeled "Underlying GUPs Model" points to the charts. A smaller black arrow labeled "Directly interact with your GUPs" points to the user query area.

Underlying GUPs Model:

- Maslow's Hierarchy of Needs:**

Level	Needs	Percentage
Physiological	Food, water, shelter, sleep	30%
Safety	Security, stability, health	55%
Love & Belonging	Friendship, intimacy, connection	84%
Esteem	Respect, status, recognition, self-esteem	88%
Self-Actualization	Achieving potential, creativity, purpose	59%
- Max-Neef Fundamental Needs:**

Need	Percentage
Subsistence	40%
Protection	62%
Affection	36%
Understanding	63%
Participation	38%
Leisure	50%
Creation	50%
Identity	39%
Freedom	50%

Directly interact with your GUPs:

Search messages

assistant: Could you tell me a little bit about your home and who you live with?

user: Well, I've lived in the same Portland house for over 40 years. I live alone most of the time; my adult children and grandchildren visit periodically. It's a modest, well-kept place — small garden, garage, comfortable rooms. I prefer reliable appliances, keep a simple routine, and do most tasks myself, though I'll accept sensible help.

assistant: Can you walk me through the last time you did laundry at home, step by step?

user: Well, I gathered laundry from the bedroom hamper and bathroom basket — I do it about once a week. I sorted whites, colors and a small pile of delicates, checked pockets and turned items inside out, spotted a small coffee stain and pretreat it with a stain stick. I read care labels and set a wool sweater aside to air wash later. I loaded the top-loader evenly without overstuffing, measured liquid detergent into the cap and put it in the dispenser, added a bit of fabric softener for towels. I chose the normal wash, warm water for standard loads, medium cycle, and a spin cycle of 45-50 rpm. While it ran I put away a few things and watered the garden. When finished I transferred clothes to the dryer, cleaned the lint trap, set moderate heat and started it. Once dry I promptly removed items, folded them on the kitchen table and returned them to their places, left delicates and wool to air dry, and checked the washer area for stray coins or lint, wiping the lid as needed.

assistant: During that laundry session, what was the most frustrating or challenging part for you?

user: Well, the most frustrating bit was pretreating a tiny coffee stain — that fiddly step broke my flow. I don't mind caring for delicates, but setting aside a wool sweater for air-washing is annoying. A 45-minute cycle felt long, and pocket-checking and balancing the load nag me.

assistant: Why did pretreating that tiny coffee stain break your flow?

user: Well, I like to move through laundry in one smooth pass. Pretreating forced me to stop, hunt for the stain remover, judge how much to use and bend down — fiddly for one tiny coffee speck. I'm wary of chemicals and worry about damaging fabric, so the hassle felt disproportionate.

assistant: What motivated you to wash that particular load of laundry at that time?

user: Well, it was my usual laundry day — I do laundry roughly weekly. The hamper was getting full, I needed

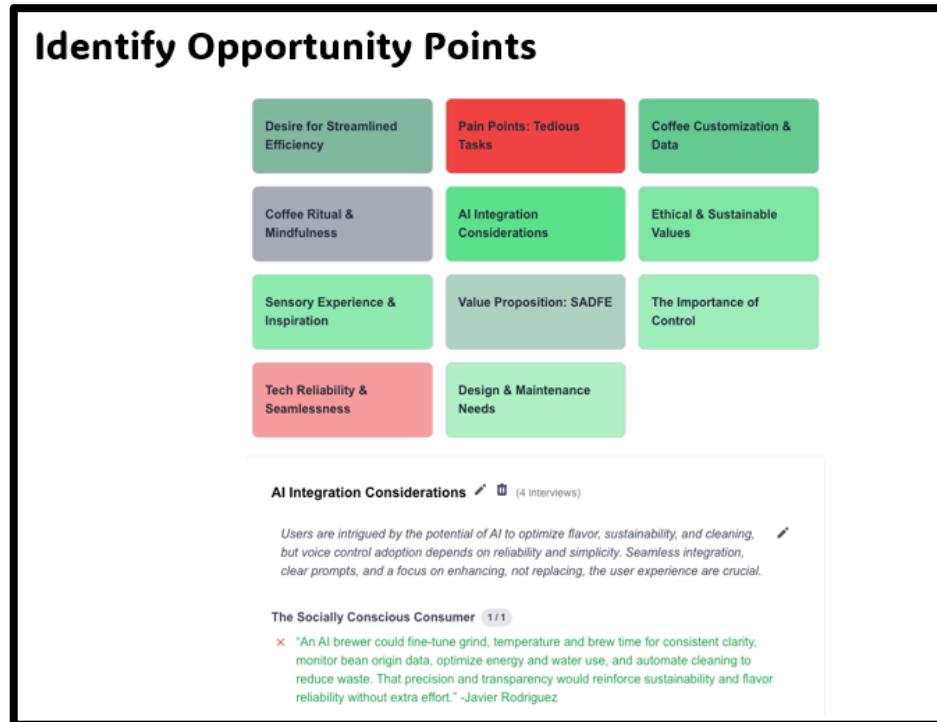
Type your message...

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Research Protocol Development and Execution

You can ask a single question to a GUP, but in many cases, you need a wider and more focused study. Such a study requires an interview protocol that is designed with the same care as our current study protocols that access human participants. In addition, such protocols need to be crafted to offset such issues as AI sycophancy. This protocol is then executed on the set of relevant GUPs by a UX-Adept AI interviewing agent. The interviewing agent probes for issues and the resulting interview dialogs can be directly reviewed or generally better the AI agent to deliver its own analysis. The ability of the AI interviewing agent to probe and interact is critical. Otherwise, it is just an automated questionnaire.

Example of findings from a study on coffee making machines:

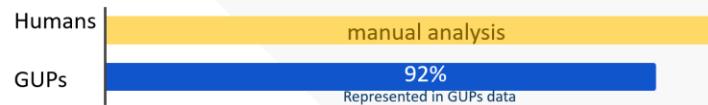


Supplemental Research

While we are passionate about UX, it is also a business. We need to trade off the cost and time of additional research against the risk of getting something wrong. Where the stakes are relatively low, we might accept the GUPs study alone. But we can increase our certainty with research on human participants. We have found that running the same protocol with the AI interviewing agent completing interviews over chat with selected human participants yields some additional insights. The amount gained by running human participants with the AI interviewer probably varies based on domain and topic. But we have been surprised by how many of the insights are derived from the GUPs study alone.

The GUPs study revealed 92% of the issues found with human participants:

Thematic Overlap



GUPs achieve a high degree of thematic similarity with data collected from real participants.

92% of themes for a representative study were also surfaced using GUPs.



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There are innumerable types of advanced studies used in the UX field and we must explore this over time. We must extend our methods to derive scenarios, environmental descriptions, and artifacts. I suspect there is still real value in observational research, in person interviews, and unobtrusive measures. I also think a serious UX Team needs such capabilities.

Studies such as onsite observation are still needed.



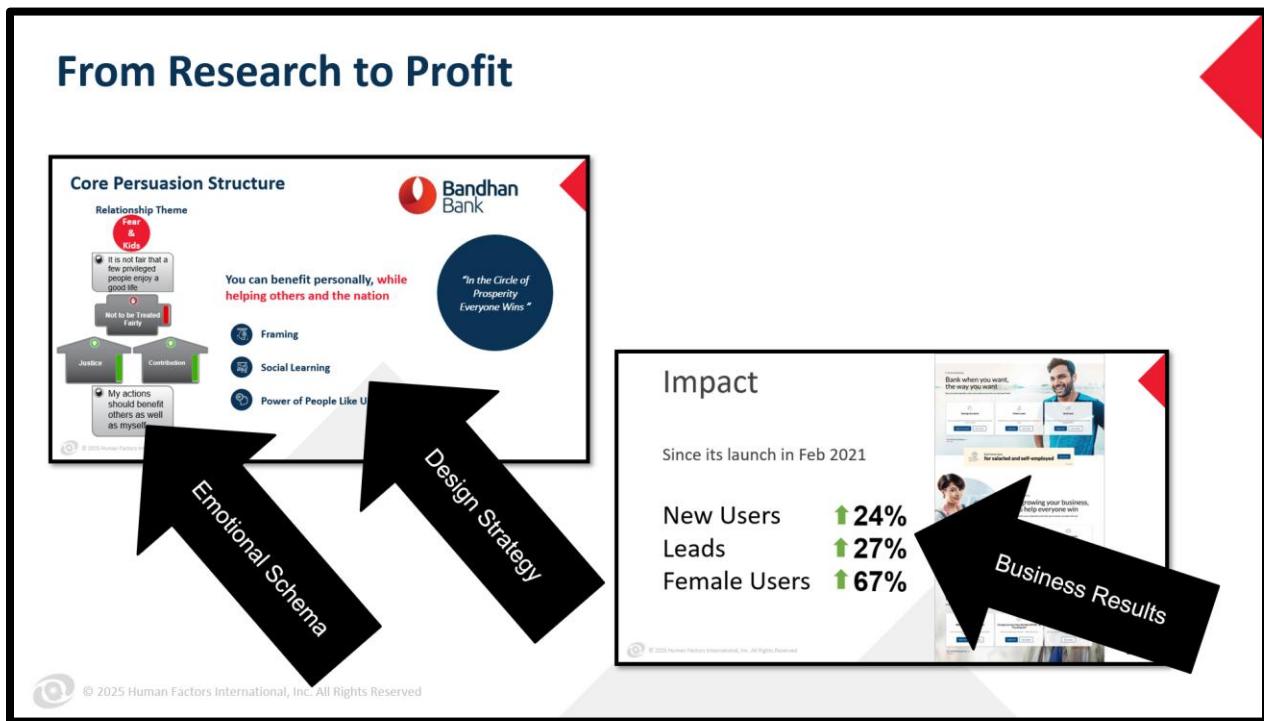
While I think there is always value in advanced data gathering methods, the need for UX staff to do rote research will be nearly eliminated; calling and asking a set of scripted questions and basic probes is handled by an AI agent.

Results Evaluation and Sense Making

The AI agent is great at summarizing research findings. But I think there is still a critical role for the UX Team when understanding these results and conveying them to executives, product managers, and other colleagues. The work done in ecosystem research must be translated into business and design decisions. That means having advanced UX staff that can draw out key connections and do the critical job of storytelling and motivating action.

This has always been essential, as I've seen masses of valuable studies that are never leveraged properly into business results - the UX practitioners must ensure this happens.

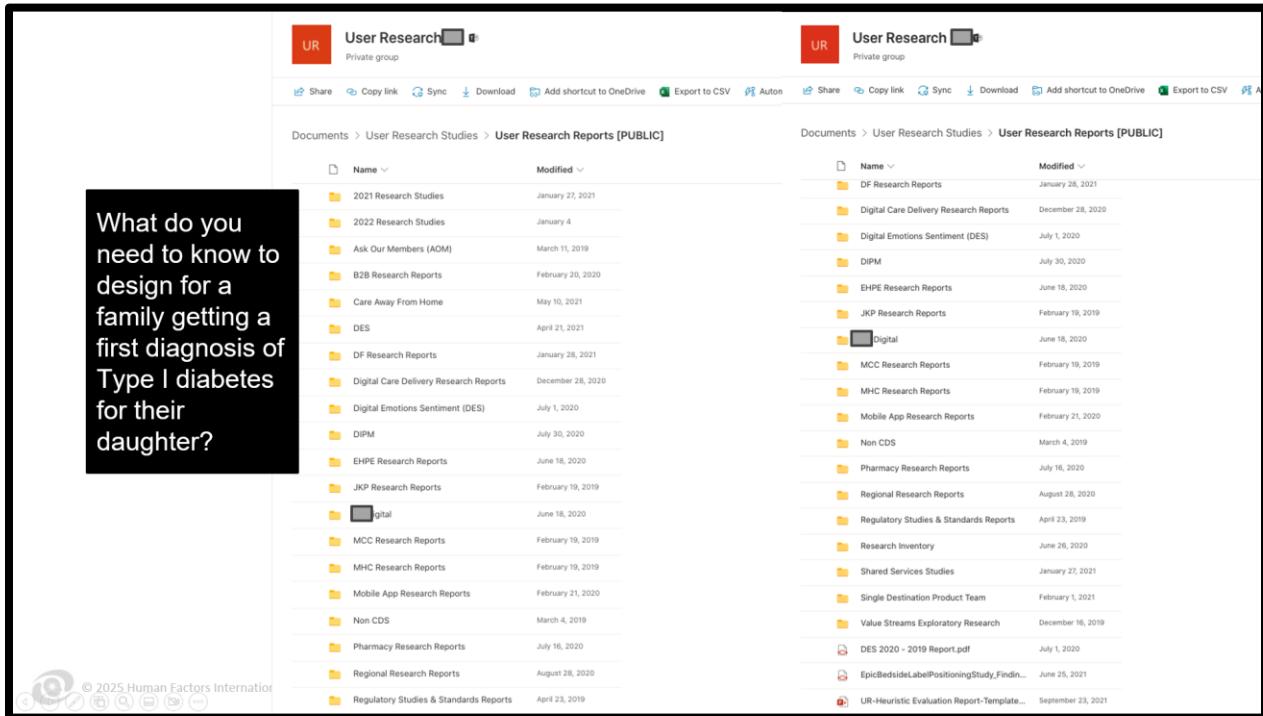
Example of emotional focused research converted into business success:



Curation and Dissemination of Sustained Ecosystem Model

Finally, there is a challenge for all substantial UX teams. In the past, research studies delivered their findings as a slide deck and those decks pile up on our desks or in inaccessible files.

Actual access point to an organization's UX research findings:



What do you need to know to design for a family getting a first diagnosis of Type I diabetes for their daughter?

Name	Modified
2021 Research Studies	January 27, 2021
2022 Research Studies	January 4
Ask Our Members (AOM)	March 11, 2019
B2B Research Reports	February 20, 2020
Care Away From Home	May 10, 2021
DES	April 21, 2021
DF Research Reports	January 28, 2021
Digital Care Delivery Research Reports	December 28, 2020
Digital Emotions Sentiment (DES)	July 1, 2020
DIPM	July 30, 2020
EHPE Research Reports	June 18, 2020
JKP Research Reports	February 19, 2019
Digital	June 18, 2020
MCC Research Reports	February 19, 2019
MHC Research Reports	February 19, 2019
Mobile App Research Reports	February 21, 2020
Non CDS	March 4, 2019
Pharmacy Research Reports	July 16, 2020
Regional Research Reports	August 28, 2020
Regulatory Studies & Standards Reports	April 23, 2019

Name	Modified
DF Research Reports	January 28, 2021
Digital Care Delivery Research Reports	December 28, 2020
Digital Emotions Sentiment (DES)	July 1, 2020
DIPM	July 30, 2020
EHPE Research Reports	June 18, 2020
JKP Research Reports	February 19, 2019
Digital	June 18, 2020
MCC Research Reports	February 19, 2019
MHC Research Reports	February 19, 2019
Mobile App Research Reports	February 21, 2020
Non CDS	March 4, 2019
Pharmacy Research Reports	July 16, 2020
Regional Research Reports	August 28, 2020
Regulatory Studies & Standards Reports	April 23, 2019
Research Inventory	June 26, 2020
Shared Services Studies	January 27, 2021
Single Destination Product Team	February 1, 2021
Value Streams Exploratory Research	December 16, 2019
DES 2020 - 2019 Report.pdf	July 1, 2020
EpicBedsideLabelPositioningStudy,Findin...	June 25, 2021
UR-Heuristic Evaluation Report-Template...	September 23, 2021

Pouring the results into a Large Language Model makes them accessible - only if you know the right question. You might have data about social narratives and Hall's cultural dimensions, but you must ask the right questions to retrieve those insights. Therefore, I think the team must provide a structured and connected framework built around ecosystem knowledge that guides users to know what to review.

HFI's UXEnterprise™ Environment Used to Accumulate an Ecosystem Model

The screenshot shows the UXEnterprise™ Scenarios interface. The left sidebar includes links for Home, Manager's Dashboard, Projects, Designs, Strategy & Insights, Executive Intent, Needs & Opportunities, User Profiles, Scenarios (which is selected), Environments, Artifacts, UX Methods, UI Standards, and Tools, Research & Training. The main content area is titled 'Scenarios' and shows a list of 'Our Scenarios - Select to view'. The scenarios are categorized into three main groups: 'Every Day Retail Banking', 'Conversational Banking', and 'Staff scenarios'. Each group contains a list of specific user interactions or tasks. A watermark for 'UXe D2 - Scenarios' and 'UX Enterprise™ Stamp' is visible in the bottom right corner of the interface.

We've been working on this problem for nearly 30 years. We have created a container with internal relationships wired in. This allows you to easily pull up the scenarios completed by a specific user in a specific environment. Now, I think we can power this with AI, as it is difficult to populate this container manually. But, even with AI support, we need UX specialists to curate and disseminate the insights from this model.

The Future Staffing Needs in UX Research

There is going to be a significant drop in the people needed to just ask a set of rote questions and trivial probes. That is worrisome as we need an on ramp for new people in the field. At AT&T I wrote a user manual for the first six months. It was not much fun, but that documentation work taught me to think about human tasks and it got my UX career moving. Maybe new people should work on curating the sustained ecosystem models and promoting the insights from those models.

The key skills that a research team needs are to operate in an AI environment as a co-bot. They should guide the operation and provide advanced research inputs. They must also do sanity checking and sense making. The team is the focus for the research operation, as

well as the storytellers to disseminate the findings and ensure they are applied to business decisions and designs.



Dr. Eric Schaffer has been working in the UX field since 1977. At the helm of Human Factors International, Inc (HFI) and its precursor organization since 1981, Eric was the originator of HFI courses and related UX certifications. He was the primary author of *Institutionalization of UX* (Addison-Wesley) and has continuously run consultative and design programs in the field, addressing some of the most complex and high-stakes domains.

Currently, Eric is helping to drive HFI into a fully AI enabled UX operation, as he delivers sustained UX teams and staff that are AI-enabled. Eric is co-founder of the UX4 an AI UX research platform and serves as its Chief Scientist.