

Becoming A Generative AI User: Social Learning and Responsible Engagement in Software Development

Morten Boesen and Sarah O'Neill

EK-Business Academy Copenhagen, Denmark

Mobo@ek.dk

Saro@ek.dk

Abstract: As generative AI becomes integrated into software development, this paper explores how developers adopt and make sense of it—not as a rational choice but as a socially learned and interpretive process. We examine how developers become AI users through social exposure, peer learning, and shifting perceptions of usefulness and risk. The study combines netnography of Reddit communities with interviews with software developers. Using Becker's three-step model—learning to use, recognise effects, and enjoy—we trace how developers move from experimentation to integrated AI use. Contrasting with models like the Technology Adoption Model (TAM), we argue that Generative AI adoption is not a binary of acceptance or resistance, but a culturally embedded process shaped by evolving norms and community practices. This perspective “de-exceptionalizes” AI and offers a more grounded, human-centred understanding of how professional practices evolve with emerging technologies.

Keywords: Generative AI, Software development, AI adoption, Interpretive practice, Social learning

1. Introduction

This study challenges dominant narratives about AI users as technological prodigies, future-oriented visionaries, or irresponsible cheaters, by reframing AI adoption as a socially learned, interpretive process. Much like Becker's study, which showed how drug use was learned through ordinary interactions, we argue that becoming a Generative AI user is neither a rational choice nor a heroic act of innovation. Instead, it is a situated practice shaped by peer modelling and evolving interpretations of value and risk.

By focusing on the micro-processes through which developers learn to use, recognise, enjoy, and integrate Generative AI tools into their workflows, this research contributes to a more grounded and humane understanding of AI adoption. It de-exceptionalises AI use, situating it within the broader patterns of professional identity, craft learning, and workplace sociality. This perspective not only broadens the sociotechnical understanding of AI adoption but also opens up more inclusive and accessible pathways for supporting responsible engagement with AI in practice.

1.1 Related Literature

Much existing literature on AI adoption draws on technology acceptance models (TAM) and related frameworks (e.g., Rogers, 2003; Venkatesh et al., 2003), focusing on constructs such as perceived usefulness, ease of use, and behavioural intention. While useful for identifying general trends, such models often overlook the situated and socially contingent nature of technology adoption in everyday work practices.

Several studies (e.g. Gupta & Yang, 2024; Kim et al., 2024; Rafi et al., 2024; Russo, 2024) apply or extend the TAM frameworks, highlighting factors such as trust, enjoyment or cognitive evaluations. Other contributions (Banh et al., 2025; Sahni & Chilton, 2025) acknowledge the importance of informal learning and organisational context but do not fully engage with sociological theories of meaning making (Blumer, 1969).

Our project seeks to de-exceptionalising AI adoption and offers a sociologically grounded alternative. Drawing on Becker, we shift focus from adoption as decision-making to adoption as becoming, a process embedded in social relations, community discourse, and interpretive practice. This study's key theoretical contribution lies in extending Becker's socially oriented model into the realm of AI adoption, demonstrating that adoption is not simply about individual rational choice or technological determinism, but embedded in ongoing, situated social interactions and interpretive practices. TAM/UTAUT conceptualise adoption primarily as the outcome of individual perceptions and intentions and frames social and facilitative factors as external influences or conditions. In contrast, a Becker-inspired perspective foregrounds mechanisms such as peer modelling, iterative experimentation, and norm internalization, this shifts “the social” from a peripheral influence on adoption to the very medium of adoption processes. By enlisting Becker's attention to the social mechanisms, we show that AI adoption cannot be fully understood through perception and intention models alone, but requires attention to the situated, relational processes through which actors learn to become users.

2. Methodology

We used a qualitative design combining passive netnography (Kozinets, 2020) and interviews (Kvale, 1997). Inspired by Becker's interactionist approach, we explored how developers learn to use, assess, and integrate AI through evolving experiences and social encounters.

2.1 Passive Netnography

Reddit was selected as the field site due to its active developer communities. We identified relevant subreddits (/programming, /ChatGPTCoding, /ClaudeAI, /Bard) and used targeted searches to locate discussions about AI in coding and software development. Data were collected between January and June 2025. Users who contributed substantively, through detailed answers, references, or recurring engagement across multiple threads, were marked for further analysis. This process led to a shortlist of thirteen users. For each shortlisted user, we conducted a systematic review of their comment history within the selected subreddits, with all material anonymised.

2.2 Qualitative Interviews

Seven semi-structured interviews were conducted with developers recruited through professional networks and snowball sampling. We deliberately sought participants who could be considered "AI champions", i.e., developers already using AI actively and professionally in their work. This purposive sampling reflects our focus on understanding advanced practices and trajectories of adoption, rather than aiming for a representative sample. While providing rich qualitative insights, our findings are preliminary and based on a small sample.

2.3 Analytic Procedures

The analysis combined inductive coding of user practices and reflections (open coding in NVivo), followed by triangulation with themes emerging from the interviews. The inductive codes were revisited to examine how developers' trajectories aligned with the stages of learning Becker described. Coding decisions were discussed among co-authors to ensure consistency and reduce interpretive bias.

3. Preliminary Findings

The following sections present our preliminary findings structured around Becker's three steps: learning to use AI in a way that produces real effects; learning to recognise and interpret those effects; and learning to enjoy and integrate AI use into everyday professional practice. This grounded approach de-exceptionalises AI adoption, revealing it not as a singular leap into the future but as a socially learned, interpretive process embedded in ordinary forms of craft learning, community judgment, and evolving workplace norms.

3.1 Step 1: Learning to use AI in a way That Produces Real Effects

The first step in becoming a Generative AI user involves learning how to interact with generative systems in ways that produce meaningful or at least amusing effects. Across our data, this phase often begins not in formal training contexts but in moments of casual play, personal experimentation, or peer-led curiosity. Much like Becker's marijuana users learned to "get high" through guided social experience, developers in our study learned to get useful or "fun" results by imitating others, sharing prompts, or tinkering with tools in low-stakes environments.

Some users described early encounters with AI as mind-blowing or magical, even when the results were crude. As one participant put it: *"They were f*cking shitty pictures... but it was still f*cking mind-blowing... That's when I got hooked"*, referring to their first text-to-image outputs. Others turned to AI for playful or personal projects. One participant described using generative tools to create a wedding gift: *"He (a friend in Italy) got married and his honeymoon went to Indonesia... I wrote like a cartoon of an Italian guy with his girlfriend doing different activities, and then we had like 50 images for each activity and picked one picture per activity to make a photo album we gave him before he went on his honeymoon"*. These early engagements were often marked by curiosity and social experimentation, where the joy lay not in precision but in making something novel with the machine. Others learned through trial and error in coding contexts: *"Just ask the AI to break down parts of code you don't understand"*. This phase is marked by tentative tool use, where clumsy or limited outputs serve mainly as vehicles for learning how to make something happen. It is also where cultural norms and shared warnings circulate, for example, about overreliance on auto-complete or using AI before understanding basic programming concepts.

3.2 Step 2: Learning to Recognise the Effects and Connect Them to AI

As users gain experience, they begin to reflect critically on when and how AI is helpful and when it fails. This second step, akin to Becker's notion of *"learning to recognize the effects"*, involves more than just technical learning. It includes the development of judgment and interpretive skills. Users begin to articulate what counts as valuable AI assistance and what should be resisted or corrected.

Participants described learning to identify hallucinations, disengaging from autosuggestions that distorted their own thinking, and choosing when to turn AI off entirely. As one developer put it: *"Sometimes the autocomplete tells you what the Copilot thinks... But then it just gets into my head... but maybe that's not the best approach... So I just turn it off, like telling, okay, shut up! I need to think. So yeah, so I turn it off like for a moment and I do my reasoning, my code, my component or whatever"*. This illustrates a key shift: AI is no longer an awe-inspiring novelty, but a tool that must be managed and sometimes resisted.

Other users developed model-specific preferences: *"Gemini is very good at math and reasoning"*, *"Claude explains without overwhelming"*, or *"DeepSeek is great at planning projects"*. These preferences reflect growing awareness of how different AI tools perform in different contexts, and how to align them with one's own workflow or values.

Beyond technical performance, users develop informal value systems, constantly weighing price, access, and capabilities. Much like Becker's marijuana users learned to recognise different "kinds of high," AI users learn to judge which models are "worth it" in terms of output and cost. One pairs DeepSeek R1 with Claude 3.7, *"dirt cheap"* for planning, better quality for implementation. Others dismiss models without open APIs as less *"usable,"* despite strong performance. These judgments show that becoming a competent AI user involves navigating a shifting tool market and aligning choices with context. Economic reasoning, too, becomes part of the socially informed process of AI adoption.

3.3 Step 3: Learning to Enjoy the Sensations and see Them as Desirable

The final step involves not just recognising AI's effects but appreciating them, even valuing them as part of one's craft. For Becker's marijuana users, this meant learning to enjoy the sensations. For AI users, it means learning to enjoy the productivity, insight, or creative possibilities AI affords. This enjoyment is rooted in experience and daily practice.

Users in this phase spoke of AI as expanding their capabilities: *"It's more exertion for more result – definitely not making me lazier"*. One even described calling their spouse to witness an AI tool at work, declaring *"the future has just arrived"*. Another reflected on how AI helped shift their attention from rote coding tasks to higher-level design work.

Enjoyment in this phase also involves adaptive mastery, the sense of knowing how to work with, around, or in tandem with AI. *"I write a comment... and it gives me the next line. But if it tries something too big, I know I have to break it into smaller pieces"*. This is not just use, but skilled use, an embodied, reflexive, and increasingly effortless integration. As Becker might put it, they've learned how to use and like AI.

4. Conclusion

Becoming a Generative AI user is not a matter of individual rational choice but a socially embedded learning process. Drawing on Becker's model, we show how developers move from experimentation to appreciation through situated, interpretive practice. In contrast to models that emphasise intention or utility, this approach foregrounds the social dynamics of becoming.

Understanding adoption as a social learning process can inform ethical frameworks and governance strategies that emphasise collective responsibility, transparency, and continuous dialogue rather than mere compliance with fixed rules. Recognising AI adoption as a socially learned practice suggests that organisations should foster community-led reflection and peer-learning to encourage responsible and transparent AI use.

By de-exceptionalising AI use, we offer a more grounded perspective on how technologies are adopted through everyday negotiation and community interaction. Developers do not merely evaluate AI tools; they learn, argue, adapt, and reflect, and in doing so, contribute to the ongoing construction of what responsible and legitimate AI use looks like.

For organisations, this perspective suggests structuring opportunities for peer learning and experimentation, for instance through dedicated forums where developers can share practices, successes, and dilemmas.

Acknowledgements

The authors gratefully acknowledge Benjamin Hughes for conducting the interviews that form part of the empirical material for this paper. His contribution has been essential to the development of the study.

Ethics Declaration: No formal ethical clearance was required for this study. Informed consent was obtained from all interview participants, and all data were anonymised. In addition, measures were taken to ensure proper data security and anonymisation. For the netnographic part, we followed Kozinets' (2020) research ethics process flowchart for netnography to ensure an appropriate handling of ethical issues. This included consideration of the degree of sensitivity of the topics discussed, the presence (or absence) of vulnerable populations, and the public nature of Reddit data. Direct identifiers were removed, and while original Reddit posts remain publicly accessible, any presented quotes were anonymised and handled with care to minimise traceability.

AI Declaration: AI tools were used in the preparation of this paper. Keenious was used to support literature search, and ChatGPT was used for language editing, proofreading, and assistance with phrasing.

References

- Banh, L., Hollback, F. and Strobel, G., 2025. Copiloting the Future: How Generative AI Transforms Software Engineering. *Information and Software Technology*, 183, 1-14.
- Becker, H., 1953. Becoming a Marijuana User. *American Journal of Sociology*, 59(3), 235-242.
- Blumer, H., 1969. *Symbolic Interactionism: Perspective and Method*. Englewood Cliffs, NJ: Prentice-Hall.
- Gupta, V. and Yang, H., 2024. Generative Artificial Intelligence (AI) Technology Adoption Model for Entrepreneurs: Case of ChatGPT. *Internet Reference Services Quarterly*, 28(2), 223-242.
- Kim, Y.W., Cha, M.C., Yoon, S.H. and Lee, S.C., 2024. Not Merely Useful but Also Amusing: Impact of Perceived Usefulness and Perceived Enjoyment on the Adoption of AI-Powered Coding Assistant. *International Journal of Human-Computer Interaction*, 41(10), 6210-6222.
- Kozinets, R.V., 2020. *Netnography: The Essential Guide to Qualitative Social Media Research*. 3rd ed. Chichester: Wiley.
- Kvale, S., 1997. *Interview: En introduktion til det kvalitative forskningsinterview*. Copenhagen: Hans Reitzels Forlag.
- Rafi, M., Aitken, J.M., Fatah, T.D. and Mailangkay, A., 2024. Analyzing the impact of generative AI on IT employee performance. In: *2024 3rd International Conference on Creative Communication and Innovative Technology (ICCIIT)*. IEEE, 1-7.
- Rogers, E.M., 2003. *Diffusion of Innovations*. 5th ed. New York: Free Press.
- Russo, D., 2024. Navigating the Complexity of Generative AI Adoption in Software Engineering. *ACM Transactions on Software Engineering and Methodology*, 33(5), Article 50.
- Sahni, R. and Chilton, L.B., 2025. Beyond Training: Social Dynamics of AI Adoption in Industry. *arXiv preprint arXiv:2502.13281*. <https://doi.org/10.48550/arXiv.2502.13281>
- Venkatesh, V., Morris, M.G., Davis, G.B. and Davis, F.D., 2003. User Acceptance of Information Technology: Toward a Unified View. *MIS Quarterly*, 27(3), 425-478.