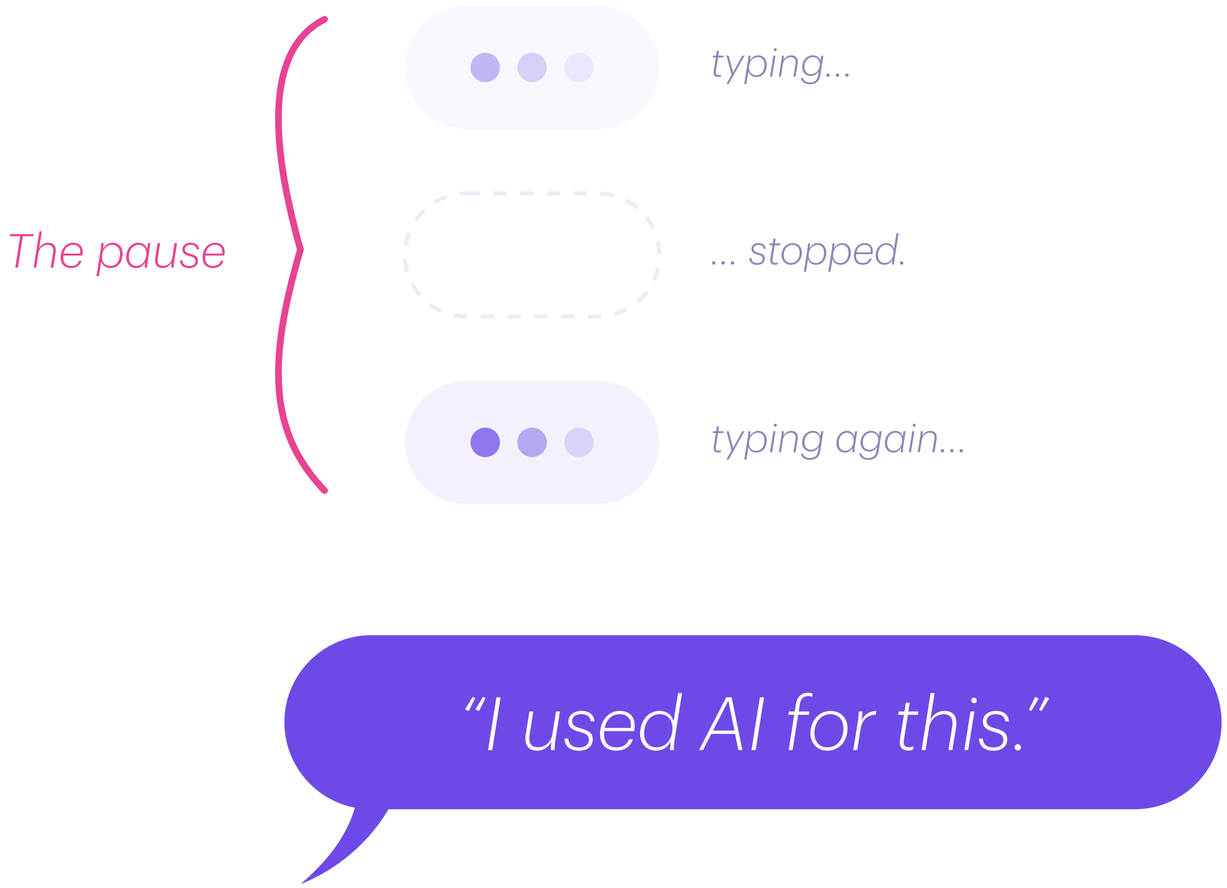
AI Adoption Is a Deeply Personal Journey

Annie Vella

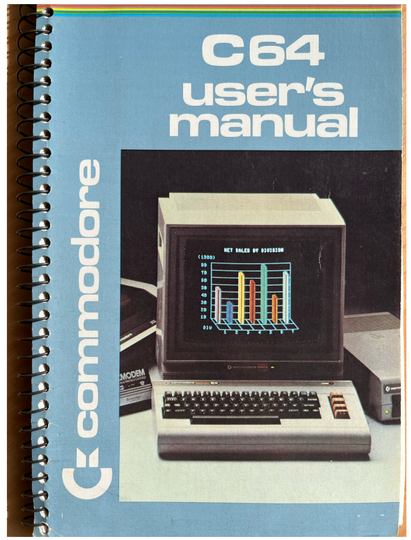
Tech Leading Ladies · 23 June 2026

The Hesitation



A Quick Introduction

Software Engineer | Technical Leader | Self-professed Nerd



Circa 1987

November 2022

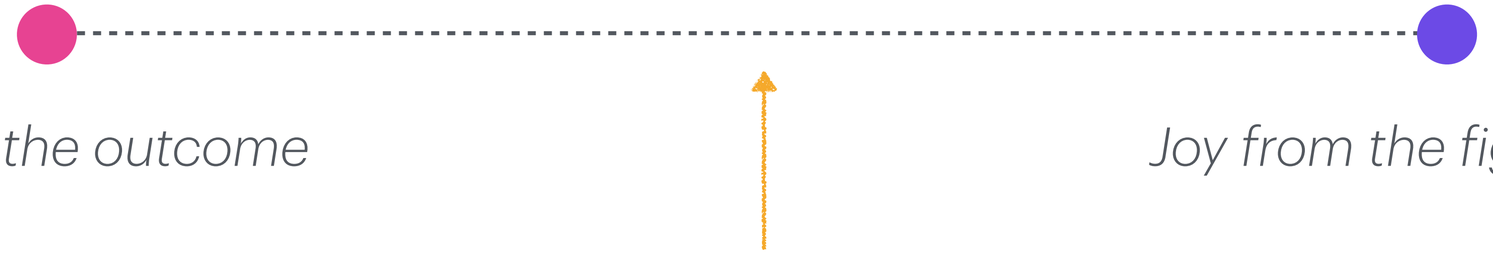
Waipapa
Taumata Rau
University
of Auckland

February 2024

Two Kinds of Joy

Results-oriented

Journey-oriented



Joy from the outcome

Joy from the figuring-out

David Curlewis - Calibrating on Capability, Not Activity - https://curlewis.co.nz/posts/calibrating-on-capability-not-activity/

Three Producer Types

Entering producers

New graduates
Career changers

Uncertainty

Whiteboard interviews vs “AI-native”

What skills matter now?

Active producers

Mid-career
Bulk of workforce

Hardest hit

Role has fragmented to code-writing

But now AI writes the code

Returning producers

Senior leaders

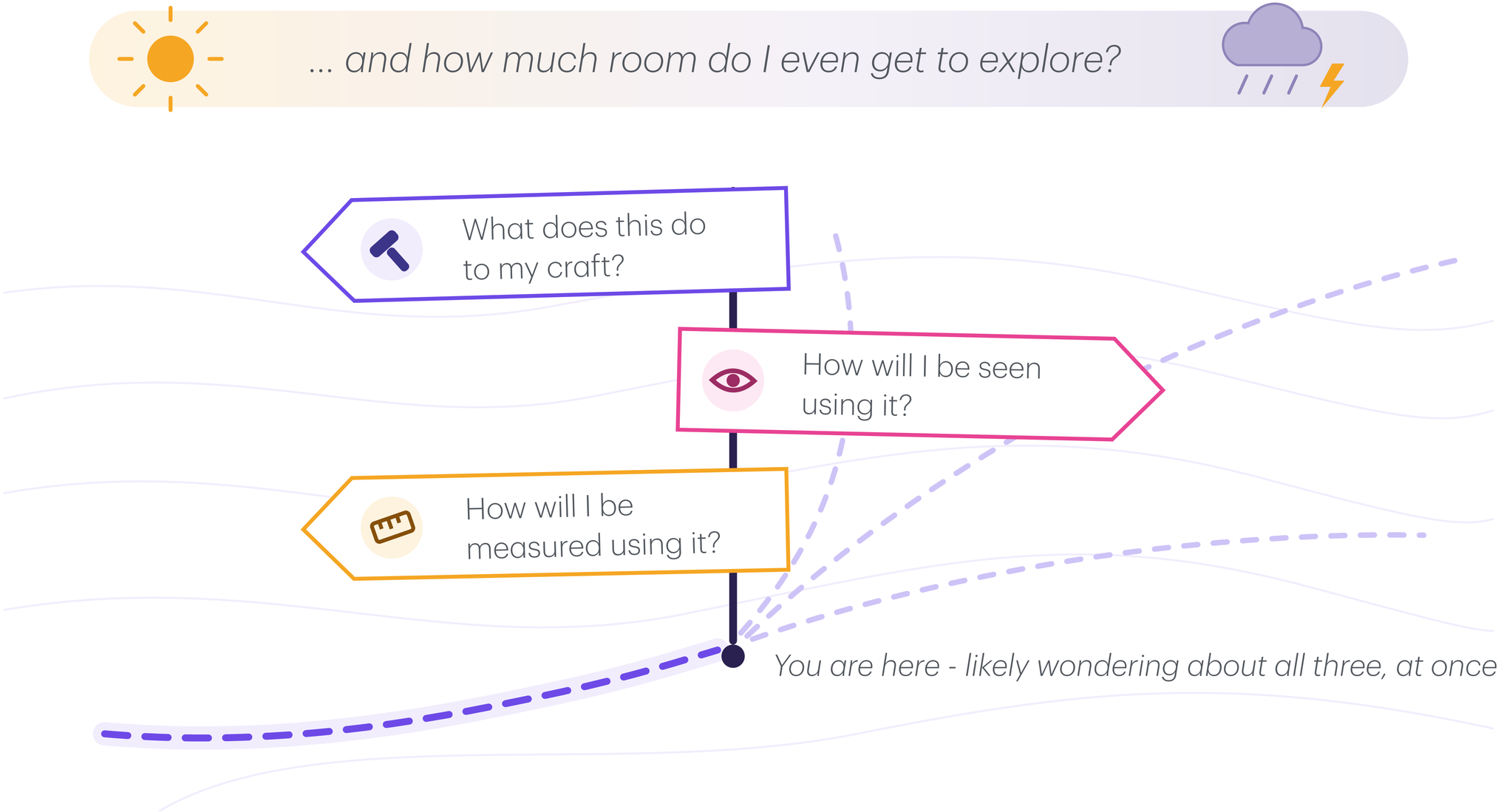
Thriving

But: enthusiasm isn’t universal

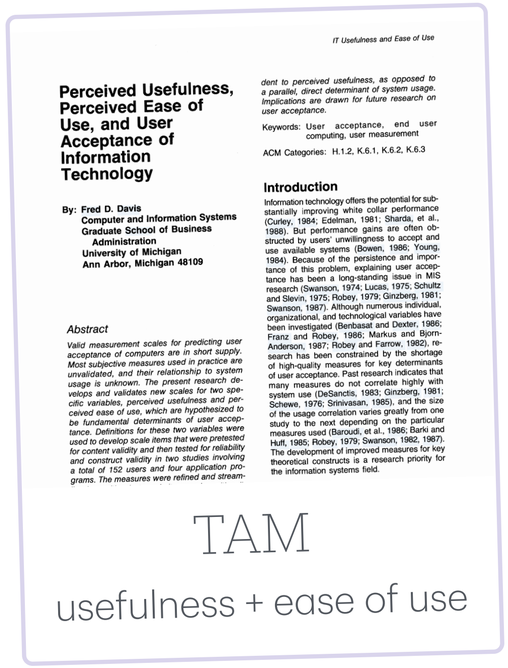
Must remain mindful about what is signalled

The Map - Three Questions

... and how much room do I even get to explore?



Even the Science Agrees



IT Usefulness and Ease of Use

Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology

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Abstract

Valid measurement scales for predicting user acceptance of computers are in short supply. Most subjective measures used in practice are unvalidated, and their relationship to system usage is unknown. The present research develops and validates new scales for two specific variables, perceived usefulness and perceived ease of use, which are hypothesized to be fundamental determinants of user acceptance. Definitions for these two variables were used to develop scale items that were pretested for content validity and then tested for reliability and construct validity in two studies involving a total of 152 users and four application programs. The measures were refined and stream-

dent to perceived usefulness, as opposed to a parallel, direct determinant of system usage. Implications are drawn for future research on user acceptance.

Keywords: User acceptance, end user computing, user measurement

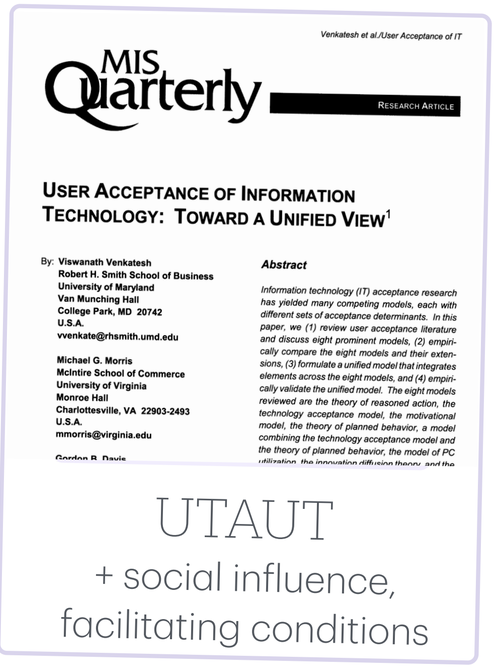
ACM Categories: H.1.2, K.6.1, K.6.2, K.6.3

Introduction

Information technology offers the potential for substantially improving white collar performance (Curley, 1984; Edelman, 1981; Sharda, et al., 1988). But performance gains are often obstructed by users' unwillingness to accept and use available systems (Bowen, 1986; Young, 1984). Because of the persistence and importance of this problem, explaining user acceptance has been a long-standing issue in MIS research (Swanson, 1974; Lucas, 1975; Schultz and Slevin, 1975; Robey, 1979; Ginzberg, 1981; Swanson, 1987). Although numerous individual, organizational, and technological variables have been investigated (Benbasat and Dexter, 1986; Franz and Robey, 1986; Markus and Bjorn-Anderson, 1987; Robey and Farrow, 1982), research has been constrained by the shortage of high-quality measures for key determinants of user acceptance. Past research indicates that many measures do not correlate highly with system use (DeSanctis, 1983; Ginzberg, 1981; Schewe, 1976; Srinivasan, 1985), and the size of the usage correlation varies greatly from one study to the next depending on the particular measures used (Baroudi, et al., 1986; Barki and Huff, 1985; Robey, 1979; Swanson, 1982, 1987). The development of improved measures for key theoretical constructs is a research priority for the information systems field.

TAM

usefulness + ease of use



Venkatesh et al./User Acceptance of IT

MIS Quarterly — Research Article

User Acceptance of Information Technology: Toward a Unified View[1]

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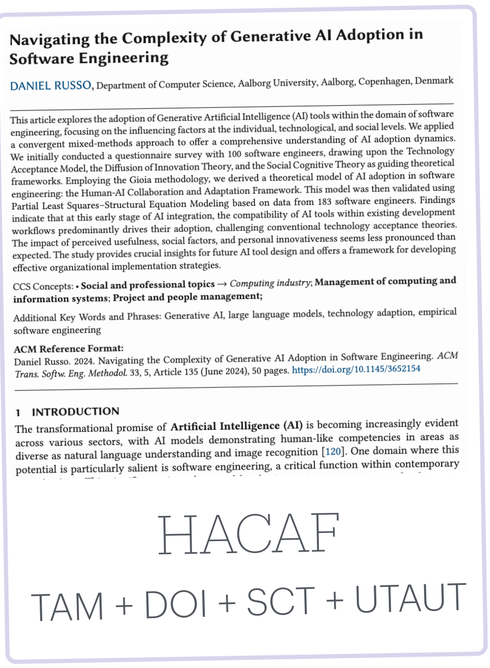
Abstract

Information technology (IT) acceptance research has yielded many competing models, each with different sets of acceptance determinants. In this paper, we (1) review user acceptance literature and discuss eight prominent models, (2) empirically compare the eight models and their extensions, (3) formulate a unified model that integrates elements across the eight models, and (4) empirically validate the unified model. The eight models reviewed are the theory of reasoned action, the technology acceptance model, the motivational model, the theory of planned behavior, a model combining the technology acceptance model and the theory of planned behavior, the model of PC

UTAUT

+ social influence, facilitating conditions



Navigating the Complexity of Generative AI Adoption in Software Engineering

DANIEL RUSSO, Department of Computer Science, Aalborg University, Aalborg, Copenhagen, Denmark

This article explores the adoption of Generative Artificial Intelligence (AI) tools within the domain of software engineering, focusing on the influencing factors at the individual, technological, and social levels. We applied a convergent mixed-methods approach to offer a comprehensive understanding of AI adoption dynamics. We initially conducted a questionnaire survey with 100 software engineers, drawing upon the Technology Acceptance Model, the Diffusion of Innovation Theory, and the Social Cognitive Theory as guiding theoretical frameworks. Employing the Gioia methodology, we derived a theoretical model of AI adoption in software engineering: the Human-AI Collaboration and Adaptation Framework. This model was then validated using Partial Least Squares–Structural Equation Modeling based on data from 183 software engineers. Findings indicate that at this early stage of AI integration, the compatibility of AI tools within existing development workflows predominantly drives their adoption, challenging conventional technology acceptance theories. The impact of perceived usefulness, social factors, and personal innovativeness seems less pronounced than expected. The study provides crucial insights for future AI tool design and offers a framework for developing effective organizational implementation strategies.

CCS Concepts: • **Social and professional topics** → *Computing industry*; **Management of computing and information systems; Project and people management;**

Additional Key Words and Phrases: Generative AI, large language models, technology adaption, empirical software engineering

ACM Reference Format:
Daniel Russo. 2024. Navigating the Complexity of Generative AI Adoption in Software Engineering. *ACM Trans. Softw. Eng. Methodol.* 33, 5, Article 135 (June 2024), 50 pages. https://doi.org/10.1145/3652154

1 INTRODUCTION

The transformational promise of **Artificial Intelligence (AI)** is becoming increasingly evident across various sectors, with AI models demonstrating human-like competencies in areas as diverse as natural language understanding and image recognition [120]. One domain where this potential is particularly salient is software engineering, a critical function within contemporary

HACAF

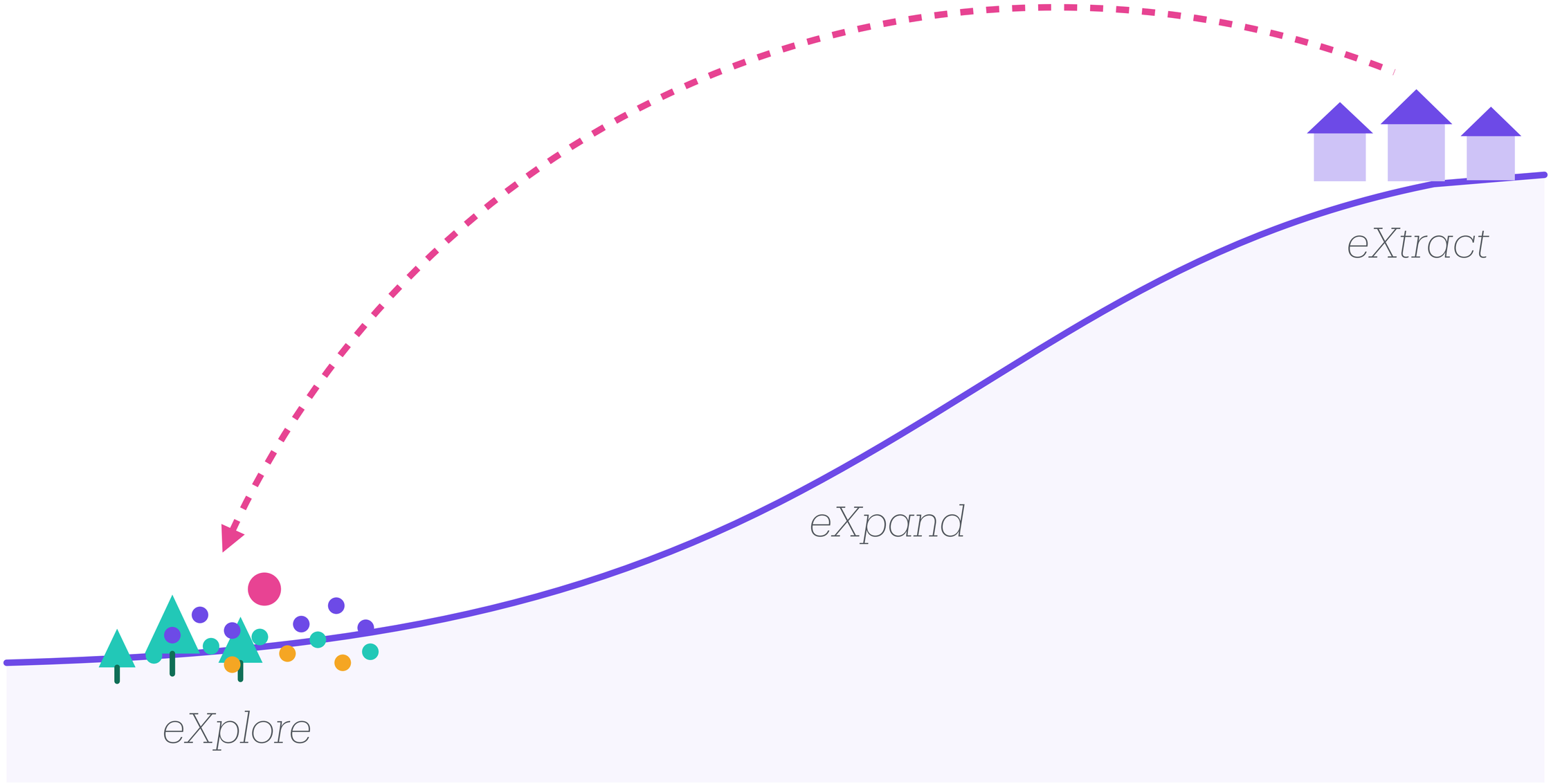
TAM + DOI + SCT + UTAUT

more complex

1989 — 2003 — 2024 — 2024-26

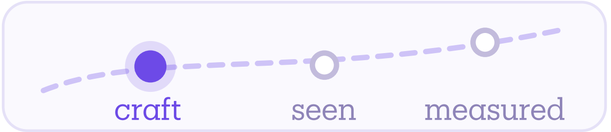
Daniel Russo et al - Navigating the Complexity of AI Adoption in Software Engineering - https://arxiv.org/abs/2307.06081

Rebooted. Together.



Kent Beck - https://medium.com/@kentbeck_7670/fast-slow-in-3x-explore-expand-extract-6d4c94a7539

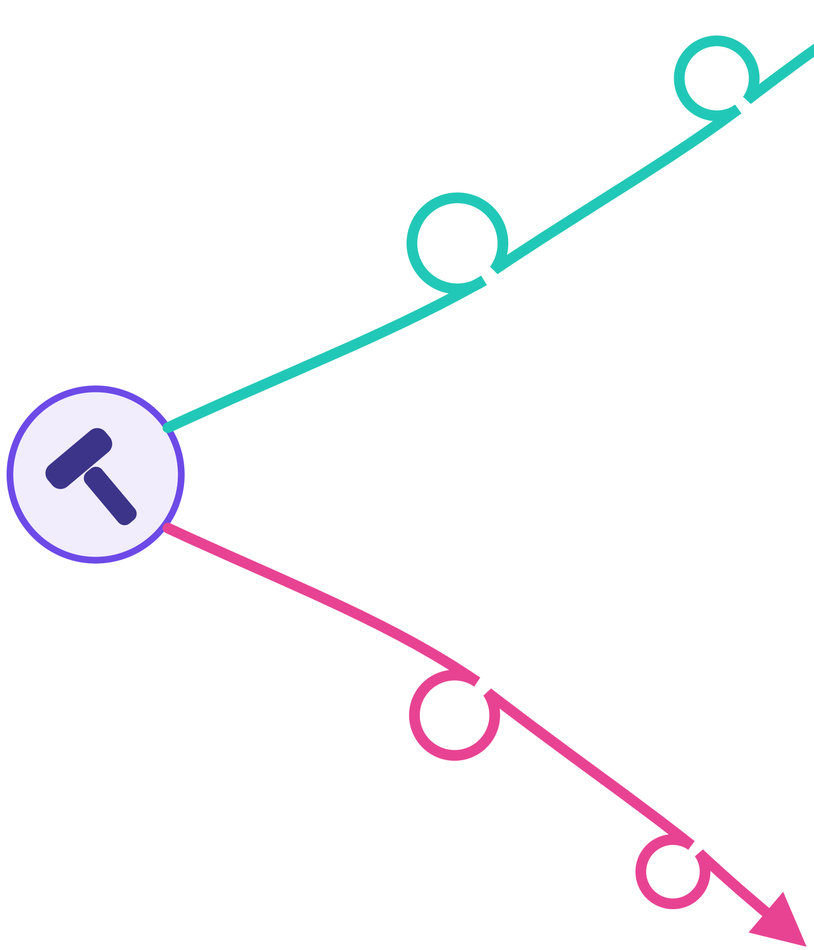
Waypoint 1 - Your Craft



Lift

Amplifies who you already are

One Technology



Posture

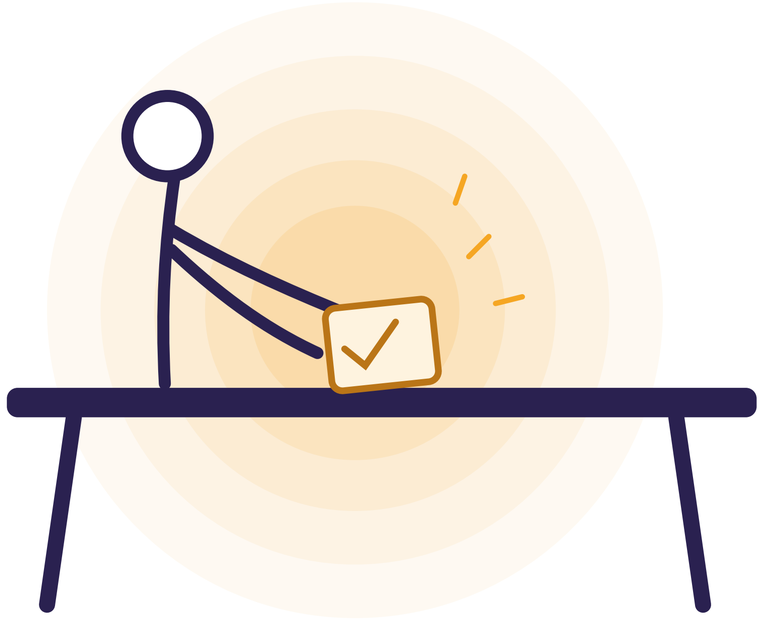
You choose the direction

Atrophy

Erodes what you stop practising

Waypoint 1 - What Do I Keep?

still here



Internal goods

Achieved by doing:
the figuring-out, the mastery, the absorption

External goods

Achieved by having:
output, productivity, status, money

Alasdair MacIntyre - After Virtue (1981) - https://en.wikipedia.org/wiki/After_Virtue

Waypoint 2 - How Will I Be Seen?

-13%

her

=

-6%

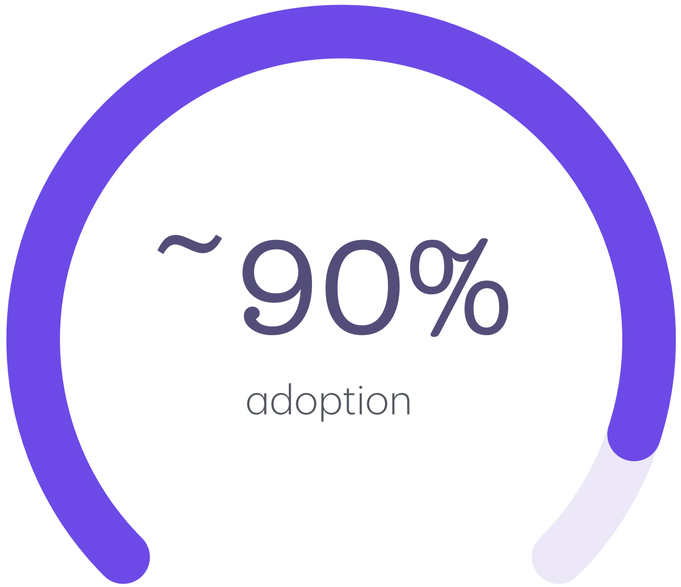
him

Identical work, AI use disclosed

Harshest judges: people who don't use AI themselves

HBR - Research: The Hidden Penalty of Using AI at Work - https://hbr.org/2025/08/research-the-hidden-penalty-of-using-ai-at-work

Waypoint 3 - How Will I Be Measured?

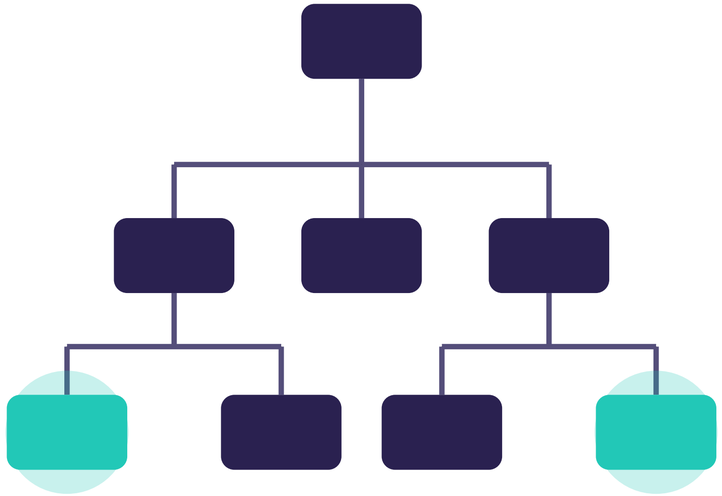


What gets measured

~5%

sophisticated use

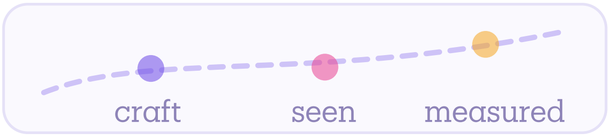
What matters



“Pockets of brilliance”

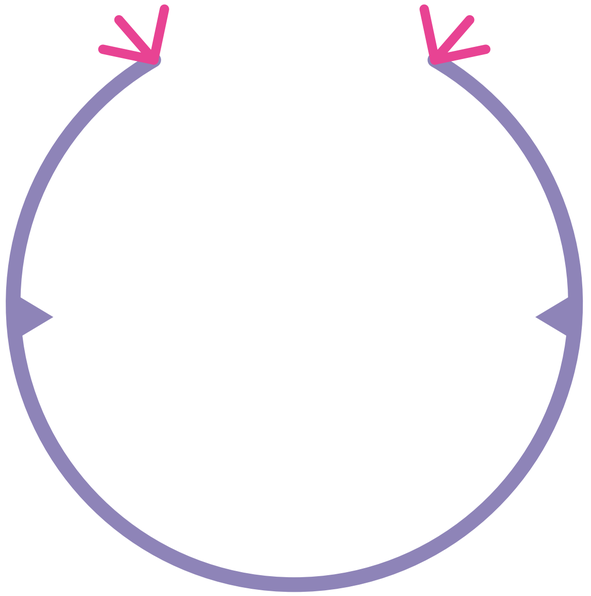
HBR - https://hbr.org/2026/03/what-the-best-ai-users-do-differently-and-how-to-level-up-all-of-your-employees

It's Not You, It's the System



The wins land here

Feedback can't flow

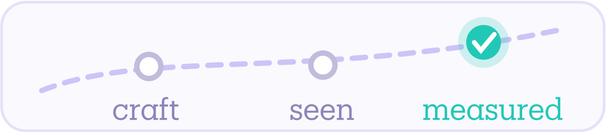


The costs land here

> *"Every system is perfectly designed to get the results that it does." - W. Edwards Deming*

Charity Majors - https://charity.wtf/2026/06/02/ai-enthusiasts-are-in-a-race-against-time-ai-skeptics-are-in-a-race-against-entropy-xpost/

Calibrate on Capability, Not Activity



Activity

Lines of code generated by AI

Number of tokens used

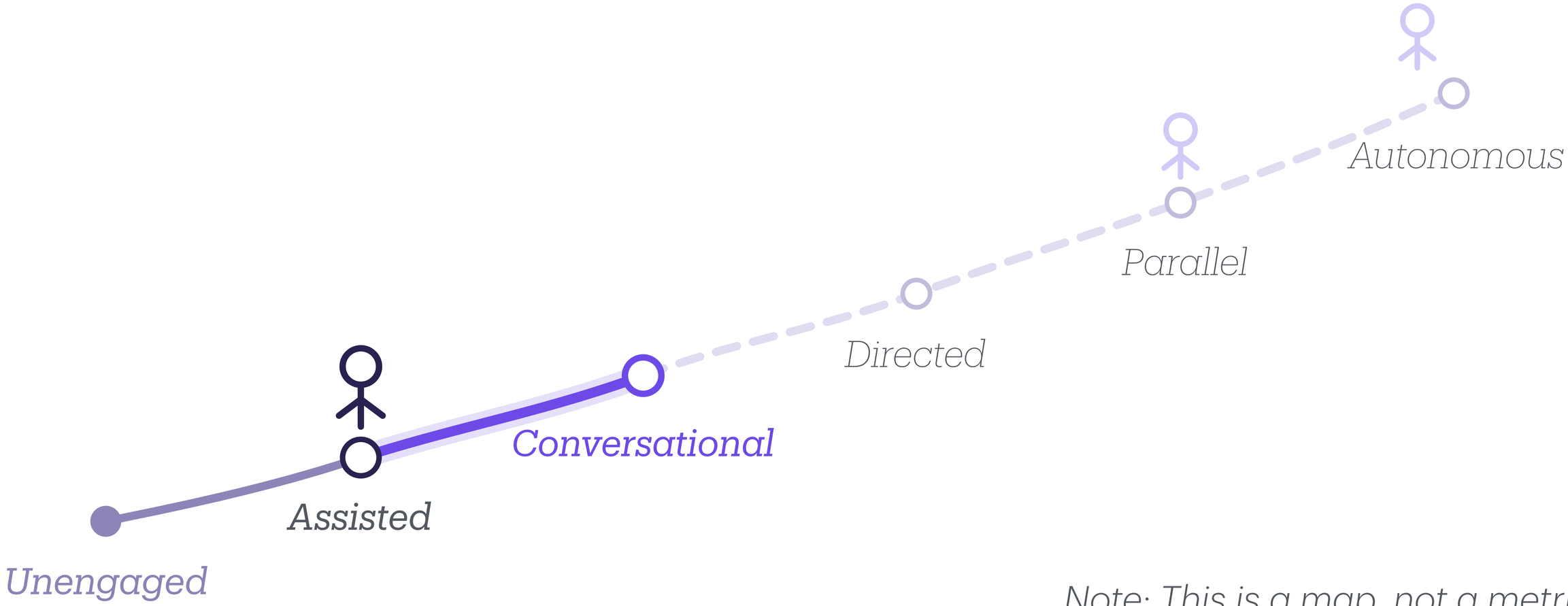
Number of PRs

Capability

- What did you delegate?
- What did you catch that the agent got confidently wrong?
- What did you ship that made the team better?
- Where did you decide NOT to use it?

David Curlewis - Calibrating on Capability, Not Activity - https://curlewis.co.nz/posts/calibrating-on-capability-not-activity/

One Stage At a Time



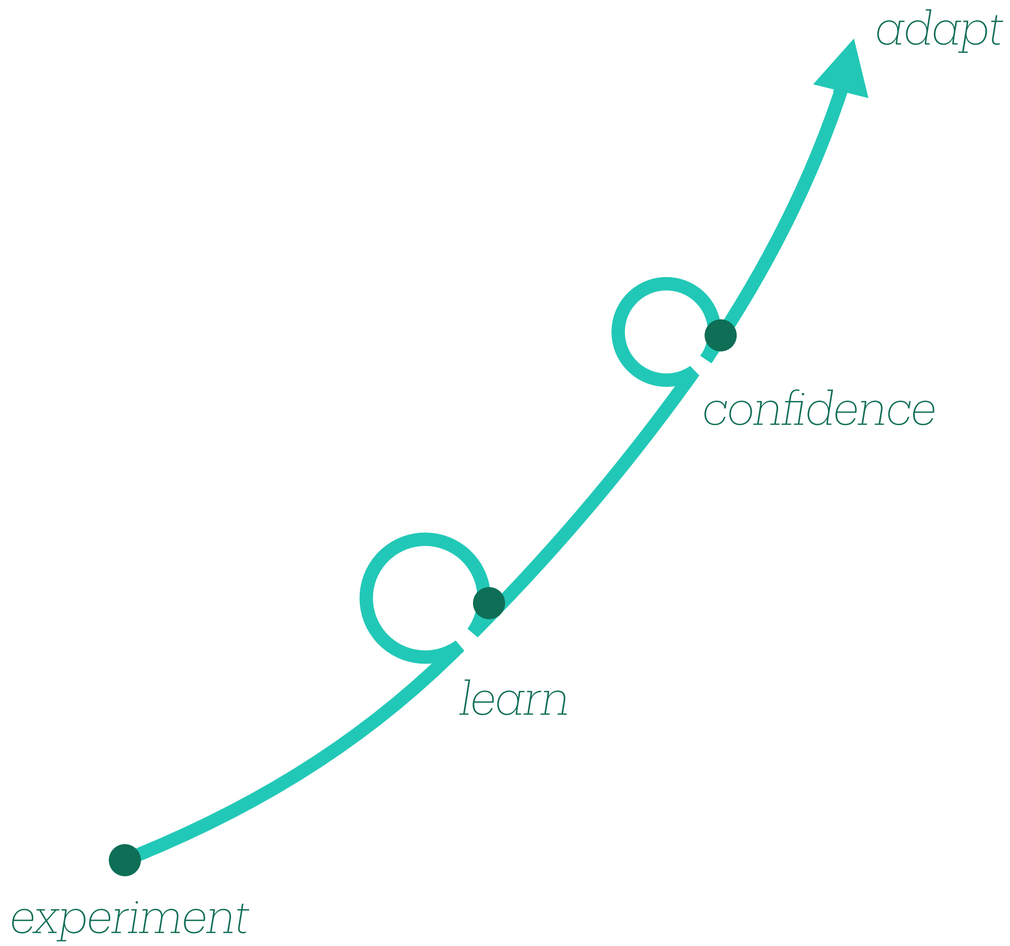
Note: This is a map, not a metric

Angie Jones, Block - AI Maturity Model (adapted from Steve Yegge's 8 levels of AI-assisted development)

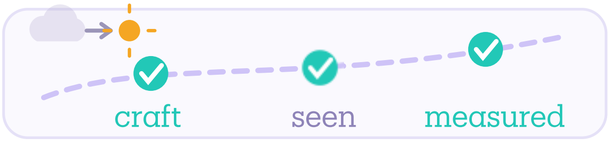
Mindset Over Circumstance

The strongest predictor isn't seniority, company size, gender, or tools -

It's self-efficacy.



For the Leaders in the Room



Create the conditions

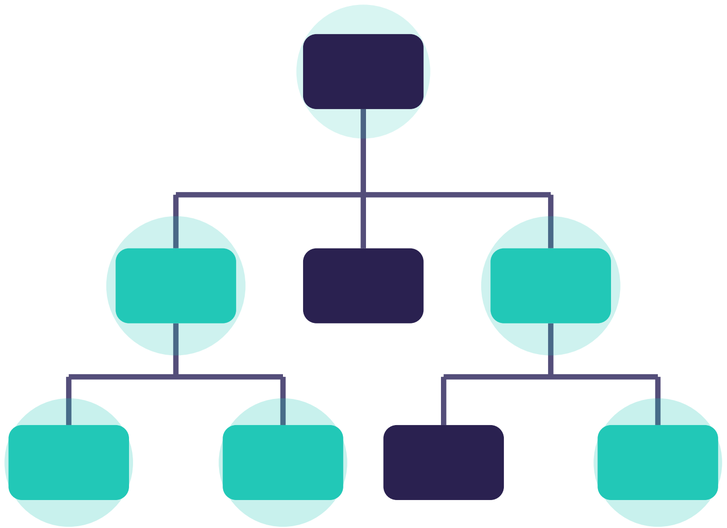
space, tools, safety -
paid hours, not free evenings

Contextualise it

team by team,
one stage at a time

Name what's possible

paint the picture,
create the pathways



The pockets of brilliance will spread

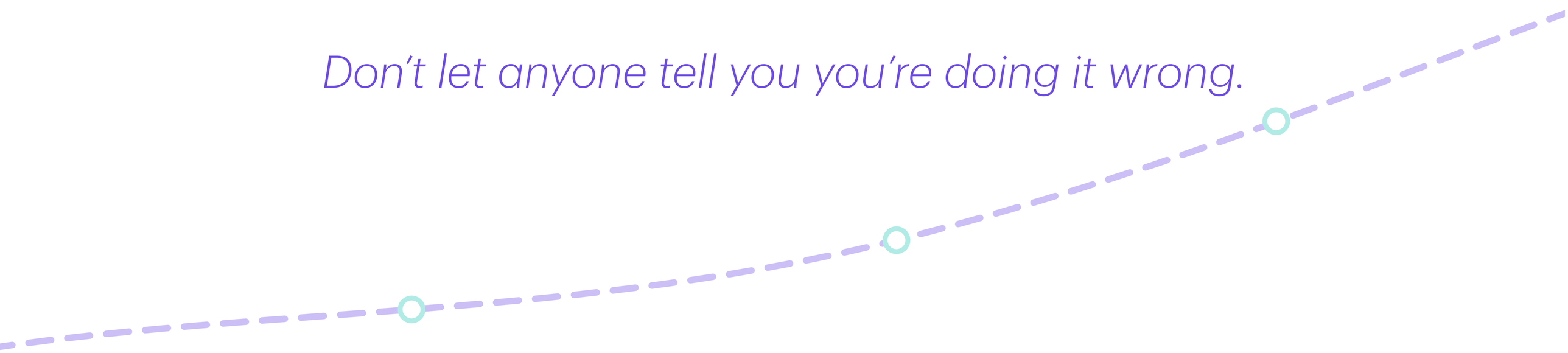
“We’re not losing the craft - we’re evolving it.”

… is a commitment,

not a ~~prediction~~

This journey is personal.
And it's all yours.

Don't let anyone tell you you're doing it wrong.



Thank you

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Longitudinal Study