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SWE-chat: Coding Agent Interactions From Real Users in the Wild

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In brief

SWE-chat is a living dataset of almost 18,000 real coding-agent sessions from open-source developers, with code authorship tracked between human and agent.

Why builders should care

The best public evidence on how people really use coding agents, and how much of the output survives.

The paper, in plain English

SWE-chat is the first large-scale dataset of real coding-agent sessions from open-source developers: almost 18,000 sessions, over 229,000 user prompts and 2 million agent tool calls, continually collected from public repositories.

Usage is bimodal: in 41% of sessions agents write virtually all committed code ('vibe coding'), while in 25% humans write all of it.

Agents remain inefficient in natural settings: only 59% of agent-produced code survives into commits, agent-written code introduces more security vulnerabilities than human-written code, and users push back (corrections, failure reports, interruptions) in 50% of turns.

How to apply it

1. Track code survival: what share of agent-written code makes it into commits.
2. Treat corrections and interruptions as a core product metric, not noise.
3. Add security review for agent-written code by default.
4. Design for both modes: hands-off generation and human-led coding with light assistance.

Key results

Quoted from the abstract

> *We find that coding patterns are bimodal: in 41% of sessions, agents author virtually all committed code ("vibe coding"), while in 25%, humans write all code themselves.*

> *Only 59% of all agent-produced code survives into user commits, and agent-written code introduces more security vulnerabilities than code authored by humans.*

> *Furthermore, users push back against agent outputs - through corrections, failure reports, and interruptions - in 50% of all turns.*

Summary written from the arXiv abstract. Read the original: https://arxiv.org/abs/2604.20779

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