

I ♥ Hacker News

Expanding Qualitative Research Findings by Analyzing Social News Websites

Titus Barik, Brittany Johnson, Emerson Murphy-Hill
ABB Corporate Research and North Carolina State University
tbarik@ncsu.edu



NC STATE UNIVERSITY

Introduction

The qualitative research method of *grounded theory* is time consuming and complex. Our approach makes this method more efficient by using **social news websites** as a **triangulation source** of knowledge.

Potential to capture a **broad range** of **software engineering experiences**.

Hacker News

- Hacker News new | threads | comments | show | ask | jobs | submit
1. ▲ Hack: A typeface designed for source code (sourcefoundry.org)
253 points by erickhill 5 hours ago | flag | 132 comments
 2. ▲ Windows Certificate Manager does not display the complete trust list
315 points by svenfaw 10 hours ago | flag | 77 comments
 3. ▲ Why telephone keypads are arranged the way they are (datagenetics.com)
40 points by squeakynick 7 hours ago | flag | 12 comments
 4. ▲ The Grid: Certainly Misguided, Probably a Scam (benhorrix.com)
147 points by dlbb 5 hours ago | flag | 54 comments
 5. ▲ Ideas are Cheap (jamisbuck.org)
27 points by jamis 1 hour ago | flag | 16 comments
 6. ▲ The Dictionary of Obscure Sorrows (dictionaryofobscuresorrows.com)
68 points by shadowfiend 6 hours ago | flag | 15 comments
 7. ▲ Slack, the Ultimate Workday Distractor (guilded.co)
17 points by guyroberts206 1 hour ago | flag | 7 comments
 8. ▲ FCC considering a proposal to lock down devices with a "modular wire"
172 points by thejosh 11 hours ago | flag | 117 comments

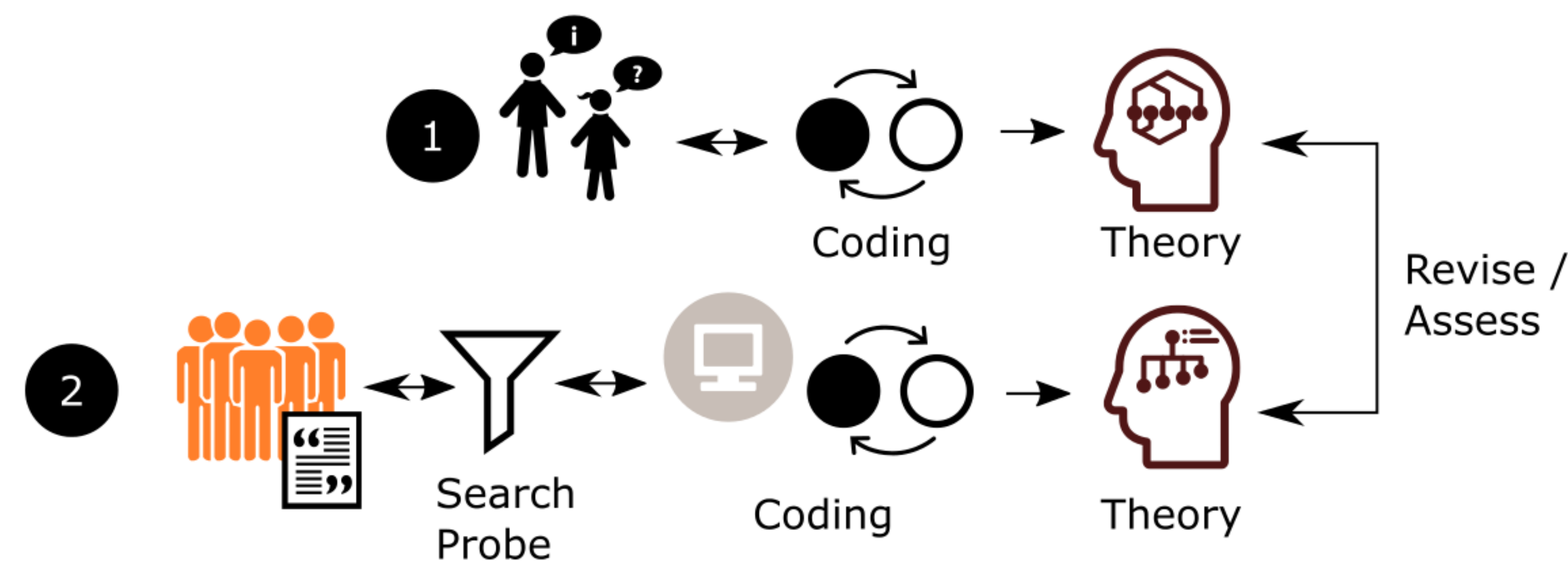
H static analysis tools

Search Stories ▾ by Popularity ▾ for All time ▾

Why Don't Software Developers Use **Static Analysis Tools** to Find Bugs?
107 points | cpeterso | 2 months ago | 121 comments | (<http://www.viva64.com/en/b/0335/>)

Manual code review and **static** code **analysis tools**
8 points | mfocaraccio | 7 months ago | 7 comments

Method



Proposal: Filtering and topic analysis of user comments are automatically or semi-automatically performed, using techniques from knowledge discovery and databases (KDD).

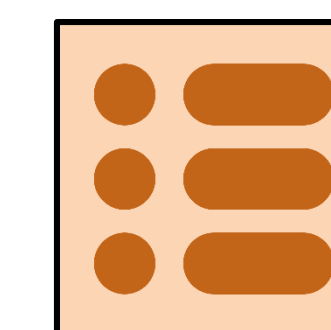
Contribution: New tools, incorporating social news websites, for qualitative researchers.

Case Study: Static Analysis Tools (Johnson and colleagues, 2013)

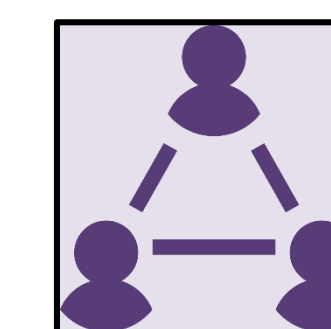
Expanded Challenges

Tool Output*
Collaboration*
Customization*
Awareness
Cost
Ego
Management
Maintenance
Performance
Security

* Identified in original study.



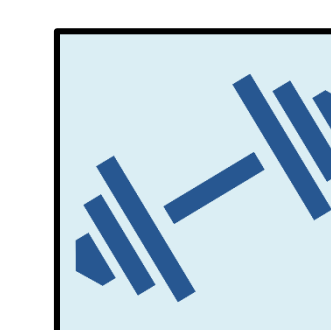
[Tool Output] "I **hated** every attempt at static analysis **until** I started programming with **Xcode**. In my usage, Build and Analyze is **always right** — that's the **difference**. Other tools (**lint**, **FXCop**) are **too noisy**." (HN 4849800)



[Collaboration] "Where a static analysis tool can **help** is ... it's a way to **enforce** ... practices **without requiring** one of your **senior developers** to be able and willing to read over your **junior devs'** code." (HN 305395)



[Cost] "Pretty much **SonarQube** is the only tool I have found and it's somewhat **annoying** as a **few plugins** are **commercial** and **very expensive**." (HN 8568574)



[Ego] "**Unfortunately**, the decision to use static analysis tools would have to come from developers who are **comfortable admitting** they make **mistakes** sometimes." (HN 7283205)