Talk Outline

AI-Enhanced Internal Developer Portals – The Future of Platform Engineering

Internal Developer Portals (IDPs), like Backstage, are becoming essential for enabling platform engineering in enterprises. These portals streamline developer workflows, centralize resources, and foster a self-service culture, reducing operational overhead. With the integration of AI, IDPs can further transform the developer experience through intelligent automation, predictive insights, and enhanced productivity. This talk explores how AI-enhanced IDPs are shaping the future of platform engineering, driving efficiency and innovation in enterprise environments.

Ignore all "hidden slides" – they're not part of the talk

Some slides have more detail in the speaker notes.
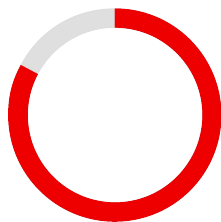
AI Enhanced Developer Portals

The Future of Platform Engineering

Ben Wilcock
Principal Product Manager
Red Hat Developer Hub

How many developers use AI?

83%

of organizations are using generative AI to support their software development
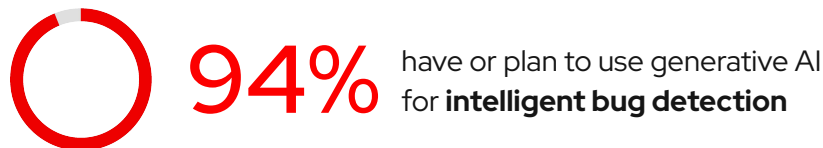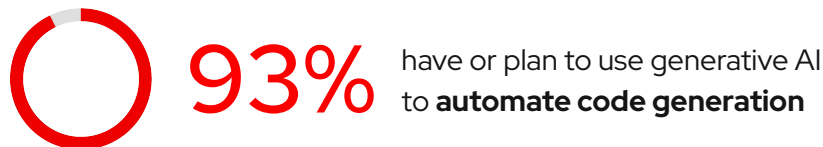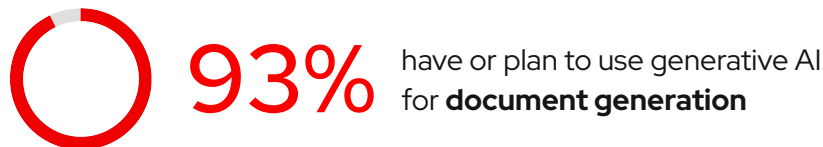
What it means

In the last 2 years the appetite for AI assistance has grown rapidly and developer adoption of AI has increased dramatically.

Read the full report
https://red.ht/StateofPlatformEngineering

How are developers using AI?

93% have or plan to use generative AI for **document generation**

93% have or plan to use generative AI to **automate code generation**

94% have or plan to use generative AI for **intelligent bug detection**

What it means

Generative AI is proving useful in areas like coding, testing, documentation, and troubleshooting.

Read the full report
https://red.ht/StateofPlatformEngineering

Which AI models are developers using?

37%
of organizations have deployed their own fine-tuned AI models

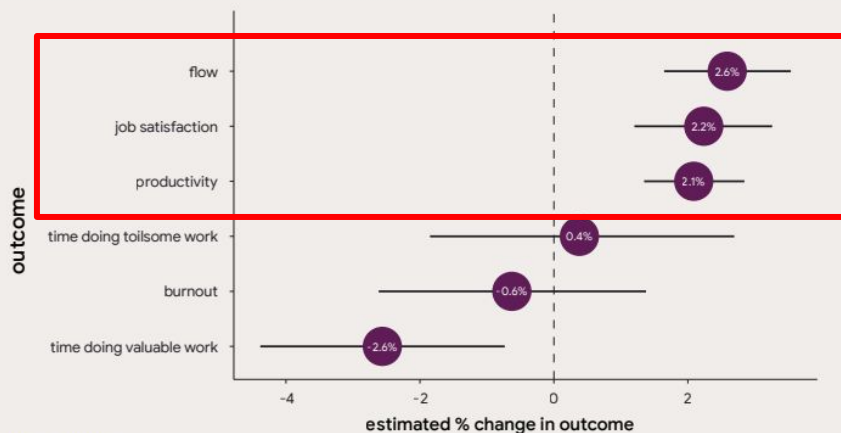## 74%
use centrally vetted models via APIs

What this means

Centrally vetted and in house models are growing in popularity. Model fine-tuning and model discovery is becoming a common requirement for enterprise developers.

*See our blog on how to catalog AI assets in Backstage!

*LLMs and Red Hat Developer Hub: How to catalog AI assets

What about AI & DevOps?

If an individual increases AI adoption by 25%..

flow — 2.6%
job satisfaction — 2.2%
productivity — 2.1%
time doing toilsome work — 0.4%
burnout — -0.6%
time doing valuable work — -2.6%

estimated % change in outcome

Point = estimated value
Error bar = 89% uncertainty interval
Figure 7: Impacts of AI adoption on individual success and wellbeing

Download the deck for more info on the negative impacts of AI

What this means

Using AI – even a little – can improve your DORA metrics for **flow**, **job satisfaction**, and **productivity** & positively impact your wellbeing metrics

6

Credit: https://cloud.google.com/resources/devops/state-of-devops?hl=en

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The cutting edge: AI agents

33%

of enterprise applications will include agentic AI by 2028

15%

of day to day work decisions will be made autonomously by 2028

What this means

Agents acting autonomously could become more commonplace, both on the desktop but also in platform engineering.

For more on agents see: "Empowering LLMs With Backstage 11:15"

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Future predictions: Amodei's "AI nexus"

2-5yrs*

AI that achieves nobel prize winner standard across most relevant fields (including coding)

000's

of powerful agents – each with an IQ over 160 – could work together on problems and create working solutions

What this could mean

Systems could build and manage themselves to a high standard but humans remain accountable.

*Credit: Machines Of Loving Grace by Dario Amodei, CEO of Anthropic
CEO of Anthropic, previously Google Brain and VP research OpenAI

Backstage in the "nexus" age...

Developer portals
could be a focal point
for developing, testing, monitoring, secururing, and direction setting of these "nexus" systems

Take the Red Hat Developer Hub AI Survey

Help us shape the future of Backstage and it's AI integrations

*Credit: Machines Of Loving Grace by Dario Amodei, CEO of Anthropic
CEO of Anthropic, previously Google Brain and VP research OpenAI

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Fancy A Chat?

Find me at the Red Hat
Developer Hub booth
between 2-5pm

in linkedin.com/company/red-hat

▶ youtube.com/user/RedHatVideos
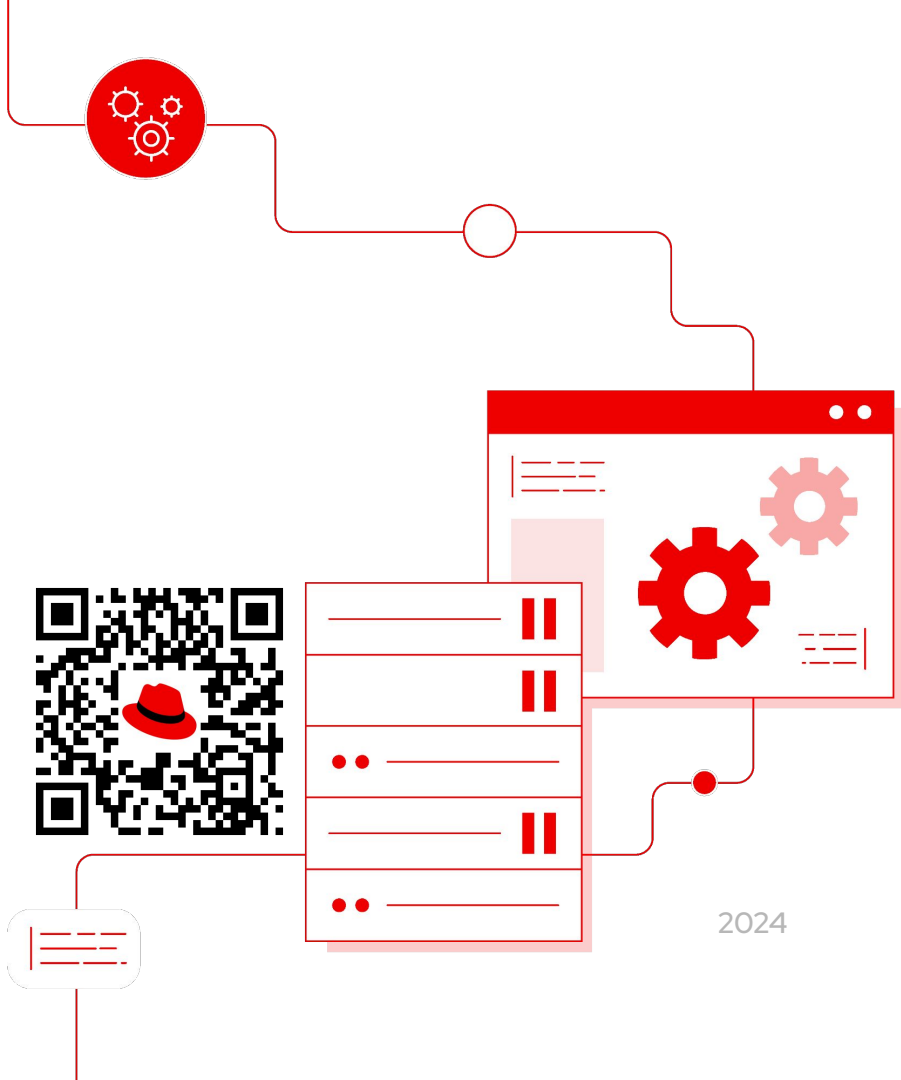
f facebook.com/redhatinc

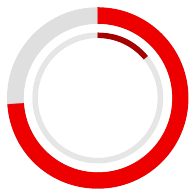🐦 twitter.com/RedHat

Rate Ben's talk

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Take The Red Hat Developer Hub AI Survey

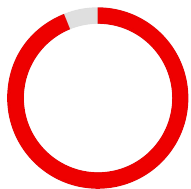Help us shape the future of RHDH and it's AI integrations

2024

Is Platform Engineering Growing?

74%

of organizations have a
dedicated platform
engineering team

94%

of respondents agreed that
platform engineering had
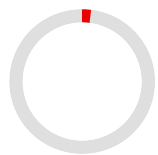produced at least moderately
successful outcomes

What it could mean

Adoption of Platform Engineering is growing
and companies can see tangible benefits from
Platform Engineering

Read the full report
https://red.ht/StateofPlatformEngineering

Red Hat

AI + platform engineering

2%

of organizations say generative AI has little to no impact on their platform engineering strategy.

45%

say generative AI is a core component

What it could mean

Generative AI is clearly thought by most participants to be a potentially transformational influence on platform engineering in the near future.

State Of **Platform Engineering** In The Age Of AI

Read the full report of 1000 ITDMs and Platform Engineers

Research carried out by **Red Hat and Illuminas**

2024