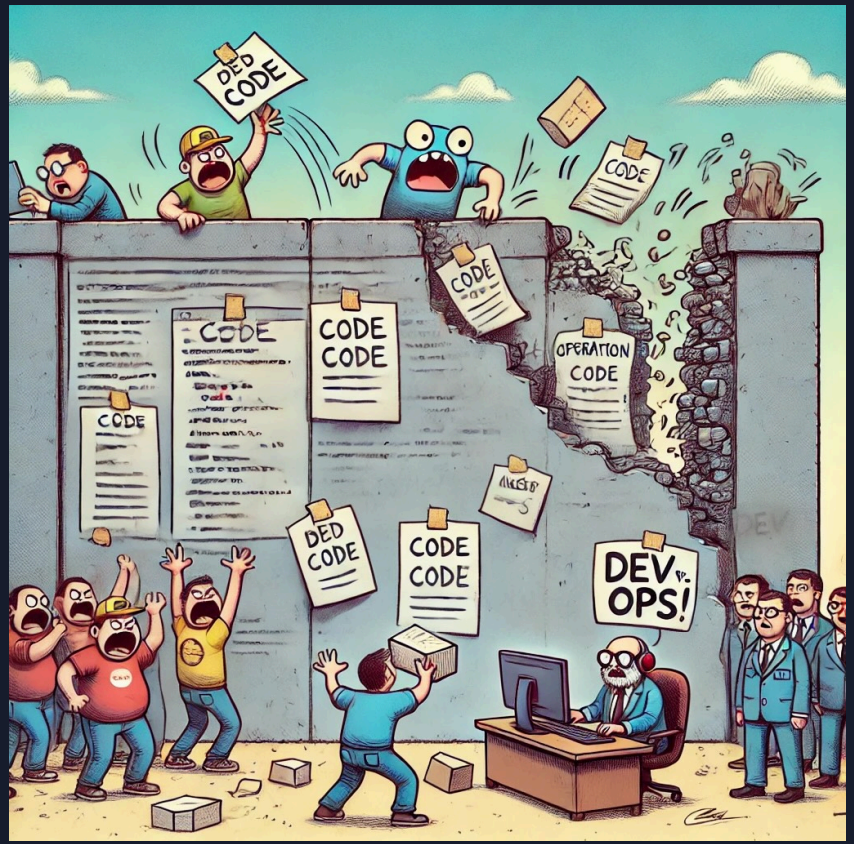
The Human Factor in DevOps…

Because Even 🤖 Need Good Teammates (Almost)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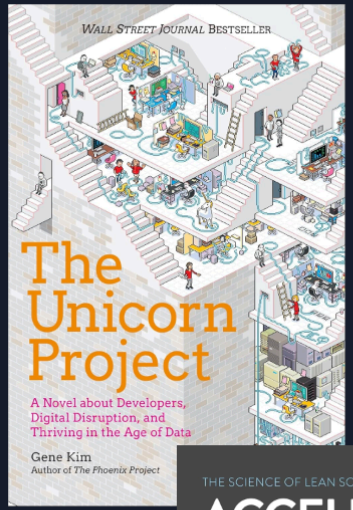
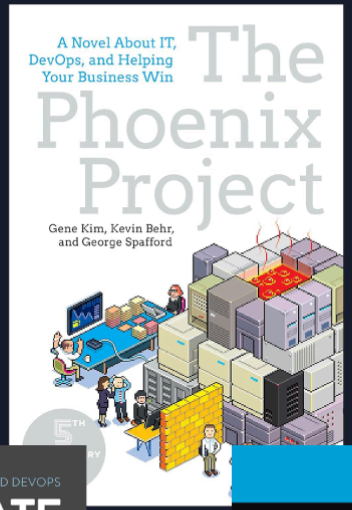
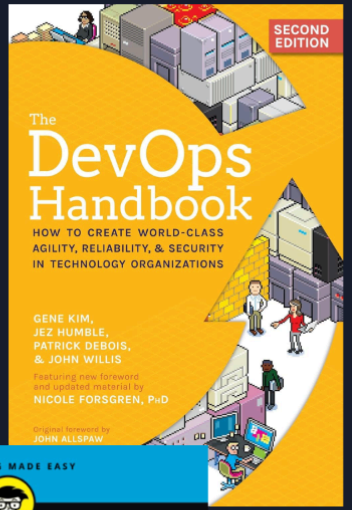
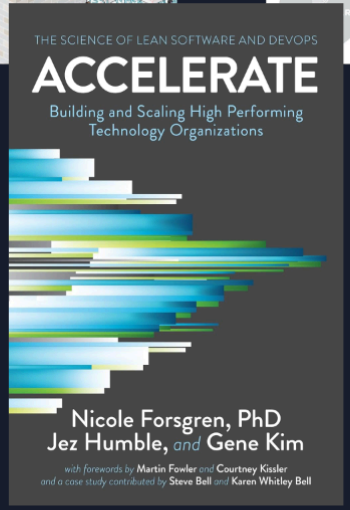
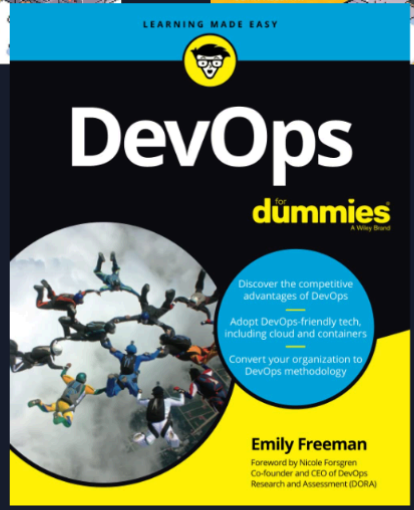
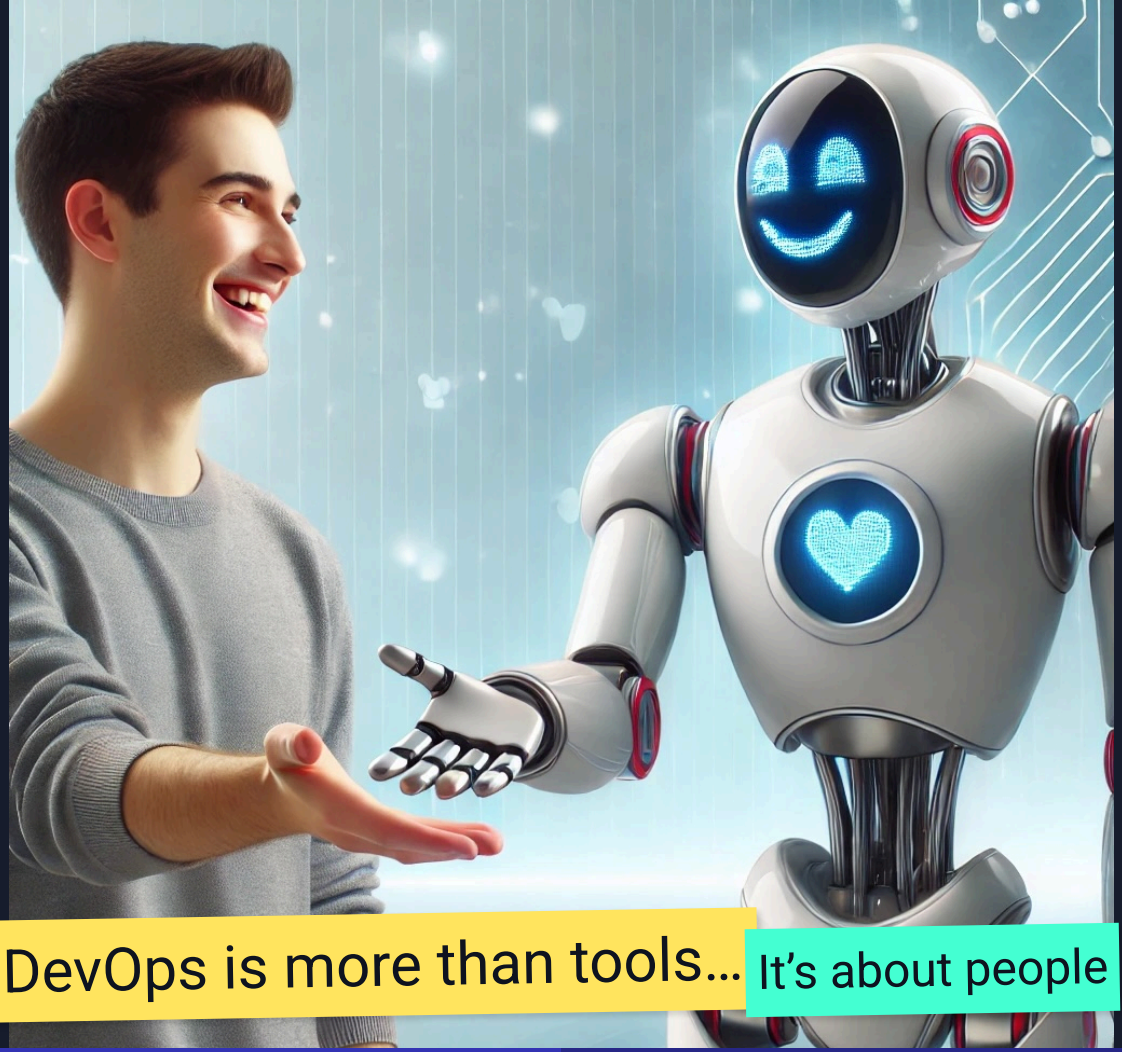

Wall Street Journal Bestseller
The Unicorn Project
A Novel about Developers, Digital Disruption, and Thriving in the Age of Data
Gene Kim
Author of The Phoenix Project


A Novel About IT, DevOps, and Helping Your Business Win
The Phoenix Project
Gene Kim, Kevin Behr, and George Spafford


SECOND EDITION
The DevOps Handbook
HOW TO CREATE WORLD-CLASS AGILITY, RELIABILITY, & SECURITY IN TECHNOLOGY ORGANIZATIONS
GENE KIM, JEZ HUMBLE, PATRICK DEBOIS, & JOHN WILLIS
Featuring new foreword and updated material by
NICOLE FORSGREN, PhD
Original foreword by
JOHN ALLSPAW


THE SCIENCE OF LEAN SOFTWARE AND DEVOPS
ACCELERATE
Building and Scaling High Performing Technology Organizations
Nicole Forsgren, PhD
Jez Humble, and Gene Kim
with forewords by Martin Fowler and Courtney Kissler
and a case study contributed by Steve Bell and Karen Whitley Bell


LEARNING MADE EASY
DevOps
for dummies
Discover the competitive advantages of DevOps
Adopt DevOps-friendly tech, including cloud and containers
Convert your organization to DevOps methodology
Emily Freeman
Foreword by Nicole Forsgren
Co-founder and CEO of DevOps Research and Assessment (DORA)


DevOps is more than tools...
It's about people

Jeremy Meiss

Director, DevEx & DevRel

OneStream Software

DevOpsDays KC Organizer

The Human Factor in DevOps

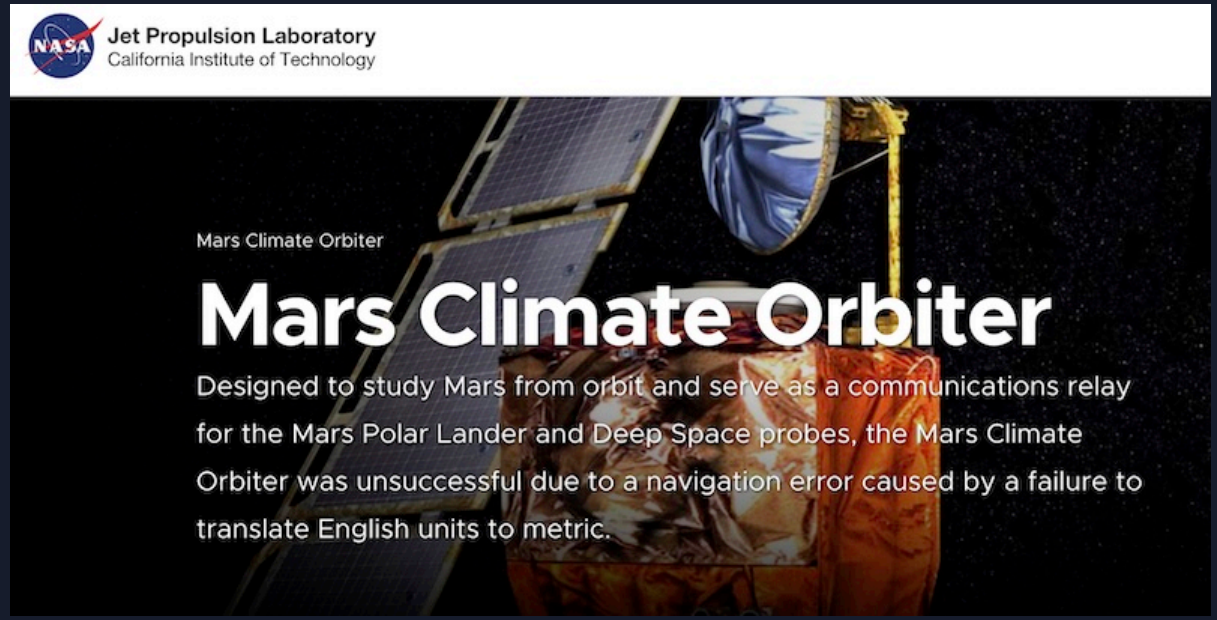
It starts with people...

The Human Factor in DevOps

Communication & Teamwork breakdowns

Common Causes of *Communication* Breakdowns

- Conflicting Ideas and Poor Collaboration
- Barriers to Cross-Cultural and Linguistic Communication
- Ineffective Organizational Structures and Communication Processes
- Ambiguous Project Requirements and Technical Miscommunication



Source: JPL, NASA

> *"The 'root cause' of the loss of the spacecraft was the failed translation of English units into metric units in a segment of ground-based, navigation-related mission software..."*

Arthur Stephenson, chairman of the Mars Climate Orbiter Mission Failure Investigation Board

Common Causes of *Communication* Breakdowns

- Conflicting Ideas and Poor Collaboration
- Barriers to Cross-Cultural and Linguistic Communication
- Ineffective Organizational Structures and Communication Processes
- Ambiguous Project Requirements and Technical Miscommunication
- Communication Skill Deficiencies and Overload

Common Causes of *Teamwork* Breakdowns

- Lack of shared understanding and commitment
- Team size and dynamics

The Ringlemann Effect

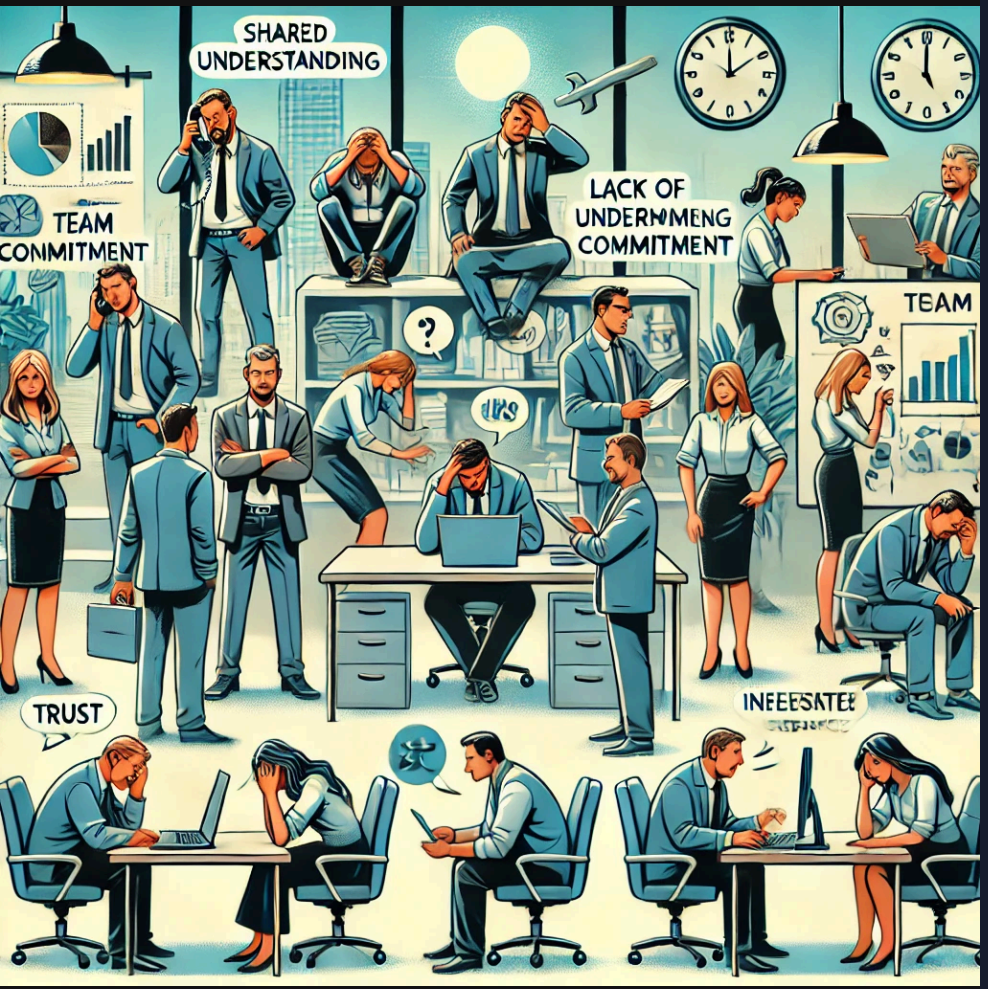
Ringelmann effect

Article Talk

From Wikipedia, the free encyclopedia

The **Ringelmann effect** is the tendency for individual members of a group to become increasingly less productive as the size of their group increases.[1] This effect, discovered by French agricultural engineer Maximilien Ringelmann (1861–1931), illustrates the inverse relationship that exists between the size of a group and the magnitude of group members' individual contribution to the completion of a task. While studying the relationship between process loss (i.e., reductions in performance effectiveness or efficiency) and group productivity, Ringelmann (1913) found that having group members work together on a task (e.g., pulling a rope) actually results in significantly less effort than when individual members are acting alone. Ringelmann discovered that as more and more people are added to a group, the group often becomes increasingly inefficient, ultimately violating the notion that group effort and team participation reliably leads to increased effort on behalf of the members.[1][2]

Source: Wikipedia



Common Causes of *Teamwork* Breakdowns

- Lack of shared understanding and commitment
- Team size and dynamics
- Lack of trust
- Insuffient resources
- Unclear goals and expectations

Communication & Teamwork breakdowns?

Improve the Human Factor.

Improving the Human Factor in DevOps

Fostering Open and Honest Communication

Fostering Open and Honest Communication

Establish Clear Communication Guidelines

- Appropriate communication channels
- Expected response times
- Meeting etiquette
- Concise and solution-oriented communication

Fostering Open and Honest Communication

Break Down Information Barriers

- Encourage Documentation
- Use Knowledge Sharing Platforms
- Promote Cross-Team Communication
- Simplify Technical Talk

Fostering Open and Honest Communication

Use the Right Tools

- Choose Tools that Meet Team Needs
- Integrate Tools for Seamless Workflow
- Provide Training and Support

Fostering Open and Honest Communication

Promote Critical Thinking

- Encourage Questioning and Analysis
- Provide Opportunities for Collaborative Problem-Solving
- Emphasize Continuous Improvement

Fostering Open and Honest Communication

Practice Open Communication and Active Listening

- Encourage Feedback and Open Dialogue
- Value Diverse Perspectives
- Provide Training on Active Listening Techniques
- Address Conflicts Constructively

About Constructive Conflict Resolution…

- Focus on Shared Goals
- Empathy and Perspective-Taking
- Collaborative Problem-Solving
- Mediation and Facilitation

The Human Factor in DevOps

Building a Culture of Value and Recognition

- Regular Appreciation
- Growth Opportunities
- Inclusive Environment
- Celebrate Successes

The *Human* Factor in DevOps

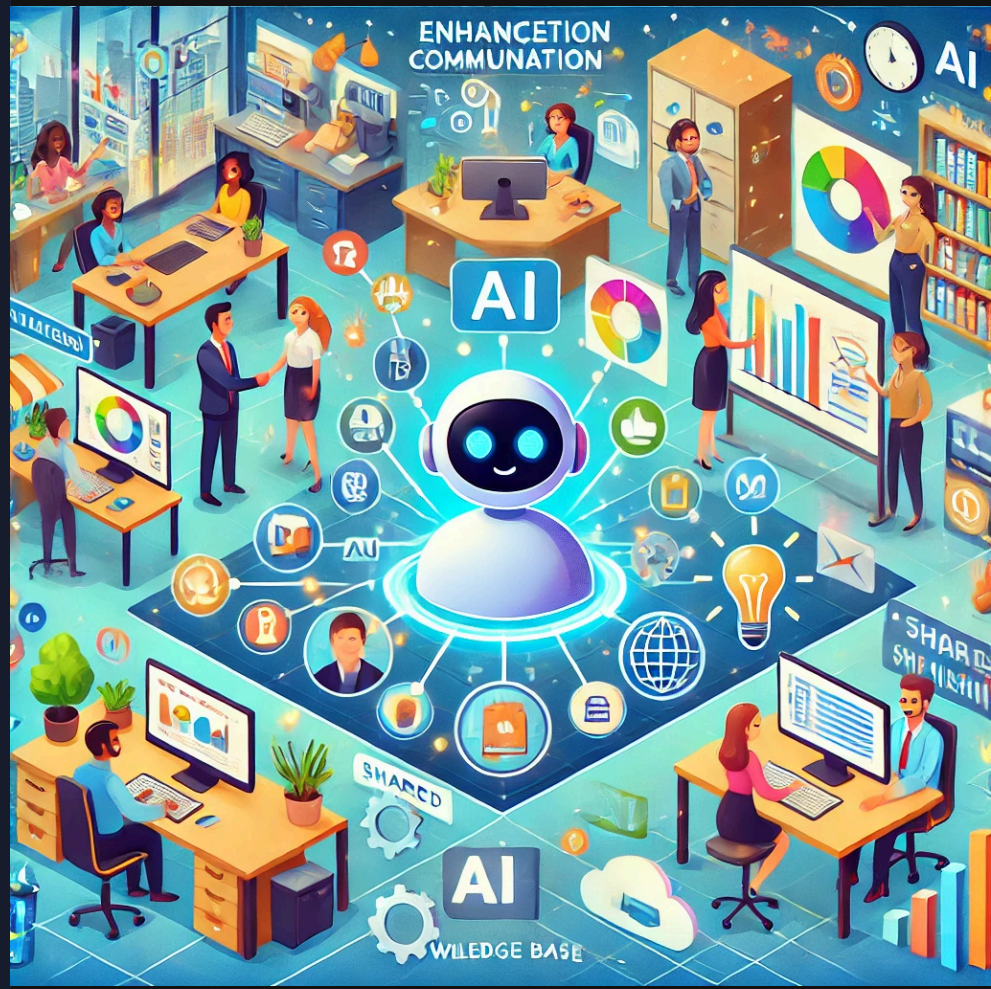
Even 🤖's Can be a Good Teammate (Mostly)

AI’s impact on teams

AI’s impact on teams

Positive Impacts

- Enhanced communication
- Automated scheduling and coordination
- Shared knowledge bases
- Improved collaboration and efficiency
- Data-driven decision-making and innovation



AI's impact on teams

Negative Impacts

- Reduced casual interactions
- Over-reliance on technology
- Potential job displacement
- Bias and discrimination
- Distrust of AI

> "...even in a task where AI outperforms humans, the replacement of a human player by an automated videogame agent decreases team performance.
> While automation may improve performance in tasks suited to machine learning, we posit that their introduction presents a larger trade-off by disrupting these routines."

Dell'Acqua, Fabrizio and *Kogut, Bruce* and *Perkowski, Patryk* (December 21, 2022).
Super Mario Meets AI: Experimental Effects of Automation and Skills on Team Performance and Coordination.
Review of Economics and Statistics, Available at SSRN: https://ssrn.com/abstract=3746564

The rapid rise in artificial intelligence (AI) has created many opportunities globally, from facilitating healthcare diagnoses to enabling human connections through social media and creating labour efficiencies through automated tasks.

However, these rapid changes also raise profound ethical concerns. These arise from the potential AI systems have to embed biases, contribute to climate degradation, threaten human rights and more. Such risks associated with AI have already begun to compound on top of existing inequalities, resulting in further harm to already marginalised groups.

Source: UNESCO

Ethical considerations for AI in team communication

- Data privacy and security
- Transparency
- Fairness and bias
- Accountability
- Employee involvement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Meeting Summary
Otter.AI
9:9
Speaker Highlights
Action Items
Speaker
Action Itemts
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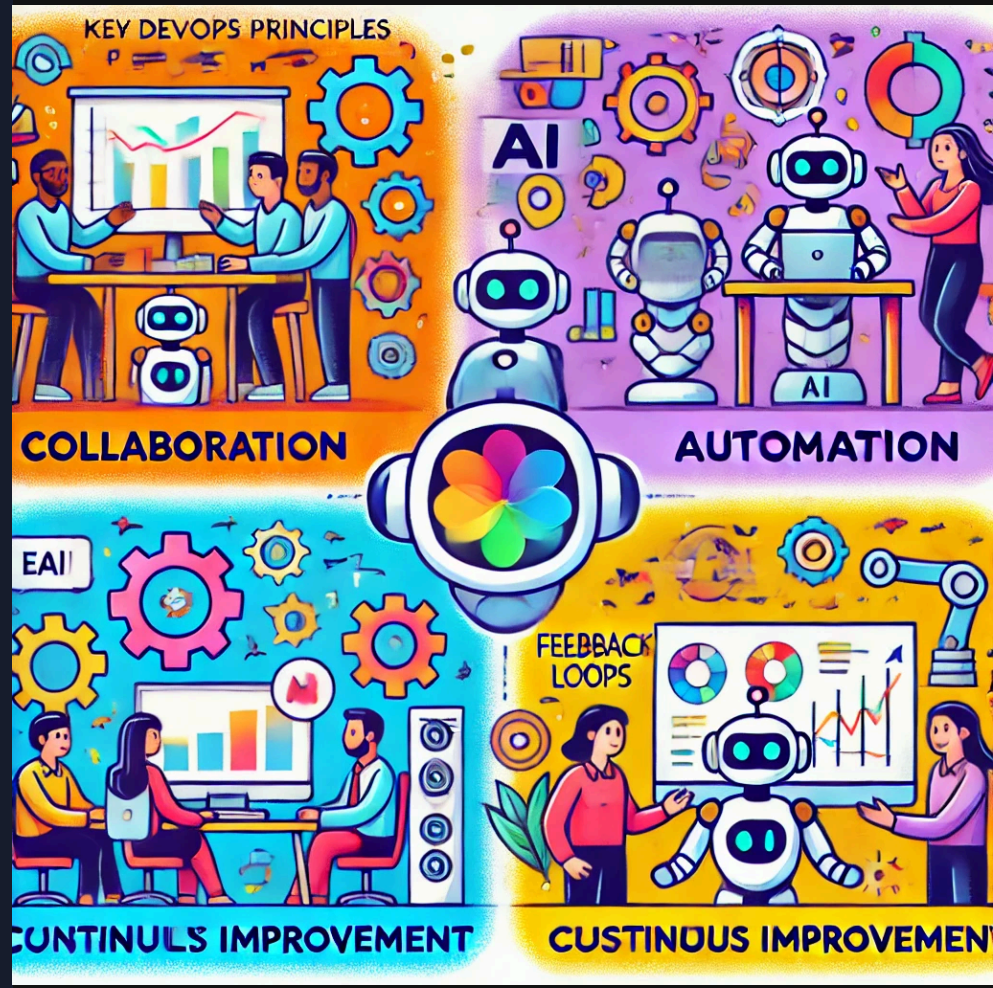
Keen Terms

The *Human* in DevOps

Applying DevOps Principles to AI

- **Collaboration:** Break down silos, foster teamwork to ensure AI success.
- **Automation:** Streamline workflows by automating tasks to boost productivity.
- **Continuous Improvement:** Iteratively refine AI tools through constant monitoring & feedback.
- **Feedback Loops:** Gather & implement customer feedback to enhance user experience via AI.



The *Human* in DevOps…

Can also apply to your 🤖 teammate

Thank you!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@jerdog


@jerdog@hachyderm.io

jmeiss.me


~~@IAmJerdog~~

END