jama software

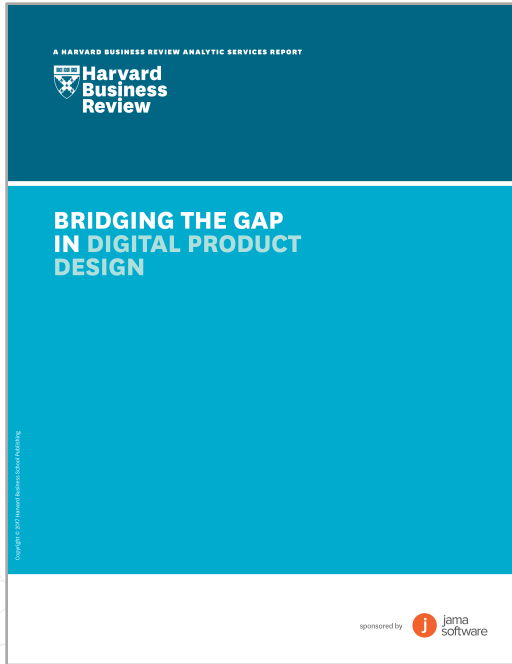# The Rise of Smart, Connected Products and the Challenge to Build Them

Scott Roth
CEO, Jama Software
7/12/17

# Methodology and Survey Respondents

A HARVARD BUSINESS REVIEW ANALYTIC SERVICES REPORT

Harvard Business Review

BRIDGING THE GAP IN DIGITAL PRODUCT DESIGN

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sponsored by **jama** software

285 respondents from *Harvard Business Review* audience of readers

56% high-level executives

49% manufacturing, technology, healthcare, and financial services

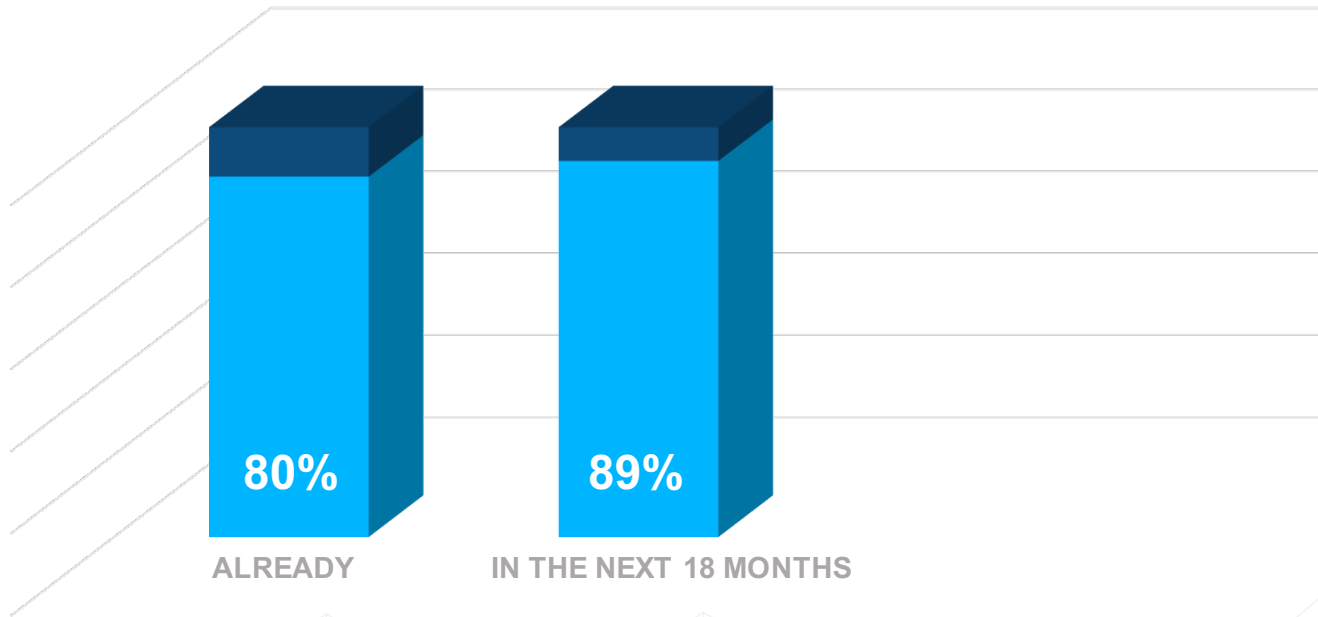**Get the report: jamasoftware.com/HBR**

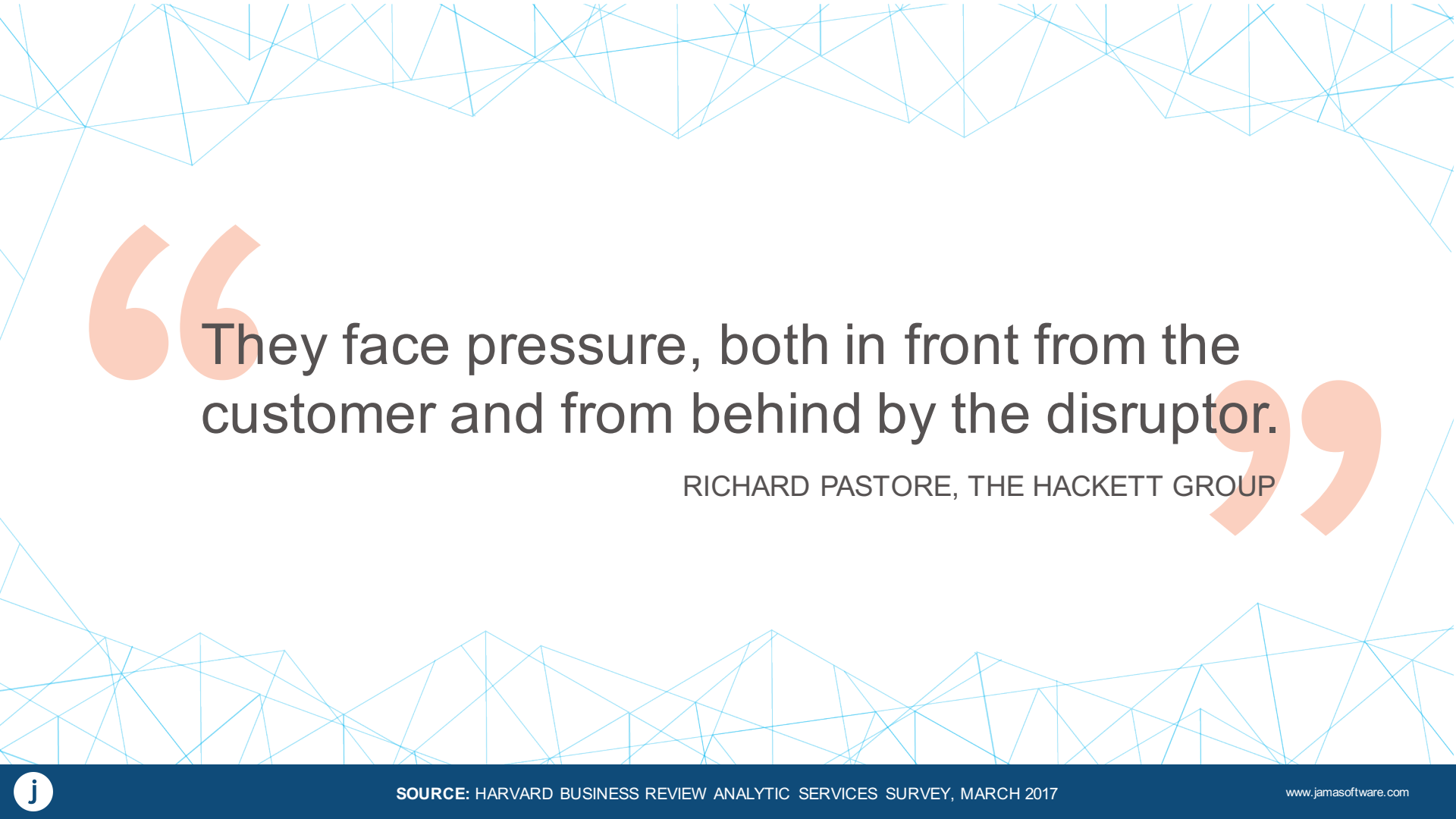# Digital Transformation: Here and Now
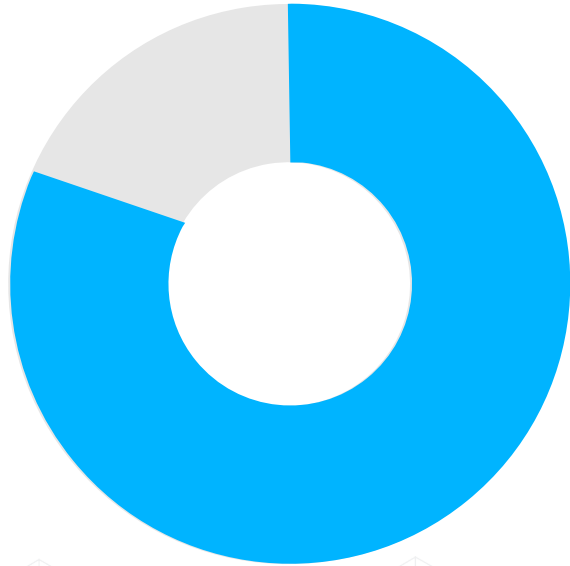
86%

of survey respondents said they're either implementing digital products now or planning to do so in the future

The Increasing Time-to-Market Pressure

80%

ALREADY

89%

IN THE NEXT 18 MONTHS

■ Somewhat or significantly increased time-to-market-pressure   ■ No increased pressure

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> " They face pressure, both in front from the customer and from behind by the disruptor. "

RICHARD PASTORE, THE HACKETT GROUP

From Marketing Tech to Product Development

Jama Software is the Product Development Platform for companies building software-driven, connected products.

80%
4-Year Subscription
Revenue CAGR

550+
Customers

140+
Employees

$30M
Capital Raised

Jama Product Development Platform

Requirements Management	Test Case Management	Workflow Management	Compliance Management	Product Line Management

Platform

Live, real-time traceability

Product collaboration and reviews

Reporting and analytics

Test execution

Integration Hub & API's

Top Challenges of Going Digital

GOING DIGITAL'S BIGGEST CHALLENGE

Percentage of respondents stating the biggest challenges that their product developers face in the application of digital technologies to the product/service development process

38
While new smart products must work within a diverse ecosystem of other connected products, planning for those complex interactions is a challenge.

34
Traditional design methodologies for physical products often conflict with more agile methodologies required for digital transformation.

24
Hiring and/or training engineering talent for digital transformation are difficult.

24
With sensors gathering large amounts of customer data, planning to manage and secure this data requires a serious effort.

20
The methodologies for co-developing physical products that are digitally transformed are still immature.

18
The tools for co-developing physical products, software, and other digital elements are still immature.

14
The sensors, software, platforms, and other components for digital transformation change too quickly and unpredictably.

10
Engineers who work on physical products don't communicate well with software (digital) engineers, and vice versa.

1 **Platform & Ecosystem Thinking**

38%

While new smart products must work within a diverse ecosystem of other connected products, planning for those complex interactions is a challenge

2 **Conflicting Methodologies**

34%

Traditional design methodologies for physical products often conflict with more agile methodologies required for digital transformation

" There is a constant pull between the hardware and software teams, and their goals are not always the same. "

Jonathan Sweedler, NVIDIA
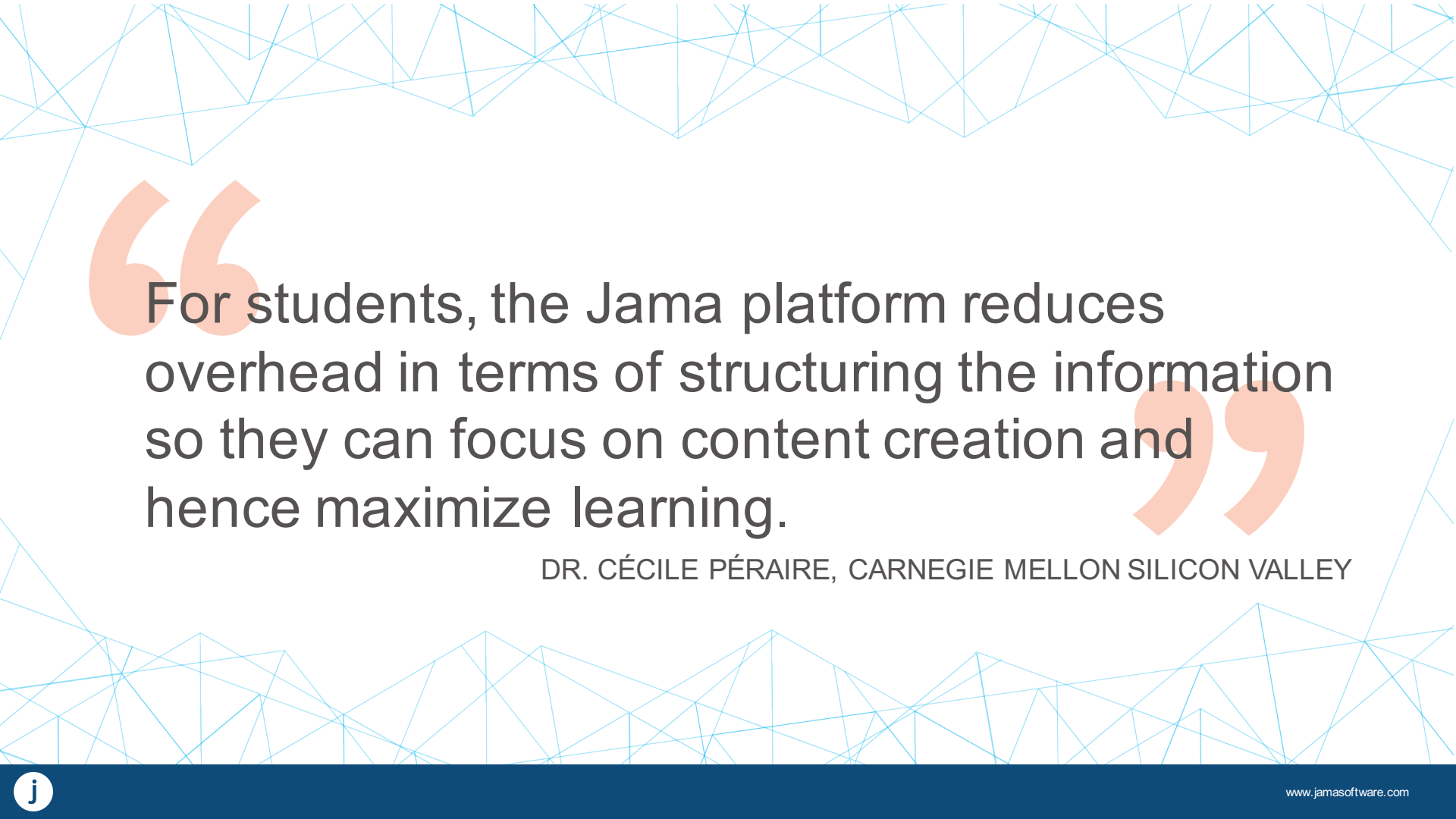
3 **Attracting Qualified Talent**

24%

Hiring and/or training engineering talent for digital transformation is very difficult

54% Strongly or somewhat agree:

We often encounter difficulty recruiting and hiring qualified software engineers to implement digital technologies
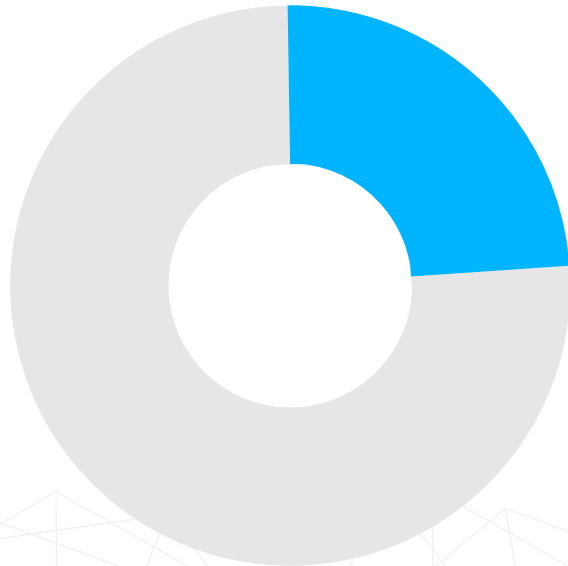
Jama for Education

" For students, the Jama platform reduces overhead in terms of structuring the information so they can focus on content creation and hence maximize learning. "

DR. CÉCILE PÉRAIRE, CARNEGIE MELLON SILICON VALLEY

4 **Managing and Securing Customer Data**

24%

with sensors gathering large amounts of customer data, planning to manage and secure this data requires a serious effort

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5 Immature methods for co-developing digitally-infused physical products

20%

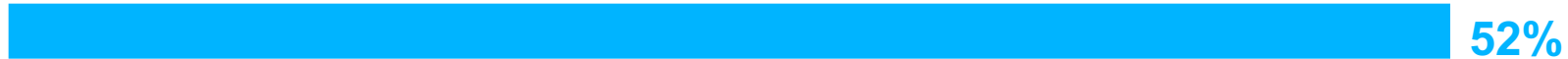The methodologies for co-developing physical products, software, and other digital elements are still immature
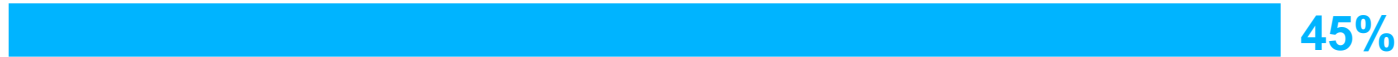
The Path To Building Better Products Faster

Adapting to Change

Percentage of respondents undertaking these activities to improve their ability to implement digital technologies in the next two years

52%

Partner with appropriate software or other companies to assist with our digital transformation

45%

Adopt new development methodologies that bridge the differences between physical product design and digital design

35%

Acquire appropriate software or companies that are a good fit

Three Keys to Success: Take a Systems Approach

Old Dumb Bulb

New Lighting Ecosystem

- LED illumination
- Radio, connectivity, embedded processor
- App to control hue
- Talks with home automation system to turn itself on and off automatically
- Orders replacement for itself
- Consumes 90% less power

Three Keys to Success: Unlock Collaboration

FORRESTER®

State of Modern Product Delivery

87% of companies have multiple teams building their products

Three Keys to Success: Leverage Real Time Visibility & Information

PROCESS IMPACT

When Bad Requirements Happen to Nice People

Rework can consume **30 to 50 percent** of total development cost. Requirements errors account for 70 to 85 percent of the rework cost

Leaders Unlocking Success

Panasonic and the State of Colorado

Schneider Electric and Hilton Hotels

NVIDIA

Key Takeaways

- The number of companies developing complex digital products is growing and it's not going to stop

- Digital product design is still a young discipline and the pressure is increasing to get it right, quickly

- Top challenges of developing digitally infused physical products are company-wide & need executive-level support

- Winning organizations are digitally transforming their product development process into a competitive advantage

Thank you!

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