MEDINFO23

8 – 12 JULY 2023 | SYDNEY, AUSTRALIA

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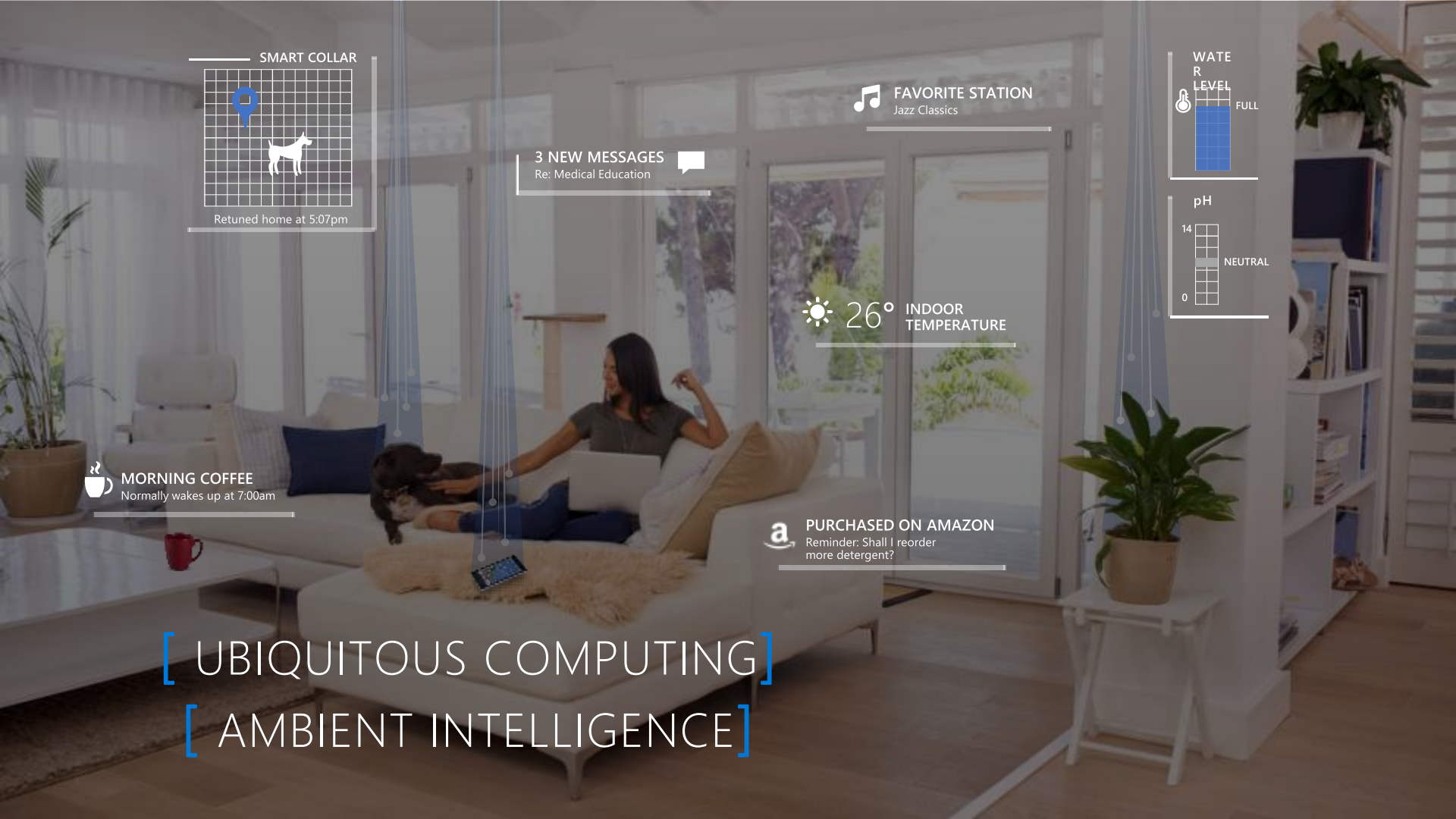
Beyond the EMR

How voice recognition and AI turn Promise into Productivity

Dr. Simon Kos

Chief Medical Officer

Microsoft ANZ


SMART COLLAR
Retuned home at 5:07pm
3 NEW MESSAGES
Re: Medical Education
FAVORITE STATION
Jazz Classics
WATE
R
LEVEL
FULL
pH
14
NEUTRAL
0
26°
INDOOR
TEMPERATURE
MORNING COFFEE
Normally wakes up at 7:00am
PURCHASED ON AMAZON
Reminder: Shall I reorder
more detergent?
[UBIQUITOUS COMPUTING]
[AMBIENT INTELLIGENCE]

Meanwhile,
care teams struggle to easily access patient information, collaborate across disciplines and care organisations, and coordinate internal workflows

Challenges extend across the care continuum

Patient/consumer experience

"Why is it so hard to navigate the health system?"

- I want to be able to access my information and manage it myself
- I want health to be more like online banking
- I feel like I've disappeared into a digital 'black hole' and I'm not sure that real people are looking out for me

Clinical Experience

"Why doesn't technology seem to make my job any easier?"

- I want technology to be mobile, support my workflow and help me connect with colleagues
- I'm frustrated by multiple systems and sign-ons
- I'm drowning in data but I don't get useful insights that assist my decision making

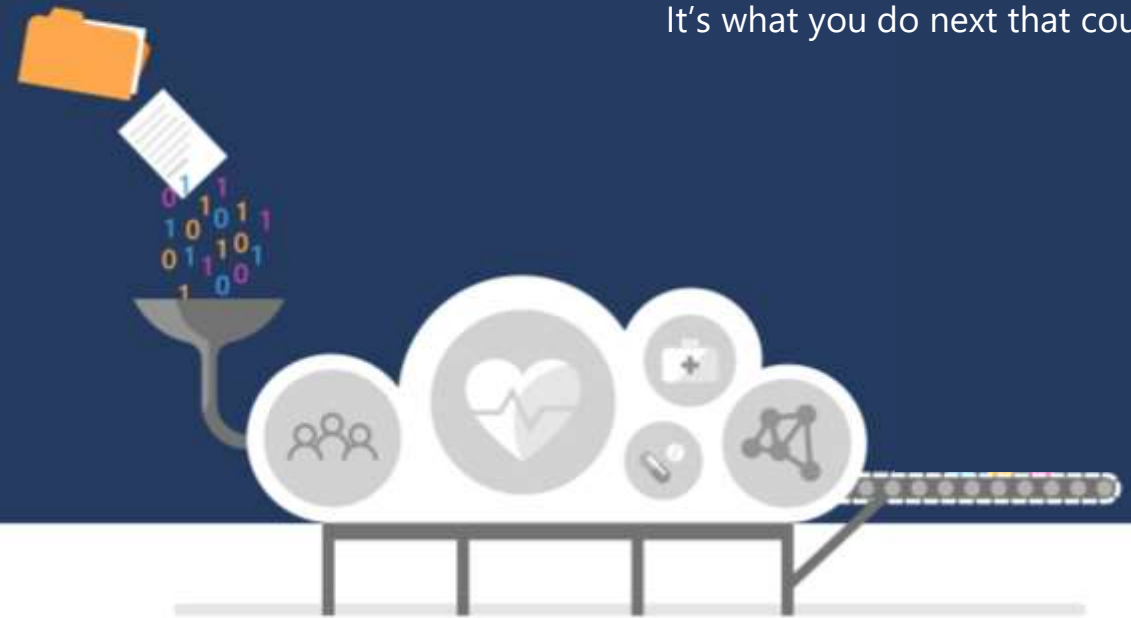
Healthcare organisation

"Where can I get the information I need to make the right decisions?"

- I see many chronic diseases that could have been managed proactively in the community
- I don't have the right real-time data and analysis to identify and manage issues
- I need to implement new models of care, but I'm too busy juggling patient demand, workforce shortages and quality issues
- I need to manage cyber threats

Digitisation is not transformation

It's what you do next that counts…



Systems of record

Convert paper records and manual processes into useable digital records with the benefits of legibility, accessibility, availability and additional security.

Systems of insight

Aggregate information from multiple sources for a holistic view and insights that reveal past performance, facilitate real-time decision making and predict issues before they arise.

Our workforce challenge

- GP shortfall of **11,392 (28%) full-time General Practitioners (GPs)** by 2030
- Shortage of over than **123,000 nurses** by 2030
- **58%** of clinicians in Australia admit their job leaves them feeling burnout
- **81%** of clinicians said administrative burden with documentation is a contributor to exhaustion/overload feelings

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Clinical voice recognition addresses administrative fatigue

- **Voice reduces the burden of repeatable, onerous tasks in the EMR:**
  - Simplified, intuitive navigation
  - Streamlined request of investigations and order sets
- **Voice increases adoption of the EMR**:
  - Voice enabled templates to improve the experience
- **Voice is the foundation for** “Ambient clinical intelligence”
  - Increasingly interaction within the EMR is voice driven
  - Increases quality 1:1 doctor/patient engagement
  - Removes clicks and typing – no back turned to patient

Nuance Confidential

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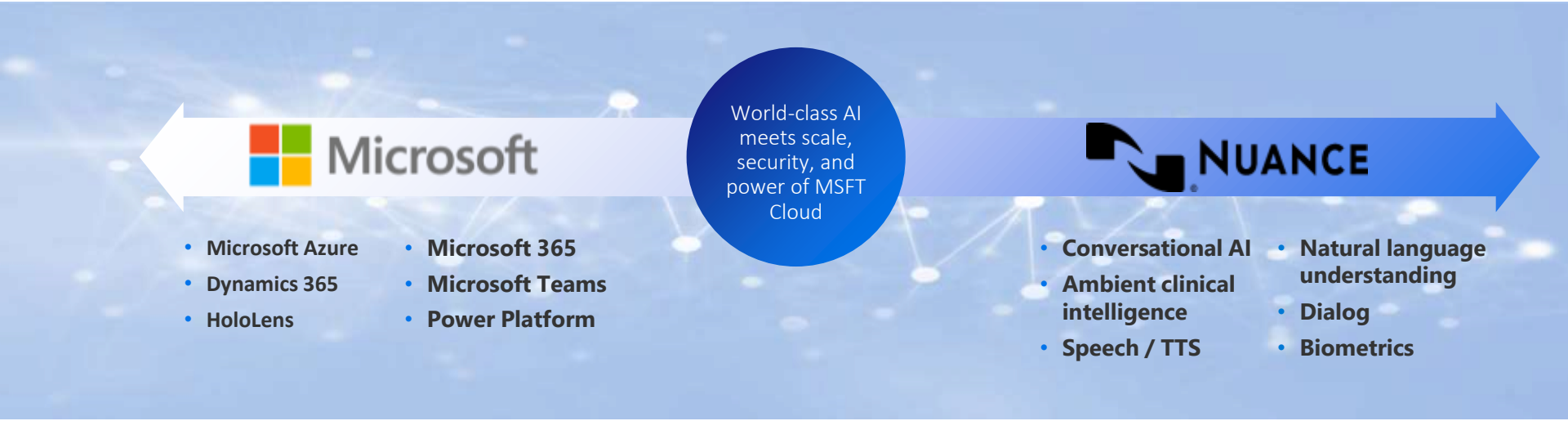
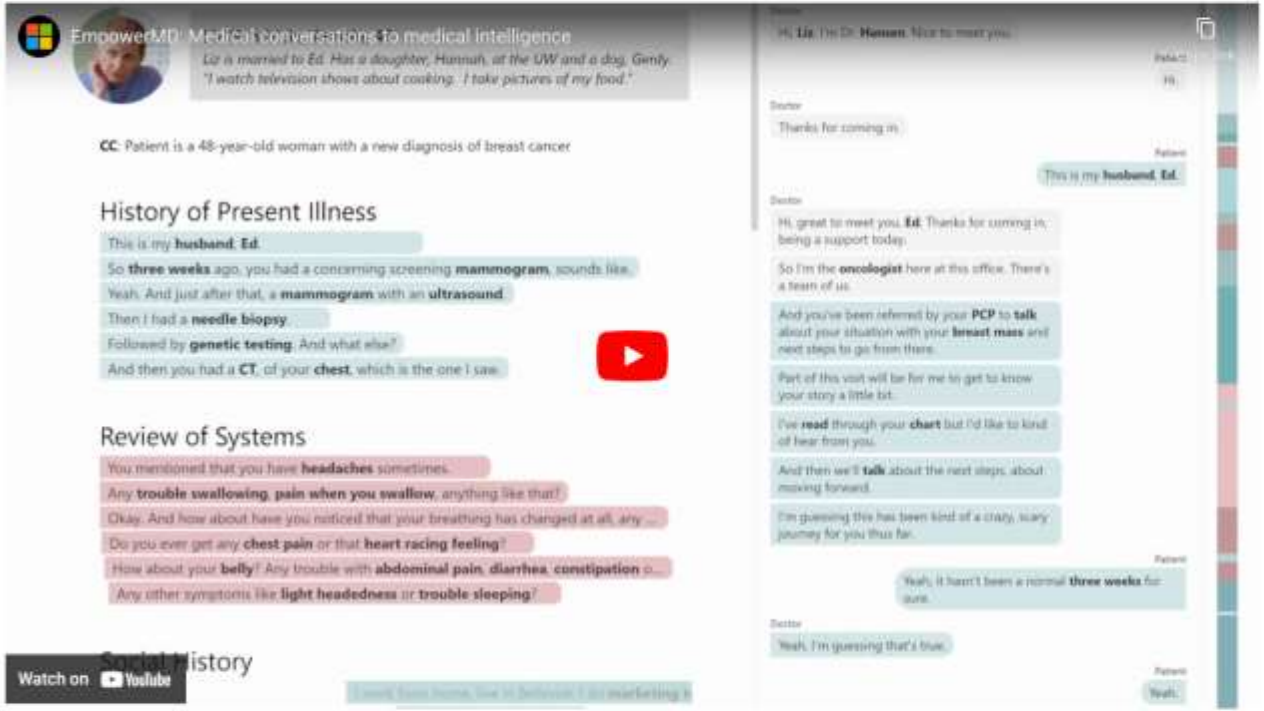
2018

NUANCE | Microsoft

Strategic partnership accelerates the delivery of ambient technologies to reduce clinician burnout by enabling doctors to focus on patients





Project EmpowerMD: Medical conversations to medical intelligence

The Intelligent Scribe captures doctor patient conversations and creates medical intelligence to generate a medical note.

Date: February 6, 2019

Watch Next

Artificial Intelligence and the Future of Healthcare and Biotech

February 1, 2023

Speakers: Jonathan M. Carlson, Anas El Turabi, Kim Gallagher, et. al.

Panel discussion: Ambient clinical intelligence the next frontier of AI

October 19, 2022

Speakers: Kenn Harper, Yaa Kumah-Crystal, Gregory J. Moore, MD, PhD, et. al.

Dead-end Discovery: How offline reinforcement learning could assist healthcare decision-makers

February 2, 2022

Speakers: Mehdi Fatemi

Our Genomes, Our Selves?

December 1, 2021

Speakers: Dr. Sohini Ramachandran

Research talk: Causality for medical image analysis

October 20, 2021

Speakers: Daniel Coelho de Castro

Research talks: Showcasing health equity, access, and resilience collaborations

October 20, 2021

Speakers: Brianna Goodwin, Brooke Laughton

2020

Nuance and Microsoft announce the integration of Dragon Ambient eXperience and Microsoft Teams for virtual telehealth consults

”

Our strategic partnership with Microsoft, which led to this rapid integration of Nuance DAX with Microsoft Teams for telehealth, illustrates the ongoing importance of combining our technologies, domain expertise and market reach to develop advanced cloud-based conversational AI solutions that keep the health of clinicians and patients front and center in healthcare delivery.

-- Diana Nole, executive vice president, and general manager of healthcare, Nuance

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“AI is technology’s most important priority, and health care is its most urgent application”

Satya Nadella, Apr 2021

Bringing complementary capabilities coming together

Precision clinical voice recognition

Multiparty ambient AI

Generative AI

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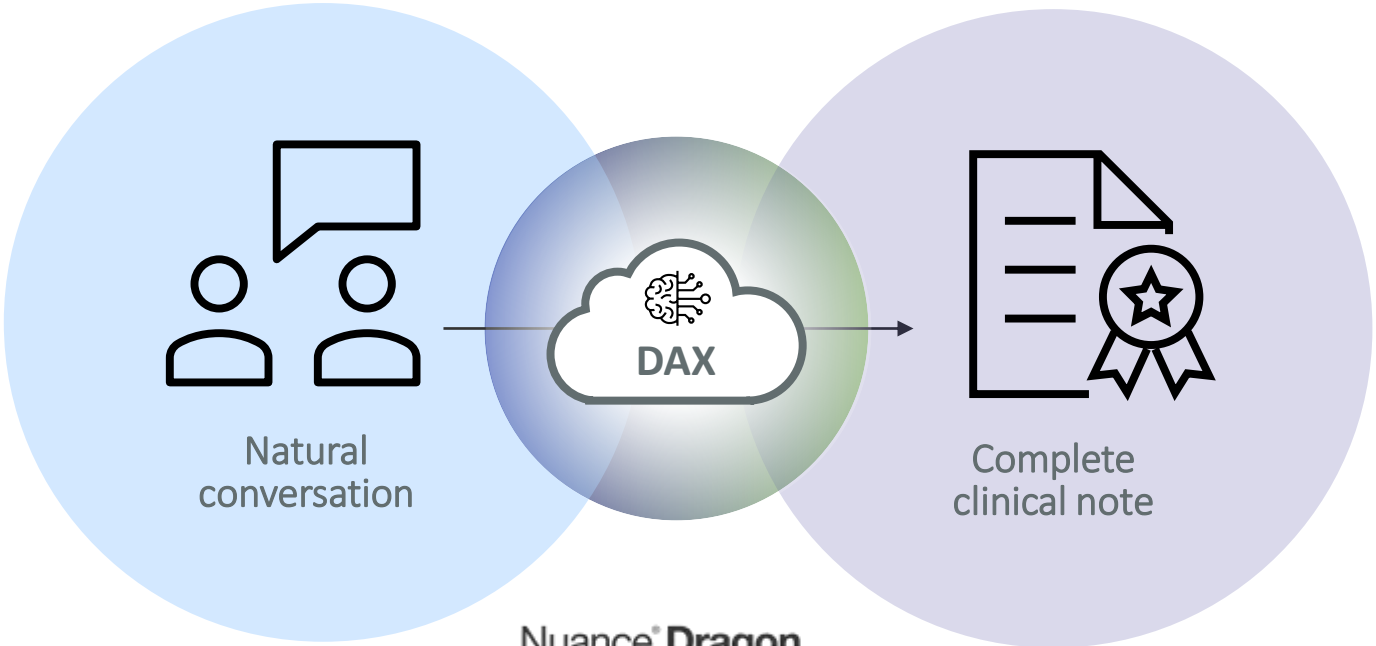
Voice recognition + Generative AI = Clinical Documentation



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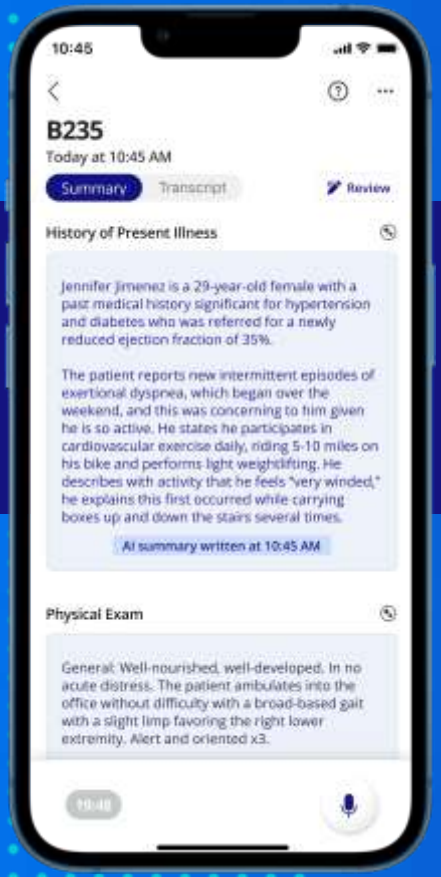
Microsoft + NUANCE



DAX™ Express

Trained on millions of encounters

Standard format

Integrated with Dragon Medical One

Available in seconds

Scalable

Integrated in the workflow, fully automated clinical documentation that delivers a draft patient note for clinician review, editing, and signature.

What is different about the exam room of the future?

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Q&A? Thank you!