

# Ethical AI for Health: What's Really at Stake?

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# AI as Disruptive Technology

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Image source: <http://surdak.com/innovation-vs-improvement/>

# The Ethical Imperative

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Artificial intelligence is a **new frontier for the health sector**. As so often happens, the speed of technological advances has outpaced our ability to reflect these advances in **sound public policies** and address a number of **ethical dilemmas**. Many questions do not yet have answers and **we are not yet sure we know all the questions that need to be asked.**”

- Margaret Chan, 07 June 2017

# Key Ethical Questions

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- ❖ Who will **benefit** from AI?
- ❖ How will we avoid **bias**?
- ❖ Who will protect **privacy**?
- ❖ Who is **responsible** if things go wrong?
- ❖ How will it affect the **patient-provider relationship**?
- ❖ How will it affect **health work**?
- ❖ What about **unforeseen consequences**?

# AI as Social Innovation

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- ❖ Technology as a tool
- ❖ Technology as a complex social phenomenon
- ❖ Technology as a form of life

# AI Ethics for Health Care

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AI & the Future of Caring

Public Trust of AI

Ethical Governance of AI

Equity and the Digital Divide

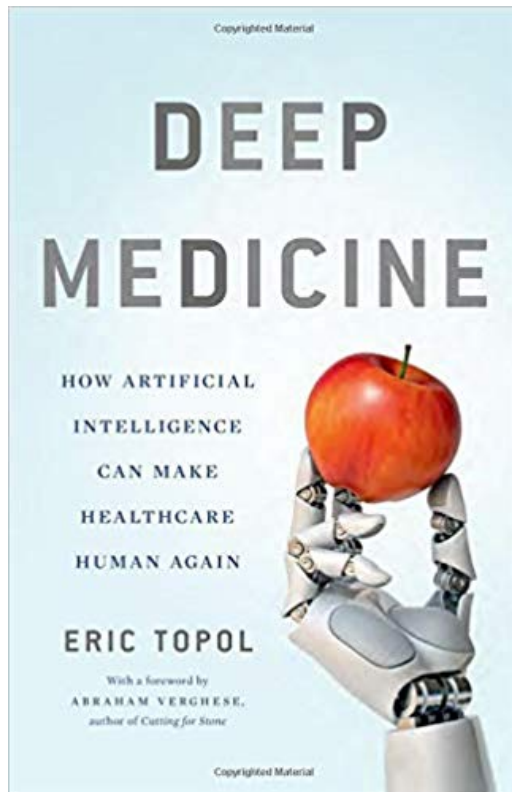
# AI Ethics for Health Care

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AI & the Future of Caring

# AI and the Future of Caring

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Deep Medicine = deep phenotyping + deep learning + deep empathy

“It’s our chance, perhaps the ultimate one, to bring back real medicine: Presence. Empathy. Trust. Caring. Being Human.”

- Topol, 2019, p. 309



# AI and the Future of Caring

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Hope: Free up time  
for what matters  
most

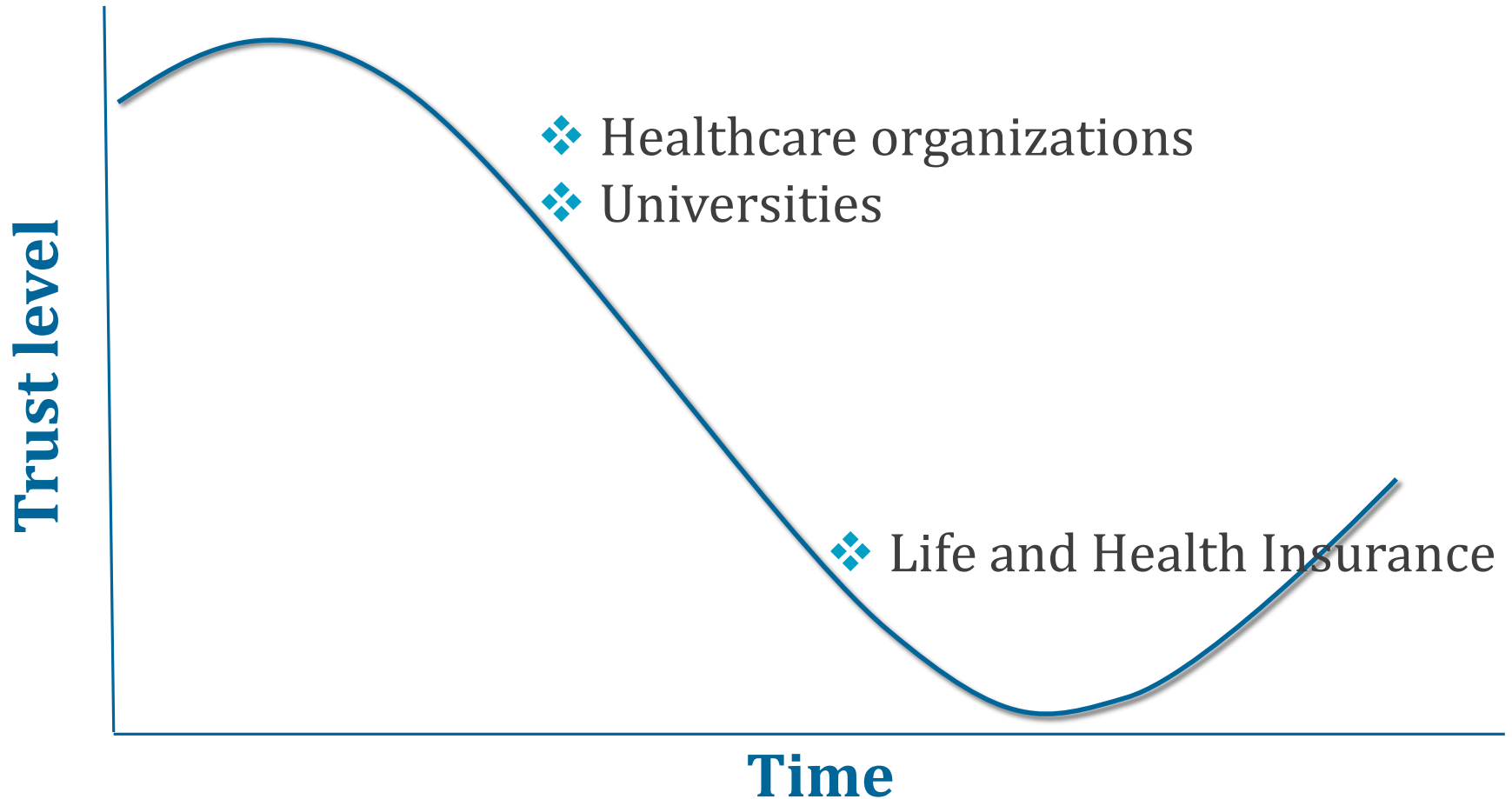
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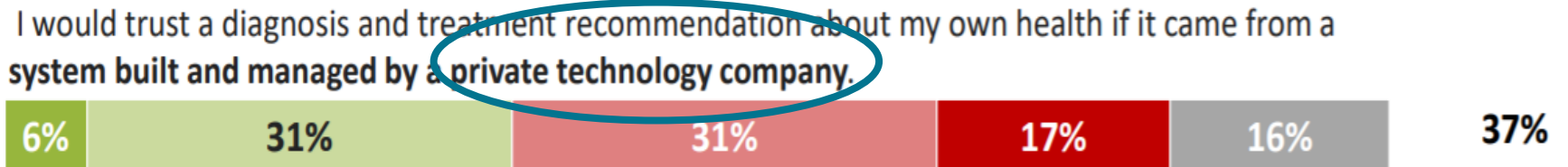
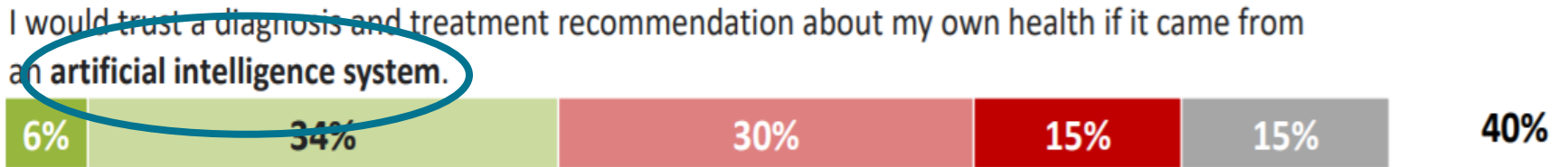
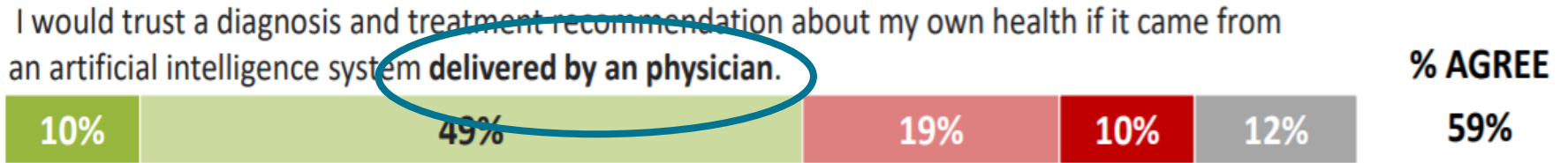
AI & the Future of Caring

Public Trust of AI

# Public Trust of AI



# Trust in AI derived diagnosis/treatment recommendations is higher when the system is delivered by a physician



■ Strongly Agree   ■ Somewhat Agree   ■ Somewhat Disagree   ■ Strongly Disagree   ■ Don't Know

# AI Ethics for Health Care

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AI & the Future of Caring

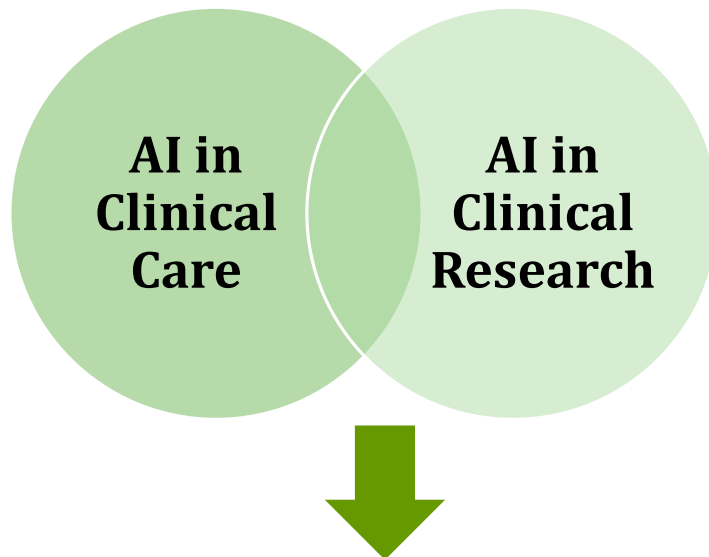
Public Trust of AI

Ethical Governance of AI

# Ethical Governance of AI

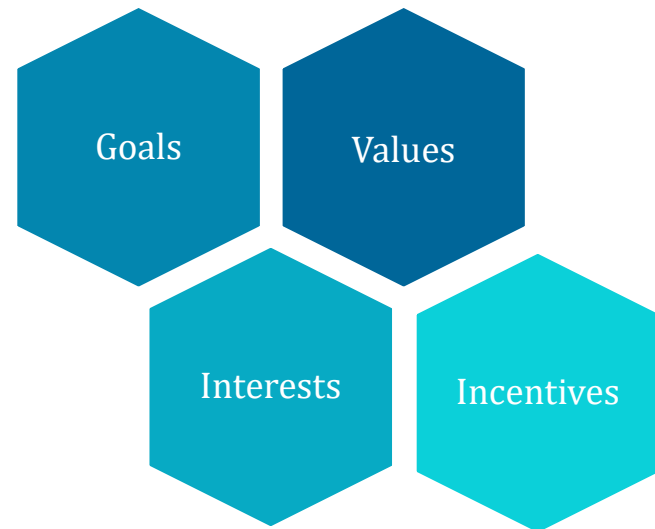
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## Hospital Governance



REB vs. QI?

## Multi-Sector Governance



Aligned for patient and public good?

# Royal Free breached UK data law in 1.6m patient deal with Google's DeepMind

**Information Commissioner's Office rules record transfer from London hospital to AI company failed to comply with Data Protection Act**



▲ 'We underestimated the complexity of the NHS and of the rules around patient data' - DeepMind. Photograph: Alamy Stock Photo

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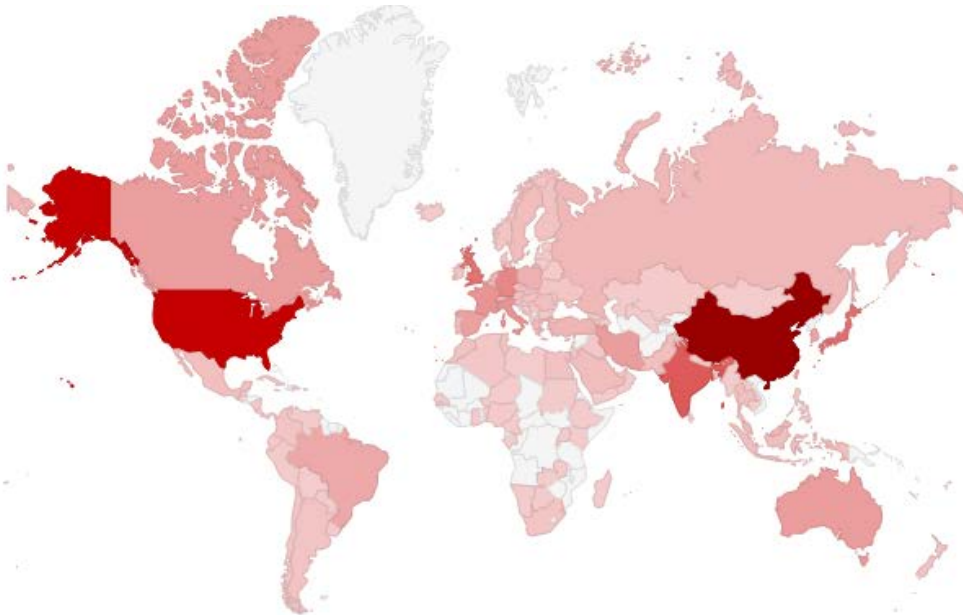
Ethical Governance of AI

Equity and the Digital Divide



# Equity and the Digital Divide

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- ❖ Between health sectors and institutions
- ❖ Between patient groups
- ❖ Between health priorities

# Where to from here?

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# Acknowledgments

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