

THE DIFFERENCE MACHINES MAKE:

FACULTY & THE FUTURE OF COLLABORATIVE AI

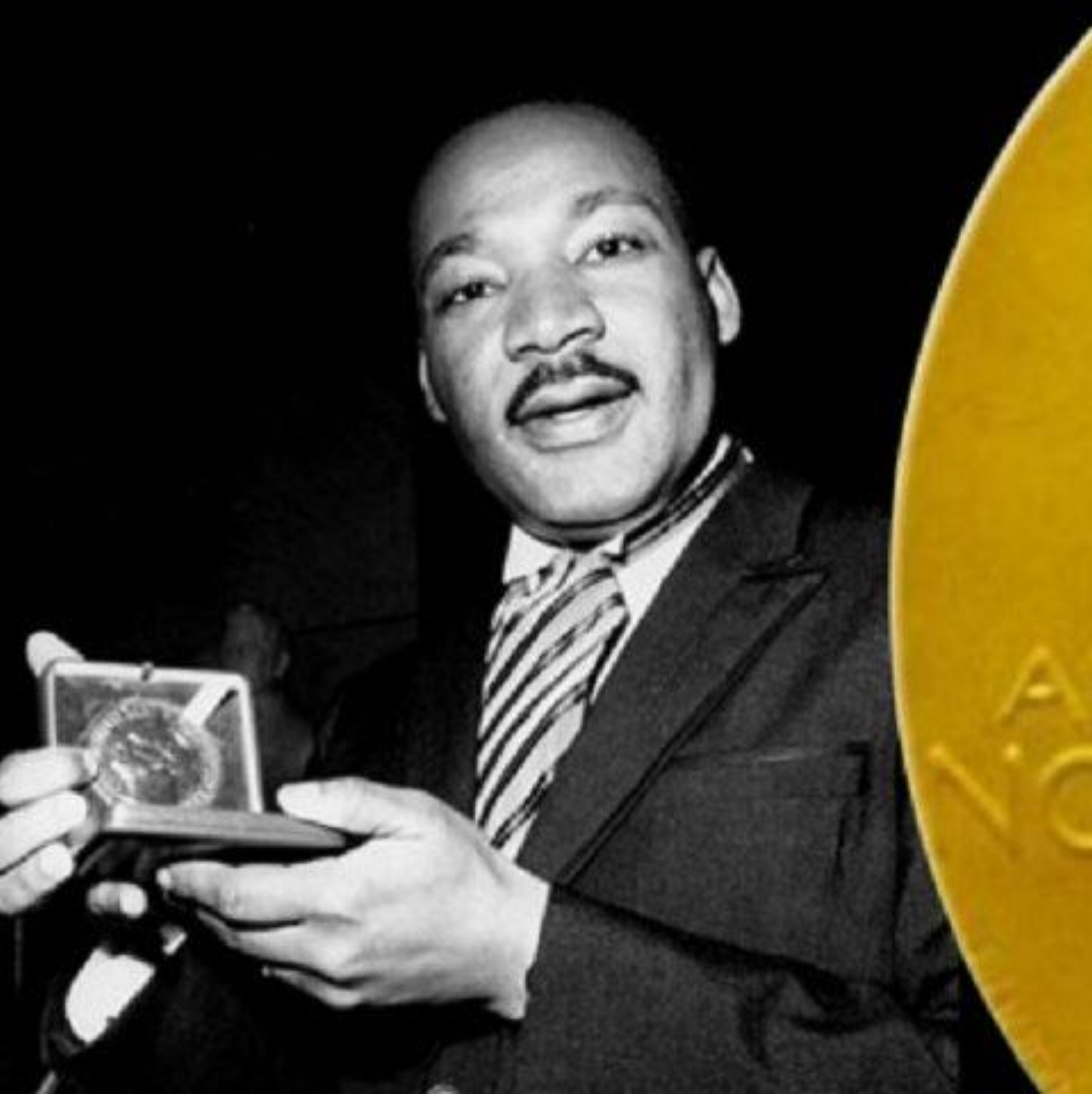
MACAULAY
HONORS COLLEGE

CU
NY

AGENDA

Framing Our Time Together

1. Case Study in Data Philanthropy
2. Designing for a More Just Society
3. Lessons Learned from Collaborative AI
4. A Faculty-led Responsibility



NOBEL PEACE PRIZE LECTURE, 1964

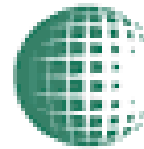
“We must work passionately and indefatigably to bridge the gulf between our scientific progress and our moral progress.”

CASE STUDY IN DATA PHILANTHROPY

John Jay co-created two open source predictive AI models that are using historical data to identify new transfers and seniors who are at risk of dropping out.

These AI tools aid four advisors in their efforts to provide more targeted support at the most actionable point in the journey to completion.

DataKind



The
ROCKEFELLER
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Center
for Inclusive
Growth

WHAT IS COLLABORATIVE AI?

- Collaborative AI systems are designed to work alongside humans, enhancing human capabilities rather than replacing them entirely.
- Collaborative AI often emphasizes human-AI interaction, where humans provide guidance, feedback, and supervision to AI systems.
- Examples include AI-powered tools for decision support, content creation assistance, and collaborative robotics systems where robots work alongside humans in shared workspaces.



Despite past denials, LAPD has used facial recognition software 30,000 times in last decade, records show

New Orleans PD Finally Admits It Uses Facial Recognition Tech After Denying It

THE PANOPTICON IS ALREADY HERE

Xi Jinping is using artificial intelligence to enhance his government's totalitarian control—and he's exporting this technology to regimes around the globe.

The Police Are Using Computer Algorithms to Tell If You're a Threat

IBM USED NYPD SURVEILLANCE FOOTAGE TO DEVELOP TECHNOLOGY THAT LETS SEARCH BY SKIN COLOR

Why schools need to abandon facial recognition, not double down on it

Schools should stop considering adding surveillance tech to their hallways because it disproportionately harms students of color.

PREDICTIVE POLICING SYSTEMS

THE GIGO/BIBO DEBATE

1. What are the ramifications for predictive policing in areas such as pretrial risk assessments and pretrial custody or bail decision-making?
2. How do you increase trust in the data, if society does not get to review the inputs and evaluate the outputs?
3. How do you confront the historic and present-day methods of racial bias around all development and evaluation of AI?

DESIGNING FOR A MORE JUST SOCIETY

The Difference Machines *Should* Make

1. Close equity gaps for the most vulnerable
2. Provide an open source and sustainable strategy to get there
3. Increase the AI- and data-awareness of the organization that uses it

Using AI to help more college students graduate

How DataKind's work with John Jay College increased senior graduation rates and is now paving the way for 6 more CUNY schools, with support from Google.org

Sep 20, 2023 | 4 min read < Share

Dean Dara N. Byrne, PhD, Macaulay Honors College of the City University of New York



Dean Dara Byrne in New York

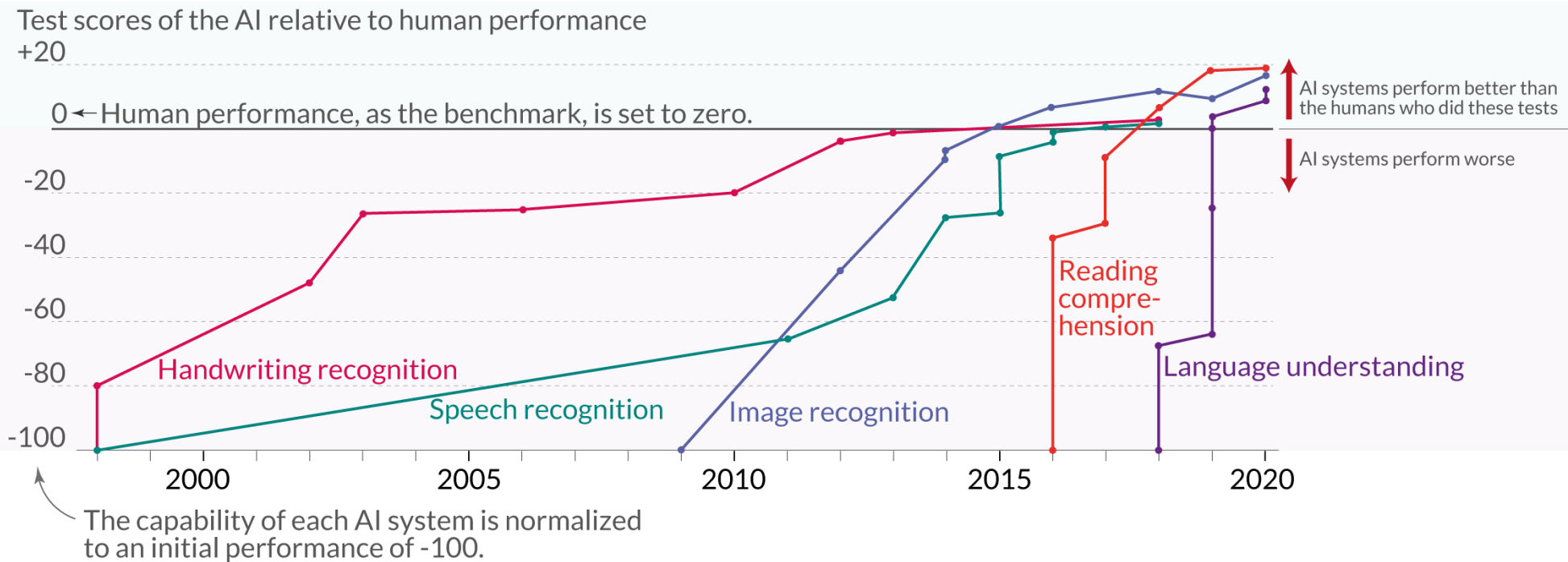
FOUR LESSONS LEARNED

1. Earn trust by co-creating the solution
2. Start small, dream big
3. AI amplifies, it doesn't replace
4. Share benefits to all learners

THE EVOLUTION OF AI

Simulating Human Performance

Language and image recognition capabilities of AI systems have improved rapidly

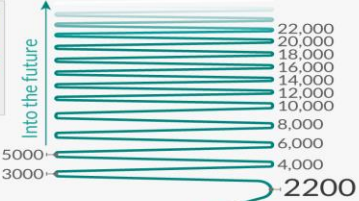


Data source: Kiela et al. (2021) – Dynabench: Rethinking Benchmarking in NLP
OurWorldinData.org – Research and data to make progress against the world's largest problems.

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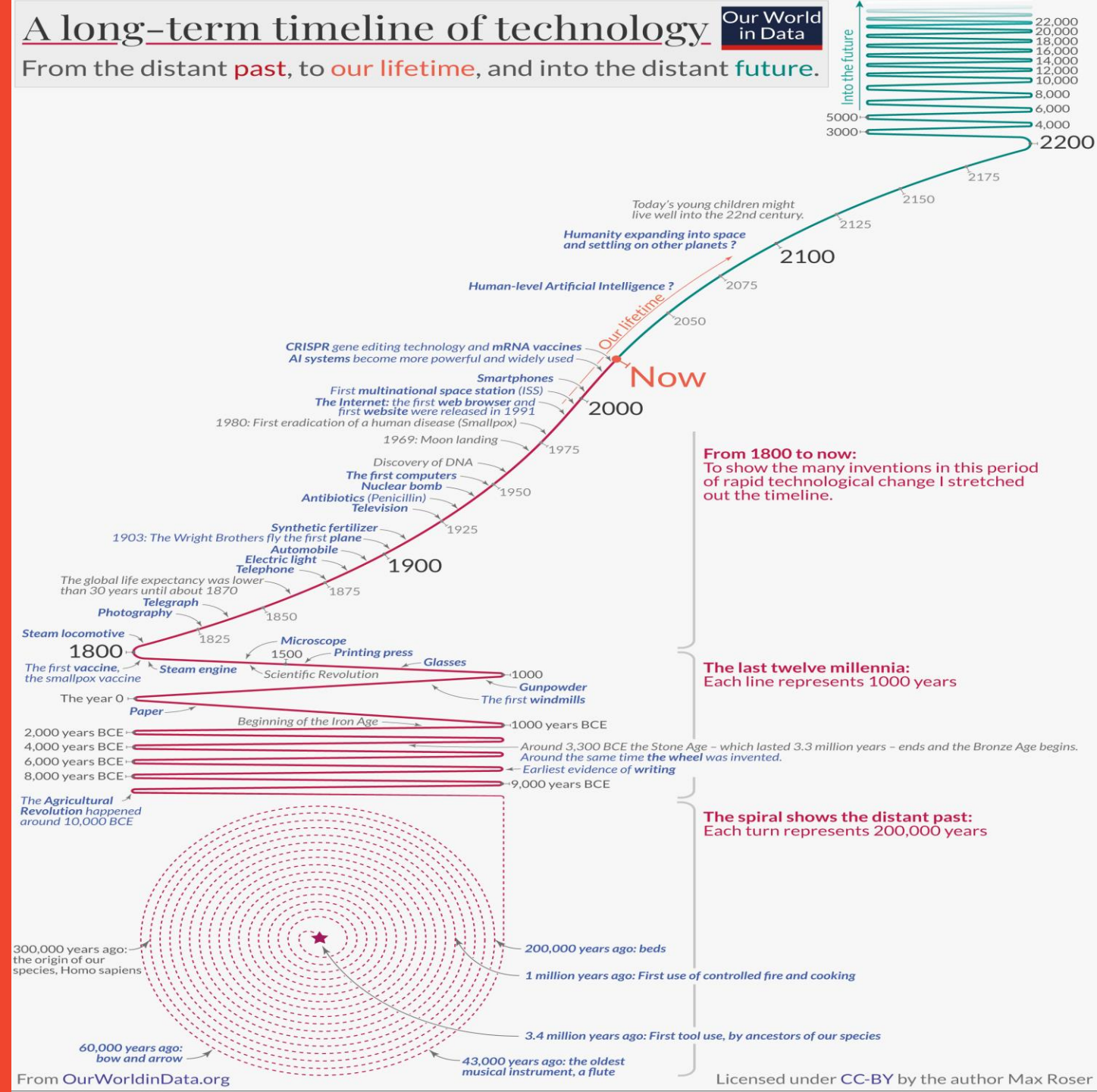
A long-term timeline of technology

From the distant past, to our lifetime, and into the distant future.



RAPID ADVANCEMENTS/ INVESTMENTS

Which technologies are designed by whom is one of the most important questions of our time



A FACULTY-LED RESPONSIBILITY

Beyond Academic Dishonesty

1. Develop the “metrics of fairness” for collaborating with AI
2. Prioritize transparency of data and training on the use of data
3. Clarify the distinction between “code choices” and “policy choices”
4. Identify best practices for improving AI and reducing bias in AI

AI FOR ANYONE

Two Recent Examples at Macaulay

AI and the Future of New York: What Would You Ask a Supercomputer?



Harnessing the power of AI to make a positive impact on NYC

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Data Storytelling Intensive

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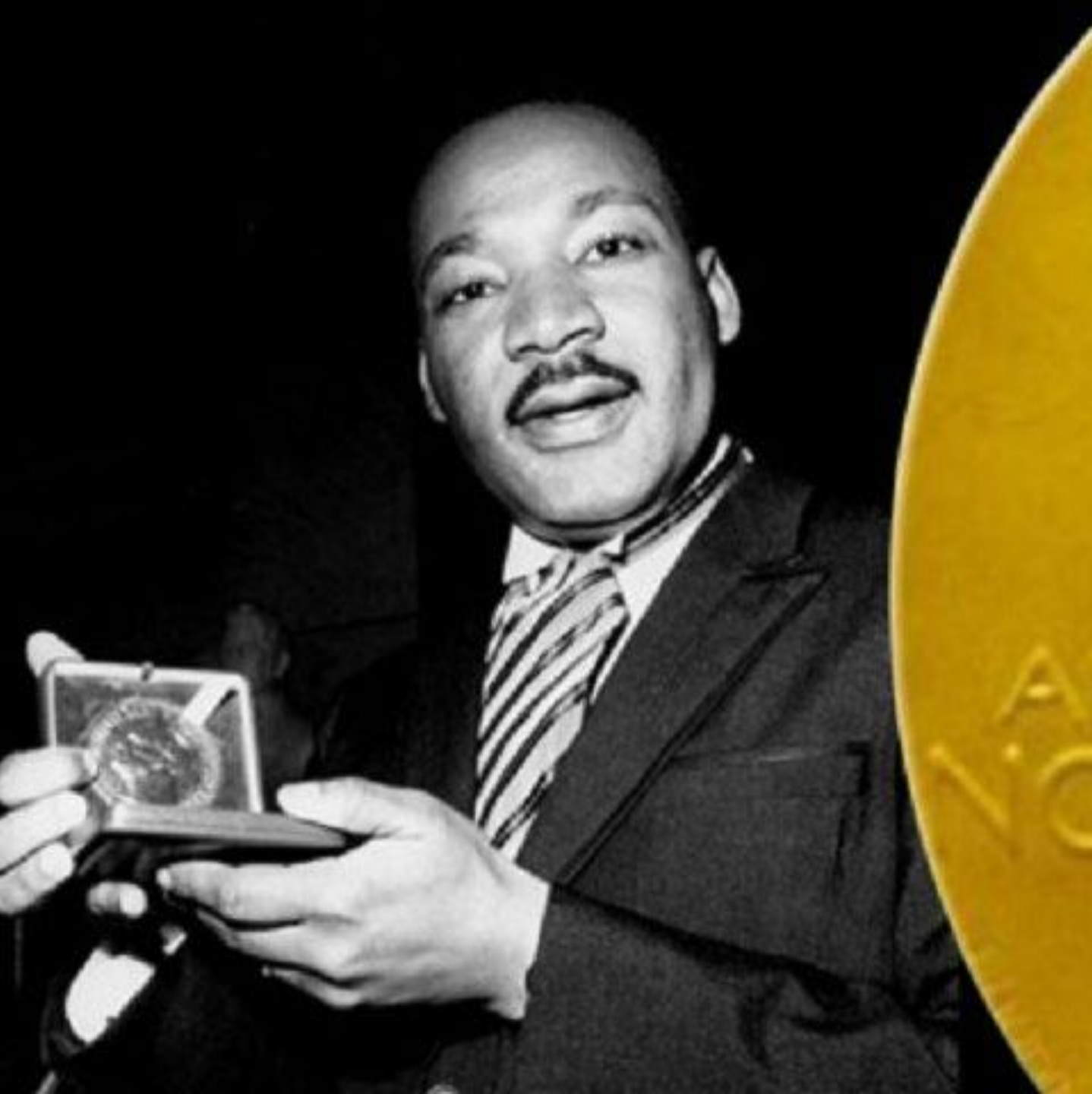


HIGHLY EXPERIENTIAL

Students will engage with data professionals who will discuss their professions and the routes into their positions.

PRE REGISTER

Use this form to secure a seat now! You will still need to file an epermit when they become available in CUNYFirst.



NOBEL PEACE PRIZE LECTURE, 1964

“The function of education, therefore, is to teach one to think intensively and to think critically. But education which stops with efficiency may prove the greatest menace to society.”

QUESTIONS

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