

A close-up, shallow depth-of-field photograph of a desk. In the foreground, an open notebook with lined pages and a pen lies on a dark, textured surface. A laptop is visible in the background, slightly out of focus. The overall lighting is warm and soft, creating a professional yet inviting atmosphere.

Industrial Research Funding

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CRA Career Mentoring Workshop 2022



My role at Microsoft

- A. **A**dvance the future with our products
- B. **B**uild a research culture within our products
- C. **C**onnect our products with research

Research increasingly important to industry

- The move to the cloud has changed how products are built
- Created feedback loops
 - Experimentation: Compare different experiences
 - Artificial intelligence: Feed data back into the system

Scale increasingly important to research



A photograph of three people in a modern office setting. A man with a beard and a brown sweater is sitting on the right, looking at a laptop. A woman with long blonde hair is sitting in the middle, also looking at a laptop. A man with a shaved head and a grey sweater is sitting on the left, looking at a tablet. They are all sitting around a wooden table. There are several laptops, a coffee cup, and a pair of headphones on the table. The background features a large window with a view of a city and a potted plant. The floor has a geometric pattern.

Why engage with industry?

Obvious answer: \$\$ Money \$\$

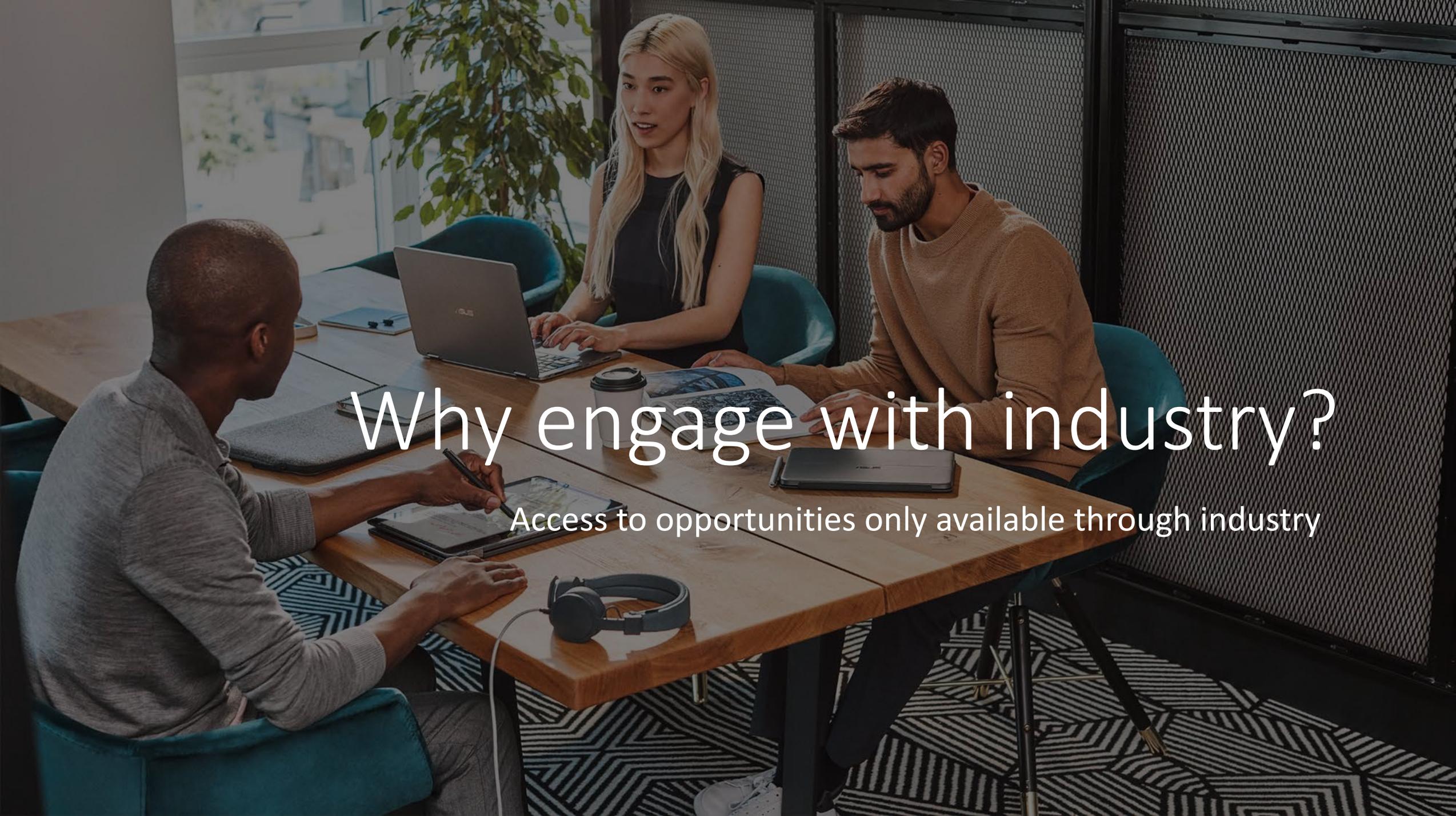
- Examples at Microsoft:
 - Microsoft Turing Academic Program
 - Faculty Fellowships
- Often multi-year and unrestricted
- Worth more with no overhead
- Can leverage into more funding
- Proposals tend to be shorter
 - Format: CFP-based or project based



But focusing on money misses the big picture

- The grants tends to be small
- Unpredictable, priorities change
- Can carry hidden costs:
 - Restrictions on IP
 - Restrictions on open source
 - Mismatch of expectations
- But mostly: Focusing on money misses many opportunities!



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Why engage with industry?

Access to opportunities only available through industry



Beyond money...



Scale

- Access to data
- Access to customers
- Access to compute



Collaboration

- Shared projects
- Events
- Visiting researcher



Students

- Internships
- Jobs post-graduation
- Funding



How to
engage with
industry?

Understand why industry engages

- Talent
- Thought leadership
- Exploration
- Risk mitigation
- Rich ecosystem

Know your “value proposition”

Get to know the people
at the company

Build a rich network
Understand people’s roles

Figure out what you
bring to the table

Understand the company’s position in the market
Know the opportunity and the threat
Explain it in terms they understand

Help the company get
value from your research

Ensures your work has impact
Creates a desire for more for them



Questions?

Questions Submitted in Advance

- Selecting funding sources (industry, NSF, DARPA, DoD):
 - Where do I have the best odds of funding? What are the success rates?
 - How does the research community compare the sources?
- Securing industry funding:
 - What is the process?
 - What is the selection criteria?
 - How to build relationships with folks in industry?
- Making the collaboration work:
 - How to manage funds and effort throughout the length of a funded project?
 - How to move from, “We give you \$X to build Y,” to research-oriented work?
 - How to deal with IP and publication restrictions?