The Role of Ethics in AI Startup Product Development
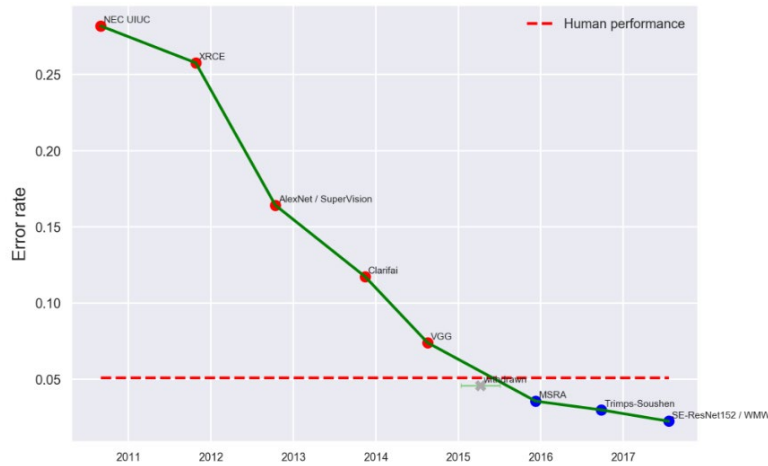
Stephen Michael Impink, HEC Paris

AICE, May 2024
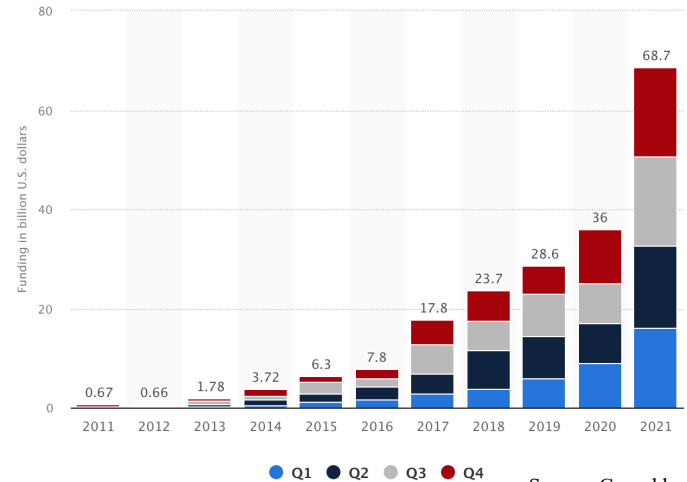
Rapid advancements in algorithms…

… has led to **rapid** commercialization of AI…

Image recognition

Source: https://www.eff.org/ai/metrics

Total AI funding for startups

Source: Crunchbase

… and concerns about how AI is being used

Privacy and monitoring [1]

Algorithmic bias [2]

- Programmers are biased?
- Code is biased?
- Feedback loops increase initial biases?

Unrepresentative training data [3]

Outcome fairness across subgroups

Managers are focused on the wrong outcomes [4]

Can ethical AI policies and regulations help?

[1] boyd and Crawford, 2012; Bellamy et al., 2018; [2] Selbst and Barocas, 2018; Cowgill et al., 2020; [3] Cowgill and Tucker, 2019 [4] Martin et al., 2019; Tarafdar et al., 2020

Can startups remain ethical and compete?

Startups confront many of the same challenges as larger firms but lack the <u>resources</u> these larger firms have

- Legal and regulatory teams, prior experience with regulation
- Funding
- Customer bases, who provide data
- Training capabilities

It is <u>costly</u> for startups to engage in more ethical actions, like dropping data, turning down business, or hiring diverse programmers…and they do not have slack resources

Stakeholders in ethical AI development

Suppliers: partner with large, established technology firms; biased startup AI may pose a risk to established tech firm partners

Customers: downstream industries w/ social responsibility norms

Investors: VC firms that want to provide funding to the highest quality startups

Employees: Some employees may have ethics training or have values aligned with more ethical AI development

The largest firms have ethics policies

Google AI
Why AI   Responsibility   Discover   Build

Responsible AI practices

The development of AI has created new opportunities to impr... world, from business to healthcare to education. It has also ra... to build fairness, interpretability, privacy, and safety into thes...

General recommended practices for AI   Fairness   Interpret...

General recommended practices for AI

While general best practices for software systems should alway... there are also a number of considerations unique to machine lea...

The Microsoft Responsible AI Standard

Explore Microsoft internal guidance on how to design, build, and test AI systems.

Read more

SAP's guiding principles for artificial intelligence (AI)

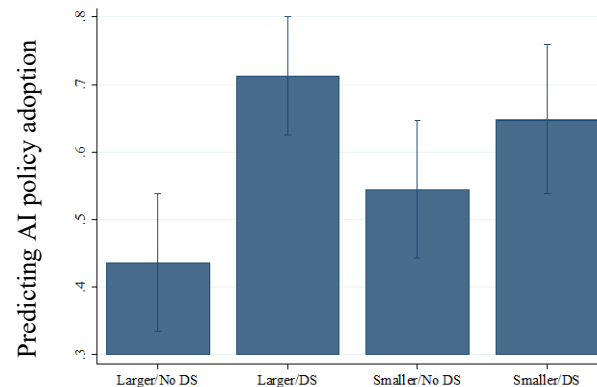We are driven by our values

We design for people

Novel data from the AI Startup Survey

- Survey of AI startups; focused on CEO, CTO, founders

- 376 responses – reached out to 4,593 firms (8% response rate)

- Sample focuses on developed markets (excl. China); mainly EU/US

Survey Measure	Mean	SD
Data sharing relationship	0.48	0.50
Data sharing relationship w/ AM, GO, MS	0.15	0.36
Do you have ethical AI principles?	0.59	0.49
Pro ethics actions:		
Considered diversity in data selection	0.45	0.50
Sought expert advice	0.36	0.48
Hired minority/female programmer	0.62	0.49
Offered unconscious bias training	0.24	0.43

Summary of results

1. Many AI startups have ethical AI policies and take ethical AI actions, despite no regulatory or legal requirements to do so.

2. AI startups relationships with tech firms (upstream suppliers) appear positively correlated with ethical AI policies.

3. AI startups taking ethical AI actions appears positively correlated with follow-on funding from VC firms.

Conclusion: **It's not just larger firms that face ethical issues – but they are better resourced to deal with those issues**

Many AI startups have ethical AI policies and take pro ethics actions, despite no regulatory or legal requirements to do so.

Startups are more likely to adopt ethical AI policies when they have a data-sharing relationship with a technology firm

However, **ethical AI policy** adoption is a (weak) signal; does not relate to increased funding

Pro ethics actions (dropping data, hiring minority programmers, and turning down business) relate to increased funding

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