

CULTURES OF RESPONSIBILITY FOR AI START-UPS

IN BRIEF

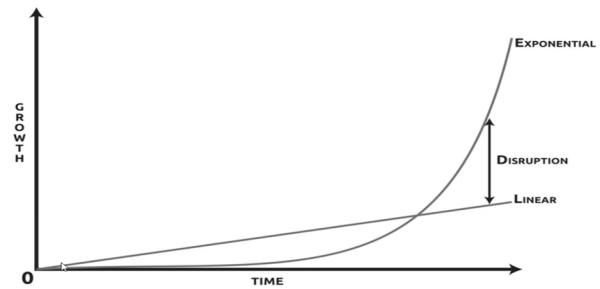
- Artificial Intelligence (AI) start-ups develop products and services which can spread quickly and have a major impact on society.
- In partnership with industry, the ITA has developed a self-assessment tool for AI start-ups.
- The tool allows companies to assess the ethical and social consequences of their products. The aim is to establish a culture of responsibility in this sector.

WHAT IS IT ABOUT?

AI start-ups are considered key to innovation, growth, and employment. Like all OECD countries, Austria, too, has introduced national strategies and programmes to promote and support AI capabilities in virtually all industries. Since AI-enabled products and services have become ubiquitous, their unintended social and ethical effects have become more apparent and concerning. AI start-ups often lack the resources and know-how to anticipate and act on the serious social and ethical impact of their innovations. What can AI start-ups do to innovate responsibly? AI start-ups develop successful products which are exceedingly scalable and can rapidly transform industries, having far-reaching consequences for individuals and society. Their founders and employees are often highly skilled and operate in an environment favourable to business growth. Indeed, AI start-ups often lack the skill and know-how to assess their products' and services' future impact, affecting not only funders and customers. Their small size, scarce resources, and being under great pressure to quickly increase profits leave little room for risk assessments.

However, their entrepreneurial success depends on various factors, such as public reputation and the confidence of customers, investors, funding bodies, regulators, and employees. If an AI start-up is featured in the media because of an unintentional gender bias in its algorithms, for example, this can quickly damage its reputation and threaten its survival.

LINEAR VS. EXPONENTIAL



Start-up innovations can have far-reaching consequences when the number of users is rapidly scaled up

Currently, there are numerous public and private guidelines and approaches to direct AI innovation in a way that social and ethical risks of products are taken into account. Examples include European Union (EU) and national Member State AI guidelines as well as industry-level guidance and codes of practice. However, they are used only to a limited extent at corporate level, especially for start-ups. Start-ups differ from other companies in that they are often characterised by turbulent growth phases and low resource margins. They also differ in their organisational culture and day-to-day work tasks, for example because of a chaotic development phase which may last for several years. Collaboration between researchers and start-ups offers a chance to narrow the gap between socially desirable outcomes of AI technologies and corporate innovation practices.

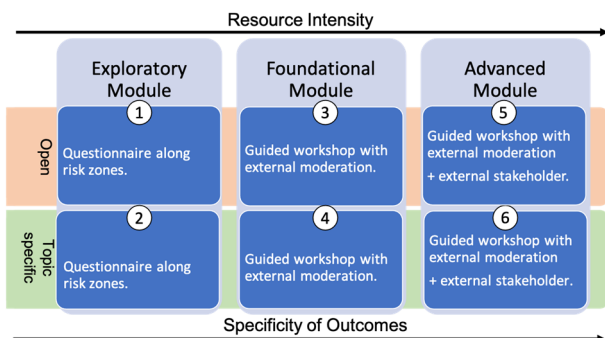
BASIC DATA

Project title:	Technology Assessment for Artificial Intelligence Start-Ups (TA4AIStartups)
Project team:	Sinozic, T., Bettin, S., Udrea, T.
Duration:	01.03.2020-31.07.2021
Funded by:	Austrian Research Promotion Agency (FFG) Ideen Lab 4.0

KEY RESULTS

The TA4AIStartups project developed a prototype for a modular self-assessment tool for AI start-ups to continuously assess the far-reaching social consequences of their innovations. This prototype is the result of a co-creation process between technology assessment (TA) practitioners, sociologists, and one AI start-up. It is based on three theoretical pillars: (1) TA and Responsible Research and Innovation (RRI), (2) social and ethical implications of AI, and (3) organisational culture in software companies.

This tool operationalises *anticipation, reflection, inclusion, and responsiveness* across six modules. Each module addresses current social and ethical issues related to AI, such as disinformation, addictive behaviour, inequality, machine ethics and algorithmic biases, surveillance, data control, trust and user understanding, and abuse by criminal actors. The tool addresses organisational culture by building processes that remain in place even when individual employees leave the company or technical aspects of the product are changed.



The modular self-assessment toolbox for cultures of responsibility in AI start-ups

Modules 1 and 2 are exploratory and approach AI dimensions through an anticipatory and reflexive process that can be completed in-house within three hours. Modules 3 and 4 aim at deepening a reflective, anticipatory, and inclusive corporate culture. Advanced modules 5 and 6 directly engage external stakeholders, such as regulators, customers, and non-governmental organisations (NGOs).

During the testing phase, the tool was most effective when it built on socially beneficial motivations that existed within the company, and when it was used to assess the consequences of a particular step the company was about to take, such as adding a new product feature or expanding into a new market.

WHAT TO DO?

AI start-ups need to be supported when it comes to integrating social and ethical considerations of their products into their corporate culture and business routines. Co-designing tools and methods for technology self-assessment offers the opportunity to create a culture of responsibility in young companies for next-generation AI innovation.

- Start-ups often rely on external funding. As part of fulfilling requirements for funding, each application must include a compulsory self-assessment of the social and ethical consequences of the products or services before the funding is approved. The prototype tool described here can be used for such purposes.
- The start-up community needs to be involved in the design and implementation of socially and ethically responsible guidelines and processes if these are to be successful. Such dialogue must include a range of different stakeholders, such as scientists, politicians, and laypersons who are, directly or indirectly, affected by AI risks.
- Austria needs to set up procedures to assess social risks of AI technologies early on in the innovation process. These structures need to be dynamic, e.g. in the form of committees which different individuals can flexibly join and leave, depending on the risk that is being discussed.

FURTHER READING

Schönauer, A., Sinozic, T., Smith, L., (2021). Gesellschaftliche Folgen von künstlicher Intelligenz. Einblicke in die Entwicklung eines Tools zur Technikfolgenabschätzung für Startup-Unternehmen FORBA Fachgespräch Vortrag, FORBA: Wien, (German only)
forba.at/2021/04/29/forba-fachgespraech-2-2021-gesellschaftliche-folgen-von-kuenstlicher-intelligenz

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