

# Chapter 5

## The politics of purpose: AI for a global race or societal challenges?

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### 1. Introduction

Artificial intelligence (AI) today is at the centre of intense policymaking activity. Since 2016, national governments and international organisations have adopted AI strategies and action plans, launched funding and training programmes, established agencies, expert groups and consultations, and are developing regulatory frameworks (OECD 2021). Among these multiple activities, it is of particular importance not to forget the big picture and the key questions – what is the purpose of AI development and deployment? Why is taxpayers’ money being invested in it? Why are elected officials supporting its development and use? Why is so much time and effort spent on discussing the details of future AI regulation? What is the overarching goal to which all these activities aim to contribute? Whose interests, values and norms does this overarching goal represent?

To address these questions, this chapter discusses how recent AI policy frames its purpose according to two well-known goals of technology policy; namely, economic competitiveness and societal challenges (Schiff 2023; Ulnicane 2022). It invites a reflection on whether the way these goals are formulated and presented in AI policy is helpful and representative of broader societal interests. First, the chapter introduces two stylised approaches to technology policy, focusing on economic competitiveness and societal challenges. Afterwards, it examines how these approaches show up in recent AI policy.

### 2. Economic competitiveness and societal challenges: the two main goals of technology policy

While traditionally the main purpose of technology policy has been to support economic competitiveness, recently it has also been recognised that an important goal is to tackle societal challenges.

Concerns about national economic competitiveness have for a long time been an important driver of national investments in technology. According to this thinking, technology is always good and therefore we need as much technology as possible and as fast as possible. National governments compare their technological development to that of other countries, worrying about falling behind. In the second half of the twentieth century, France was worried about the ‘American challenge’ and the European Community was concerned about the technology gap with the US, while the US and the UK were, in turn, worried about emerging Japanese technological superiority (Ulnicane

2022). One of the best-known historical examples of international technological rivalry is the ‘space race’ between the then superpowers, the US and the Soviet Union, competing for supremacy in conquering the Moon.

This discourse of international technological rivalry remains very popular in policymaking. For example, when in the early twenty-first century the EU launched the Lisbon Strategy and the European Research Area, it was largely motivated by concerns that the EU was lagging behind the US and Japan. Accordingly, the ambition for the EU was to become the most competitive knowledge-based economy in the world. Despite the limited successes of such initiatives, this thinking of technology development as a global race remains very popular.

The economic competitiveness discourse can help mobilise resources and draw attention to the importance of technology development. It can be used by interest groups trying to lobby for more funding or favourable policies for certain technologies. However, it has also been criticised as a ‘dangerous obsession’ that portrays international technological development as a zero-sum game in which one country wins but others lose (Krugman 1994). Moreover, this discourse might prioritise prestige technology projects over more urgent social needs.

In recent years, it has been recognised that an important goal of technology development and use is to contribute to tackling societal challenges in areas such as health, environment and energy (Diercks et al. 2019; Ulnicane 2016). This approach sees technology as contributing to the achievement of the United Nations Sustainable Development Goals, for example, ‘no poverty’, ‘zero hunger’ or ‘gender equality’. In order to tackle these complex and uncertain societal challenges, broad-ranging collaborations are needed that involve representatives from diverse disciplines and sectors including science, civil society, government and the private sector. As these societal challenges can involve cross-border issues, international collaboration might be needed to address them. Thus, technology development internationally here is seen as a positive-sum game in which many can benefit.

While the discourse on the role of technology in tackling the major societal challenges of our times through boundary-spanning collaborations addresses important social issues, its realisation is far from straightforward. Development of technology is highly uncertain, the possibility of steering it should not be exaggerated, the societal challenges are complex and their solution cannot be guaranteed. Moreover, while involving diverse stakeholders and voices is of great importance, in practice it remains challenging to balance the existing power asymmetries, as the most resourceful and better organized interest groups tend to dominate. Moreover, this approach recognises that the social effects of technology are not always good and that it can also create harmful effects, for example, for the environment or health.

The main characteristics of these two goals of technology policy – namely, economic competitiveness and societal challenges – are summarised in Table 1 below. These two approaches often coexist. Next, this chapter examines these two approaches in recent AI policy.

Table 1 Stylised technology policy frames

	<b>Economic competitiveness</b>	<b>Societal challenges</b>
<b>Purpose of technology development</b>	To support national economic competitiveness	To tackle societal challenges and UN SDGs
<b>Global technology development</b>	Zero-sum game	Positive-sum game
<b>Impact of technology</b>	Always good	Can be good and bad

Source: author's own elaboration.

### 3. The purpose of AI development and use

In recent policy and media debates about AI, we can find discussions of both goals – boosting economic competitiveness as well as helping to tackle societal challenges.

#### 3.1 Economic competitiveness, global race and leadership in AI

Policy often represents AI as a new basis for economic growth and a major opportunity for boosting productivity, efficiency and cost savings. AI development is depicted as taking place within fierce global competition. Sometimes, it is compared to a new 'space race' or cold war, highlighting rivalry between the two superpowers – the US and China, representing two different political and economic systems. Many countries from China and the US to Finland, Germany, South Korea and Singapore have declared their ambitions to be leaders and frontrunners in AI (OECD 2021; Ulnicane et al. 2022). Often, repeated statements about global AI leadership, such as the one by Russian President claiming that 'whoever leads in AI will rule the world', have strong neo-imperialist undertone.

Global leadership in AI is seen as crucial not only for the national economy, security and society but also as a way of promoting national values globally. This can be seen in the Executive Order of the US President 'Maintaining American Leadership in Artificial Intelligence', which opens with the following statement:

Artificial Intelligence (AI) promises to drive growth of the United States economy, enhance our economic and national security, and improve our quality of life. The United States is the world leader in AI research and development (R&D) and deployment. Continued American leadership in AI is of paramount importance to maintaining the economic and national security of the United States and to shaping the global evolution of AI in a manner consistent with our Nation's values, policies, and priorities (Executive Order 13859).

The EU policy on AI sends mixed messages about its interest in being a global leader, from recognising that there is fierce global competition going on and that the EU is lagging behind, to statements that it wants to be a leader in its own way and based on its values or that it is not interested in winning or losing the race but pursuing its human-

centric approach (Ulnicane et al. 2022). In some EU documents, we see ambitions which are quite similar to those of the US, of being a leader and promoting its values globally. For example, in its 2021 communication ‘Fostering a European approach to Artificial Intelligence’, the European Commission highlights the EU’s efforts to be a global leader in the promotion of Trustworthy AI and states that European coordination of AI investments and policies:

... will enable the latest technologies to be developed and adopted through Europe’s global competitiveness and leadership. Such coordination will allow Europe to seize benefits of AI for the economy, society and the environment and help to promote European values worldwide. (European Commission 2021: 8)

To establish or maintain their global leadership, countries have set out a range of national and international measures, including protectionist approaches to ensure their advantage in AI technologies. This again can be seen in the Executive Order of the US President, which states that:

The United States must promote an international environment that supports American AI research and innovation and opens markets for American AI industries, while protecting our technological advantage in AI and protecting our critical AI technologies from acquisition by strategic competitors and adversarial nations.

Hand-in-hand with the global race and leadership discourse goes a fear of lagging behind and missing out on the opportunities offered by AI. This creates a sense of urgency to make an effort and do something so as not to be left in an inferior position. This discourse of a global AI race, with winners and losers, is reinforced by various rankings and indices that compare countries’ performance according to a range of indicators. Often, it is also uncritically or strategically promoted by experts and stakeholders.

Thus, the popular discourse of an AI global race and leadership is a new version of the traditional approach to technology policy that presents technology as an important contributor to national economic competitiveness. As mentioned above, it has received some criticism, for example for depicting global technology development as a zero-sum game and drawing resources and attention to prestige projects instead of broader social needs. However, in today’s AI policy this approach is largely unchallenged except some reservations which are expressed in EU policy. However, there is an urgent need to challenge this discourse and ask some critical questions: Is national global leadership in AI really worth the investment and effort? Is it what society needs? Is it drawing away attention and resources from more important issues of broader relevance? Whose interests does it serve? Is it a convenient tool for vested interests to use strategically, for example to argue for less regulation in the EU so that it can be more competitive globally?

## 3.2 Societal challenges and Sustainable Development Goals

AI policy includes highly optimistic statements about the potential social benefits of AI, outlining positive expectations towards its contribution to addressing social, environmental and health issues. According to the European Commission:

The potential benefits of AI for our societies are manifold, from less pollution to fewer traffic deaths, from improved medical care and enhanced opportunities for persons with disabilities and older persons to better education and more ways to engage citizens in democratic processes, from swifter adjudications to a more effective fight against terrorism and crime, online and offline, as well as enhancing cybersecurity (European Commission 2021: 1).

Similarly, in *Ethics Guidelines for Trustworthy AI* we find a very hopeful approach to the potential of AI to contribute to achieving the UN's Sustainable Development Goals:

AI systems can help to facilitate the achievement of the UN's Sustainable Development Goals, such as promoting gender balance and tackling climate change, rationalising our use of natural resources, enhancing our health, mobility and production processes, and supporting how we monitor progress against sustainability and social cohesion indicators (European Commission 2019: 4).

To realise these positive social benefits of AI, the policy documents call for inclusive and participatory governance involving a wide range of stakeholders including from marginalised and disadvantaged groups.

While the 'societal challenges' discourse offers a very hopeful and positive view on the potential of AI, it also needs to be critically examined and its shortcomings highlighted. It tends to present a rather one-sided picture of AI. For example, it emphasises the potential of AI to promote gender balance whereas in many cases AI has reinforced gender and racial bias. Similarly, potential of AI to tackle climate change is mentioned but high environmental costs of AI are ignored. This discourse presents AI as a simple technological fix (Johnston 2018) to complex and uncertain societal issues. It might over-promise the social benefits of AI, which could lead to a backlash. Moreover, previous experience demonstrates that multi-stakeholder forums for AI have been captured by the better organised and funded vested interests.

## 4. Concluding remarks

Although AI is presented as a novel technology, its recent policy draws on very traditional and well-known technology policy ideas that see the boosting of economic competitiveness as the main goal of technology development. It is often seen as a global race and as a zero-sum game. In addition, in AI policy we also find a more recent discourse highlighting the potential of technology to contribute to tackling societal challenges. In AI policy both discourses co-exist and it is often expected that technology can help to achieve both goals of economic competitiveness and societal challenges. A

reflection on the compatibility of both goals and the potential trade-offs between them is missing.

This contribution points out the problematic aspects of both of these goals. Chasing global leadership in AI might happen at the expense of much needed global collaboration or the tackling of broader societal issues. However, optimistic statements about the potential of AI to help tackling societal challenges often come across as quick technological fixes in response to societal problems that are complex and uncertain. This contribution is an invitation to think critically about these goals, how they are presented and promoted, and whose interests do they serve. It is also a call to think about potential alternatives and better ways to articulate what we expect from AI and other technologies.

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All links were checked on 26.01.2024.

Cite this chapter: Ulnicane I. (2024) The politics of purpose: AI for a global race or societal challenges?, in Ponce del Castillo A. (ed.) *Artificial intelligence, labour and society*, ETUI.