

1

Europe has passed the first global law on artificial intelligence. The feeling is that the game has only just begun and that the Artificial Intelligence Act (AI Act) does not complete the regulatory framework on artificial intelligence, as argued by **Giusella Finocchiaro** (*see article below*), Internet Law Professor-University of Bologna, Lawyer and Member of the AI Commission, Information and Publishing Department. According to **Stefano da Empoli**, President of *Istituto per la Competitività* and a member of the artificial intelligence expert group set up by the Ministry of Economic Development, Europe might lose competitiveness and choke off innovation (*see article below*). **Giangiaco Olivi**, a Dentons partner and Europe Co-head of the Intellectual Property, Data and Technology practice, compares the regulatory approach to AI of Europe, US and China (*see article below*), **Enzo Maria Le Fevre Cervini**, Project Leader at the European Commission's Directorate-General for Digital Services (DG DIGIT) deals with governance while **Ranieri Razzante**, a member of the AI Strategy Committee at the Council Presidency, positively assesses the implications for cybersecurity.

The economic consequences of generative artificial intelligence and the role of Europe (and Italy)

Pp. 12-15

The problem is not the presence of rules; rather, if anything, the absence of a single AI industrial policy triggering an increase in the resources available for technological development and the effective coordination of investments in research and innovation.

By **Stefano da Empoli**,
President of Istituto per la Competitività and author of "L'economia di ChatGPT. Tra false paure e veri rischi" (Egea)

The media hype that was first generated by the release of ChatGPT, which then continued with the release of other products capable of generating texts, images, videos, codes and whatnot in a matter of seconds, has brought artificial intelligence (AI) back to the centre of the technological debate, after fading in the background for a couple of years. So much so that someone was already talking about a new AI winter after the unfulfilled promises of self-driving cars, certainly the most striking innovation of last decade's new wave. This was the case until generative AI came along which, together with the usual hype that accompanies new technological paradigms, came with two new fundamental developments.

Firstly, the combination of linguistic (and more generally 'creative') sophistication and speed of execution going far beyond human capabilities. And secondly, though not less significantly, accessibility. Until the advent of ChatGPT, most of us imagined dialogue with machines, at least the more advanced ones, as something reserved for a class of initiates. The democratisation of AI is a key step towards its widespread use. These two ingredients might change the menu of the currently rather stunted growth of our economies. Despite all the talk about the possible effects of the great technological advances of recent decades, from biotechnology to the Internet, from clean energy to AI itself,



The images featured in this issue were created with artificial intelligence systems by conceptual artist Phillip Toledano, who bases his work on the principle that «everything starts with an idea, and the idea determines the execution». The project is titled *Another America*.

the statistics have remained virtually unchanged, starting with those on productivity and GDP. This may be due to many reasons and, at the same time, it is very likely that without the innovations we have seen, things would have been much worse, both for GDP and especially for social welfare. In recent months, some of the world's leading advisory firms have estimated the impact of generative AI, predicting an increase in global output of up to \$7 trillion, more than three times Italy's GDP. Some economists have gone so far as to envisage (or at least regard as likely) scenarios of exponential productivity growth in the coming decades. Although we do not wish to make any predictions, there is no doubt that if we combine the aforesaid two factors (speed of execution and accessibility) with the across-the-board nature of their

possible impacts (potentially on all sectors and functions), the result might be different from the past, implying rapid productivity gains for organisations capable of fully exploiting the related benefits, which are also growing with the ever-increasing sophistication of applications on the market. This possible increase in productivity implies a first possible risk of AI, related to its potential effects on employment. Let us put ourselves in the shoes of an entrepreneur, who is faced with a choice, i.e. whether to increase output with the same inputs or maintain the same level of output by reducing inputs and thus costs. If most companies chose the second option, in the absence of demand to absorb oversupply arising from the first scenario, there might be significant job losses. History so far has disproved the most pessimistic scenario. It is not by any chance

that the most innovative countries, where factor productivity grows the most, are also those with the lowest unemployment rates. This happens because an innovative society also offers more opportunities than stagnant economies. Even assuming a direct substitution effect in some sectors of the economy, there might be indirect effects with new employment opportunities in others, thus reaching a positive total net balance.

It is often said that it might be different this time because not only might blue collar workers be affected by substitution processes (and possibly find a new job in the service sector), but also any other worker, including white collar workers. Therefore, there would be no protected areas, except for the most senior roles or professions that, at least for the time being, require human psycho-motor skills (e.g. cooks or

cleaners). While this possibility cannot be certainly ruled out *a priori*, this new development may also have a silver lining. In fact, as held by MIT labour economist David Autor, generative AI might be the first type of automation capable of reducing inequality rather than increasing it, precisely because it is based on natural language and is therefore capable of imitating higher skills than past innovation waves. Yet it is up to us humans to figure out how best to use it and give everyone the tools to be able to work with artificial intelligence. Indeed, what should be compared are not people with machines, rather machine-aided people with machines (or people) alone. If we look at the problem from this perspective, the real urgency is not to defend ourselves from the advance of AI, rather to train people so that they can work with it in the best possible way. If the risks to employment are the

ones that, at least in Italy, seem to give rise to the greatest concerns, there are several others that need to be managed which, at least for the time being and the foreseeable future, are not those evoked by famous novels or science fiction films. The actual risks are those of a deceptive use of AI or those related to cybersecurity, privacy and copyright. These serious risks, however, can be managed with everyone's commitment (and the necessary investment of human and financial resources), based on an approach tested by dialogue between different disciplines, capable of looking at benefits and risks within a broad outlook. Against this backdrop, the EU has so far experienced the AI game as a referee rather than a player. Acknowledging its delay, Brussels published its AI strategy in April 2018 and its coordinated AI plan in December of the same year, envisioning rules and investment as two mutually reinforcing pillars, though ended up afterwards focusing almost entirely on the former rather than the latter, imposing specific responsibilities - it should be underlined for the avoidance of doubt - on Member States. Therefore, the final approval of the AI Act, presented by the European Commission in April 2021, as well as the new regulations called for by the launch of generative models, not covered by the original proposal, are to be welcomed overall. The same can be said for the AI Office that ensures, at least for the latter models, a single, centralised supervision at European level, preventing risks of fragmentation of the internal market that still characterise the enforcement of the other rules of the AI Act. The problem is not the presence of rules; rather, if anything, the absence of a single

AI industrial policy triggering an increase in the resources available for technological development and the effective coordination of investments in research and innovation. Without it, apart from few success cases, the European AI ecosystem will inexorably lag behind the North American and Asian ones, and the EU will merely adopt models and applications developed largely elsewhere, as is already the case today. In this scenario, Italy stands out for its absence: unlike other EU countries, it long thought that it could do without a national strategy and then, after an effort that lasted years, it churned one out at the end of 2021 with only a three-year horizon and obvious thematic, as well as financial, gaps, since no dedicated budget was allocated to it. Now, in the face of the thunderous irruption of generative AI, there are some encouraging signs of awakening. This is demonstrated by the announcement of both a public-private venture capital fund to support Italian start-ups and of an artificial intelligence centre in Turin, resuming a project that had already been launched in the past but had then disappeared. The amount of funds that will flow into these two initiatives as well as their rules of engagement will tell us more about the ambition of the new Italian strategy prepared by the Government. However, in addition to rightly focusing on the development of an Italian-style AI, the adoption of AI will need to be accelerated in the production system, which is dominated by small and micro enterprises lagging far behind in the digital transition. This is a national competence that must certainly be backed up by accompanying public-private territorial initiatives.