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Proposal for a Regulation on a European Approach For Artificial Intelligence - 2021/0106(COD)

The uptake of Artificial Intelligence (AI) systems has a strong potential to bring societal benefits, economic growth and enhance EU innovation and global competitiveness. At the same time, it is commonly acknowledged that the specific characteristics of certain AI systems raise some concerns especially with regard to safety, security and fundamental rights protection. A reflection has started on how to address those concerns and, as part of its Digital Single Market strategy, the EU is proposing an ambitious line of regulation that includes the Data Act, Data Governance Act, Digital Markets Act, Digital Services Act and the one that will be analysed here in more detail: the Artificial Intelligence Act (AI Act).

The European Commission published in February 2020 a White Paper on Artificial Intelligence and proposed to set up a European regulatory framework for trustworthy AI. The European Parliament adopted in October 2020 three legislative resolutions on AI covering ethics, civil liability, and intellectual property (IP) and asked the Commission to establish a comprehensive and future-proof European legal framework of ethical principles for the development, deployment and use of AI, robotics and related technologies. Against this background, the European Commission unveiled a proposal for a new AI Act in April 2021. The proposal is now being discussed by the co-legislators, the European Parliament and the Council (EU Member states). In Council, negotiations to find a common position between Member states have started.

Artificial Intelligece Act
Briefing by Tambiama Madiega, November 2021
The European Commission unveiled a new proposal for an EU regulatory framework on artificial intelligence (AI) in April 2021. The draft AI act is the first ever attempt to enact a horizontal regulation of AI. The proposed legal framework focuses on the specific utilisation of AI systems and associated risks. The Commission proposes to establish a technology-neutral definition of AI systems in EU law and to lay down a classification for AI systems with different requirements and obligations tailored on a 'risk-based approach'. Some AI systems presenting 'unacceptable' risks would be prohibited. A wide range of 'high-risk' AI systems would be authorised, but subject to a set of requirements and obligations to gain access to the EU market. Those AI systems presenting only 'limited risk' would be subject to very light transparency obligations. While generally supporting the Commission's proposal, stakeholders and experts call for a number of amendments, including revising the definition of AI systems, broadening the list of prohibited AI systems, strengthening enforcement and redress mechanisms and ensuring proper democratic oversight of the design and implementation of EU AI regulation.

Regulating facial recognition in the EU
In-depth analysis by Tambiama Madiega and Hendrik Mildebrath, September 2021
Artificial intelligence has powered the use of biometric technologies, including facial recognition applications, which are increasingly used for verification, identification and categorisation purposes. This paper: (1) provides an overview of the technologies, economics and different uses of facial recognition technologies; (2) highlights concerns arising from the technology's specific characteristics and from its potential impacts on people's fundamental rights; (3) takes stock of the legal framework, especially the data protection and non-

discrimination rules currently applicable to facial recognition in the European Union (EU); and (4) examines the recent proposal for an EU artificial intelligence act, regulating facial recognition technologies. Finally, (5) the paper briefly looks at the approaches taken to facial recognition regulation outside the EU and at an international level.

Initial Appraisal of a European Commission Impact Assessment on the Artificial Intelligence Act
Briefing by Hubert Dalli, July 2021
This briefing provides an initial analysis of the strengths and weaknesses of the European Commission's impact assessment accompanying the above-mentioned proposal, submitted on 21 April 2021 and provisionally referred to the European Parliament's Committee on the Internal Market and Consumer Protection. In its communication on artificial intelligence for Europe 1 of April 2018, the Commission set out a European initiative on artificial intelligence (AI), aiming at (i) boosting the EU's technological and industrial capacity and AI uptake across the economy, (ii) preparing for the socio-economic changes brought about by AI, by encouraging the modernisation of education and training systems, nurturing talent, anticipating changes in the labour market, supporting labour market transitions and adapting social protection systems, and (iii) ensuring an appropriate ethical and legal framework, based on the Union's values and in line with the EU Charter of Fundamental Rights.

What if we chose new metaphors for artificial intelligence?
'At a glance' note by Philip Boucher, June 2021
When we talk about artificial intelligence (AI), we often use metaphors. Even the term 'AI' relies upon a metaphor for the human quality of intelligence, and its development is regularly described as a 'race'. While metaphors are useful in highlighting some features of their subject, they can be so powerful that it becomes difficult to imagine or discuss their subject in other terms. Here, we examine some challenges presented by the central metaphor of 'intelligence', and whether metaphors for AI and its development emphasise competition at the cost of cooperation. Perhaps new metaphors could help us to articulate ambitious visions for AI, and new criteria for success. Metaphors play a remarkable role in human history. They provide useful shortcuts to help us understand complex concepts, as well as powerful images of the world and how it could or should be in future. Whether unintentionally framing subjects or deliberately mobilising arguments, metaphors open some ways of thinking while closing others down. So, while they are an integral part of language and communication, specific choices of metaphors are worth reflection and care in how they are used. AI is an umbrella term which refers to a wide range of technologies. It includes 'expert systems' – whereby humans encode their own knowledge and experience into rules – as well as 'machine learning' systems that identify patterns in data to generate rules by themselves. Discussions of AI are replete with metaphors for both the technology and its development.

What if objects around us flocked together and became intelligent?
'At a glance' note by Andrés García, June 2021
The internet of things is already making us reimagine daily life, but could artificial intelligence be the key to reaching the full potential of this technology? Smart objects have evolved beyond the original idea of the internet of things (IoT): to offer a better way to track products, replace obsolete barcodes and improve logistics. The inherent extended capabilities of simultaneous contactless identification of objects using a unique electronic product code (EPC), which can be referenced using the internet, has been apparent for some time. While leading to multiple new applications, it has also raised many concerns. With information from tagged products directly available to computers, some levels of computerbased intelligence can also be associated with the original object over the internet. In practice, the object becomes 'intelligent' in an abstract way, with no need to incorporate any electronics besides an RFID tag. The result is an intelligent physical object, whose brain is hosted by a computer elsewhere. This kind of artificial intelligence (AI) can go a step further and associate the object, in the location where it has been identified by a reader, with additional information from sensors located in that area. It is also possible to draw conclusions by correlating the object with other tagged

objects in the vicinity. What is more, this virtual network is not restricted to simple objects, but can be extended to more complex devices incorporating their own sensors. Either way, all the objects around us are now becoming intelligent as the technology of connected objects evolves to produce smart objects.

[Artificial intelligence: How does it work, why does it matter, and what can we do about it?](#)
Study by Philip Boucher, June 2020
Artificial intelligence (AI) is probably the defining technology of the last decade, and perhaps also the next. The aim of this study is to support meaningful reflection and productive debate about AI by providing accessible information about the full range of current and speculative techniques and their associated impacts, and setting out a wide range of regulatory, technological and societal measures that could be mobilised in response.