THE CHOICE (?) BETWEEN REGULATION AND INNOVATION: IS THERE A METHOD TO BOTH PROTECT CONSUMERS/ CITIZENS/ MARKETS) AND STILL UNLEASH ANIMAL SPIRITS? DOES DIGITAL DESERVE AN EU INDUSTRIAL POLICY AND TO BREAK THE TABOO OF "STATE AIDS"?

The Problem Setting

The five-decades-long history of the Internet has recently witnessed an acceleration which has the potential to completely change the nature of the relationship between us and digital technology. On 30th November, 2022 OpenAI[1] released ChatGPT-3.5, an artificial intelligence chatbot capable of generating real-time answers in human-like text to all sorts of research questions and in all languages. The program smashed a number of records including the one which accounts for how quickly different technologies are adopted. From its commercial introduction[2], it took 75 years for the telephone to reach 100 million users; 16 for mobile phones; 7 for the World Wide Web; 2.5 years for Instagram; 9 months for TikTok; and only two months for Chat GPT.

Not less quick has been the introduction of other "large language models" (the form of generative AI that OpenAI is further perfecting with GPT-4): Google's PaLM and Gemini; vAI's Grok; Meta's LLaMa, Anthropic's Claude have all been developed in California; China is following a completely different strategy with 15 AI companies (from Alibaba to iFlTech; Xiaomi to Pigan) dedicated to 15 different policies/ industries (home automation, voice recognition, autonomous vehicle); Europe is lagging behind and yet the French Mistral AI's is creating value out of the idea of an open source AI.

This is already evidence of the speed of the phenomena we need to first understand, and then try to govern. And it is urgent to do so because it will also imply a transformation which we would better call biological mutation rather than industrial revolution. It is a biological mutation because Artificial Intelligence makes clear that we are not only going to lose and gain jobs and economic systems; we will also modify the way we think. Meanwhile, the Internet is already reallocating power and changing how public decisions are taken, as the invention of the printing machine massively did at the end of the Middle Ages[3].

[1] OpenAI started as a non-profit organisation meant to release open-source software. It has, in time, lost both its non-profit status (the non-profit organisation is the sole owner of a profit subsidiary which runs almost the entire business) and the "openness" of its applications (which are run by Microsoft).

[2] The World of statistics, 10th March 2023

[3] This is also connected to the problem-solving group on democracy.

How is Europe faring? In 2020, at the time of the first Vision conference on the future of Europe, a Vision paper considered the trends[4] defining the quest for global digital leadership,and found that Europe seemed to have been left out of the "battle" for global digital leadership. There was no global digital platform amongst the ones with more than 500 million users, Spotify being the only exception (and yet very far from other global digital infrastructures in terms of market valuation). With the departure of the UK, the EU lost even the economy with the highest number of unicorns (technology start-ups whose value is higher than one billion USD) and the most globalised technology cluster (in Cambridge). More recently, however, the picture is changing. If we look to where venture capital is flowing, countries like France, Germany, Sweden, Estonia, are becoming more attractive and the volume of venture capital invested in European technology has more than doubled in the last two years[5].

And yet, whereas single countries have been very active in **investments** (and tax expenditures and clustering) in their attempt to create their own "champions" (as in Macron's plan announced at La Sorbonne[6]), the European Union has focused mostly on **regulation**.

Regulation is, indeed, indispensable as the US and Chinese Government and even the tech companies recognize. Indeed, the most worrying characteristic of the latest evolution is autonomous nature of this technology - as it does not need human intervention to operate and even to self-adapt or correct or change: the evolution known as Auto-GPT – autonomous AI that is able to autonomously assign to itself and complete tasks – is an example. This introduces the big problem of a technology that has the potential to escape human control – safety of humankind emerges an actual sinister problem.

And yet there seems to be a problem with an approach to regulation which seems still largely the one we had in the 20th century.

As highlighted in the 2023 Pontignano Conference paper[7], since 2016, the European Union has issued 10 different pieces of legislation, totalling more than 700 pages and 550 articles[8].

[4] In a recent paper VISION measured leaderships in ten crucial industries/ innovation trends: suit for PCs, tablets and mobiles (dominated by Microsoft and Kingsoft), search engine (here Google is challenged only by Baidu and Yandex), mobile makers and designers (Apple, Samsung, Huawei, Xiaomi), online payment platform (WeChat and Alipay), e-commerce (Amazon and Alibaba), Social media (Facebook, We hat, Weibo, V Kontakte), chipset makers and designers (Intel, NVidia, IBM, Qualcomm, Huawei, ARM, TSMC), self-driving automakers (Tesla Autopilot, Google and Baidu Apollo, Yandex OS), turbo jet engine maker (Boeing), electric cars and lithium batteries (Tesla, BYD). Practically in none of these industries EU is competing for market leadership (amongst very few exceptions we can name the Dutch ASML and the French Saffran). "DIGITAL INFRASTRUCTURES'': DEFINITIONS, EFFECTS ON CONSUMERS AND INDUSTRIES, STRATEGIC OPTIONS TO MAXIMISE THEIR VALUE. (2022) (https://visionandvalue.com/portfolio/the-impact-of-global-digital-companies-on-consumers-firms-and-governments/)

[5] The Economist "How sturdy are Europe's tech unicorns?", July 2022 https://www.economist.com/business/2022/07/04/how-sturdy-are-europes-tech-unicorns

[6] Macron, E. (2017, September 26). *Sorbonne Speech of Emmanuel Macron. Full Text / English Version*. http://international.blogs.ouest-france.fr/archive/2017/09/29/macron-sorbonne-verbatim-europe-18583.html

[7] https://www.thinktank.vision/images/Pontignano_Papers_-_Siena_Conference_Follow_Up.pdf

[8] The Data Governance Act (Regulation (EU) 2018/1724 amended by Regulation (EU) 2022/868), and the proposal for a Data Act (put forward 23.02.2022); the proposal for an Artificial Intelligence Act (put forward 23.02.2022); the Directive 2019/790 on Copyright and related rights; the Digital Markets Act (EU 2022/1925); the Digital Services Act (EU 2022/2065) ; the General Data Protection Regulation (GDPR); the Directive on European Electronic Communication Code; the regulation on business on-line intermediaries

More recently Vision has updated the numbers and the size of regulation has increased further as for the following table.

TABLE - MAIN EU LEGISLATIVE ACTS (SINCE 2016)

Name	Type*	Date	Pages	Articles
ARTIFICIAL INTELLIGENCE ACT	PR	2024/03/13	458	113
DIGITAL MARKETS ACT	R	2023/05/02	81	39
DIGITAL SERVICES ACT	R	2022/10/19	113	74
DATA ACT	PR	2022/02/23	63	42
GOVERNMENT DATA ACT	PR	2020/11/25	42	35
PLATFORM TO BUSINESS PRACTICES	R	2019/06/20	23	19
DIGITAL COPYRIGHT	D	2019/04/17	34	32
EUROPEAN ELECTRONIC COMMUNICATION CODE	D	2018/12/11	179	127
GEO-BLOCKING	R	2018/02/28	15	11
GENERAL DATA PROTECTION RIGHTS	R	2016/02/27	88	99
TOTAL			1096	591

* Type: Here we distinguish between Directives which need to be transposed by national laws; regulations issued by the European Parliament and the Council which are immediately applicable;

**Author: EC = The European Commission; EP + EC = The European Parliament and the Council

SOURCE: VISION ON EUROPEAN COMMISSION AND EUROPEAN PARLIAMENT DATA

This gigantic effort has put the European Union at the forefront of the attempt to regulate digital transformation, with many countries considering Europe a benchmark. And yet regulation still encounters a number of problems which are as new as the phenomena we want get hold of. Artificial intelligence can provide an example:

1. **A problem of definitions**: any normative act needs to start from defining what it is trying to regulate, and to do such a thing for something like Artificial Intelligence raises great intellectual problems (Alan Turing tried to solve the puzzle) with very practical

(2019); the regulation on Geo-blocking. (*here it could be added: the proposal for an European Media Freedom Act, put forward on 16.09.2022, dealing with media regulation in the digital environment*)

consequences. So far, the definition that the European Council amending the European Commission's first attempt is such[9] that even NETFLIX or Google search engines are part of it.[10]

2. **A "shooting into our own foot" effect**. The concerns leading to the ban of "social scoring" or "biometric identification in public spaces" are very understandable and yet a) this would not prevent other countries from taking a lead, while the EU would lose the possibility to do research (and to better understand what is at stake) and b) this may lead to us not having access to innovations that may instead be good. This may, for instance, come from milder versions of "social scoring" (making people pay more if they produce more garbage without differentiation) or "biometric identification" (to reduce queues at passport control, at the entry of the underground, or in hospital admissions).

3. **An implementation problem**. A regulation as massive as the one the EU is producing will imply a number of practical questions: a) technical feasibility: in some instances, banning applications like ChatGPT in one country (or in Europe) does not prevent users from accessing it via other means (like VOIP); b) managerial and supervisory capacity: the British CMA (Competition and Markets Authority) ran into problems of staff shortages; c) there may be redundancies between EU and national decisions.

4. **An even bigger problem of speed.** The process we are trying to regulate is much quicker than any lawmakers has ever been.

The Problem Solving

Regulation (or deregulation) can indeed prompt innovation. This would be the case for all rules that would create an incentive for individuals and companies to waste less resources (for instance occupy less public space with private cars)[11]. And yet too much regulation can even stifle innovation without achieving higher levels of protection.

Vision's conference expects participants to join a problem-solving exercise with several objectives: a) to update what the EU is doing; b) to better understand the nature of the problems and the main trade-offs; c) to assess the pros and cons of different solutions; c) to produce some ideas for improvements of current digital policies that are likely to be win-win.

[9] An AI system is one which is "designed to operate with elements of autonomy and that, based on machine and/or human-provided data and inputs, infers how to achieve a given set of objectives using machine learning and/or logic- and knowledge based approaches, and produces system-generated outputs such as content (generative AI systems), predictions, recommendations or decisions, influencing the environments with which the AI system interacts"

[10] The same applies also to the very beginning of the regulations referring to "digital markets". What do we really mean by digital markets? Can retail (Amazon), advertising (Alphabet), hospitality (AirBnb), video (Netflix) or music streaming (Spotify) be all considered "digital markets"? Wouldn't it be more effective to talk about "digital" as a lever which is transforming all industries and "digital platforms" as a technology/ organisation model that all companies (including not native Internet ones) are adopting?

[11] This point is connected to the PSG 2 on "HOW TO STEER PRIVATE FIRMS TOWARDS MORE SUSTAINABLE BEHAVIOUR"

It may be helpful to articulate the debate (at the conference and at the pre-conference seminars/work) along the following questions:

Is it possible to regulate better and less? Should European institutions make a choice between open and proprietary systems? Are the EU programmes meant to foster innovation (Horizon Europe, the Digital Europe Program) effective enough? Can we imagine a collaboration between governments and foreign tech firms? Can we think about European 'eco tech' systems conceived on the very idea of an Internet which is capable of providing common goods (and thus capable of addressing what seems to be a Silicon Valley's "market failure")?

The Pontignano Paper of 2023 introduced a number of ideas that the 2024 edition can consider as a starting point.

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