COM&IP INSIGHTS: COMPARATIVE & INTER-DISCIPLINARY INSIGHTS (ED. 2024 NO. 21)

Dear Readers,

In COMIPinDigiMarkts' research-based insights, **COM&IP Insights**, we look at the **emerging issues in intellectual property, competition & data law, from a comparative & inter-disciplinary perspective**.

The theme for this COM&IP Insight is *'Generative AI & Competition Law Concerns: The New Kid on the Block!'.*

Artificial intelligence (AI) is not a new concept. It dates back to 1956 to the Dartmouth Summer Conference on AI. John McCarthy and his colleagues defined AI as the 'science and engineering of making intelligent machines'. Russel and Norvig define AI as computers and machines that seek to act rationally, think rationally, act and think like a human. Generative AI is a sub-category of AI that allows machines to generate new content rather than simply analyse data. By using models trained on a vast amount of data, generative AI can create content such as text, photos, audio, or video, which may be akin to the content created by humans. Foundation models are a form of generative AI, which generate output from one or more inputs (prompts) in the form of human language instructions. Large language models (LLMs), including chatbots and other text-based AI tools, are good examples of foundation models. Large language models are no longer limited to simple tasks or scripted responses. They possess the ability to understand context, learn from interactions, and adapt their responses.

Recent developments in AI and its potential legal implications have been on the radar of regulators in the EU, in the UK, the USA and around the world. On March 13, 2024, the European Parliament adopted the Artificial Intelligence Act (AI Act). This marks a regulatory milestone, aiming to set EU-wide standards on data quality, transparency, human oversight, and accountability. However, this legislation, along with other international efforts like the USA's Algorithmic Accountability Act of 2023 and Canada's Directive on Automated Decision-Making, still leaves gaps as they primarily focus on safety of AI systems and do not address competition concerns. On 23 July 2024, 4 key agencies namely the European Commission, the UK Competition and the Markets Authority (CMA) the US Department of Justice (DOJ) and the US Federal Trade Commission(FTC) released a joint statement on competition in generative AI foundation models and AI products and acknowledged that AI could benefit citizens, boost innovation and drive economic growth. However, to reap these benefits competition authorities must remain vigilant and provide safeguards against tactics that could undermine competition.

Against this dynamic backdrop, in this insight, Aysem Diker Vanberg assesses the regulatory concerns in generative AI, and whether EU competition law may help address the competition concerns therein.

COM&IP Insights is open to contributions by comparative and inter-disciplinary scholars. To know more, and contribute please connect with us on **LinkedIn**.

With kind regards,

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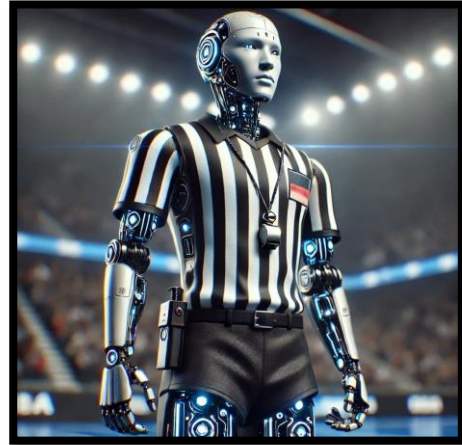*Editor***: K. Tyagi** (Email, LinkedIn)

COM&IP Insights

A comparative & an inter-disciplinary perspective on IP & Competition

1. *Competition Concerns in generative AI*

Amongst other legal concerns such as privacy and copyright-related issues, there are several key competition concerns concerning generative AI markets.

The first competition issue in generative AI markets is access to essential inputs. The key inputs for developing and deploying generative AI tools are access to data, computational resources (hardware), investment and human talent. Incumbent platforms such as Alphabet, Microsoft, and Meta already have extensive data sets accumulated through providing services in adjacent markets which gives them a significant competitive advantage over new entrants. In theory, these incumbents can restrict access to these essential inputs (such as data) to protect their position in adjacent markets or they can limit access to their own generative AI models to weaken competition in the downstream markets. Data is a competitive advantage that benefits large online platforms such as Alphabet and Meta. Established platforms such as Google, Facebook, and Microsoft benefit from access to the unprecedented amounts of data they have collected from their users over the years, and they have better data management tools and technologies for utilising the data. As noted by the FTC, having access to large amounts of data is not unlawful in itself but if the incumbent digital platform uses the data collected to create entry barriers for new entrants this will be illegal. Furthermore, the development of foundation models requires highly specialised hardware, namely Graphic Processing Units (GPUs), wherein US-based Nvidia enjoys near monopoly. The development of Generative AI requires talent and a high level of expertise in data engineering and high-performance computing. These talented individuals are likely to be recruited by large dominant platforms with large pockets. In this fast-moving sector 'acquihires' where one company acquires another for its talent is common. Hence, as pointed out in the joint statement by the EU, the CMA, the DOJ and the FTC, control of key inputs by a small number of companies could limit the scope of disruptive innovation in generative AI markets at the expense of fair competition that benefits the public.

The second competition issue in generative AI markets concerns exclusionary conduct by incumbents. Exclusionary abuses occur whereby the dominant undertaking prevents and hinders competition in the market. In these markets, companies operating in adjacent markets might employ exclusionary strategies such as bundling, tying and self-preferencing to exclude their rivals and foreclose entry. Tying and bundling is a common practice employed by digital platforms. In the landmark Microsoft case, the European Commission and the General Court held that Microsoft's practice of providing its Windows client PC operating system with Windows Media Player constituted a case of unlawful tying. In 2008, the European Commission opened another investigation against Microsoft in connection with the association of Microsoft's Internet Explorer browser with its Windows client operating system. To address the Commission's concerns, Microsoft committed to give computer manufacturers and users the possibility to disable Internet Explorer and allowed Windows users in the European Economic Area to choose between different web browsers via a browser selection screen. Tying and bundling are likely to be a common feature in generative AI markets. Incumbent firms can link new generative AI products with existing core products such as their search engine, operating systems or productivity software or offer multiple products that may potentially distort competition. This is already the case in generative AI markets. For instance, Google links its generative AI product Gemini to its prominent search engine and Microsoft integrates Copilot (its AI product) into its productivity applications, namely Word, Excel, PowerPoint and Outlook. Self-preferencing is another form of exclusionary abuse which is exhibited in digital markets. It occurs when a platform favours its services and products at the expense of its competitors. In 2017, the European Commission found that Google had abused its dominant position in the general search engine market to promote its comparison-shopping service (Google Shopping) by displaying its services higher in its search results and displaying competing services in less prominent

places, leading to the exclusion of its competitors from the market. The EU General Court upheld the Commission's decision and on 10th September 2024 the highest court in the EU, the Court of Justice of the European Union, largely reiterated the General Courts position. Self-preferencing remains a concern for generative AI markets too. As Carugati notes, search engines such as Google could promote their own AI-powered generative response engines through their search engine, to the exclusion of competing providers.

The third key competition issue in generative AI markets is the partnership agreements between various players in the value chain. Partnerships between large companies and small developers in the AI markets are generally deemed pro-competitive as these agreements may give access to necessary components which allow new AI systems to be developed. However, such agreements should be monitored closely to ensure that they do not create entrenched market positions. Dominant platforms can buy or invest in start-ups or enter into partnership agreements with other companies. If a larger company uses its market power to exercise decisive control over a startup or to enjoy exclusive access to its technology, this may adversely affect competition across the value chain and exclude competition in the generative AI or adjacent markets. As pointed out by the FTC, incumbent firms in the generative AI market could use mergers and acquisitions to consolidate their market power. For instance, incumbent companies that are already active in the field, may buy critical applications to foreclose access to core products.

Partnerships between large platforms with access to key inputs, such as cloud services, and startups developing foundation models are quite common in the generative AI markets. For instance, Microsoft entered into a partnership with OpenAI, whilst Anthropic entered into a partnership with both Google and Amazon in 2023. In these partnership agreements, often the large platform will have access to a key input and it may obtain favourable terms (such as exclusive rights to distribution on top-tier versions of its models) which could cause competition issues. Through these partnership agreements, the dominant incumbent firms can gain significant control over a new startup, whilst the new AI start up can gain access to key inputs such as cloud services. For instance, through its partnership with Microsoft, Open AI gained access to Azure, Microsoft's cloud computing platform whilst Microsoft gained some control over Open AI as it gained an observer seat at Open AI. Microsoft has since given up this seat to alleviate antitrust concerns in the UK and in the USA. The cloud service sector too has faced significant antitrust scrutiny in the past, as the regulators are concerned that as AI continues to advance, partnerships between dominant cloud service providers and AI start-ups may intensify the concentration in these markets and incentivise these providers to exclude competitors in the downstream market.

2. Is EU Competition Law fit to deal with generative AI?

It is crucial to assess whether the current EU competition law framework, particularly Article 102 of the Treaty on the Functioning of the European Union (TFEU) and the European Merger Control rules, are well equipped to tackle the challenges posed by the generative AI.

Article 102 of the TFEU prohibits the abuse of a dominant position in the internal market or in a substantial part of the internal market. Market power or high market shares in a particular market are not inherently anti-competitive, but if a firm abuses its market power, it is considered anti-competitive. The risk of abuse arises when dominant companies exploit their position to suppress competition. Arguably, EU competition law, in particular 102 of the TFEU, is flexible enough to deal with anti-competitive behaviour resulting from abuse of dominance in the generative AI markets, in particular, if dominant platforms, such as Microsoft and Google, use their market power in the operating systems and search engine market to entrench their position in other markets such as the AI-based content generation tools. In this respect, whilst Article 102 TFEU is a relevant and noteworthy legal instrument to deal with the challenges of the generative AI market, the effective enforcement and swift resolution of competition concerns remain a concern. As seen in the Google Shopping case, on average, antitrust cases take many years and by the time a case is concluded, remedies may be obsolete due to the fast-paced nature of these markets. To address this issue, several scholars including Cabral et al (2021) , Baker, (2021) and Cappai et al (2021) have proposed the need for adopting preventive measures such as ex-ante rules as

opposed to ex-post enforcement. In order to make the digital markets fair and contestable, the European Commission has adopted ex-ante regulatory instruments such as the Digital Markets Act (DMA) and the Digital Services Act (DSA).

In addition to Article 102 TFEU, another significant competition law instrument applicable to generative AI markets is the EU Merger Regulation. Mergers (as well as acquisitions, joint ventures, partnerships etc) can be beneficial for a firm as they can obtain a range of benefits including economies of scope, scale, access to information and a greater customer base, which may lead to lower prices, better products and services and an increase in consumer welfare. Nevertheless, some transactions may result in increased market concentration, decrease economic efficiency, increase prices, lower quality, and lessen consumer welfare. In this respect, EU Merger Control rules are crucial to deal with anti-competitive partnerships which may entrench market positions. However, as the partnership between Open AI and Microsoft demonstrates, some partnership agreements may fall outside the scope of EU merger control rules due to inherent difficulties in showing the change of control. In other words, the European merger control rules may be unable to address every anti-competitive concentration. Having said that it has been reported that since June 2024, the EU Commission is reviewing the exclusivity agreements between Open AI and Microsoft to determine whether this agreement blocks other companies from entering the generative AI market. In other words, the Commission can still follow under 102 TFEU.

As the above demonstrates both Article 102 TFEU and the EU Merger Regulation offer a legal basis to tackle challenges posed by the generative AI markets, but they may not always be adequate. Hence to capture potential anticompetitive conduct they must be supplemented with proactive, ex-ante regulatory tools like the Digital Markets Act (DMA) and relevant guidance issued by the Commission.

The Digital Markets Act (DMA) aims to ensure that digital markets remain fair and contestable. Contestability refers to the ability to overcome barriers to market entry, while fairness includes the ability to challenge the power imbalance between gatekeepers and other firms. Albeit not being a competition law instrument, the DMA, is adopted to deal with unfair conduct of digital platforms and to prevent anti-competitive conduct before it occurs. The DMA achieves its objectives by imposing a list of positive and negative obligations on gatekeepers that apply to the platform's core platform services (CPS), such as online search engines. To this date, the Commission has designated six gatekeepers and 24 CPS which fall under the ambit of the DMA. However, services relying on generative AI, or foundation models, are not included under the scope of application of the DMA. Doubtlessly, several provisions of the DMA that prohibit tying and self-preferencing could be very helpful in tackling anti-competitive behaviour in the generative AI market. For instance, Article 6(5) of the DMA prohibits the practice of self-preferencing by gatekeeper platforms and hinders a platform from treating its own services and product more favourably in ranking and related indexing and crawling at the expense of third parties. If search engines like Google promote their own AI-powered generative response engine through their search engine, whilst excluding competitors such as ChatGPT, this provision could come into play. However, the DMA can apply when AI is embedded in designated core platform services such as Google Search or social networking sites such as Facebook, and the DMA will not apply to OpenAI as it is not a core platform service.

5. Concluding observations: the need for joint and participatory approach

The key inputs for the development of generative AI systems are computing power, data, investment and human talent and it is acknowledged that at present, only a few players have access to these key inputs.

Whilst EU competition rules namely Articles 102 TFEU and the EU Merger Regulation provide a legal basis for addressing AI-related competition concerns, if and when anti-competitive concerns are materialised, the above provisions need to be adapted to keep pace with technological progress and be supplemented by other relevant instruments such as the DMA.

Given the dynamic nature of generative AI markets, there is a need to learn lessons from the regulation of digital markets. AI regulation goes beyond competition law and often intersects with several areas of regulation including competition, consumer protection, privacy, intellectual property, and public health. This indeed requires inter-agency cooperation and collaboration. Thus, the European Commission must adopt a joined-up regulatory approach which involves efficient cooperation and collaboration between different regulatory authorities such as the European Data Protection Board, and the proposed European
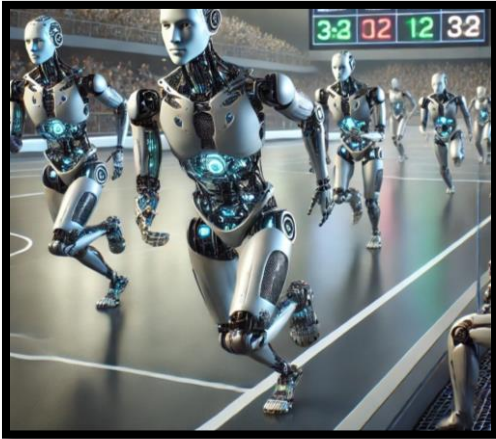
AI Office as well as other international regulatory bodies such as the FTC and the CMA.

Moving forward, the Commission should engage in a wider discussion with all the relevant stakeholders to determine initiatives to reduce these entry barriers for new entrants. These incentives could include funding the development of fully open-source models which could be reused and fine-tuned by other AI developers as well as encouraging interoperability and the right to data portability to reduce lock-ins.

To have a dynamic and responsive competition law framework capable of addressing the evolving nature of generative AI markets, there is a need for a participative regulation involving diverse stakeholders including businesses, dominant platforms, new entrants, non-governmental organisations, and consumers. Participative regulation is an unprecedented form of regulatory tool, as it allows the regulator to have a dialogue with the regulated firm at the stage of crafting obligations. This approach has been successfully employed in the recent *Google's 'Privacy Sandbox' browser case* in the UK and the *Amazon Marketplace and Amazon Buy Box* cases in December 2022, whereby both the CMA and the Commission respectively, had a dialogue with the undertakings and ensured that the remedy addressed the concerns of other relevant stakeholders. Arguably, participative regulation and the use of commitment decisions, can be particularly beneficial in swiftly addressing the challenges posed by generative AI.

Sources: The Dartmouth Summer Research Project on Artificial Intelligence (1956), available here. Russel and Norvig (2021), available here. The European Commission, the UK CMA, the US Department of Justice and US Federal Trade Commission, (2024) available here. OECD (2024), available here. Copenhagen Economics (2024), available here. C Carugati (2023a) available here. Skadden (2024), available here. L. M. B Cabral et. al (2021), available here. J. B. Baker, (2021), available here. M Cappai and G Colangelo, (2021), available here. R. Carugati (2023b), available here. V Kathuria (2022), available here.
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