

RETHINKING THE CONTOURS OF COMPETITION LAW: *THE AI PERSPECTIVE*

- Sameer Gupta & Sankalp Udgata

“AI is a new digital frontier that will have a profound impact on the world.”

- *WIPO Director General Francis Gurry*

ABSTRACT

India’s legislative and policy development for regulating the competition in market is still at its nascent stage. Though, the Competition Act, 2002 (“Act”) has faced serious challenges in its implementation, it has been able to adequately address concerns relating to Indian demographics. However, the convergence between competition law and technology has exposed serious lacunas in the law. The data giants like Google and Amazon have made serious attempts to cause peril to the fair competitive practices by piercing the competition law and regulations of India. Technological advancement has brought the Artificial Intelligence (AI) systems in operation at the market places. AI has shown the potential to disrupt the market and also the ability to subvert the fundamental balance between the competition law and its enforcement. Technology not only provides the ease of convenience to the consumers but also jeopardizes their interest by inducing the market forces and consequentially affecting the competition in the market. The author endeavours to examine the potential effect of AI in the market and analyzes the existing trends in the market sphere. The paper finally concludes after analyzing the perils, their consequences and a prospective roadmap to tackle the challenges posed by AI.

Keywords: Data, Artificial Intelligence (AI), Competition, Competition Law and market forces.

Why do humans rely on artificial intelligence?

An ordinary pursuit in the business activities mandates huge amount of skill and effort by humans, however the advent of AI has enabled humans to change this mandate. AI brings forth improved accuracy along with risk reduction. AI is capable of providing impenetrable and inaccessible volumes of accurate data and allows a professional to take decisions through AI systems. This means that the business portfolios may be dictated through decisions which are actually generated by Artificial Intelligence Systems.

I. ARTIFICIAL INTELLIGENCE: IDENTIFYING FUTURE POSSIBILITIES THROUGH THE ARTIFICIAL FUEL.

AI, introduced as a concept in a 1950 paper, got its name during the Dartmouth Conference in 1956.¹ However, there exists no single unanimous definition of AI. Some define it broadly as a computerized system exhibiting behaviour commonly thought of as requiring intelligence, whereas others call it a system that is capable of rationally solving complex problems or taking appropriate action to achieve its goals in real-world circumstances.²

AI systems have garnered significant appreciation from international community and even by WIPO (World Intellectual Property Organization).³ In fact countries like Australia and Canada have initiated AI systems in their Patent offices to help them conduct semantic

¹ NETWORKING AND INFORMATION TECHNOLOGY RESEARCH AND DEVELOPMENT SUBCOMMITTEE, NATIONAL SCIENCE AND TECHNOLOGY COUNCIL, THE NATIONAL ARTIFICIAL INTELLIGENCE RESEARCH AND DEVELOPMENT STRATEGIC PLAN (2016), available at https://www.nitr.gov/pubs/national_ai_rd_strategic_plan.pdf.

² *Id* at 7.

³ Press Release, WIPO, WIPO Translate: Republic of Korea is First to Adopt WIPO's "Artificial Intelligence" – Powered Patent Translation Tool, WIPO Press Release PR/2018/818 (May 24, 2018).

searches and to collect, scrub, and analyze large datasets.⁴ Artificial intelligence has rived the entire technology ecosystem and has opened avenues which were considered unimaginable. This is evident from the ongoing R&D for the implementation of AI on a macro level.⁵

DeepMind, a leading artificial intelligence (AI) research company, has filed a series of international patent applications concerning a sundry of the elementary aspects of modern-day machine learning. These certainly are of great potential significance to stakeholders operating in the commercial AI sphere.⁶ Instances of these kinds including technological advancement have shown us the pervasive existence of artificial intelligence in the commercial community. AI systems have also started to influence the competitive market owing to their inherent ability to subvert the fundamental balance between independent market forces.⁷

II. THE WISDOM BEHIND THE COMPETITION ACT, 2002.

Perusing the Preamble and statement of objects and reasons of the Act, a conclusion can be drawn that the principle objects of the Act are to eliminate practices which may adversely affect the competition, to promote and nourish competition in the market, to protect the interest of the consumers and effectively ensure freedom of trade carried on by various participants in the market, in view of the economic developments in the country. In essence, the letter of law does not only mandate the protection of free trade but holds the protection of consumer interest at the highest pedestal.

⁴ Index of AI initiatives in IP offices (2018), available at https://www.wipo.int/about-ip/en/artificial_intelligence/search.jsp.

⁵ TT Consultants, *Can Artificial Intelligence software be patented in India?*, PATENT BLOG AND PATENT NEWS FOR LEGAL SERVICES, available at <http://ttconsultants.com/blog/can-artificial-intelligence-software-be-patented-in-india/>.

⁶ Rose Hughes, *DeepMind: First major AI patent filings revealed*, THE IPKAT, available at <http://ipkitten.blogspot.com/2018/06/deepmind-first-major-ai-patent-filings.html>.

⁷ Neha Soni et al., *Artificial Intelligence in Businesses: from Research and Innovation to Market Deployment*, 167 *PROCEDIA COMPUTER SCI.* 2200, available at <https://www.sciencedirect.com/science/article/pii/S1877050920307389>.

In fact, efforts to liberalise the Indian economy to match the standards set by the best of the economies of this century would be jeopardised if a time-bound schedule and expeditious disposal by the Commission is not followed.⁸ As a necessary corollary a lack of clarity relating to concepts which are not dealt within the Act will lead to precarious and undesirable situations of delay in disposal of cases. The contours of the Act do not envision a market influence through AI and therefore a speedy disposal of cases may not be possible.

In fact, the purpose of the Act is not only to illuminate practices having adverse effect on the competition but also to promote and sustain competition in the market. Axiomatically, effective enforcement is important not only to sanction anti-competitive conduct but also to deter further anti- competitive practices. It is the imperative duty of the CCI to ensure that the conditions which have tendencies to kill the fair competition in the market are to be curbed. The CCI must ensure that consequential benefits of a healthy competition are reaped by the consumers.⁹ Therefore, the CCI must address the competition concerns raised through technological developments specifically AI's ability to influence and to predict the demand and supply. AI has the ability to suggest conduct of pre-determined nature which may invariably affect the competitive spirit of the market.¹⁰

Addressing AI's influence in the current scenario, it will be desirable that the competent authority frames regulations providing a definite time-frame for completion of investigation, inquiry and final disposal of the matters pending before the Commission.¹¹ Until specific regulations are framed for AI, the court must indulge them in finding solutions to curb the anti-competitive conduct through machine learning and AI mechanisms. Since companies are predominantly encouraged for the formation of a cartel, it is the duty of the

⁸ CCI v. SAIL, (2010) 10 SCC 744 (India), ¶ 125.

⁹ Rajasthan Cylinders and Containers Limited v. Union of India, (2018) SCC OnLine SC 1718 (India), ¶ 79.

¹⁰ OECD, *Algorithms and Collusion: Competition Policy in the Digital Age* (2017), available at <http://www.oecd.org/daf/competition/Algorithms-and-collusion-competition-policy-in-the-digital-age.pdf>.

¹¹ CCI v. SAIL, (2010) 10 SCC 744 (India), ¶ 136.

state to prevent the formation of cartel and prevent any price escalation. The consumers should not be susceptible to unwarranted consequences of the competition malpractices.¹² AI technology is currently offering potential challenges to the competitive market and poses threats like consumer infidelity.¹³ The Act succinctly captures the essence of a fair market. However, the passage of time has disabled the current competition law regime to adequately address antitrust concerns raised by artificial intelligence.

III. TRACING THE POTENTIAL THREATS POSED BY ARTIFICIAL INTELLIGENCE TO COMPETITIVE MARKETS.

Technological attributes of technology industries set them apart from traditional industries. *Firstly*, technology markets are dynamically driven and evolve through rapid innovation. The constant and rapid pace of technological change can act as an impediment for entities who try to exercise market power by domination.

Market power of a firm in these markets may turn out to be ephemeral.¹⁴ *Secondly*, business models relying on vast collection and processing of big data in nearly real-time enable players in the digital space to offer a wide-range of innovative and customised services.¹⁵ However, the perks offered by technology come along with a potential threat of market domination by various entities through innovation itself. AI is certainly an innovation which poses threats of market domination.

Evaluating on the horizontal level, the role of algorithms and artificial intelligence in collusion is an area that is increasingly being acknowledged in academic and policy forums.

¹² B.S.N. Joshi & Sons Ltd. v. Ajoy Mehta, (2009) 3 SCC 458 (India), ¶ 17.

¹³ Thomas Davenport et al., How artificial intelligence will change the future of marketing, 48 J. OF THE ACAD. MARK. SCI. 24 (2020), available at <https://link.springer.com/content/pdf/10.1007/s11747-019-00696-0.pdf>.

¹⁴ Augustine Peter, Member, Competition Comm'n of India, Key Note Address by Mr. Augustine Peter, Member at ASSOCHAM 5th International Conference on Competition Law and Tech Sector (Jan. 19, 2018), available at <https://www.cci.gov.in/sites/default/files/speeches/Key%20Note%20Address%2C%20ASSOCHAM%205th%20International%20Conference%20on%20Competition%20Law%20and%20Tech%20Sector.pdf?download=1>.

¹⁵ *Id* at 6.

Algorithms are the shortcuts humans use to give directions to computers. At its most basic, an algorithm simply tells a computer what to do next with an “and,” “or,” or “not” statement.¹⁶

The academic literature suggests four possible scenarios of algorithm-induced collusion:

1. *Messenger*, where humans use computers and the IT environment to better execute cartels,
2. *Hub and Spoke*, where a single algorithm is used to determine price by numerous users,
3. *The Predictable Agent*, where pricing algorithms act as predictable agents and continually adjust to each other’s prices and market, i.e. algorithm-enhanced conscious parallelism and
4. *Digital eye*, where **AI** operating in enhanced market transparency leads to an anti-competitive outcome.

Keeping in mind the obsolete nature of the 2002 Act, it will be very difficult to find ways to prevent collusion between self-learning algorithms. This might be one of the most challenging tasks that competition law enforcers have ever faced.¹⁷

The conversation of the use of competition or antitrust laws to govern AI is still at an early stage. However, it is needless to emphasize the fact that Competition Law finds its relevance in the data sphere. The data driven mergers or acquisitions such as Yahoo-Verizon, Microsoft-LinkedIn and Facebook-WhatsApp have demanded pre-emptive attention from the Competition Law enforcement bodies and therefore it is difficult to ignore the potential role of competition law in the governance of data collection and processing practices. It is

¹⁶ Tristan Greene, *A beginner’s guide to AI: Algorithms*, THE NEXT WEB (Aug. 3, 2018), available at <https://thenextweb.com/artificial-intelligence/2018/08/02/a-beginners-guide-to-ai-algorithms/>.

¹⁷ B.S.N. Joshi & Sons Ltd. v. Ajoy Mehta, (2009) 3 SCC 458 (India).

important to note that the impact of Big Data goes far beyond digital markets and the mergers of companies such as Bayer, Climate Corp and Monsanto show that data driven business models can also lead to the convergence of companies from completely different sectors as well.¹⁸

The commission of European communities in the *Google/DoubleClick case*¹⁹ examined the potential threat to competition due to a merger between Google and DoubleClick. Several complainants asserted that the merger would eliminate potential competition between Google and DoubleClick. While the various theories of harm brought forward by these complainants differ with regard to the details and nuances, they all rely on the presumption that DoubleClick has a number of advantages that would, absent the merger, allow it to develop into a key competitor of Google in the market for online ad intermediation and, by extension, in the market for the provision of bundled online ad intermediation and ad serving services.²⁰ Though the commission declared the merger to be valid, the case certainly opens up the competition and technology dichotomy.

The concerns rose by big data and technology are innately related to AI because AI's decision-making process is dependent upon the data accumulated over the internet. AI has the potential to induce the algorithm-based collusion.

IV. THE CCI'S ORDER AGAINST THE SEARCH ENGINE GIANT.

In Re: Matrimony.com Limited and Google LLC,²¹ the Competition Commission of India imposed a penalty on the search engine 'Google' for abusing its dominant position in

¹⁸ Amber Sinha, Elonnai Hickok & Arindrajit Basu, *AI in India: A Policy Agenda*, THE CENTRE FOR INTERNET & SOCIETY (Sept. 5, 2018), available at <https://cis-india.org/internet-governance/blog/ai-in-india-a-policy-agenda>.

¹⁹ Commission Decision of Mar. 11, 2018, declaring a concentration to be compatible with the common market and the functioning of the EEA Agreement, Case M.4731-Google/DoubleClick C(2008) 927, available at https://ec.europa.eu/competition/mergers/cases/decisions/m4731_20080311_20682_en.pdf.

²⁰ *Id* at 60, ¶ 222.

²¹ *In Re: Matrimony.com Limited v. Google LLC*, (2018) SCC OnLine CCI 1 (India).

