
ABSTRACT

Social media and other digital applications make use of various psychological design tools to make platforms more addictive for the end user. This is done through methods such as infinite scrolling or 'doom scrolling', social pressure, validation and hoax reward systems. The ethicality of the process is highly debatable but from a perspective of the law, the conversation opens up various avenues of regulation. The nature of these regulations can relate from Anti Competitive Conduct to practices opposed to Public Welfare. The internet has evolved into an ecosystem where the very attention of human beings is captured and sold to advertisers. The implications of a lack of competition in the social media industry are not only detrimental to the basic tenets of the law, innovation and consumer benefit but are also crippling an entire generation of young and naive users. Understanding digital addictions as a part of behavioural addictions and understanding user data as commodities is essential for a beneficial conversation on regulating 'Big Media'.

Keywords: *Competition Law; Consumer Welfare; Addictive Apps; Social Media; and Digital Regulation.*

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Introduction

In March 2018, the Cambridge Analytica Scandal made headlines across the world. It became major news for two particular reasons – first, the idea that a social media platform as major as Facebook had been selling the user data of almost 87 million people without their consent for close to 7 years was shocking. And second, this data, in the hands of an expensive consulting firm was allegedly able to manipulate the 2016 presidential elections of the United States of America, the ostensible symbol of democracy. This was a turning point in the history of the technological revolution. The regulation of the internet and user data took centre stage as the world now realised how powerful it was¹. With the growth in the discourse around Internet Regulation, the world began to see the issues of a wild untamed internet. For most users of the internet (excluding those who used the dark-net), including myself, the harmless use of internet to keep up with music, news and your peers was never ‘weaponised’ until targeted advertising mushroomed into political manipulation, misinformation and non-neutrality of data. It became increasingly difficult to objectively view anything on social media. Which is the reality that the Cambridge Analytica Scandal sounded the general populace to.

Social Media has been a driving force in the growth of the Internet because it was seen as the product that demystified the internet for the common man. Similar to how Steve Jobs’ first Macintosh made the use of computers relevant to common people. In India, WhatsApp has over 487 million users², Facebook has 240 million users³ and Instagram has 140 million users⁴. Social Media Platforms have now developed into an inextricable part of human lives. Having evolved from a simple way to interact with peers to being a platform essential to any business, these platforms are assuming more significance in the working of this world. Social Media platforms are essentially a way to take what is the most deeply rooted human instinct – Socialisation, and put a broadband wire in it.

The contemporary scenario of discourse relating to the regulation of social media platforms has been focused on User Data, Misinformation and most recently forms of engagement including what a user

¹ Joanne Hinds, Emma J. Williams & Adam N. Joinson, “It Wouldn't Happen To Me”: Privacy concerns and perspectives following the Cambridge analytica scandal, 143, *International Journal of Human-Computer Studies*.

² L. Ceci, WhatsApp users in selected countries 2022, Statista (last visited May 14, 2022), <https://www.statista.com/statistics/289778/countries-with-the-most-facebook-users/>

³ Statista Research Department, Facebook users by country 2022, Statista (last visited May 14, 2022), <https://www.statista.com/statistics/268136/top-15-countries-based-on-number-of-facebook-users/>

⁴ Mansoor Iqbal, Instagram revenue and Usage Statistics, *Business of Apps* (last visited May 14, 2022), <https://www.businessofapps.com/data/instagram-statistics/>.

can publish. This is reflected in the new laws being enforced in India⁵ to regulate the content shared on social media platforms and the Personal Data Protection Bill being introduced in China to give consumers more power over their information shared and saved by social media platforms⁶.

While the aforementioned paradigms of Internet regulation are becoming progressively more important, this paper concerns itself with a different issue which happens to be a core design principal in numerous computer-based applications and platforms – addictive design. This ‘addictive design’ is meant to incline the consumer to use the product (video games, streaming services, social media, e-commerce) more often and for longer periods of time. This goes beyond the utility of the product itself; this is a design element or a combination of design elements focused on taking the consumer’s attention and monetising it for vast revenues. Further this paper will analyse the far-reaching legal implications of the same relating to Public Welfare and Competition laws.

Addiction as a Design Element

Addiction to social media is unlike addiction to narcotic or alcoholic substances since it does not introduce any new chemical compounds into the body of the user, and thus is not a physical addiction⁷. Social media like gambling or pornography is a behavioural addiction and hence apps employ a wide variety of techniques to psychologically induce the user to log on to it. Using decades of reliable research on human psychology, behaviour and conduct, and applying it to usage patterns on phones and the platform itself, allows developers to induce the user to open the app more often (notifications) and use it longer (unlimited content).

Increased usage of the social media platform will allow it to display more advertising to its users thus increasing the revenue that can be earned from businesses paying to be advertised. Essentially, every time a user looks at an advertisement, the platform gets paid. And the only way to effectively increase the number of advertisements seen by the user without antagonising and thus alienating the user is to spread the incidents of sponsored content across longer periods of time. Thus, an addictive app can

⁵ Sahel Sood, Internet – A broader censorship ruling democracy - Media, telecoms, IT, entertainment - India, Mondaq (last visited May 14, 2022). <https://www.mondaq.com/india/social-media/1099736/internet-a-broader-censorship-ruling-democracy>

⁶ Natasha, L., China passes data protection law, TechCrunch (last visited May 14, 2022). <https://techcrunch.com/2021/08/20/china-passes-data-protection-law/>

⁷ Seyyed Alavi and Masoud Ferdosi, *Behavioral Addiction versus Substance Addiction: Correspondence of Psychiatric and Psychological Views*, 3, International Journal of Preventive Medicine, 290-294.

advertise far more than an app rarely frequented by its users. A few examples of such design practices are –

- a. **Infinite Scrolling and User Immersion** – Psychologist Mihaly Csikszentmihalyi coined the term *flow* in the ambit of human psychology⁸. Flow is described as the positive state of mind that exists when a human being engages with a certain task. In the presence of flow, a person becomes so engrossed with this task that they lose a sense of time and may engage the task for extended periods of time. This an essential tool used by employers to increase productivity in the workplace. But in the context of social media apps, the presence of a flow is lethal for the user as it compels them to continue using the app for long periods of time. Apps such as Instagram and Facebook achieve this with Infinite scrolling – a feature which gives the user all the content they enjoy, endlessly. By analysing the user’s preferences, likes and dislikes, the platform will suggest content that is most likely to engage the viewer for longer times. Finally, the platform will continue to do this by playing similar content with the sole objective of inserting advertisements and other sponsored content between them. This is seen on Instagram’s *Explore Feed* and *Reels* features⁹. Netflix automatically plays the next episode of show. This makes the platform a more immersive experience for the user.
- b. **Exposure** – Social media platforms understand that the more often a person is exposed to something, the more prone they are to repeatedly use it. This is widely known as the exposure effect¹⁰. This is one of the easiest design elements as all it requires is an inch of the screen of the phone to alert a notification to the user. These notifications may comprise of varying relevance to the user. Notifications about new messages, social interactions such as likes and comments or views are very common and to some degree of use, also essential. But platforms such as Instagram and Facebook allow the user to be notified every time their friends post content, or to recommend new content to follow.
- c. **Social Pressure** – Social media platforms enabled instant messaging over the internet. This was a communication method that was cheap, efficient, and convenient. In February 2020, WhatsApp, an instant messaging service, had over 2 billion users¹¹. Next to every

⁸ Csikszentmihalyi, M. *Finding flow: The psychology of engagement with everyday life*. (Hachette 1995)

⁹ Montag, C., & Trendafilov, B. *Recorded Behavior as a Valuable Resource for Diagnostics in Mobile Phone Addiction: Evidence from Psychoinformatics*. National Library of Medicine.

¹⁰ Zajonc, R. B. *Mere exposure: A gateway to the subliminal*, 10(6), The Construction of Preference, 464-470. <https://doi.org/10.1111%2F1467-8721.00154>

¹¹ L. Ceci, WhatsApp users in selected countries 2022, Statista (last visited May 14, 2022), <https://www.statista.com/statistics/289778/countries-with-the-most-facebook-users/>

message a user sends to a contact on the platform there is one grey tick. Once the message is successfully delivered to the recipient's phone, another tick marks appears. Finally, once the recipient reads the message, both ticks, turn blue. Both parties are aware of this rule which manifest as a certain social pressure to communicate on both sides. Social pressure as a technique to increase user engagement has also been used by video game platforms. Activision's video game *Call of Duty: Warzone* has over 100 million users in the world¹² and allows users to form teams to compete against other teams on a virtual map. The goal of every team is to be the last living team on the map. The wins can then be shared across social media platforms or used to accumulate 'in-game rewards'. Thus, this creates a social pressure on the users to compete until they win against other users¹³.

- d. **Recommended Content** – Facebook's central attraction for a user is the *newsfeed*. Here, out of the billions of posts on the platform, a couple thousand lines of code comprising an algorithm, studies the user's activity and shows them content they will like and in turn stay online for longer and view more advertisements. This is not limited to the posts you like with a button. The algorithm also sees how long and far you engage with a particular type of content. Apart from what content you like, these algorithms can also learn what your mood is and, in some cases, even predict depression if you are a prolonged user¹⁴. The newsfeed also happens to be the key source for displaying advertisements and other sponsored content also curated by the algorithm¹⁵.
- e. **Social Validation and Elitism** – the most iconic feature of social media today is the like button. Facebook was able to create an entirely new attribute about people and that was how many friends they had on the platform. Instagram substitutes the word "Follower" for "Friend" and allows users to display on their profiles a count for followers. Snapchat rewarded users to communicate with their friends daily for a "Snapscore". These subtle forms of reward mechanisms to increase user engagement have made the platforms more addictive to the point where Social Media's role in the lives of many adolescents has

¹² Statista Research Department, *Topic: Call of Duty: Warzone*. Statista (last visited May 14, 2022). <https://www.statista.com/statistics/1110000/call-of-duty-warzone-players/>

¹³ Bean, A. M., & Nielsen, R. K., *Video game addiction: The push to pathologize video games*. 48(5), Professional Psychology: Research and Practice, 378-389.

¹⁴ Eichstaedt, J. C., & Schwartz, H. A., *Facebook language predicts depression in medical records*. 115(44), Proceedings of the National Academy of Sciences, United States of America, 11203-11208. <https://doi.org/10.1073/pnas.1802331115>

¹⁵ Youn, S., Shin, W., *Teens' Responses to Facebook Newsfeed Advertising: The Effects of Cognitive Appraisal and Social Influence on Privacy Concerns and Coping Strategies*, 38, Telematics and Informatics, 30-45 <https://doi.org/10.1016/j.tele.2019.02.001>

proven counter productive in terms of psychological distress, strained offline relationships and anxiety¹⁶.

The aforementioned features are used in varying combinations by a wide variety of platforms to hook the user's attention for advertising revenues. Having discussed the technological background of addictive app design, the paper will now detail the legal aspects of the same.

Regulation

Competition Law —

If we were to consider the business practices in a delineated social media market, the prevalent business model is to provide a free account on a free platform which is paid for by advertising revenue. Here, to maximise revenue, if the maker of the platform is a dominant market player, the maker has two choices – to increase the cost of advertisement or degrade the quality of the app by making it more addictive. In the absence of competition from other platforms, the maker can exercise both aforementioned choices simultaneously.

Facebook famously acquired Instagram in 2012 and WhatsApp in 2014 and having developed Facebook Messenger with independent functionality from the Facebook app, it owns 4 of the world's top 6 Social Networks. But since its inception, Facebook has acquired over 82 companies¹⁷. Documents in public record confirm that like the acquisition of Instagram, many of these companies are acquired to prevent them from posing a competitive threat to Facebook¹⁸. The monopolisation of the social media market by Facebook allows them to gain dominant control of the market. The resulting social media platform is hence – addictive for the user, expensive for the advertiser and should be an avenue for the enforcement of competition law.

Market competition is a simple mechanism where different products in a market compete with each other to be better for the consumer. This ensures that the products are great and the consumer benefits. However, this mechanism is protected by certain laws called Competition or Antitrust Laws. In India, this is governed by the Competition Act of 2002.

¹⁶ Keles, B., & McCrae, N., *A systematic review: The influence of social media on depression, anxiety and psychological distress in adolescents*. 25(1), International Journal of Adolescence and Youth, 79-93. <https://www.tandfonline.com/doi/pdf/10.1080/02673843.2019.1590851>

¹⁷ CNBC TV 18. *Timeline of Facebook's major acquisitions since inception*. Moneycontrol (last visited May 14, 2022). <https://www.moneycontrol.com/news/photos/business/timeline-of-facebooks-major-acquisitions-since-inception-6242111.html>

¹⁸ United States Congress House Committee on the Judicial Subcommittee on Antitrust; Commercial; and Administrative Law. *Online platforms and market power*. Department of Justice, United States of America. <https://judiciary.house.gov/calendar/eventsingle.aspx?EventID=3113>

As of December 2020, the Federal Trade Commission of the U.S. Government along with 46 other states has sued Facebook for becoming a monopoly¹⁹. Under Indian law, this would have been covered under Section 6.i. of the Competition Act of 2002 –

*“No person or enterprise shall enter into a combination which causes or is likely to cause an appreciable adverse effect on competition within the relevant market in India and such a combination shall be void.”*²⁰

Monopolies in markets become inefficient and less innovative over time since they do not have to compete with anyone else in the market. This abuse of power by dominant market players can cause a full-blown market failure due to the inefficient allocation of resources between consumers, sellers and manufacturers. In a monopoly, the market is restricting product improvement to reap the most revenue²¹.

Security and Data are further impacted too. In the presence of competition, social media platforms would reduce the amount of data saved and provide consumers more power over their data to compete with other platforms but the same cannot be said in an anti-competitive market. Facebook owns all of the data from four of the world’s largest social media platforms. This enables Facebook to leverage the access to all this data about many different sections of populations for monetary gain²². The objective of these regulations would be to provide a wider variety of choice in platforms on the market. A consequent of would of the same is solving the issues of unethical conduct such as addictive design and data mining to compete.

On the 24th of March 2021, the Competition Commission of India took *suo moto* cognisance and has launched an investigation into Facebook. The preliminary view of the CCI is that WhatsApp’s changes in privacy policies notifying that it will share user data with its parent company, Facebook is an abuse of dominance in the market and hence violative of the Competition Act of 2002. By taking

¹⁹ Andrews, L. *The mounting monopoly*. Facebook, the Media and Democracy, (Routledge 2019)

²⁰ The Competition Act, 2002, § 6(1), No. 12, Acts of Parliament, 2002 (India)

²¹ Moazed, A., & Johnson, N. L. *Modern Monopolies: What it takes to dominate the 21st century economy*. 6(1), St. Martin's Press, 63-65. <https://core.ac.uk/download/pdf/212471712.pdf>

²² Isaak, J., & Hanna, M. J. *User data privacy: Facebook, Cambridge Analytica, and privacy protection*. 51(8), Computer, 56-59. <https://ieeexplore.ieee.org/iel7/2/8436391/08436400.pdf>

this step, the commission has chosen delve into an issue which is normally seen as a matter of privacy laws and constitutional laws and expanded on the competition law aspects of the same²³

Public Welfare —

Another avenue for legislation concerns itself with behavioural addictions. The regulation of pornographic content, credit cards or gambling on the basis of them causing behavioural addictions²⁴ is prevalent across the world including India²⁵. The purpose behind the regulation of behavioural addictions by the law is to prevent them, and cure the cases where they have come into existence. The aim of these regulations would be to obligate or incentivise platforms to adopt design elements that actively condone user addiction to the platform by either notifying them to take a break and exhaustive newsfeeds, further enabling them to see how much time they have spent on the app will allow the user to consciously make changes too.

Mental health implications of social media websites and their addiction is beginning to emerge and portrays a rather dark image. Researchers have found that not only does a social media addiction induce problems such as anxiety or depression but also exacerbates them in people with past problems. This is not only limited to teenagers or young adults but it applies to a vast age group of people²⁶.

The harms presented by addictive digital content are diverse, at what point does the law feel compelled to regulate it? Tobacco products were proven to have been hazards to personal health for a long time before 'Big Tobacco' lost its political influence that kept them from being regulated. Addictive medications such as opioids are heavily regulated, financial instruments such as credit cards are regulated as well. These regulations relate to age restrictions, intermediary protections, disclosure of risks, time and place restrictions, limited advertising and illegal business practices. We understand cars are dangerous but are also essential to people. Hence we don't ban them but regulate

²³ Pal, P., & Kumar, H. *Data sharing between WhatsApp and Facebook: The CCI opens an investigation against the social juggernauts*. Competition Policy International (last visited May 14, 2022). <https://www.competitionpolicyinternational.com/data-sharing-between-whatsapp-and-facebook-the-cci-opens-an-investigation-against-the-social-juggernauts/>

²⁴ Orford, J., *Problem gambling and other behavioural addictions*. *Drugs and the Future*, 417-438. [https://www.greo.ca/Modules/EvidenceCentre/files/Orford%20\(2005\)Problem_gambling_and_other_behavioural_addictions.pdf](https://www.greo.ca/Modules/EvidenceCentre/files/Orford%20(2005)Problem_gambling_and_other_behavioural_addictions.pdf)

²⁵ George, S., Velleman, R., & Weobong, B. *Should gambling be legalized in India?*, 43(2), *Indian Journal of Psychological Medicine*, 163-167. <https://doi.org/10.1177%2F0253717620928761>

²⁶ Sarah M. Coyne, Emily Schvaneveldt & Jane Shawcroft, *An overview of social media and mental health*, *The Social Media Debate*, 152-169.

them with speed limits, driving licenses and red lights. A similar approach towards social media platform needs to be devised²⁷.

Conclusion

In the large context of social media platforms as products, the consumers it caters to are of a wide variety. Businesses use it to advertise and I use it to socialise. It is a simple arrangement. I can view my favourite content for free, in exchange of having to watch a few advertisements. The business can pay varying amounts to be advertised to varying numbers of users. However, when unfair trade practices such as monopolisation come together with the goal of maximising revenues, social media platforms employ clever design techniques to hound my attention and then sell it to the highest bidder to occupy with advertising.

The very attention of a human brain, along with online identities of people, is now a commodity for successful business models like Facebook. Unlike a consumer, I am also a product in the larger scheme of this business model.

Corporations in innovative new markets such as cryptocurrency and social media are functioning in the absence of much needed oversight. This is because they are seen as champions of freedom of speech and regulation of these markets is generally seen as invasive and of an infringing nature. With antitrust regulations, the narrative needs to evolve as to how no market or industry should be allowed to function in any way that harms consumers or users. There needs begin the formulation of an understanding wherein user data is also considered an essential part of the supply chain that digital apps' business models follow. Furthermore, awarding a degree of legitimacy to digital addictions such as addiction to social media or gaming under the law would be a major step in the furtherance of these objectives. Recognising these addictions under The Mental Healthcare Act of 2017²⁸ is a possible step in that direction.

A quote which is essential to the discourse around this topic is *"If you are not paying for the product, you are the product"*. Thus, the enforcement of antitrust laws on social media platforms and companies is becoming progressively more important for the wellbeing of economic markets, and public health.

²⁷ Ariel Hsieh & Fiona Scott Morton, *Addictive social media: Why we need regulation and competition for digital platforms*, ProMarket (last visited May 14, 2022), <https://www.promarket.org/2020/10/27/addictive-social-media-need-regulation-competition-digital-platforms/>

²⁸ The Mental Healthcare Act, 2017, No.10, Acts of Parliament, 2017 (India)