



# REGULATORY FRAMEWORK FOR OVER - THE-TOP (OTT) SERVICES IN INDIA: ISSUES AND CHALLENGES<sup>1</sup>

Dr. Shivakumar M.A, Assistant Professor P.G. Department of Studies in Law, Karnatak University, Dharwad,

## 1. Introduction

The rapid growth of OTT services has raised a number of national policy issues relating to regulatory imbalances & security concerns that need to be addressed. The regulatory imbalances need examination at various levels by different agencies of Government. In addition, public safety and privacy issues require attention.

Currently, the major sources of internet traffic are Google, Yahoo, MySpace, YouTube, Facebook, Windows Live, eBay, Wikipedia.org, msn.com and Craigslist, in that order. These portals are not owned by the networks and most of the portals host OTT services which provide various applications to end users. Social networks like Facebook, MySpace, Bebo, Friendster, Tagged, and Linked-In are capturing millions of user connectivity hours.

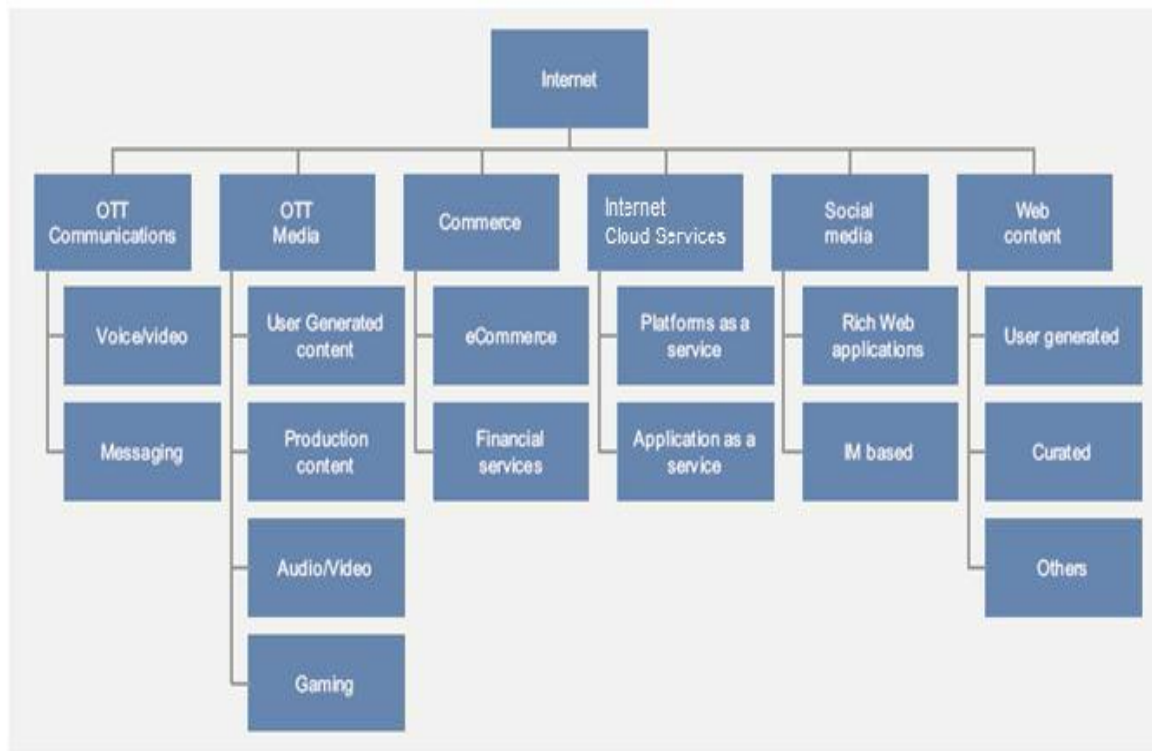
## 2. What are the Over-The-Top (OTT) services?

The term over-the-top (OTT) refers to applications and services which are accessible over the internet and ride on operators' networks offering internet access services e.g. social networks, search engines, amateur video aggregation sites etc. The best known examples of OTT are Skype, Viber, WhatsApp, Chat On, Snapchat, Instagram, Kik, Google Talk, Hike, Line, WeChat, Tango, ecommerce sites (Amazon, Flipkart etc), Ola, Facebook messenger, Black Berry Messenger, iMessage, online video games and movies (Netflix, Pandora). Today, users can directly access these applications online from any place, at any time, using a variety of internet connected consumer devices, also which includes,

- (a) Applications and services which are accessible over the internet and ride on operators networks offering internet access services;
- (b) Three types of OTT-Communications, Video content, Application eco system;
- (c) Two broad categories of services- Communications and non-Communications; and
- (d) Three broad public policy issues-Regulatory imbalances, impact on economy and security issues.<sup>2</sup>

The services available on the internet can be broadly categorised as in Figure 1 below. Apart from web content and social media, OTT communications and OTT media are now increasingly playing a major role in the internet domain.<sup>3</sup>

Internet Classification (Figure1)



An OTT provider can be defined as a service provider offering ICT (Information Communication Technology) services,<sup>4</sup> but neither operates a network nor leases network capacity from a network operator. Instead, OTT providers rely on the global internet and access network speeds (ranging from 256 Kilobits for messaging to speeds in the range of Megabits (0.5 to 3) for video streaming) to reach the user, hence going “over-the-top” of a telecom service provider’s (TSP’s) network. Services provided under the OTT umbrella typically relate to media and communications and are, generally, free or lower in cost as compared to traditional methods of delivery.

### 3. A range of regulatory framework and challenges in India

Indian regulatory authorities’ needs to focus on an area which is very relevant and necessary to protect and improve the areas as mentioned below which are connected to OTT’s regulatory framework;

- (a) **Authorisation and Licensing;** Telecom Service Providers (TSPs) are regulated by a number of laws, including the Indian Telegraph Act, 1885 (Telegraph Act), TRAI Act, 1997, the terms of the license agreement entered into between the TSP and the Government and the rules and regulations framed by the

<sup>2</sup>UK Srivastava Principal advisor (Network, Spectrum and Licencing) TRAI, Government of India “OTT Services in India” 2016, [REGULATORY FRAMEWORK OF OTT SERVICES IN INDIA \(itu.int\)](https://www.itu.int/regulatory-framework-of-ott-services-in-india)

<sup>3</sup> Telecom Regulatory Authority of India, Consultation paper on “Regulatory Framework for Over-The-Top (OTT) Services, 2015, <https://www.trai.gov.in/sites/default/files/OTT-CP-27032015.pdf>

<sup>4</sup> Section 2 (w) of Information Technology Act, 2005 —intermediary, with respect to any particular electronic records, means any person who on behalf of another person receives, stores or transmits that record or provides any service with respect to that record and includes telecom service providers, network service providers, internet service providers, web-hosting service providers, search engines, online payment sites, online-auction sites, online-market places and cyber cafes.

Government and TRAI from time to time. This section outlines some of the licensing obligations that are applicable to TSPs;

- (b) **Country of Jurisdiction;** OTT services store, process and transfer data belonging to citizens or companies of one country in another country or countries. They usually collect data pertaining to call detail records and demographic details of users. This transfer of data across national borders creates issues. First, it creates ambiguity regarding the territorial application of data protection norms i.e. countries are unsure if the privacy of their citizens data is adequately protected when it is hosted in other countries. Secondly, this technology has made it difficult for law enforcement authorities to investigate or gather evidence in criminal and taxation matters, as evidence data may be hosted in a different jurisdiction from where the offence was committed. OTTs situated in other jurisdictions may refuse to comply with request for cooperation or information sharing;<sup>5</sup>
- (c) **Competition Law and Economics;** OTT Services are products of the permission less innovation that has made the Internet what it is today. These services are mainly free to consumer, but monetized through advertisement or other use of customer data, such as for development of technologies that are priced in future products. The telecom services are licensed and paid for directly by the consumer;
- (d) **Security and Privacy:** TSPs are required to “ensure the protection of privacy of communication” and to ensure that unauthorized interception of message does not take place. The license agreement also restricts licensees from employing bulk encryption equipment in its network<sup>3</sup> and mandates the ensuring of network security;
- (e) **Pricing Regulations:** Price regulation is imposed, especially on dominant operators that have the potential to abuse their market power and engage in anti-competitive practices<sup>6</sup>. However, this form of regulation does not apply to OTT service providers who may possess similar market power which is equally subject to abuse;
- (f) **Taxing Regulations:** The lack of regulations allows OTT players to adopt innovative, flexible and agile business model, which are far more optimized. While many telecom operators/network owners are liable to pay taxes in every country they are operating in, such an obligation is not applicable to OTT service providers as they are, mainly required to pay taxes to the country where their main headquarters is located;
- (g) **Quality and Service (Q&S):** In contrast, OTT service providers do not have to provide any QoS guarantees, instead QoS issues are blamed on network providers. Others however argue that OTT players also make efforts to improve user experience such as questionnaires at the end of VoIP calls which ask about the quality of user experience as well as their investments in data compression and quality of service. The Quality of Service (QoS) in OTT space largely depends upon the QoS of underlying telecom services. The former are offered as is with their consumption dependent upon consumer choice. The latter are controlled by regulation and also driven by consumer expectations;

<sup>5</sup> Telecom Regulatory Authority of India, Consultation paper on “Regulatory Framework for Over-The-Top (OTT) Communication Services, November 12, 2018, available at <https://www.trai.gov.in/sites/default/files/CPOTT12112018.pdf>

<sup>6</sup> Section 3, Competition Act, 2005 defines Anti-Competitive Agreements, available at [https://www.cci.gov.in/sites/default/files/cci\\_pdf/competitionact2012.pdf](https://www.cci.gov.in/sites/default/files/cci_pdf/competitionact2012.pdf)

- (h) **Interconnection Regulations:** Many operators have raised concerns about the market share and power of major OTT service providers to be gatekeepers to attract content, instead of the operators themselves. Operators have claimed that by generating demand for bandwidth, OTT service providers generate expenses in (next generation) infrastructure investment, but have not made a fair contribution to these expenses through the 'interconnection' arrangements they make with telecom operators;
- (i) **Data Protection and Privacy:** The ability for operators to offer data protection and security<sup>7</sup> as well as the means to enable interception of data (such as browsing histories, online purchases, e-mail or messaging communications) for law enforcement purposes are regulatory requirements imposed in most jurisdictions. While regulators strictly monitor data protection and privacy requirements for users by operators, OTTs regulation is practiced on a rather limited and generally voluntary basis. OTT service providers face minimal regulatory constraints. The limits put on their business usually exist only to the extent of addressing the security and privacy concerns associated with user data. A number of OTT communication solutions do not support encryption. This implies that attackers can easily eavesdrop into an OTT service (such as VoIP conversation and IM services). In addition to the obvious problem of confidential information being accessed, the use of unencrypted VoIP and IM communication channels also facilitates identity theft or fraud; and<sup>8</sup>
- (j) **Information Technology Act, 2000 (IT Act):** The IT Act and the rules framed under it place certain regulatory obligations on body corporates or intermediaries which includes TSPs and OTT services that can be regarded as same/similar to the services provides by TSPs. They are as follows,
- (i) **Lawful interception obligations:** the Central Government or a State Government or any of its officers specially authorised by the Central Government or the State Government, in the interest of the sovereignty or integrity of India, defence of India, security of the State, friendly relations with foreign States or public order or for preventing incitement to the commission of any cognizable offence relating to above or for investigation of any offence, for reasons to be recorded in writing, by order, direct any agency of the appropriate Government to intercept, monitor or decrypt or cause to be intercepted or monitored or decrypted any information generated, transmitted, received or stored in any computer resource.<sup>9</sup> also empowers the Central Government to monitor and collect traffic data or information through any computer resource for cyber security;<sup>10</sup>
- (ii) **Takedown obligations:** Information Technology Act empowers the Central Government to issue directions to any intermediary for blocking for public access of any information in any computer resource. The provision also prescribes a punishment of imprisonment upto seven years for any intermediary who fails to comply with the direction issued under it;<sup>11</sup>

<sup>7</sup> THE PERSONAL DATA PROTECTION BILL, 2019, The government of India and a joint Parliamentary Committee have proposed the draft PDP Bill on data protection which will be India's first **law on the protection of personal data** and will repeal 43A of the IT Act. However, even after enactment, the law is likely to be implemented in a phased manner.

<sup>8</sup> Tejveer Singh Bhatia, OTT Services: To Regulate, or not to Regulate, that is the question, available at [https://tdsat.gov.in/admin/introduction/uploads/seminar\\_events/Mr%20Tejvir%20Bhatia.pdf](https://tdsat.gov.in/admin/introduction/uploads/seminar_events/Mr%20Tejvir%20Bhatia.pdf)

<sup>9</sup> Section 69 of Information Technology Act, 2000.

<sup>10</sup> Section 69B of Information Technology Act, 2000.

<sup>11</sup> Section 69 A of Information Technology Act, 2000

- (iii) **Privacy and cyber security obligation:** Information Technology (Reasonable Security Practices and Procedures and Sensitive Personal Data or Information), 2011 requires every service provider to outline a detailed privacy policy that is applicable to all users, that articulates nature of data collected, type of data that is collected and for what purpose including retention and further use;<sup>12</sup>
- (iv) **Intermediary liability:** The Information Technology (Intermediaries Guidelines), 2011 lays down a positive obligation on part of intermediaries like Internet Platforms and Services to comply with all lawful orders and render assistance to government agencies that are lawfully authorized.<sup>13</sup> The Information Technology states that intermediaries are exempted from liability for third party information or communication links made available or hosted by them subject to certain conditions; and<sup>14</sup>
- (v) **Encryption obligations:** The Information Act requires entities to abide by any order to decrypt a computer resource. Section 84 A allows the Government to prescribe suitable modes or methods of encryption for promotion of e-commerce and e-governance in the country.<sup>15</sup>

The Indian government and the Telecommunications Regulatory Authority of India (TRAI) have been investigating ways to regulate over-the-top (OTT) service providers since 2015. The difficulties that they have encountered, despite extensive work over the past five years, exemplified by the fact that no regulations have yet been issued, provide a caution to others seeking to regulate OTT services. The ongoing debate has surrounded two issues in particular: net neutrality and regulatory balance.

#### 4. Net neutrality

Net neutrality is the concept that all data packets carried over the Internet should be treated equally. On a strict interpretation, net neutrality prevents telecommunication service providers (TSPs) from undertaking traffic management, for example to prioritize time-sensitive applications, such as voice or videoconferencing, over delay-tolerant applications, such as file sharing or email. However, the fact that different applications have different characteristics means that in the real world some differentiation is inevitable and appropriate. Net neutrality is then the guiding principle as to when and why and to what extent differentiation between data packets is allowed. A government committee reported on net neutrality in May 2015, recommending that,<sup>16</sup>

- (a) OTT applications services enhance consumer welfare and increase productivity. Therefore, such services should be actively encouraged and any impediments in expansion and growth of OTT application services should be removed;

<sup>12</sup> Rule 4 of Information Technology (Reasonable Security Practices and Procedures and Sensitive Personal Data or Information), 2011, [https://www.meity.gov.in/writereaddata/files/GSR313E\\_10511%281%29\\_0.pdf](https://www.meity.gov.in/writereaddata/files/GSR313E_10511%281%29_0.pdf)

<sup>13</sup> Rule 3 (7) of The Information Technology (Intermediaries Guidelines), 2011

<sup>14</sup> Section 79 of the Information Technology Act, 2000

<sup>15</sup> Regulation of OTT Services in India, ITU and The World Bank, (Digital Regulation Platform) available at <https://digitalregulation.org/regulation-of-ott-services-in-india/>

<sup>16</sup> NET Neutrality DoT Committee Report May 2015, headed by AK Bhargava, published by Department of Telecommunication, Government of India a detailed report available at [https://dot.gov.in/sites/default/files/Net\\_Neutrality\\_Committee\\_report%20%281%29\\_0.pdf](https://dot.gov.in/sites/default/files/Net_Neutrality_Committee_report%20%281%29_0.pdf)

- (b) Specific OTT communication services dealing with messaging should not be interfered with through regulatory instruments;
- (c) In the case of VoIP OTT communications services, there exists a regulatory arbitrage wherein such services also bypass the existing licensing and regulatory regime creating a non-level playing field between TSPs and OTT providers both competing for the same service provision. Public policy response requires that regulatory arbitrage does not dictate winners and losers in a competitive market for service provision;and
- (d) The existence of a pricing arbitrage in VoIP OTT communication services requires a graduated and calibrated public policy response. In the case of OTT VoIP international calling services, a liberal approach may be adopted. However, in case of domestic calls (local and national), communication services by TSPs and OTT communication services may be treated similarly from a regulatory angle for the present. The nature of regulatory similarity, the calibration of regulatory response and its phasing can be appropriately determined after public consultations and TRAI's recommendations to this effect

This report appears to limit the scope of OTT regulation to domestic voice applications. However, the TRAI's public consultation took a wider view. Noting that TSPs can and do resort to differential treatment of OTT service through such practices as prioritization, throttling, and blocking, TRAI identified the different regulatory treatment of essentially similar services as being the root of the problem.

The fundamental difference between the OTT service providers and the TSPs is in the ownership of the network, and the concomitant responsibilities for maintaining and upgrading that network to meet quality of service (QoS) standards. Whereas TSPs face all of these responsibilities as part of their licence obligations, OTT service providers do not have a licence and face no such obligations. The aim of OTT regulation, according to TRAI, should be to restore regulatory balance. TRAI considered two possibilities:

- (a) Licensing OTT service providers as communications service providers (CSPs) enabling them to have proper interconnection with other service providers and at the same time ensure QoS to the end customer; and
- (b) Licensing OTT service providers as applications service provider (ASPs) which would not impose as many obligations but would enable a proper regulatory framework to consider cases of revenue sharing open access to application services, and prioritized services being offered to customers.

In its consultation paper 2015, it sought answers to questions such as:

- (a) Is it the right time to establish a regulatory framework for OTT services;
- (b) Should OTT players offering communications services (voice, messaging, and video) be brought under the licensing regime;
- (c) Should OTT players pay for the use of the TSPs' network over and above data charges paid by consumers;
- (d) How should imbalances in the regulatory framework be overcome; and
- (e) How should security concerns be addressed with regard to OTT players.

## 5. Public consultations but no regulatory decisions

The public consultation in 2015 generated a lot of interest, both in India and across the world. TRAI received 26 major submissions as well as a range of comments from interested parties. Also received a request from the Department of Telecommunications to provide recommendations on “traffic management system, economic, security and privacy aspects of OTT services” not covered in the 2015 consultation paper. This led TRAI to publish a number of regulatory decisions in 2016-18 on matters that were related but peripheral to the question of OTT regulation. In November 2018, TRAI therefore issued another public consultation paper on OTT regulation<sup>17</sup>. This time it chose to focus only on OTT services that could be regarded as the same as, or similar to, the services provided by TSPs. However, the precise scope of this definition was itself problematic as there was no national or international agreement on the matter. While no formal report or decision has been published by the regulator, in early 2020 a TRAI official said that “the issue of whether to regulate communication apps, known as over-the-top (OTT) players, isn’t likely to be resolved any time soon given that the matter is far more complicated than earlier thought.”

Through the comprehensive consultation process the Indian authorities have discovered, as have others both nationally and internationally, that the regulation of OTT services comprises so many complex economic, political, social, and national security issues that it is almost impossible to resolve. Meanwhile, practical arrangements are being made in the telecommunications marketplace to enable TSPs and others to adjust to the realities associated with OTT and other online services.<sup>18</sup>

## 6. Conclusion

India has been selected as a case study as it is one of the largest emerging markets for OTT video streaming services. In 2018, the Asia-Pacific region saw the steepest growth, of 24%, in the OTT video market globally. India has also seen in recent years a sustained debate about content regulation on OTT platforms. India has a vibrant audiovisual industry. The overall media consumption in the country has been growing at an annual rate of 9% over the course of the last six years, one of the highest in the world. Digital media consumption has been also growing fast as the number of broadband users increased to 480 million. The number of internet users in India rose by 13.9% between 2016 to 2017, People in India consume 190 minutes of video content a day on different platforms. The rate of consumption of video content has grown by 8% in the last seven years. There has also been an increase in platforms available for viewing, including OTT services and apps on different devices, apart from existing television channels.<sup>19</sup> Regulating of OTT is emerging area to control and bring them into the preview of proper regulator control in India is very much essential in the present rapid growing technology.

<sup>17</sup> TRAI on its Consultation paper on Regulatory Framework for Over-The-Top (OTT) Communication Services, November 12 2018, <https://www.trai.gov.in/sites/default/files/CPOTT12112018.pdf>

<sup>18</sup> Regulation of OTT Services in India, ITU and The World Bank, (Digital Regulation Platform) available at <https://digitalregulation.org/regulation-of-ott-services-in-india/>

<sup>19</sup> Shubhangi Heda, and Marius Dragomir, How to Regulate OTT Streaming Services in India, Center for Media and Society, CEU School of Public Policy, Budapest Hungary, available at <https://cmds.ceu.edu/sites/cmcs.ceu.hu/files/attachment/article/1722/indiaottpaper.pdf>