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Emerging Challenges in Cyber Space

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Abstract: The development of cyber space has created both delight and complexity in all walks of life. The scientific technological innovations have enhanced the mode of communication, functioning, quality of life and have become an inseparable part of life. Albeit its significance it has enhanced the criminal activities, raised moral concerns and ethical dilemmas in the cyber space. It has raised concerns of cyberspace security, information protection, privacy, IPR issues, and electronic transactions. Cyberspace is a free space with minimal restrictions and advocates of cyber libertarianism claim for declaration of independence of cyberspace. However, the advocates of cyber paternalism emphasise the need for imposing restrictions, strict legislative provisions to curb the growing crimes and ethical violations in cyber space. The regulation of cyberspace is gloomy due to discrepancies in jurisdiction, subject matter, ethical challenges, anonymity, etc.
Keywords: Computer Security, safety, Information Security, Protection, Information System, Communication System Security.

I.   INTRODUCTION

The Cyber Law, the law on Cyber space also known as Internet Law is a divergent field of law which portray the lawful issues related to Information and Communication Technology (ICT). The Cyber Law in INDIA is inexistence with Indian Penal Code (IPC) 1860, Information Technology Act-2000 (ITA-2000) and ITA-2008(amendment) in its place further it has a lot of issues and emerging challenges. The challenges are emerging because it is a law on technology which is emerging and there is a need of enforcement of new laws and should be amended in evolutionary

This paper entailed a survey on Cyber Law and presents two sides of Cyber Law-One side as the key problem are as in Cyber like security issues, ethical issues, lack of standardization and globalization, and the emerging challenges. The other side as, to enforce it into Law, its implementations and some of the solutions that may being corporate for effective implementation of Cyber Law in India

II.   EMERGING GLOBAL TRENDS AND DEVELOPMENTS IN CYBER LAW-

Globally, Various trends and challenges are likely to arise with the development and evolution of cyber law jurisprudence. Following are few of the Trends and challenges in cyberspace which has emerged in last few years and needs a serious attention of the governments across the world.

A.   Trends in Mobile Laws

The increased usage of mobile devices, cell phones, smart phones, personal digital assistants and all other kinds of communication devices in different parts of the world are becoming an integral part of day –to-day existence in life. This has widened the scope of Mobile Ecosystem and is likely to give rise to various complex legal issues and challenges across the worldIn countries like India and China, wherein the usage of mobile devices is exceedingly high, the area of mobile law is emerging and different complicated legal, regulatory and policy challenges concerning the usage of mobile devices and communication devices are coming to the forefront ,and it is expected that these countries would contribute towards the growth and development of Mobile law.

Also the increased usage of mobile devices is likely to give rise to more mobile related crimes. It is need of an hour for the governments to adopt direct legislations pertaining to mobile law as the existing laws, regulations and rules in different countries which have an impact on legal issues pertaining to mobile laws are applicable in an indirect manner.

It is expected that with increased usage of mobile devices across the world, mobile law would emerge as an distinct area of jurisprudence. There is a need for appropriate enabling frameworks for the governments across the world that will help, protect and preserve the rule of law in mobile ecosystem.

The growth of mobile law jurisprudence has led to the legal issues connected with it. Mobile crime is likely to increase leaps and bounds in the coming years. Increased usage of mobile apps, which majorly consists of an individual's private and personal information, are likely to bring up various legal issues which will need appropriate consideration in order to ensure mobile protection and privacy .With more and more mobile apps emerging the personal information of the user needs to be protected.

B. Social Media and Challenges

One of the biggest problem cyber law is encountering is related to development of jurisprudence relating to social networking. Increased adoption and usage of social media are likely to bring various legal, policy and regulatory issues. Social media crimes are increasingly gaining attention of relevant stake holders. Misuse of information, other criminal and unwanted activities on social networking platforms and social media are raising significant legal issues and challenges. There is a need for the countries across the world to ensure that rule of law prevail on social media. Social media legal issues continues to be significant. In order to avoid social media crimes and protect the privacy related to social media, it is a challenge for cyber law makers across the world to not only provide appropriate legislative and regulatory mechanisms but also provide for effective remedies for red ressal to the victims of various unauthorized, unwanted criminal activities done in cyber space and social media.

C. Cyber security and related issues

With the growing activities of cyber crime across the world, there is a need for enacting a appropriate legislative, regulatory and policy framework pertaining to cyber security. The International Conference on Cyber law, Cyber crime and Cyber security which took place in November 2014 in India highlighted significant issues affecting cyber security and came up with various recommendations for international stakeholders. It is likely that countries of the world have to deal with issues pertaining to attacks and intrusions into computer systems and networks from location outside the territorial boundaries of the country. It has the potential of prejudicially impacting the sovereignty, integrity and security of the country. Thus there is a need for the nations across the world to amend their existing IT legislations which would help the protection, preservation and promotion of cyber security in the use of computers and communication devices.

D. Cloud Computing and Challenges

Another important challenge in cyber space is the evolution and development of legal responses to the complicated legal challenges poised and raised by cloud computing and virtualization. Cloud computing being a popular phenomenon among corporate is likely to bring forth issues like data protection and data confidentiality. The relevant stakeholders including lawmakers and governments across the globe need to provide appropriate legal, policy and regulatory framework pertaining to legal aspects concerning cloud computing.

E. Spam Laws

In the initial years, spam seemed to be targeted at computers but has now also targeted mobile phones. Email spam is the most common form of spamming, Mobile phone spam and instant messaging spam also exist. In majority of the countries there is no such anti spam law, which has led to the further growth of spam. There is an increased need for the countries to come up with regulatory and legal framework for spam as many countries have already become hotspots for generating spam.

III. TWO TRENDS IN CYBERSPACE

For a moment, think of cyberspace as a balloon that's constantly being filled with more and more air. As the balloon gets bigger, the amount of surface area that is vulnerable to a pinprick increases, the skin of the balloon stretches and gets thinner, and the volume of air trapped inside grows. I use the balloon metaphor to help illustrate three key points about today's cyber security environment: First, like the surface of the balloon, the "attack surface area" of cyberspace is• expanding every day as more and more devices are brought online. Some estimate that, right now, there are billions of Internet-connected devices—a number that could surpass a trillion in just ten years.7 Each smartphone, computer, tablet, television, refrigerator, and "intelligent" vehicle is a potential cyber target.

Second, like the skin of the balloon, cyber security resources—which are already• stretched thin—must try to keep pace with increasing complexity as new devices come to market and become interconnected. For example, if you upgrade your old home security system to a new one that connects to your smartphone, you have complicated the task of protecting your home by introducing several cyber vulnerabilities.

Third, like the air inside the balloon, the amount and type of data we are all actively• and passively uploading to the Internet is constantly expanding. One popular traffic app for smartphones constantly monitors your location, even when you are not using the app. You have to actively turn this feature off if you do not want your phone to share your location with the app—and with the app's partners—every single minute. The entire "digital universe" is already billions of terabytes and constantly growing. Estimates of the

annual growth of this universe vary, but the increases appear to be exponential (see Figure .Figure - The Digital Universe Is Growing Exponentially
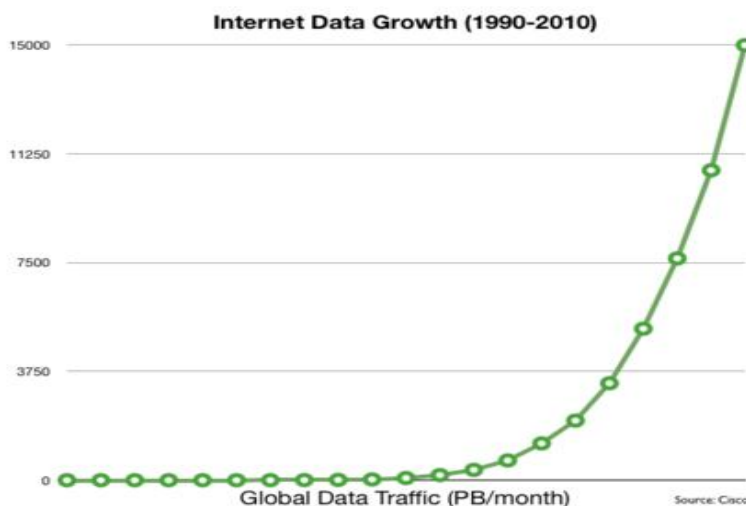
So, cyberspace is expanding, becoming increasingly vulnerable, and hosting increasingly vast amounts of (sometimes critical) data. That's the first trend. The second trend is that the number of bad actors seeking to exploit cyberspace for criminal or malicious purposes is growing too.

IV.   CONCLUSION

The discussion that took place earlier in this paper was intended to show the all-pervasiveness of cyber elements throughout our societies and their functions. It can be argued that it is impossible to have a modern, well functioning society without having a reliable and robust system in place to ensure the security of the cyber domain. Cyberspace is at the same time a great opportunity and promise, but also a risk that must be properly managed. Countries and other actors see cyberspace in very different lights. For some, it is a business opportunity, or a medium for self-expression, while others see it as a threat to national security. While there are numerous examples of technology used for malevolent purposes, our experience also tells us that affordable access to communications technologies and global information flows can be a force for demo cratising movements across the globe. All the above emphasises the multidimensionality of cyber security. While the cyber revolution has already been on-going for a few decades, we have just seen the dawn of the cyberspace as a global game changer and thus it is not easy to accurately predict its future development.

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