



O.P. Jindal Global University
A Private University Promoting Public Service



Jindal School of International Affairs
India's First Global Policy School

The Internet and a Changing World



Centre for Global Governance and Policy



Jindal Global Law School
India's First Global Law School



**Jindal School of Government
and Public Policy**
India's First Public Policy School

Foreword



Prof. C. Raj Kumar,
Vice Chancellor
O.P. Jindal Global University

The effort of the Jindal School of International Affairs and its partners- the Public Diplomacy Division of India's Ministry of External Affairs, the Campaign for a UN Parliamentary Assembly, and the United Nations University, Tokyo- to organise the conference on "The Internet and a Changing World" and indeed the current publication is an important initiative. The growth of Internet as a power tool of communication and interaction among the global citizenry is one of the most significant steps towards democratization of the human race. Internet has broken many barriers between nations and peoples. Every day, the world

is witnessing dramatic transformation taking place in knowledge creation, technological innovation, and scientific advancement through the development of Internet. While there is a lot that deserves celebration on account of the role that Internet has played in shaping the future of human society, we have not been able to fully understand and appreciate the many consequences and implications of Internet.

There is a growing need and recognition for undertaking research and deeper analysis of how the role of Internet can be effective to address major challenges of humanity. This aspiration to use the Internet for the well-being of people is a critical dimension for the future. More recently, an issue relating to the content that is produced and disseminated over the Internet has come to sharper focus and examination in many parts of the world including India. While there are legitimate concerns relating to security and privacy in these debates, this ought to be balanced with our strong commitment to freedom and liberty. The nature of any communication, including the Internet is such that it has the potential to be abused. However, that alone should not be the consideration to put undue restrictions on the use of the Internet. This will challenges the most central aspect of Internet, which is to democratize knowledge, communications and perspectives. People in different parts of the world have begun to engage, interact and be inspired by each other through the Internet. This aspect of Internet is its greatest contribution to transformation of the world.

I appreciate the contribution of the scholars and policy makers who contributed to the conference. I hope this publication makes is widely disseminated and provides perspectives to people who are engaged in research and policy work relating to the Internet.

Acknowledgments

In the wake of growing importance of Internet and its impact on the social change, Jindal School of International Affairs (JSIA), O.P. Jindal Global University (JGU) organised a conference on the theme – “The Internet and a Changing World” from 9-10 September 2011. We thank and appreciate the support extended by our co-organisers, Public Diplomacy Division, Ministry of External Affairs, Government of India; Campaign for the Establishment of a United Nations Parliament Assembly (UNPA Campaign) and United Nations University (UNU) to make this conference a success.

No one could be more supportive than our honourable Vice Chancellor Professor C. Raj Kumar for his continuous guidance and motivation. We also thank Dr. Vesselin Popovski, Senior Academic Programme Officer, UNU who has been a great friend of JGU and supported us in all our initiatives.

The drafting of this report was not possible without the laborious task carried out by our students who served as Rapporteurs during the conference. We thank and appreciate the hard work of our students Mr. Ravi Jain, Mr. Mukul Raheja, Mr. Ranir Pal Saini, Ms. Bhawna Chauhan, Mr. Deepak Batra, Mr. Vishnu Nair, Ms. Uma Maheswari, Ms. Smriti Mishra, Mr. Raghav Ranganathan, Mr. Abhishek Das, Ms. Surabhi Srivastava and Mr. Ritesh Prasad. Finally, this work would not have been completed without the hard work of preparing the final summaries by our Research Intern Mr. Nishant Atal and our student Mr. Shashwat, who took over this important task and completed it.

Dr. Sreeram Chaulia
Professor and Dean, JSIA;
Executive Director of the Center for Global
Governance and Policy (CGGP), JSIA

Jasbir Rakhra
Senior Research Associate, JSIA;
Fellow, Centre for Study of Political
Violence (CSPV), JSIA

Table of Contents

Introduction	1
Inaugural Session	5
First Session	7
The Internet & Global Democracy	
Second Session	11
The Internet & Socio- Economic Development	
Third Session	14
The Internet & Privacy	
Fourth Session	18
The Internet & Diplomacy	
Fifth Session	22
Internet Freedom & Censorship	
Sixth Session	28
The Internet & National Security	
Appendices	
Appendix - I:	33
Invitation to 'The Internet & a Changing World' Conference	
Appendix - II:	37
Journals of Jindal School of International Affairs	
Appendix - III:	38
Research Reports of the Centre for Global Governance & Policy	
Appendix - IV:	39
Faculty Members of Jindal School of International Affairs	
Appendix - V:	41
Governing Body, Board of Management & Academic Council, JGU	

Introduction

Developments in Internet technology have given human beings a novel platform to interact in new ways through instant messaging, social networking, video conferencing, online collaboration and the like. These 'web 2.0' tools have not only accelerated but redefined information generation and dissemination.

The Internet has brought humanity closer and we have begun to evolve as a planetary society. Today, Facebook has nearly 800 million user netizens and Twitter has over 500 million members. The total number of mobile phones at the end of 1990 was about 12 million. Today, the estimated number of mobile phones is over five billion. In the next few years, almost everybody on the planet will own a mobile phone with an Internet connection.

At the beginning of the new millennium, we stand at a unique juncture of history with the information revolution drastically changing the world. The political, economic and cultural impact of this revolution, although still in the early stages, is already being felt. WikiLeaks, the new digital avatar of iconoclastic journalism, is a good example. Facebook is now the third largest 'country' in the world after China and India and some of the communities on it are richer than the combined GDPs of several low-income economies.

The Internet has made possible a new degree of public involvement in some key global issues such as climate change, financial management, terrorism, pandemics and the like that affect people across the planet. It has brought institutions of Global Governance such as UN closer to people and has the potential to further transform it. Today, cyber war can be far more devastating than any country or economy could achieve through traditional warfare.

In the wake of the unprecedented information revolution which is sweeping the planet, the direction of evolution of political, economic and social organisation of humanity is crystal clear. These unprecedented technological changes triggered an international conference under the aegis of the Jindal School of International Affairs in September 2011 on a topic that has universal relevance and high contemporary impact. This event was co-organised by the United Nations University, Tokyo, Japan; the Campaign for a United Nations Parliamentary Assembly (UNPA); and the Public Diplomacy Division of India's Ministry of External Affairs (MEA).

Policymakers, academics, corporate executives, civil society activists, intergovernmental and non-governmental organisations, think tanks and media persons participated in this timely, relevant and unique conference that debated the multiple effects that the Internet is having on society, economy, polity and culture in various regions of the world. Participants and presenters delved into the positive and negative externalities of advances in Information Technology (IT) and proposed ways and means in which it could be harnessed for promoting democratic outcomes.

One of the achievements of the conference was to advance understanding on the implications of Internet-based reorganisation of human and macro-social interactions for the emerging world order. The report which follows summarises many of the views expressed during the conference, in line with JSIA's objective of prescribing solutions to major public challenges and problems being generated by the 'web 2.0' era

On the sub-theme, 'The Internet and Global Democracy', conference panellists debated how IT-enabled societies and communities have employed web-based methods to agitate for democratic transformations and overthrow authoritarian and top-down forms of rule. Using examples from around the world, including the recent upheavals in the Middle East, they discussed how the Internet has become an indispensable ally of activists and organisers at the domestic as well as the transnational levels and what it means for the forms of polity that are likely to come out of this phase of history. They also analyse whether democracy will remain confined to nation-state confines or take on a global form as a result of the universalising power of the Internet.

On the sub-theme, 'The Internet and Socio-Economic Development', conference panellists focused on how the IT revolution has affected understanding and practice of the discourse on economic and social development. They examined cases from around the world where the Internet has produced informational advantages which are being harnessed by the poor to empower themselves and rise up the socio-economic ladder. They also considered how IT services can be further utilised to build knowledge-based societies. A key refrain in this panel was to ask whether the rhetoric of an Internet dividend for the world's poor has walked the talk. The panellists also looked at modernisation theories and the centrality of the Internet in facilitating or impeding economic miracles in the Global South.

On the sub-theme, 'The Internet and Privacy', conference panellists discussed how the proliferation of information online is raising new

concerns about privacy of consumers, corporations and citizens, whose confidential data could be intruded upon by enterprising hackers and spies. Threats to identity protection and individual and institutional secrets and records have increased in recent times, with victims spanning from corporations like Sony and Citigroup to citizens who are worried about 'location finding' and 'targeted advertising' technologies being employed by the likes of Google. The panel addressed regulatory means by which individuals and groups can be protected from unwarranted intrusions and also argued over whether the very definition of privacy and confidentiality is being radically changed due to the spread of the World Wide Web.

On the sub-theme, 'The Internet and Diplomacy', speakers at the conference explained how the theory and practice of diplomacy have been redefined by the onset of social networking tools and Internet-based constituencies outside the state structures, which take greater interest in foreign policy making. The panel included presentations on how public diplomacy has been affected by mediums like blogs, Facebook and Twitter. It also considered web-based journalistic activism like that of WikiLeaks and the unique set of challenges and opportunities it poses to broadening the conduct of diplomacy.

On the sub-theme, 'Internet Freedom and Censorship', invited speakers at the conference looked at the revolutionary potential of the Internet to break down controls over information within and across societies, as well as the ingenious means by which ruling elites have tried to curtain free access to the Internet in order to preserve their own power. Some of the examples touched upon in this panel included China's 'Great Firewall', restrictions on Internet access in Iran, Mubarak-era Egypt etc., US Secretary of State Hillary Clinton's concept of "Internet freedom" as the next dimension of basic human rights, and the successes and failures of activists for human rights and democracy in breaching regulations on free flow of information. The panellists also look at different models of Internet censorship and debated their pros and cons, while also seeking to manage the downsides of unfettered web access.

On the sub-theme, 'The Internet and National Security', doyens of India's security establishment came together to discuss ways in which Internet-enabled warfare and defence capabilities and threats have arisen over the last decade and how states and non-state actors who are using these technologies are transforming the nature of conflict. Cyber war, cyber defence, cyber espionage and cyber terror were some of the key issues

raised in this panel, which also featured non-governmental experts from India and abroad who are working on the security and military dimensions of the Internet.

At the Centre for Global Governance and Policy (CGGP), which is one of several Research Centres of JSIA, we have been striving to organise seminars, conferences and public lectures on cutting-edge topics on which there is a dearth of learning and understanding. Thinking about the Internet in a non-technical way is still new in India, where Internet penetration of the population is not yet very deep (there are approximately only over 100 million Internet users in a country of 1.2 billion people) and where the potential of the Internet to transform social, economic and political life is under-appreciated.

If technological change is widely accepted as a principal means for historical change, we are living through it very intensely in the Web 2.0 era. The challenge for global governance when it comes to the Internet is to manage the double-edged nature of this technological medium in a way that advances universal goals of economic well-being, environmental safekeeping, and political freedom.

This research report, which compiles all the key papers and presentations made at the conference which was held on the campus of O.P. Jindal Global University, is a humble effort to advance deeper understanding about the inescapable Internet and to open new vistas of thought about the relationship between technology and life in all its aspects.

Dr. Sreeram Chaulia

Inaugural Session



Prof. Sreeram Chaulia

Dean, Jindal School of
International Affairs
O P Jindal Global University

We need to elaborate the role the Internet will play in the quickly changing world and the effect it will have on the process of globalisation. The Internet will have a significant impact on the lives of people, much like fire, the automobile, and modern medicine once did.

The Internet, a product of constant scientific and technological innovation, is also able to affect the social portion of our lives, in both negative and positive ways, such as the use of the Internet in suppressing freedoms. The key is to generate different ideas in thinking about the Internet and its global social impacts. Such a line of inquiry must focus on key social areas that have already felt the impact of the Internet, including democracy, socio-economic development, and security.

The Internet is a mechanism of relatively rapid social change. During the Libyan revolution, after the rebels took control of Tripoli, they sent mass text messages to alert all of Libya. Twenty years ago in Bulgaria, people spread the word of revolution by posting leaflets in various places. The Internet has also helped to encourage globalisation by making the idea of distance obsolete through the use of instant messaging and video chat.

There are some negative aspects of the Internet, such as its use by terrorists and dictators, but we can use the Internet for the good of people. Additionally, the Internet can help to save lives.

During the tsunami in Japan which took down cell phone networks, people were still able to communicate over the World Wide Web. It is important for us to recognise the versatility of the Internet in all areas across the social spectrum, from fighting corrupt governments to facilitating disaster relief. The website Wikileaks introduces an interesting debate- where should we draw the line between freedom of the people to access government information and the right of the state to provide for its own security?



Dr. Vesselin Popovski

Senior Academic Program Officer,
United Nations University,
Tokyo



Prof. G.K. Chadha,

President, South Asian University
New Delhi

The Internet is a mechanism of relatively rapid social change. During the Libyan revolution, after the rebels took control of Tripoli, they sent mass text messages to alert all of Libya. Twenty years ago in Bulgaria, people spread the word of revolution by posting leaflets in various places. The Internet has also helped to encourage globalisation by making the idea of distance obsolete through the use of instant messaging and video chat.

There are some negative aspects of the Internet, such as its use by terrorists and dictators, but we can use the Internet for the good of people. Additionally, the Internet can help to save lives. During the tsunami in Japan which took down cell phone networks, people were still able to communicate over the World Wide Web. It is important for us to recognise the versatility of the Internet in all areas across the social spectrum, from fighting corrupt governments to facilitating disaster relief. The website Wikileaks introduces an interesting debate- where should we draw the line between freedom of the people to access government information and the right of the state to provide for its own security?

First Session 'The Internet & Global Democracy'



Mr. Andreas Bummel

Head of Secretariat
Campaign for the Establishment of a
United Nations Parliamentary Assembly
(UNPA)

Thanks to the Internet, normal people have a much larger access to information that was once only available to the elite. The Internet helped to encourage democratization during the Arab Spring in Egypt and Libya. In those situations, authoritarian governments found it extremely difficult to suppress the free flow of information via social media sites. However, the democratization will go much further than overthrowing unjust regimes, as the Internet is constantly bringing people from completely different ethnic backgrounds and cultures together. Eventually, it will be able to help give rise to a so called “global identity”. It is increasingly difficult for governments to ignore the plight of an average citizen. “Avaaz”, a site of millions in which normal citizens of any background voice their opinions on global issues such as human rights and climate change, is a good example of democratization. The modern Internet revolution can be compared to the Gutenberg revolution of the 15-16th centuries which revolutionized the printing. Like Internet, the Gutenberg revolution facilitated ease of access to information, which helped instigate the French revolution of 1789. The Internet may in the future give rise to a system in which the ordinary citizen can be more involved in global political process.

We must ask why the Internet is democratic, and what criteria it must fulfil to be considered as such. First, many terms associated with the Internet, such as the global commons mean different things to different cultures. On the Internet, it is a common term easily thrown around, whilst amongst tribal groups, the global commons involves fighting over natural resource policy for survival. The debate over common Internet terms and terms for survival are not equal; whatsoever, the Internet is trying to make them seem homogeneous, which is “violating the linguistic rights of people”, essentially depriving them of a voice. Cognitive justice, means recognising that different forms of knowledge exist and it is not yet present on the Internet. The heavily persecuted tribes of Gujarat are a



Prof. Shiv Visvanathan

Professor, Jindal School
of Government & Public Policy,
O. P. Jindal Global University

good example. Shamans of the tribe say they are tired of simply existing as archives on the Internet, and they want to be able to devise their own theories, or represent themselves, which is possible in the idea of cognitive justice.

If the Internet wants to be seen as democratic, it has to rely on tacit knowledge as well as explicit knowledge, and develop a tacit constitution. Tacit knowledge is the knowledge that cannot be easily transferred to a recipient, such as the ability to speak a language, but nonetheless is extremely vital. Thirdly, the Internet lacks discussion on the diversity of times, which means allowing differences to exist, contrary to assimilation, when everyone gradually becomes the same. Without the representation of diversity of times, without the ability to translate the language of the various peoples that use it, the Internet will not become democratic, as it does not show the perspectives of all groups.

The Internet makes many assumptions about democracy, and at the same time, it is doing nothing to help right now when democracy is increasingly threatened. The Internet offers many different theories, such as the theory of commons, network, and the public, but unless these theories are combined, it is an inadequate place for democracy. It provides many different questions that can encourage democracy, but only if we stop blindly advertising it as a champion for democracy, and face the questions to be asked, can democracy be achieved.

The Internet can be defined as a means of resisting enclosures. But unless it can devise creative ways of resisting enclosure, we will have situations such as Egypt, where despite months and months of resisting the government, it is no better off right now than it was under Mubarak. There is the need for an alternative, more practical solution, and until then, the Internet will be nothing more than a model of hope. There is way too much celebration of how good the Internet is and will be, but not enough new ideas that can be used to fight for democracy against new forms of authoritarianism. The regimes, like the people that oppose them, are also able to access the Internet in order to post their own propaganda and censor information. The Internet makes too many assumptions, and it is these assumptions which are pushing it away from democracy. Hopefully, institutions such as Jindal School of International Affairs can produce new ideas that may challenge the current stereotypes of the Internet.



Mr. Pooran Chandra Pandey
Executive Director,
UN Global Compact Network,
India.

There are three major ways the Internet can be used as a voice of change. The first way is the grassroots method, in which citizens fed up with the status quo unite. People angry with corruption in India organised protests and got a leader to go on a hunger strike using the Internet. In Tunisia, rickshaw pullers fed up with police harassment were able to gather together and spread their grief online, which eventually led to the Tunisian revolution and the overthrow of Ben Ali.

The second method is the economy. The Indian banking system is trying to use the Internet to enable more people to have access to banking. The Internet has eased the ability of people to make financial transactions without having to go anywhere, so much so that around \$30 trillion dollars exchanges hands daily over the World Wide Web. This has had enormous benefits for normal people who don't have the time to leave their homes in order to use banks or other financial services.

The third is the social impact of the Internet. Growth and inclusion is a major problem in India. This means that whilst the economy can have high growth rates, it may not be able to include everyone into the growth. This is an important debate in which we must watch what role the Internet is going to play. Despite the popularity of the Internet and its ease of access through mobile phones, India and many other countries still have low Internet penetration.

There are a few things that academic institutions such as O.P. Jindal Global University can do about these limitations. First, encourage Internet usage in a free and open way in order to ensure that users are relatively unrestricted and safe whilst browsing the World Wide Web. The second method is to use the Internet to hold institutions more accountable for their actions, make them more democratic, and address public policy challenges without infringement on civil liberties. The third is leverage interdisciplinary discourse to ensure that outcomes arising from the Internet include everybody in influencing public policy and make the system more democratic and inclusive. We must try to use the Internet to include everyone to satisfy the overall public, and not just a certain group of people.



Dr. James Arputharaj

Coordinator,
Campaign for the Establishment
of a United Nations
Parliamentary Assembly
(UNPA)

We do not have global government to solve problems that affect the entire world, such as climate change and the global financial crisis. The UN is not democratic; none of its members are elected. Therefore, there is a lack of true world population representation in the UN General assembly. Malta, a very small country, has one representative. India, the second largest country in the world based on population, only has one representative in the General Assembly. A world parliament, allocating members per country based on population size, would have a more democratic representation.

The Internet's role in promoting global democracy allows normal people easier access to the UN. It has had significant democratic contributions in making worldwide petitions to encourage instruments of global arms control. This movement was able to persuade the UN to meet in 2009 for a conference on a potential arms trade treaty. The Internet also promotes democracy as it can bring the grievances of many people together in helping to shape global policy. It has been an effective tool in promoting a potential United Nations Parliamentary Assembly to represent the people, which will hopefully move forward with an upcoming General Assembly meeting.

Second Session

'The Internet & Socio-Economic Development'



Dr. Abusaleh Shariff
Chief Economist
National Council of Applied
Economic Research (NCAER)

We went through a timeline, from the discovery of electricity, to penicillin, to now, the Internet. The Internet will start to level the playing field, taking power from the west and spreading it out, because it can facilitate the same access to knowledge for anyone regardless of nationality or ethnicity if the resources are available.

Knowledge was mainly controlled by a certain group of people, the elite, and remained a mystery to everyone else. However, now, the mystery is being opened up with a vast access to knowledge is available for the people. Information technology is important when talking about economic development, and therefore the amount of money you have will mean less and less when compared to the amount of knowledge in your mind. IT development and knowledge growth are already improving many different sectors of the economy, from labour to agriculture.

The Internet is not just homogeneous, it is heterogeneous as well, with the diversity of knowledge and ideas that it brings to the playing field, as well as the multitude of languages it can be accessed in. The Internet can help in levelling the playing field of education. India's primary school system, which is still very flawed, can use Internet based teaching to make up for the teachers that never show up. Another example is the UID system, which is trying to give every Indian a number. This number, using the Internet, will help improve public efficiency and save taxpayers a lot of money that would be going to useless subsidies.

Despite this equality, the Internet will still be unavailable to those who cannot afford it, which means there must be a method to enable large numbers of people to have cheap access to it. Before the Internet, TVs and radios would be taken to a village, and the community members would all gather around to watch or listen, and there is a recent initiative in which the government is helping to provide broadband in rural areas as a similar solution.

The Internet is also a marketplace. Websites such as eBay allow online bidding, buying, and selling to occur at the click of the mouse. It also has an ability to act as a job search engine. Instead of going out to find a job, a person can sit in the comfort of his own home, searching from the web. The

Internet is immediate, which helps a lot with different sectors such as education, banking, communications, and media. It can also make a person's lifestyle more flexible. Instead of going and working a typical job, one can sit at home in a virtual office and work from there, eliminating the issues of facing traffic.

The Internet can additionally be used for improving agricultural efficiency. With it, farmers can use remote sensing to determine factors such as where crop should be grown and the quality of soil. The Internet has unlimited possibilities, such as integrating various computers to produce one supercomputer and, when put to good use and thought about from multiple perspectives, the Internet is an unstoppable entity that will only continue to grow.



Mr. Rameesh Kailasam
Director,
Government Programmes,
India and South Asia,
IBM India Pvt Ltd

Saying that some place has many different Internet connections and therefore is developed is not appropriate because that is not necessarily an indicator of development. The true indication is the acquisition and use of the information from the Internet. Even if there is only one connection in a village, if it satisfies the information requirements, it is more effective than a village which brags about having a thousand connections for each resident.

An important issue which the government is trying to use the Internet to solve is improving public health through different programs. Telemedicine, sending informative messages in difficult to access rural areas, and integrated disease surveillance which detects where patterns of diseases occur, all use modern communications technology. The Internet has also had a significant impact in educational development, as its usage is increasing in both state and government run schools.

The government is beginning to realise the effectiveness of the Internet in administration. It is useful for reaching out to deliver services to the poor, which keeps them content. The Internet discourages migration, it is a key for information gathering and distribution amongst indigenous groups and it helps to advance marginalised groups. Again, Internet developmental success should not be determined by amount of Internet connection but by the progress that it has made, including its usages in alleviating poverty, improving health, and advancing education. However,

one major limitation of the Internet is that the majority of it is in English. It must be simple and easily accessible in order to have maximum usage amongst a large number of people like the mobile phone.

Spoken web, a medium in which one can speak in order to use the Internet, helps eliminate the difficulty faced by illiterate people. A fisherman having problems with misbehaving fish can call up the Internet to ask questions for advice on dealing with problematic fish, and he will get an oral reply of information equivalent to doing a search online and clicking on a link to read it. But in order for a project like this to be successful, all contributing variables must have a smooth and stable relationship.

The Internet started as a means of data transfer for universities, and in 1995, it was commercialized, and began being used by businesses. Internet communication has numerous benefits for businesses, as it is able to facilitate linkage between the three points of the supply chain, manufacturers, vendors, and consumers. The acronym MMM and I, which means money, material, manpower, and machine, all linked together with information. Nations can be divided into three main categories- the Global North, the Global South, and the Global East: The Global North, characterised by money and democracy, is able to innovate and invest, furthering their

interests. The global south, which includes most of the countries and people in the world, has faltering systems and out of control population growth & lastly lack of security offered to common citizens. Bringing all of the points together, one can come to the conclusion that the Internet helps in many different areas, such as business, government, NGO, and the individual person. The Internet will help change the world and make life more productive and convenient, and it is even doing so now with the UID card in India and the ease of giving increased aid to the poor.



Dr. Saroj Koul
Professor, Jindal Global
Business School,
O. P. Jindal Global University

Third Session 'The Internet & Privacy'



Prof. Abhayraj Naik
Azim Premji University

Many believe that anonymity is the basis for the relationship between privacy, the law and the Internet. Controversies that arise over this topic are in fact old issues in a new situation, and the effects of the Internet can help solve problems over rights which have never been considered before, defining three major parts of focus on the Internet, communicative, observer and architect capabilities. A question arises over information ownership. With enormous amounts of content freely available for access, download, or copying by anyone, how does one determine the true

owner of any information? Because of this dilemma, the Internet has challenged the individual's private right of ownership of property which was once thought to be non-negotiable.

The issue of surveillance exists to make sure that an individual's public life is similar to his private online life, in order to minimize Dr Jekyll and Mr Hyde scenarios. The growth of surveillance is tied to three main factors, the commodification of information, the informational insecurity of the state, and the vulnerable nature of the information. Nowadays, with sites such as Facebook, the state has more access to an individual's private life than ever before. In this age of enormous information available to anyone, the only way to remain anonymous and therefore retain your privacy rights is to resist identification. Otherwise, your personal information may be thrown around carelessly, or even dangerously. Take this question about how far privacy rights should be violated for your security: Is it right for airport security to violate your privacy with full body scanners in the name of safety?



Prof. Vaiji Raghunathan
Assistant Professor,
Jindal Global Law School,
O. P. Jindal Global University

Technology and the Internet, in particular, has created easy access to vast amounts of personal information. As a result, three key issues need to be addressed: privacy, security, and data protection. Laws to address these issues are slow in development, and this creates an enormous gap between fast growing technology and laws capable of solving the issues arising from such technology. As Bruce Schneier, an internationally renowned security technologist and author, points out, “Security and privacy are not opposite ends of a seesaw, you don’t have to accept less of one to get more of the other.” It is possible for both to co-exist. This is one of the major areas that I am

working on.

There are numerous ways in which personal data can be accessed, from public websites to social networks to inter-company data transfers. The main issue with data is its potential for being lost or misused. This is obviously detrimental to the owner. Take for instance, the loss of a USB that had unencrypted information of thousands of people’s personal data, in a pub in London, as reported by the Information Commission Office, or ICO, which has the responsibility of keeping data safe in the UK. The potential for loss of information is only increasing around the world because hackers keep innovating and devising new ways of getting around the systems.

In order to combat this, in 1995 the EU issued a directive with a view to balance protection of privacy of individuals and free movement of personal data. This directive also addressed concerns about security of “EU data” when transferred to countries outside of the EU. So, it implemented strict measures which must be adhered to before data can be transferred from the EU to other countries. However, the EU feels that the 1995 Directive may not satisfy current privacy requirements as technology has advanced at an extremely accelerated pace since the directive came into force. In order to solve this problem, the EU is working on a new data protection directive that would be based on four pillars: the right to be forgotten, greater transparency, use of data only for authorized purposes, and finally compliance with EU data protection rules by all companies with EU operations.

India, on the other hand, has a slightly different approach, given the cultural difference. Until 2011, there were no specific rules regarding

Internet security and privacy. In 2011, India established stringent rules addressing privacy, security and data protection. As the rules are relatively new, their effectiveness and practical application remain to be seen. Any country, including India, which wants to solve privacy and data protection issues, must focus on strong laws, effective implementation procedures and a breach notification system to contain losses, as they are inevitable when dealing with vast amounts of data.



Mrs. Monica Sahni

Head,
Computer Science Department
Delhi Public School, Delhi

Many of the laws which are applicable to the physical world for which they were designed are not effective in policing and regulating the Internet, and new laws attempting to regulate the web are developing at a slow pace. This is the major cause for invasion of privacy, citing examples such as identity theft. A significant dilemma in India is that Indians have enormous amounts of information about them and very little privacy. Sensitive data about Indian citizens is used by the government and other organisations for various purposes, and is not kept very secure. Many do not even take simple precautionary measures such as shredding important documents. An example of this is an Internet Service Provider's data of people who signed up for Internet access. The personal information held by them can be very easily lost, because of ambiguous data retention policies and hackers. Browsers, websites, and search engines such as Google all keep track of your e-mails, search words, and personal data. Despite this, there are security measures one can take to keep information private, such as clearing cookies or browsing the web anonymously.

Many specific uses of the Internet pose privacy risks. Different websites collect cookies which store private data on the computer's hard drive, so pages visited more than once load faster and remember your passwords, and the websites also store the data in their servers. This can be dangerous for shopping or bank websites, where users have to enter confidential information such as credit card details. Instant messaging, a service that users often feel too comfortable using, can lead to them giving away private information without much forethought, which is stored by the IM service and the website. Another problem is social networks, in which people reveal many details that should not be made public about themselves, and are often not aware of what they are doing. Blogs are an

additional at risk service in which people place personal details about themselves. These details are linked to IP addresses which can be used for identification. There is also the concern with domain name registration, in which if website owners are not careful, their private information can be accessed by those who visit the site. Even banks which regularly encrypt their user's sensitive information may still sell it to advertisers, so people must check a bank's privacy policies before using it.

Phishing, in which scammers claiming to be a legitimate bank send emails to people requesting confirmation of passwords or credit card numbers, is a method used by crooks to compromise private information. Check mails, especially those with graphics or greeting cards, in offline mode to avoid the spam or ads from being sent again. Behavioural targeting is another major privacy issue. Websites and search engines track an individual's behaviour in order to give them the right type of ads. For example, if a person is searching for vacations in Las Vegas, ads will pop up relating to it. Another prominent predicament is that of location tracking, which is possible with many smartphones nowadays. Unless location service features are switched off, people can find out one's exact latitude, longitude, and time zone. There are a few key things that users should do on their own to protect their privacy: use firewalls, avoid malware or other scams, and make strong passwords.

Fourth Session ‘The Internet & Diplomacy’



Mr. Navdeep Suri

Former Head
Public Diplomacy Division,
Ministry of External Affairs,
Government of India.

There is no doubt today diplomacy in no exception to the way the Internet has impacted how we work today in all professions. Some of us use the Internet as a tool, some embrace it, and some fear it. Some say it has unleashed forces in a manner in which we are unable to control the flow of information.

Does the general availability of information impact the role diplomats play in international affairs? The speed of communication is leading to rethinking of the role the diplomats. The fact that Google has become GOD to fulfil all your information needs raises questions like: does this reduce the need of depending on other official

channels of communication?

The core objective of Public Diplomacy Division is to reach out to broad section of global population and develop a favourable environment for working of Indian foreign policy, and for promoting better understanding between India and the world. The Internet is an indispensable tool in engaging young people with India. Using tools like social networking portals help in spreading information about India. People around the world have varied interests in India, ranging from Bollywood and Yoga to other aspects related to India. This helps in developing the Soft Power profile of the country.

The news media is full of negative stories related to government, but the good things we do are never told. In such a scenario, the Internet comes as a handy tool to portray the positive side of the government, like rice cultivation help given to Senegal as part of South-South Cooperation or the 'Visa over Coffee' initiative in Argentina, where people are asked to come to Indian consulate to have coffee and in that time there visa request will get approved.

The Internet also helps in giving a raw perspective on a news story like the Prime Minister's comment on various issues, rather than the edited version of the story which may put someone else's spin. Portals like YouTube come in great use in pursuing such line of public communication. The Public Diplomacy Division is using all available tools to create a new image of India through various programmes like the 'Friends of India' initiative or various online competitions related to India.



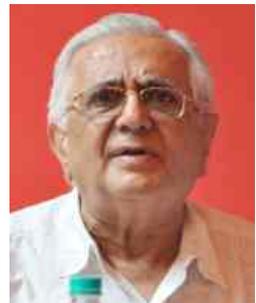
Ambassador Rajiv Sikri
Former Secretary,
Ministry of External Affairs,
Government of India

Nowadays, because of the Internet, diplomatic envoys face an entirely different problem. Rather than having very little information, now there is so much information that criteria must be established for determining what is useful. Another problem is that of instantaneous information. Whilst a diplomat is sleeping in one country, a report with important material will be published online, about which he would obviously be unaware. Such technological developments have made diplomacy a round-the-clock job.

In addition to the normal reporting and analysis traditionally expected of diplomats, now they also have to keep an eye out for news stories, many of them ill-informed or motivated. This means that diplomats now have to quality check and analyse them too because media and online information draws the attention and influences the views of not only the public but also Governments. The Internet has helped to facilitate communication. Before it, one had to be very careful of what he or she typed, as mistakes could not simply be deleted. Also, they had to make sure everything was brief and concise to save paper. Now the web breeds a kind of laziness of thought. The web has provided informal channels on diplomacy. Senior officers can send emails to their counterparts, easing the way they do business amongst each other. Although none of this is formally recorded, it is still diplomacy. In this increasingly globalized world with quick and easy access to information, diplomats have to adapt to the changing demands and pressures of technology.

Diplomacy has been heavily influenced by the IT revolution. The Internet has also helped to facilitate the rise of the public and non-state actors that are able to compete with established nations.

The Internet has a significant impact on inter-state diplomacy. The EU and many Western countries now take part in video-conferencing and other forms of web based communication. In fact, Mexico and the US conduct specific and technical discussions through the Internet, only meeting when they have to sign agreements. Canada has actually set up a call centre to filter emergency calls based on the level of emergency, and it



Ambassador Kishan Rana
Former Indian Ambassador
to Germany
Ministry of External Affairs,
Government of India

provides people information on who to contact during the weekends. This is extremely useful handling matters such as someone who needs a Visa as soon as possible. On the other hand, many countries have yet to implement such services. Another modern convenience provided by IT is digital archives. IT services can be used for keeping track of relatives abroad, particularly a concern in countries with a high risk of terrorist attacks or social unrest. For example, after the London Underground bombings of 7-7, the Thai embassy issued a statement with information that Thai citizens can use to contact any relatives that may be in England.

IT and the Indian Public Diplomacy Division are well suited together, so embassies have to take advantage of this potential relationship. India needs to be able to conduct public discussions on key foreign policy issues. Canada is able to do this well, setting aside issues online which can be discussed and debated by anyone, from student to researcher. In India, there is no place like that in which normal, everyday people can come and voice their opinions on issues. There have been some attempts to address this, including creating Google Groups for discussing issues. In order for foreign ministries to function better in this constantly modernised world, they should set aside some time every few months to chat with academics, businesses, and researchers on key foreign policy issues. There must be a forum in which people who are active in the international affairs community can discuss issues amongst themselves and with formal representatives involved in the process. Another example of effective public diplomacy is the US State Department's *Diplo-Weekly*, where people can produce instructions or manuals for performing certain tasks. The Internet allows for incredible opportunities in the field of public diplomacy, and we have to be bold when taking control of them.



Mr. Michael Pelletier
Former Minister-Counsellor
Public Affairs,
Embassy of United States
in India

There are three specific areas in the relationship between Internet and diplomacy. First is the role of the Internet on American public diplomacy. In America's relationship with a country as diverse as India, public diplomacy must be used to engage with more people in more places. Although India does not have as much Internet connectivity as many other countries, it is spreading quickly and being introduced in both urban and rural areas. America is trying to expand its diplomatic influence through Facebook Groups in India not only via their embassy in Delhi, but with centers in Hyderabad, Calcutta, and Mumbai in order to develop local connections in other major cities.

The US has many different Internet tools from Twitter accounts to YouTube channels that try to cater to India's diverse population in order to engage and interact with them.

The US has also integrated the Internet directly into public diplomacy, without the use of social media. An example of this is the program Tech Woman, where foreign women come to the US to work with IT companies. The State Department provides a variety of programs through cell phones and ISPs to assist farmers abroad in advising them about crop prices, as well as parental advice on raising newborns and English education programs. The State Department also has an iPhone app which provides US citizens going abroad with travel information such as embassy locations or travel warnings. There is another program called Tech at State, which brings together technology specialists and those interested in development and diplomacy to improve education and welfare using innovative methods.

In India, there are social gaming platforms, whereby students from various universities in India can connect with students abroad or in the US. These students engage in social gaming created networks between themselves. Both the US and Indian governments have teamed up to create data.gov, a program that brings together experts in both IT and government institutions in order to develop an open source platform which intends to increase public service delivery. A good example is an American singer whose guitar was broken by United Airlines. The singer put up a song on YouTube called United Breaks Guitars, which went viral and he was refunded. If it is possible to raise accountability against corporations, the same can be done against entire countries. The Arab Spring was able to revolutionize how citizens deal with their governments and share their stories and news with the rest of the world instantly at the click of a mouse. Ambassadors and foreign services representatives need to become increasingly aware of this in order to keep up with the changing world.

The Internet is not the cause for revolutions, but the medium through which revolutionaries exercise their basic freedoms of expression and speech in order to inform the rest of the world. The US believes that the Internet provides an open arena for ideas, innovation and promotion of economic growth. Working with other countries, the US feels that it can help achieve those goals for everyone in a world in which the Internet is becoming increasingly a part of diplomacy.

Fifth Session 'Internet Freedom & Censorship'



Mr. Ramanjit Singh Chima
Senior Policy Analyst,
Google India

There is a need for a free and open Internet. The Internet is instantaneous for publication and collaboration- within seconds after information comes online, and people can access it to detect human rights violations or problems with corporations.

A good example of direct Internet censorship (simply blocking the Internet) is the Arab Spring, specifically Egypt. For a period of time, access to the Internet in Egypt was completely blocked, because the Egyptian government pressured telecom providers and ISPs to block Internet connection. Egypt is not the only example; other countries do this as well by blocking either the entire web or specific sites. But what are the costs involved in this? The OECD, studying the Egyptian Internet shutdown, estimated the shutdown of the Internet for 5 days incurred direct costs of 19 million USD. However, the consequences go far beyond economics, as blocking the Internet also raises a question about basic human rights and freedoms. This is in direct violation of Article 19 of the Universal Declaration of Human Rights, a document to which all countries are signatories, which says access to information should be available to everyone regardless of frontiers. On the UN Human Rights Council Website, there is a quote that states it wants nations to try and facilitate access to new media. Though the Declaration allows certain restrictions, they must be limited “for the respect of the rights and reputations of others”. It also says that states cannot completely ban access to entire forms of communication, but some countries do this anyways.

There is also the problem of indirect censorship, through the use of laws or disincentives which limit or make it more difficult to access the Internet or certain parts of it. It is very easy to divide the world into black and white, and look at evil dictatorships which block access to the Internet completely or target the people who speak out against them on the web. Democracies also censor the Internet through laws in order to protect national security, but at the same time, they must not interfere, but rather, advance, the practice of free speech. It is very easy to allow exceptions to free speech become the accepted norm in society, even in an open democracy.

Google has a bias towards allowing democracy and free speech, and they therefore engage in global discussions with international governments

and the community on free speech whilst trying to encourage a high level of transparency through their published Transparency Report. The Transparency Report publishes reports of companies or governments who want to have content removed, so the public can get an idea of the intentions of their government and approach representatives and international organisations with the appropriate questions. Although sometimes these are legitimate requests for the removal of content outlawed by international law, many of the cases involve very broad requests for censorship which Google declines because it would involve infringing upon universal human rights to free speech and expression. In conclusion, how can we promote rights to free speech and expression whilst still encouraging innovation and protecting what the society deems to be important?



Mr. Ravi Nair
Executive Director,
South Asia Human Rights
Documentation Centre

Censorship is happening in India right now on a large scale, and that it is necessary to fight off this violation of our rights starting with a brief history of India's censorship of the Internet. As early as 2001, drafts of the Communication Convergence Bill attempted to introduce Internet censorship, which was just the beginning of Internet censorship in India. In 2003, India created Cert-in, the Indian Computer Emergency Response Team, which was given the authority to block websites, and later a Gazette Notification was issued to increase the subjectivity of censoring what is considered dangerous material. Although the government should have authority in such

issues, there must be some form of judicial control and scrutiny on this activity done purely by the Executive.

Some more examples of government censorship include the Indian government taking down the website of a pro-Maoist magazine despite it being an official magazine that has been registered with the Registrar of Newspapers. Another is of 150 ISPs blocking the People's War Group website. Some of these concerns of the state are legitimate, but they must go through a level of judicial scrutiny as well. Part of the Executive, the Intelligence Bureau of India, which is under no parliamentary or direct control, has an enormous amount of power. The Internet is a new battleground, and unless we are aware of it, our freedoms will be further restricted.



Mr. Prasanth Sugathan
Counsel,
Software Freedom Law Centre

The Software Freedom Law Centre in New Delhi promotes freedom of information and it works with software developers to ensure that their freedom to code is protected. Article 19 of the UN Universal Declaration on Human Rights talks about an individual's right to get information. Therefore, unnecessary censorship violates human rights.

Before the Internet, it was very easy for the government to control the media by censoring broadcast stations. Now, because of the decentralized structure of new media in the Internet, it is a lot harder for the government to censor. So how will new media be regulated? Some, such as Britain's PM, support controls of social media websites such as Twitter and Facebook. Former French President Nikolas Sarkozy wanted to impose draconian laws on the handling of the Internet. Governments are trying and failing to find many ways to control new media which has a heavy influence on public opinion.

An example of this is the anti-corruption campaign by Anna Hazare, where the media set the public opinion, and the government could not do anything about it. The government and the media have a kind of love-hate relationship. Government wants to utilize it to their advantage, and, at the same time, control it. A good example of this is the fact that the Department of Information Technology has come out with guidelines regarding the use of social media. The new IT act issued by the government has provisions which allow it to censor online conduct, and blacklist websites. The Freedom in the Net report reports on Internet freedom in different countries. Countries were ranked on a scale of 0-100, 0 being 100% free and 100 being 0% free. India got 36, which was better than Pakistan's 55 or China's 83. According to the report, the right to access the Internet has to be considered a basic human right, which should be accepted by all countries.

One major problem is that all of our information is in the cloud, from data to e-mail. This is in direct conflict with the decentralized nature of the Internet, because everything is centralized in one place. Having a few major centres where data is concentrated, websites such as Facebook and Twitter, further accentuates this problem. There are only two major ways to solve this problem. One is legislation that is passed to ensure that the government respects basic human rights and becomes more transparent, and the other is through technology, using a freedom box that can be plugged into the wall, which encrypts your information, useful during times of heavy Internet restriction.



Mr. Rishab Bailey
Independent Analyst
on Internet Policies

The exponential growth of the online world has raised two major issues: anonymity and dispersion. Between the user of the Internet and the content being accessed are numerous actors known as intermediaries. For reasons largely of efficacy, intermediaries bear the brunt of any attempts to regulate content on the Internet. The Indian government's recent action to control intermediaries has and will create a large amount of problems. The regulations can both restrict freedom of speech and hamper Internet penetration.

In the United States, case law developed so that if an intermediary acted as an editor of content, it could be held liable should the content violate any laws. However, if it took no editorial or similar action (as part of its business model) it could not be held liable. This rather anomalous position was remedied by the enactment of the Telecommunications Decency Act which protects intermediaries from litigation, in exchange for self-regulation of content. This law has had a very liberal interpretation, leading to some strange results. The US experience in regulating intermediaries has also been mixed. It has provided a haven for illegal markets, yet at the same time it has also reduced the regulatory burden, lowered costs, and encouraged freedom of expression. On the issue of copyright, under the Digital Millennium Copyright Act, if an ISP receives a notice about a copyright claim, they must take down the site within a certain amount of time. This tries to move away from the liability regime regarding free speech issues and encourages stricter enforcement of intellectual property rights. However, it has another effect of facilitating censorship as companies have more opportunities to take down content.

In the UK, applying the common law principles to distributors, English courts have held that intermediaries must censor the content (on receiving notice thereof) or they will face prosecution. Now an act regarding defamation provides immunity to those who can prove that they did not have any role with developing or distributing the defamatory content, which helps to protect intermediaries. There is no separate legislation that permits blocking of content. The UK uses a system based on the Internet Watch Foundation which is an NGO that blacklists websites. This has led to various anomalous situations such as the blocking of certain album covers of the Scorpions on Wikipedia.

The EU provides safe harbour to intermediaries through its 2002 E Commerce Directive wherein it lists certain criteria which if fulfilled would make an intermediary liable.

In India, the original IT Act safeguarded intermediaries from liability if the intermediary was able to show that content was posted without its knowledge and complicity and if it acted promptly to remove the content upon receipt of notice. This gave intermediaries a very high burden of proof and made it difficult for them to show that they are not liable. The 2008 amendment to the IT Act created a situation in which intermediaries are not liable for third party content if certain key circumstances are met. Now, new guidelines have been set which require intermediaries to set privacy policies which bar uses from publishing any material that are on the extremely long list of banned content. If an intermediary is made aware of any such material, it must take down the information in 36 hours. Because of the combination of Indian bans on many materials such as alcohol advertisement and the fact that many ads on the Internet in India come from abroad, the intermediary made aware of these ads cannot take them down because they are being hosted outside of India and therefore the intermediary itself will take the blame.

These guidelines do not contain any scope for judicial intervention or oversight, so intermediaries must adjudicate the legality of the content by themselves. There is no difference on the sort of illegal act, so terrorist threats are at the same level as copyright claims. The takedown regime encourages privatization of adjudication and inhibits free speech. The basis for a successful system that can deal with intermediaries includes: recognizing that self-regulation by intermediaries is arbitrary and leads to increased censorship, differentiating between different types of intermediaries, providing immunity where the intermediary is unable to deal with the offence, differentiating between different levels of severity, making the censorship system more transparent, and having the process be adjudicated through an official Judicial process.



Prof. Yugank Goyal
Assistant Professor,
Jindal Global Law School
O. P. Jindal Global University

My paper attempts to locate and identify a pattern in censorship regimes of the world. Such pattern is not necessarily informed by the popular perceptions of govern-mentality. For e.g., neither Islamic countries nor communist nations reveal a consistent censorship frameworks, even though one may be believe so. On the contrary, I argue that it is the cultural dimension that determines and maps this pattern.

Internet censorship is not influenced by legal and regulatory discourse, as much as it is by various cultural imprints that perceive usage of Internet technology. The Internet exists as a virtual space and culture where distance is non-existent and communication is costless, thereby aiding to the development of a sub-culture within itself. This sub-culture is essentially built on the vestiges of existing cultural dynamics of the society. And the censorship regime will emerge from cultural manufacture of regulation. While mapping the pattern between culture and Internet censorship, I refer to the work of Geert Hofstede, who has observed that there are four methods by way of which culture classification can be done. One of the classifications is individualistic culture and collectivist culture and the second classification hinges on large v. small power distances (which in sociological literature is synonymous with inequality). I discover that individualist societies and societies that have small power distance, tend to have weaker censorship regimes, whilst societies that are collectivist and driven by large power distance will witness strong censorship regime. This pattern is surprisingly accurate.

I conclude, with reservations, that such an analysis can substantially inform our understanding of what kind of policy decisions may work. Culture index and Internet freedom are strongly correlated. And therefore, both IT companies as well as regulators need to estimate the cultural shift that a given set of freedom quotient will claim, and whether that is desirable. Interestingly, there is no reason to believe that a vice-versa impact will not hold.

Sixth Session 'The Internet & National Security'



Brigadier Arun Saghal
Joint Director,
Net Assessment & Simulation,
Institute of National Security
Studies

Cyber warfare is extremely difficult to deal with because attacks can come out of nowhere, and they cannot be easily identified. A hypothetical scenario in which India has been affected by a cyber-attack would cause a lot of damage and destruction, which highlights the dependence and vulnerability on new technologies. Because of this, the Internet and national security need to be taken more seriously. There should be a system of firewalls set up to ensure minimum penetration power of any harmful material. From Russia taking down the banking system in Georgia to attacks on the Indian security and defence establishment, cyber-warfare is very real and it is

happening right now.

The two main vulnerabilities of India include the Chinese and the Pakistanis, who are both working together to undermine India's national security. The Chinese have entire Universities devoted to training cyber hackers as well as an established cyber hacking team of around 50-75k members. Now how does India handle this problem? One of the first steps to undertake is to control the means of communication. Another method is to produce indigenous Indian microchips, as they will be harder to compromise than chips made abroad. The Indian government could also develop its own operating system to keep the penetration power of hackers unfamiliar with it low. A third is the concern over the private monopoly of the Internet and how the government must be brought in for national security purposes. Therefore, at the international level, there should be an alliance and treaty to keep a safe hold on cyberspace, formally define commonly thrown around terms such as cyber-crime, and describe in specifics on how to deal with them.



Wing Commander Ajey Lele
Research Fellow,
Institute for Defence Studies
& Analysis

In order for a country to remain secure, it must have a political, military, diplomatic, and economic power. There are also other issues that must be recognized for protecting national security, including disaster management and internal threats of terrorism. All of these factors involved in national security are dependent on technology, and they have to deal with the Internet. One major problem is that the Internet can be misused, as it is difficult to determine who the creator of this information is and where it is coming from. Right now, the Internet is still in its infancy, but as it develops we need to keep a close eye on it to prevent any potential problems to

national security. Another issue is that protecting national security involves curtailing individual freedoms which may not be acceptable to people who have grown to know the Internet as a free and open place.

The Internet and national security have a symbiotic relationship, and this relationship is vital for understanding how to use the Internet in a positive manner and detect when it is being used in a negative fashion. In fact, the Internet actually started out of a military project, and since then, both civilian and military dependence on this medium have increased, making it a critical asset. The military now uses the Internet for purposes such as intelligence gathering, reconnaissance, a new means of waging war, and a force multiplier to increase power.

Internet dependence, especially by the military or government, is extremely dangerous for national security. If a terrorist wants to take out either of these, all he has to do is take down the electronic systems, and since governments and militaries are dependent on these, they will be taken down as well. A good example of this is the new system being proposed to interlink multiple government departments, Nat Grid. It may increase government efficiency, but it will also make the entire Indian government vulnerable to a crash during an attack, as everything will be based in a single system.

Many people are quick to blame countries such as China or Iran whenever a cyber-attack occurs. But cybercriminals can range from small terrorist organisations to entire countries to individuals practicing their craft. During recent cyber-attacks, Estonia felt that Russia was the culprit. However, many times the criminal does not need to have any formal training.

Many self-taught hackers hack just for the thrill that comes with it.

Terrorist organisations with submarines could potentially cut underwater Internet cables. These various sources from which cyber-attacks could originate further complicate the problem.

The conflict over Internet freedom vs. censorship can be tied into national security. If Internet users are given too much freedom, many may misuse it and become serious threats to national security. However, is it right to censor or take down the Internet? Therefore, national security experts are left with a conflict of interest, Should they simply leave the Internet alone, or should there be a way to regulate it? A new form of national security must be developed to accommodate the changing nature of the Internet.



Commodore Premchand
Independent Commentator on
Foreign Policy Issues

The modern communications systems are necessary for the survival of the entire world. Critical infrastructure around the globe uses systems that rely on the Internet, via IP networks, so they are all interconnected. If this infrastructure is disabled or damaged, there will be no connectivity. Currently, India is not as interconnected as other countries are. However, it still relies on electricity, which, if cut off, will pose a major problem to important sectors such as transportation and oil refineries. India's government is also becoming increasingly dependent on IP networks, which, if compromised, may render it useless.

This increased dependence on technology and Internet based systems is a nightmare for national security. Countries such as China and the US pump large amounts of money into cyber warfare research, as they feel that the only way they can counteract this threat is to become stronger than it. At the same time, countries must constantly develop new technologies and become more interconnected in order to remain competitive in the modern world, so the only solution is to try and protect these networks as much as possible.

Protecting national security is no easy task. A country's infrastructure, organization, operations, and many other factors have to be constantly monitored. Even after billions of dollars are invested into security tools, they still do not address more than 9% of all security threats. The rest of the threats lie in software vulnerability. It is very difficult to develop secure software, as it is a complicated and expensive process. Instead of disregarding security, countries such as India that have solid software development skills should try and undertake this process in order to

advance their national security.

Areas in which countries need to focus on include intelligence gathering, surveillance, and identification platforms. Based on the enormous growth of the Internet, if these plans are not implemented, it will become a nightmare to maintain national security within the next 10-15 years of development. One major problem is that security is rarely taught in schools; it only comes into play in the real world, so there is little major research focus on the issue. Another problem is the lack of native intellectual property (IP) in India. The US has enormous amounts of IP, which has helped it to develop high level software into a multi trillion dollar industry. The only way India can progress into high level security technologies is via native IP development and mutual collaboration between Defence and Intelligence agencies.



Mr Alok Vijayant
Director,
National Technical Research
Organisation (NTRO)
Government of India

Internet – the network of networks to ensure smooth flow of right information in the right time to the right set of people has begun to show its hind side wherein the perpetrators of this domain have enabled systems and processes to disrupt flow of information, ensure flow of wrong information at the wrong time to the wrong sets of people. The method is what is called hacking to create turbulence within the system.

Web based portals at one time were seen to develop businesses, the moment they graduated towards m-commerce, a new era of hackers and hactivism came to the fore ensuring that they also had a pie in the overall framework. A race between the hackers and the cyber security specialist saw an unprecedented high in the last few years of the last century. All the hackers did realize that the high level of disorderliness is likely to stay for a longer duration as the erstwhile pillars of the information system – the people, process and technology (PPT) are no more relevant in the current context and have given way to PPTX with inclusion of the new X-Factor.

The development of an information system would always remain exposed to vulnerabilities as because there are gaps between the building blocks itself. The people who understand process, do not understand the technology, the people who understand technology do not understand the process and the people who neither understand process nor technology in most cases sit at the decision making.

A very interesting aspect began to emerge at that time – the business potential of high level of entropy in the domain of cyber. Some smart business people of Western origin began to realize the potential and the leverage that the disorderliness in this domain could provide. After all the economics of price revolves around an equation between the demand and supply curve. Demand in a normal scenario should be the one that is natural and should normally be a function of time. However, the smarter people have the ability to create and raise the levels of the demand through artificial injections of parameters. Attacks began to be created with malafide intentions to promote businesses and security solutions, false flagging and similar mechanisms were used to hamper and disrupt trade of adversaries, and the intention was to make a ready market for your apt product for tactical and other gains.

If we go back many decades when nuclear weapons were perceived as “The Strength” for a nation, many nations deployed heavy resources in development of nuclear weapon, an arms race began in the global scenario. When the “Haves” of the technology acquired the weapon, blocks were formed to ensure that the “HaveNots” should not have it. Nuclear Non-Proliferation Treaties were signed so as to curtail and deter others from following suit. Cyber domain is passing through the phase of weaponization and countries striving to form part of the “Haves” block. As soon as a few selected country weaponize their cyber spaces, global conventions and like treaties would be formulated so that the realm could be reined.

Cyber domain as the fifth domain is there to stay, the choice is purely ours as to which part of the blocks we as a nation would like to be in – the Haves or the HaveNots.



O.P. Jindal Global University
A Private University Promoting Public Service



**UNITED NATIONS
UNIVERSITY**



**PUBLIC DIPLOMACY DIVISION
MINISTRY OF EXTERNAL AFFAIRS
GOVERNMENT OF INDIA**



Jindal School of International Affairs
India's First Global Policy School

**Cordially invite you to participate in the
International Conference**

on

“The Internet and a Changing World”

Venue:

**O.P. Jindal Global University
Sonipat Narela Road, Near Jagdishpur Village
Sonipat, Haryana-131001, NCR of Delhi**

9-10 September 2011

Friday 9 September 2011

Inaugural Session: 10:00 am -11:00 am

Welcoming Remarks

10:00 am -10:10 am

Professor Raj Kumar, Vice Chancellor, O.P. Jindal Global University

Introductory Remarks

10:10 am - 10:20 am

Professor Sareeram Chaulia, Vice Dean, Jindal School of International Affairs

Inaugural Address

10:20 am - 10:40 am

Dr. Vesselin Popovski, Senior Academic Programme Officer, United Nations University, Tokyo

Keynote Address

10:40 am - 11:00 am

Professor G. K. Chadha, President, South Asian University, New Delhi

Tea: 11:00 am - 11:15 am

First Thematic Session: 11:15am - 12:30 pm

THE INTERNET AND GLOBAL DEMOCRACY

Chair: Dr. Vasselin Popovski, Senior Academic Programme Officer, United Nations University, Tokyo

11:15 am-11:30 am

Mr. Andreas Bummel, Head of Secretarial, Campaign for the Establishment of a United Nations Parliamentary Assembly (UNPA)

11:30 am - 11:45 am

Professor Shiv Viswanathan, Dhirubhai Ambani Institute of Information and Communication Technology, Gandhinagar, Gujrat

11:45 am - 12:00 noon

Mr. Pooran Pandey, Executive Director, United Nations Global Compact Network, India

12:00 noon - 12:15 pm

Dr. James Arputharaj, Coordinator, Campaign for the Establishment of a United Nations Parliamentary Assembly (UNPA), India

Discussion: 12:15 am - 12:30 pm

Lunch: 12:30 pm - 1:30 pm

Second Thematic Session: 1:30 pm - 2:45 pm

THE INTERNET AND SOCIO-ECONOMIC DEVELOPMENT

Chair: Dr. Saroj Koul, Professor and Executive Director, Centre for Supply Chain & Logistics; Executive Director, Centre for Infrastructure, Energy & Green Technologies, Jindal Global Business School

01:30 pm-01:45 pm

Dr. Abusaleh Shariff, Chief Economist, National Council of Applied Economic Research

01:45 pm - 02:00 pm

Mr. Rajeev Malhotra, Economic Advisor to Finance Minister, Government of India

2:00 pm-2:15 pm Mr. Amitabh Nag Head, Government Industries Solution Unit, Tata Consultancy Services

2:15 pm - 2:30 am Mr. Ramesh Kailasam, Director, Government Programmes India and South Asia, IBM India Pvt. Ltd.

Discussion: 2:30 pm - 2:45 pm

Tea: 2:45 pm - 3:15 pm

Third Thematic Session: 3:00 pm - 4:30 pm

THE INTERNET AND PRIVACY

Chair: Dr. Kamlesh Bajaj, CEO, Data Security Council of India

3:00 pm-3:15 pm Professor Abhayraj Naik, Assistant Professor and Assistant Director, Centre on Public Law and Jurisprudence, Jindal Global Law School

3:15 pm - 3:30 pm Mrs. Monica Sahni, Head, Computer Science Department, Delhi Public School, Mathura Road, New Delhi

3:30 pm - 3:45 pm Professor Prashant Iyengar, Assistant Professor and Assistant Director, Centre for Intellectual Property Rights Studies, Jindal Global Law School

3:45 pm - 4:00 pm Professor Vaiji Raghunathan, Assistant Professor and Assistant Director, Centre for Global Corporate and Financial Law and Policy, Jindal Global Law School

Chair's Remark : 4:00 pm - 4:15 pm

Discussion : 4:15 pm - 4:30 pm

Saturday to September 2011

Fourth Thematic Session: 10:00 am - 11:15 am

THE INTERNET AND DIPLOMACY

Chair: Mr. Navdeep Suri, Joint Secretary and Head of Public Diplomacy, Ministry of External Affairs, Government of India

10:00 am-10:15 am Dr. Ambassador Rajiv Sikri, Former Secretary, Ministry of External Affairs, Government of India

10:15 am - 10:30 am Ambassador Kishan Rana, Former Indian Ambassador to Germany

10:30 am - 10:45 am Mr. Michael Pelletier, Minister Counselor for Public Affairs, American Embassy, New Delhi

Chair's Remark : 10:45 am - 11:00 am

Discussion : 11:00 am - 11:15 am

Fifth Thematic Session: 11:15 am - 1:00 pm

INTERNET FREEDOM AND CENSORSHIP

Chair: Professor Sreeram Chaulia, Vice Dean, Jindal School of International Affairs

- 11:15 am - 11:30 am** Mr. Ameet Nivsarkar, Vice President, Global Trade and Development, NASSCOM
- 11:30 am - 11:45 am** Mr. Ravi Nair, Executive Director, South Asia Human Rights Documentation Centre, New Delhi
- 11:45 am - 12:00 noon** Mr. Prasanth Sugathan, Counsel, Software Freedom Law Centre, New Delhi
- 12:00 noon - 12:15 pm** Mr. Ramanjit Singh Chima, Senior Policy Analyst, Google India
- 12:15 pm - 12:30 pm** Mr. Rishab Bailey, Independent, Analyst on Internet Policies
- 12:30 pm - 12:45 pm** Professor Yugank Goyal, Assistant Professor & Assistant Dean (Research and International Collaborations) and Assistant Director, Centre for Intellectual Property Rights Studies, Jindal Global Law School

Discussion : 4:15 pm - 4:30 pm

Lunch: 1:00 pm - 2:00 pm

Fourth Thematic Session: 10:00 am - 11:15 am

THE INTERNET AND DIPLOMACY

Chair: Mr. Alok Vijayant, Director, National Technical Research Organisation (NTRO), Government of India

- 2:00 pm - 2:15 pm** Wing Commander Ajay Lele, Research Fellow, Institute for Defence Studies & Analyses
- 2:15 pm - 2:30 pm** Brigadier Arun Sahgal, Joint Director, Net Assessment and Simulation, Institute of National Security Studies
- 2:30 pm - 2:45 pm** Commodore Premchand, Independent Commentator on National Security Issue

Chair's Remark : 2:45 pm - 3:00 pm

Discussion : 3:00 pm - 3:15 pm

Concluding Remark

3:15 pm - 3:25 pm Professor Sreeram Chaulia, Vice Dean, Jindal School of International Affairs

Voter of Thanks

3:25 pm - 3:30 pm Professor Sreeram Chaulia, Vice Dean, Jindal School of International Affairs



Jindal Global Law School
India's First Global Law School



Jindal School of International Affairs
India's First Global Policy School

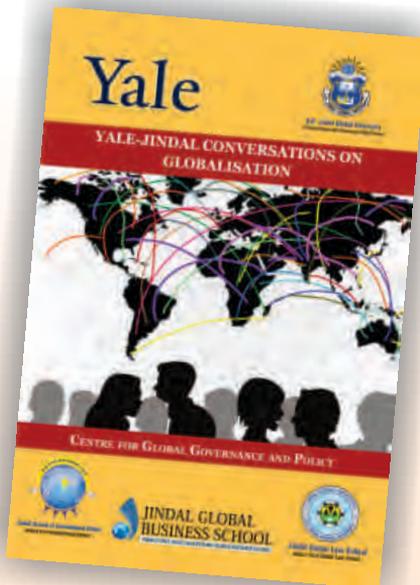
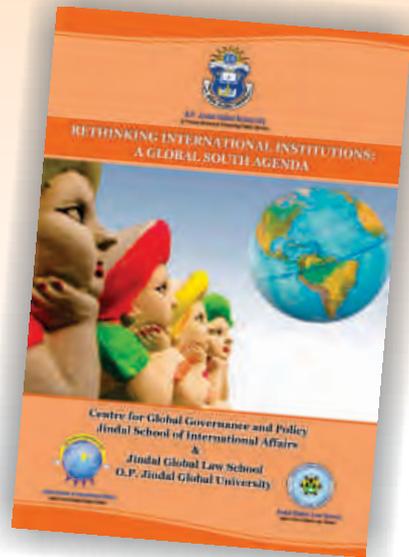


JINDAL SCHOOL OF GOVERNMENT
AND PUBLIC POLICY
INDIA'S FIRST PUBLIC POLICY SCHOOL

Appendix-II: Journals of Jindal School of International Affairs



Appendix-III: Research Reports of Centre for Global Governance & Policy (CGGP)



Appendix-IV: Faculty Members and Research Associates at Jindal School of International Affairs

Faculty Members

Urvashi Aneja

B.A. (Hons.) (Utrecht University); M.Phil. (Oxford), Ph.D. (Oxford)
Assistant Professor and Assistant Dean (Academic Affairs) & Executive Director, Centre for Global Governance and Policy (CGGP), JSIA

Sreeram Sundar Chaulia

B.A. Hons. (Delhi), B.A. (Oxford), M.Sc. (LSE), M.A. & Ph.D. (Syracuse)
Professor and Dean, JSIA; Executive Director of the Centre for Global Governance and Policy (CGGP), JSIA

Samrat Sinha

Ph.D. and M.A. in Political Science and International Relations, (Univ. of Delaware, USA), M.A. in International Relations, (Jawaharlal Nehru University, India)
Assistant Professor and Assistant Director of the Centre for Study of Political Violence (CSPV), JSIA

Young Chul Cho

B.A. (Kyung Hee), M.A. (Essex), M.Sc. (Wales, Aberystwyth), Ph.D. (Manchester)
Associate Professor; Assistant Director of the Centre for Disarmament and Nonproliferation (CDN), JSIA

Rohee Dasgupta

B.A. (Calcutta, India), M.A. (Keele Univ., UK), Ph.D. (Keele Univ., U.K.) PG Cert. (Keele Univ., U.K.)
Assistant Professor and Executive Director of the Centre for European Studies (CES), JSIA

Josuke Ikeda

LL.B (Ritsumeikan, Japan); M.A. (Osaka, Japan); M.Sc. Econ. (Aberystwyth, UK); Ph.D. (Osaka, Japan)
Associate Professor; Assistant Director of the Centre for Study of Political Violence (CSPV), JSIA

Mohsin Khan

M.A. (International Relations, International Economics, The Johns Hopkins Univ., Washington DC), M.A. (Global Political Economy, Univ. of Hull, U.K.), B.A. Economics Hons. (Delhi)
Assistant Professor and Assistant Director of the Centre for Emerging Economy Diplomacy (CEED), JSIA

Rajdeep Pakanati

Ph.D. and M.A. in Political Science and International Relations, (Univ. of Delaware, USA), M.Phil. in International Law and M.A. in Politics and International Relations, (Jawaharlal Nehru University, India)
Assistant Professor and Assistant Director of the Centre for Global Governance and Policy (CGGP), JSIA

Research Associates

Harshvardhan Bhat

Bachelor of Business Management (Christ College, India), M.Sc. Comparative Politics (Conflict Studies), (London School of Economics, U.K.)
Senior Research Associate, JSIA
Fellow, Centre for African, Caribbean and Latin American Studies. JSIA

Jasbir Pal Singh Rakhra

M.A. (International Policy & Cert. in Nonproliferation (Monterey Institute of International Studies, USA), M.A. Defence & Strategic Studies (Panjab University, India), B.A. Defence & Strategic Studies (Pune University, India)
Senior Research Associate, JSIA
Fellow, Centre for Study of Political Violence (CSPV), JSIA

Taiwan Education Centre

Chia-Lin Chen

Bachelor of Information Management, June 2003, (Shih Hsin University, Taipei/Taiwan)
Chinese Language Instructor

Pei-Chen Tung

B.A. (National Kaohsiung Normal Univ., Taiwan); M.A. (Manchester Univ., UK)
Programme Administrator and Chinese Language Instructor



O.P. Jindal Global University
A Private University Promoting Public Service

JGU is a non-profit global university established by the Haryana Private Universities (Second Amendment) Act, 2009. JGU is established in memory of Mr. O.P. Jindal as a philanthropic initiative of Mr. Naveen Jindal, the Founding Chancellor. The University Grants Commission has accorded its recognition to O.P. Jindal Global University. The vision of JGU is to promote global courses, global programmes, global curriculum, global research, global collaborations, and global interaction through a global faculty. JGU is situated on a 70-acre state-of-the-art residential campus in the National Capital Region of Delhi. JGU is one of the few universities in Asia that maintains a 1:15 faculty-student ratio and appoints faculty members from different parts of the world with outstanding academic qualifications and experience. JGU has established four schools: Jindal Global Law School, Jindal Global Business School, Jindal School of International Affairs, and Jindal School of Government and Public Policy.



Jindal School of International Affairs
India's First Global Policy School

Jindal School of International Affairs (JSIA), India's first Global Policy School, is enhancing Indian and International capacities to analyse and solve world problems. It intends to strengthen India's intellectual base in international relations and affiliated social science disciplines that have hitherto been largely neglected by Indian academic institutions. JSIA commenced its academic session in August 2011 with a Master of Arts in Diplomacy, Law and Business [M.A. (DLB)]. The programme is the first of its kind in Asia, drawing upon the resources of global faculty in Jindal Global Law School, Jindal Global Business School, as well as the Jindal School of International Affairs to create a unique interdisciplinary pedagogy. The [M.A. (DLB)] is delivered on week days to residential students and on weekends for working professionals, including diplomats, based in the National Capital Region (NCR) of Delhi. JSIA has established international collaborations with the United Nations University in Tokyo, the School of Public and Environmental Affairs (SPEA) of Indiana University Department of Political Science, William Paterson University, U.S.A.; Bush School of Government and Public Service, Texas A&M University, USA; School of International Service, American University, U.S.A.; Ryerson University, Canada; Faculty of Social Sciences, University of Wrocław, Poland Centre for European Studies, Katholieke Universiteit (KU), Leuven, Belgium and Faculty of Humanities, Leiden University, The Netherlands. JSIA hosts India's only Taiwan Education Centre, which has been established by National TsingHua University of Taiwan with the backing of the Ministry of Education, Government of Taiwan. JSIA publishes the Jindal Journal of International Affairs (JJIA), a critically acclaimed bi-annual academic journal featuring writings of Indian and international scholars and practitioners on contemporary world affairs.

Appendix-V: O. P. Jindal Global University

Governing Body

Chairman

Mr. Naveen Jindal, Chancellor, O.P. Jindal Global University

Members

Professor C. Raj Kumar, Professor and Vice Chancellor, O.P. Jindal Global University
Mr. Anand Goel, Joint Managing Director, Jindal Steel & Power Limited
Dr. Sanjeev P. Sahni, Head-Education, Jindal Group
Dr. A. Francis Julian, Senior Advocate, Supreme Court of India
Professor D.K. Srivastava, Former Pro Vice Chancellor (Academic), O. P. Jindal Global University
Professor Jane E. Schukoske, CEO, Institute of Rural Research and Development (IRRAD)
Professor Peter H. Schuck, Yale University
Professor Stephen P. Marks, Harvard University
Mr. S.S. Prasad, IAS, Secretary to Government of Haryana Education Department (Ex officio)
Professor Y.S.R. Murthy, Registrar, O.P. Jindal Global University

Board of Management

Chairman

Professor C. Raj Kumar, Professor and Vice Chancellor, O.P. Jindal Global University

Members

Mr. S.S. Prasad, IAS, Secretary to Government of Haryana Education Department (Ex officio)
Dr. Sanjeev P. Sahni, Head-Education, Jindal Group
Dr. A. Francis Julian, Senior Advocate, Supreme Court of India
Professor Y.S.R. Murthy, Registrar, O.P. Jindal Global University
Professor Parmanand Singh, Former Dean, Faculty of Law, University of Delhi
Dr. R.K. Raghavan, Consulting Advisor (Cyber Security), Tata Consultancy Services Ltd.
Dr. Sreeram Sundar Chaulia, Professor and Dean, Jindal School of International Affairs
Professor Padmanabha Ramanujam, Assistant Professor & Assistant Dean (Academic), Jindal Global Law School
Dr. Shounak Roy Chowdhury, Assistant Professor, Jindal Global Business School

Academic Council

Chairman

Professor C. Raj Kumar, Professor and Vice Chancellor, O.P. Jindal Global University

Members

Dr. Sanjeev P. Sahni, Head-Education, Jindal Group
Dr. A. Francis Julian, Senior Advocate, Supreme Court of India
Professor N.R. Madhava Menon, Member, Centre State Relations Commission
Mr. D.R. Kaarthikeyan, Former Director, Central Bureau of Investigation
Professor Padmanabha Ramanujam, Assistant Professor & Assistant Dean, Jindal Global Law School
Mr. Buddhi Prakash Chauhan, Director of Law Library, Jindal Global Law School
Professor Y.S.R. Murthy, Registrar, O.P. Jindal Global University
Dr. Swagato Sarkar, Associate Professor and Assistant Dean, Jindal School of Government and Public Policy
Dr. Shounak Roy Chowdhury, Assistant Professor, Jindal Global Business School
Dr. Sreeram Sundar Chaulia, Professor and Dean, Jindal School of International Affairs
Professor Mohsin Raza Khan, Assistant Professor and Assistant Dean, Jindal School of International Affairs
Mr. Manoj Vajpayee, Deputy Registrar & Controller of Examinations



O.P. Jindal Global University

Sonipat Narela Road, Near Jagdishpur Village, Sonipat

Haryana-131001, NCR of Delhi, India

Tel: +91-130-3057800, 3057801, 3057802

Fax: +91-130-3057808/888

Email: info@jgu.edu.in

Website: www.jgu.edu.in