

LA SECRETARÍA DE RELACIONES EXTERIORES
POR MEDIO DEL INSTITUTO MATÍAS ROMERO

CONVOCA
AL CURSO EN LÍNEA

***INTERNET TECHNOLOGY AND POLICY: CHALLENGES AND
SOLUTIONS***

QUE IMPARTIRÁ DIPLOFOUNDATION
DEL 23 DE JULIO AL 28 DE SEPTIEMBRE DE 2018
(102 horas)

Este curso a distancia requiere comprometer diez horas de estudio a la semana. Las actividades de aprendizaje y de evaluación que los participantes deberán llevar a cabo se describen en el temario que aparece más abajo, en el inciso “Metodología” (*Methodology*).

Las y los participantes podrán solicitar la asistencia de quienes estén a cargo de la tutoría y el apoyo técnico de DiploFoundation.

I. REQUISITOS DE ADMISIÓN

- Buen desempeño en programas previos del IMR (no se aceptarán candidaturas de personas que tengan calificaciones reprobatorias en el último año) [*]
- Inscripción exclusiva en este curso (no se aceptarán candidaturas de personas que estén cursando otro programa del IMR de manera simultánea, excepto los cursos presenciales de inglés y francés).
- Dominio del idioma inglés
- Acceso a computadora con conexión a Internet
- Sistema operativo: Windows XP, Vista, Windows 7, MacOS X
- Hardware: 2 GB o más de RAM para Vista o Windows 7
- Software:
 - Adobe Acrobat Reader (haga clic [aquí](#) para descargarlo gratis)
 - Microsoft Office u Open Office (haga clic [aquí](#) para descargarlo gratis)
- Navegadores: *Google Chrome*, *Internet Explorer* 9 o posterior; *Firefox* 8 o posterior
- JavaScript, Cookies y Pop-ups (elementos emergentes) deben estar habilitados
- Registro de su solicitud de inscripción en el formulario del Campus Virtual del IMR [**]. Para ello:
 - Haga clic [aquí](#) o copie y pegue la siguiente dirección electrónica en su navegador *Google Chrome*:
 - <https://registroimr.sre.gob.mx/>
 - Capture los datos que se solicitan en cada una de las secciones del formulario.
 1. Utilice la tecla <Tabulador> para desplazarse de un campo a otro del formulario.
 2. Escriba su nombre completo, tal como aparece en su pasaporte, empleando mayúsculas y minúsculas.
 3. Utilice el campo *Observaciones*, si tiene dificultades para ingresar su nombre: descríbalas y nosotros haremos los cambios necesarios.
 4. Si es de nacionalidad mexicana, ingrese cuidadosamente su CURP. Recuerde que esa clave constituye el número de matrícula de cada participante. Si no cuenta con ella o no la recuerda, puede obtenerla en: <http://consultas.curp.gob.mx/CurpSP/> (a quienes no sean de nacionalidad mexicana y, por tanto, no cuenten con la CURP, se les asignará un número de matrícula interno).
 - Haga clic en <Enviar> y espere hasta que se despliegue el mensaje ¡REGISTRO EXITOSO!
 - Haga clic en <Aceptar> para ver la confirmación de su registro y guarde el comprobante para futura referencia. Si durante el proceso se generara un error, capture la pantalla con ese mensaje, guárdela y entre en contacto con la Dirección de Educación a Distancia.

Deberá enviar las cartas de inscripción (autorización y compromiso), por correo electrónico a la dirección: jhuertal@sre.gob.mx.

Le solicitamos atentamente NO enviar las cartas de inscripción al correo oficial del Instituto Matías Romero.

- Prepare su documentación
 - Carta de autorización del jefe inmediato completa (firmada y escaneada)
 - Carta compromiso completa (firmada y escaneada)

Recuerde que sólo se considerará completo el registro con el envío de dichas cartas.

Consulte el “Aviso de privacidad” [aquí](#)

II. CRITERIOS DE SELECCIÓN

Si el número de solicitudes entregadas a tiempo y en forma fuera mayor al número de espacios disponibles, el IMR aplicará los siguientes criterios para seleccionar a quienes participarán:

1. Ser miembro de la rama Técnico-administrativa del SEM con especialidad en informática
2. Desempeño de tareas vinculadas con el tema del curso
3. Expediente (se dará prioridad a las candidaturas de personas que no hayan tenido calificaciones reprobatorias en los cursos del IMR)
4. Equidad de oportunidades (se dará prioridad a las candidaturas de quienes hayan participado en menos de tres cursos del IMR)
5. Equidad en adscripciones (se pondrá un límite al número de participantes de una misma representación)

En caso de igualdad de condiciones, y como criterio adicional, se considerará el orden de llegada de las solicitudes.

III. CALENDARIO

- **Publicación de la convocatoria: miércoles 4 de julio de 2018**
- **Fecha límite de recepción de solicitudes: miércoles 11 de julio de 2018, a las 13:00 Hrs. (hora del centro del país)**
- **Publicación de la lista de aceptados: jueves 19 de julio de 2018**
- **Fecha de inicio del curso: lunes 23 de julio de 2018**
- **Fecha de clausura del curso: viernes 28 de septiembre de 2018**
- **En este programa no hay periodo de bajas voluntarias**

Todas las personas que aprueben este programa de estudio recibirán una constancia de participación que se expedirá única y exclusivamente con propósitos curriculares, para su desarrollo personal y profesional.

[*] El periodo de un año de espera para quien repruebe un curso se cuenta a partir de la fecha de término del mismo.

[**] Solamente se tomarán en cuenta las candidaturas de quienes completen su registro en línea en el formulario del Campus Virtual del IMR y envíen a la dirección electrónica indicada las cartas compromiso y de autorización, debidamente firmadas y escaneadas.

Internet Technology and Policy: Challenges and Solutions

The critical Internet infrastructure is no longer a dry tech-geek topic.

It has drawn attention from the wider Internet community through discussions on Internet names and numbers (domain names such as .amazon, .wine), the Internet of Things (self-driving cars, drones affecting air traffic safety) and other current issues. DiploFoundation offers an interactive online course focusing on technology and core infrastructure issues in the context of public policy.

This course will be of interest to technical experts who are keen to learn more about digital policy; and to policy people who wish to learn more about Internet technology. The interplay between these two communities will add value to the course interaction.

By the end of the course, participants should be able to:

- Analyze and discuss the interplay between underlying Internet technology concepts and related Internet policy issues;
- Define and explain the overarching ICT infrastructure development issues, including wired and wireless infrastructure, and issues that account for ICT infrastructure development;
- Apply the basic concepts and importance of Internet connection costs, and issues that account for differences in costs, including regulatory frameworks, discrepancies in international bandwidth costs, and costs of deployment;
- Explain the function of IP protocols, the reasons why upgrading to IPv6 is necessary, and the opportunities and challenges that accompany the new version;
- Describe and participate in the current debates on the regulatory framework and its importance to the Internet infrastructure to promote a more efficient ICT sector while promoting development and innovation.
- Discuss the concept of network neutrality, its importance for the Internet, and the current controversies surrounding the issue;
- Explain the DNS and the associated policy development systems, including the function of ICANN, the delegation of top level domains (TLDs), and their management by TLD Registries;
- Identify and compare the roles of IANA and other main actors in IP address allocation, domain name root-servers, the delegation/re-delegation process, and the complexities of some recent developments in the domain name industry.

Excerpt from course materials:

Technology has been the main driver of societal changes throughout history (fire, the wheel, tools, agriculture, the printing press, the telegraph) with particular acceleration over the last 200 years. Technology influences changes in the fabric, economy, and core values of our society.

Every phase in history has had a 'defining technology' (Bolter, 1984). Some of them, such as writing, are so integrated in our daily routines that we no longer recognize them as technologies. Other defining technologies have included, for example, the clock, the steam

engine, and, more recently, electrical devices. Digital technology is the defining technology of our own era. Each new technology has reopened the question of the impact of technology on society, and this question is as relevant in the Internet era as it has been throughout the centuries. Thus, before zooming in on the digital era, let's make a short overview of the evolution of thinking about the impact of technology on society.

Bolter JD (1984) Turing's Man: Western Culture in the Computer Age. Chapel Hill: University of North Carolina Press.

Course outline

1. **Introduction to Internet technology and policy:** this course addresses the interplay between technology and policy in the very important area of Internet technology development. As we enter an era of accelerated technological development, with the Internet of Things (IoT) and bio-informatics on the horizon, technological developments will reinforce existing, and open new ethical, legal, and policy issues. Thus, we aim to anchor the discussion on technology in the broader social context.
2. **Telecommunication infrastructure:** understanding the basis for core infrastructures fosters better policy shaping, leading to the development of policies and principles that are compatible with underlying Internet architecture. Infrastructure and policy must be analysed together to enhance their functionality. Effective policy shaping requires a basic understanding of the telecommunications infrastructure as the medium through which the traffic flows: cables such as copper wires or optical fibres, or electromagnetic waves such as satellite and wireless links and mobile networks.
3. **Internet protocols:** this module focusses on the protocols that allow computers to communicate among themselves: the Transmission Control Protocol/Internet Protocol (TCP/IP) and other related protocols known together as the 'IP suite'. We look at the relationships between technology and policy, and analyse how the Internet protocols contribute to achievement of the core Internet principles.
4. **Domain Name System (DNS):** the domain name system (DNS) translates domain names into Internet protocol (IP) addresses. We tend to work with names translated to IP numbers, rather than directly with IP numbers, for a few reasons. First, human beings find it easier to remember names (such as diplomacy.edu) rather than remembering numbers (such as the IP address 176.58.124.93). This module gives an overview of how IP numbers work, why this is important, and reviews a few important current issues, such as the ongoing transition from IPv4 to IPv6.
5. **Cloud computing and applications:** today's Internet would not be possible without cloud computing. The cloud allows massive use and ensures the robustness of the Internet. This module on cloud computing starts with a survey of definitions, core concepts, and evolution. Next, it looks at a technological explanation of how cloud computing operates, leading to discussion of policy issues.
6. **Encryption technology:** this module examines encryption technology within the framework of Internet technology and policy, including implications for privacy and other rights, and government responses and actions in this area. For our purposes, encryption refers to the scrambling of electronic documents and communications into an unreadable format which can only be accessed through the use of encryption software.

This module will also touch upon some of the intrinsic relationships between encryption, trust, and security.

7. **Emerging technologies:** digital technology is one of the most dynamic fields of innovation and development that affects the Internet. Almost every day, we hear news about new hardware and software devices, applications, and tools. We examine a few major emerging technologies, or those which are still evolving significantly, such as Big Data, blockchain, and augmented and virtual reality.
8. **Summary:** Policy challenges for infrastructure: this module echoes reflections from the course, and how to establish a balance among the different values and principles as we shape Internet policy. It reflects on the ways the core Internet principles apply to different technologies, keeping in mind that technology should benefit society. But history provides a mixed record of technology being a great enabler, as well as a contributor to major human tragedies, especially in the twentieth century. How can the Internet infrastructure and related policies support this idealism, while enabling practical innovation?

Methodology

This course is conducted online over a period of ten weeks, including one week of classroom orientation, eight weeks of dynamic class content and activities, and one week for the final assignment. Reading materials and tools for online interaction are provided through an online classroom. Each week, participants read the provided lecture texts, adding comments, references, and questions in the form of hypertext entries. The tutor and other participants read and respond to these entries, creating interaction based on the lecture text. During the week, participants complete additional online activities (e.g. further discussion via blogs or forums or quizzes). At the end of the week, participants and tutors meet online in a chat room to discuss the week's topic.

Courses are based on a collaborative approach to learning, involving a high level of interaction. Participants are invited to join Diplo's global Internet governance online community of over 1,400 members, and to attend monthly webinars and other IG-related events and activities. The course materials, the e-learning platform, and the working language of the course is English. Applicants should consider whether their reading and writing skills in English are sufficient to follow postgraduate level materials and discussion.

Lecturers

Dr. Avri Doria, Director at ICANN

Dr. Avri Doria is a research consultant. She served on the UN Working Group on Enhanced Cooperation (WGEC) and the UN Working Group on Internet Governance (WGIG). She served as a member the Internet Governance Forum (IGF) Secretariat and is a member of the IGF Multistakeholder Advisory Group (IGF MAG). As a technologist she has been involved in the development of Internet protocols and architectures for over 30 years; is co-chair of a Research Group on Human Rights Protocol Considerations; and a member of the Internet Research Steering Group (IRSG). She has been active in ICANN policy, was chair of the GNSO Council, and is one of the co-chairs of the New gTLD Subsequent Procedures Working Group. She was

recently re-elected chair of the Internet Society Chapters Advisory Council Steering Committee. Avri was awarded the ICANN Multistakeholder Ethos award in 2014.

Mr. Tracy Hackshaw, ICT and Digital Economy Strategist and Director, Trinidad and Tobago Multistakeholder Advisory Group

Mr. Tracy Hackshaw is an ICT and Digital Economy Strategist possessing close to twenty-five (25) years' experience spanning work in the public and private sectors both locally and internationally, including representing Trinidad & Tobago in various international forums. Included in his portfolio are engagements on the Executive Management Committee of the Commonwealth Cybercrime Initiative, a two-year term as Vice Chair of ICANN's Governmental Advisory Committee, Small Island Developing States annual workshop coordination at the United Nations Internet Governance Forum, Academic Teaching and Research work at the DiploFoundation/University of Malta and at The University of the West Indies, as well as professional leadership roles in the Ministries of Science & Technology, Public Administration and Planning & Development, iGovTT, ttconnect, and Star.tt among several other entities and organizations.

He is a Director of the Trinidad & Tobago Multistakeholder Advisory Group, which convened the inaugural Trinidad & Tobago Internet Governance Forum in January 2017. Tracy is the founding Vice Chair of the Internet Society Trinidad & Tobago Chapter and was elected its Chair in 2017.

Dr. Richard Hill, Principal, Hill & Associates

Dr. Richard Hill is currently involved in discussions on Internet governance at both the national levels (Switzerland) and the international level. He has published articles on Internet governance, made presentations at academic conferences, submitted papers to intergovernmental organizations, and participated in multi-stakeholder discussions. He is an active domain name arbitrator. Prior to his current activities, Richard was the Secretary for the ITU-T Study Groups dealing with numbering and tariffing issues, network operations, and economic and policy issues; he was the Secretary for the preparatory process for the 2012 World Conference on International Telecommunications and headed the secretariat team dealing with substantive issues at the Conference. He has facilitated numerous complex international negotiations regarding sensitive policy matters, including Internet governance.

Richard has a long professional background in Information Technology (IT) and Telecommunications. He was Department Head, IT Infrastructure Delivery and Support, at Orange Communications (a GSM operator), responsible for delivering and maintaining the real-time, fail-safe computing infrastructure for the company to support over 300 online agents and related applications such as billing. He previously was the IT Manager at the University of Geneva.

Before that, he worked at Hewlett-Packard's European Headquarters in Geneva, Switzerland, in IT and Telecommunications. He was the Western European Rapporteur for EDIFACT, responsible for the organization of the EDI standardization efforts in Europe. Prior to joining HP, he worked as a Research Statistician for the A.C. Nielsen Company in Europe, a large marketing research company, and as a systems designer and consultant for a small software company specializing Boston, Massachusetts that specialized in applications for managing financial portfolios. Prior to that, Richard worked in software development for MIT and NBER.

Richard holds a PhD in Statistics from Harvard University and a BS in Mathematics from MIT. Prior to his studies in the USA, he obtained the Maturita' from the Liceo Scientifico A. Righi in Rome, Italy.

Ms. Virginia Paque, Internet Governance and E-diplomacy Programmes

Born (and currently residing) in the United States, Ms Virginia (Ginger) Paque lived in Venezuela for more than 35 years. An educator and administrator by profession, she has 25 years' experience in business and manufacturing systems consulting. As a board member of the United Nations Association of Venezuela, her work as the Venezuelan member of the World Federation of United Nations Associations Task Force on WSIS marked her entry to the world of Internet governance (IG) during the Geneva PrepComs. Active in Civil Society discussions on IG, Ginger served as IG Caucus co-coordinator for two years. She was a member of the UN Internet Governance Forum (IGF) Multistakeholder Advisory Group (MAG) from 2015 to 2017. Having completed a Master in Contemporary Diplomacy with a thesis focusing on the importance of IG as a new diplomatic priority, Ginger currently lectures on IG for Diplo and curates human rights topics for the *GIP Digital Watch* observatory.

Mr. Ian Peter, Internet Expert and Historian

Internet expert and historian Ian Peter became involved in the early beginnings of the Internet in Australia and Asia-Pacific from 1986. Currently living in the Byron Bay hinterland, Australia, he is involved with worldwide Internet organizations, provides strategic advice on Internet issues, and maintains a key interest in the early history of the Internet.

Mr. Vladimir Radunović, Cybersecurity and E-diplomacy Programmes Director

Serbian-born Mr Vladimir (Vlada) Radunović is a lecturer in cybersecurity policy, Internet governance, and e-diplomacy on postgraduate and professional courses. He also serves as a member of the Advisory Board of the Global Forum on Cyber Expertise (GFCE) and as an expert with the Geneva Internet Platform. He served as a member of the Multistakeholder Advisory Group of the UN Internet Governance Forum (IGF) from 2012 to 2014. Vlada has been a lecturer, speaker, and resource person on a number of educational and training programmes and events worldwide, including within the WSIS and IGF processes. His professional and research focus is on Internet governance, broadband policy and net neutrality, cybersecurity and cyber-diplomacy, e-diplomacy, and capacity development. He holds an MSc in Electrical Engineering from the University of Belgrade and a Master's in Contemporary Diplomacy from the University of Malta. He is currently working on his PhD in cybersecurity.