

DC-SIG

Dynamic Coalition Schools of Internet Governance

Toolkit for Internet Governance Schools

This document is the product of a cooperative effort by a group of organizers, faculty, and fellows from several Internet governance schools from around the world. It is by nature an incomplete description as the field is growing and new approaches and courses are added all the time. This document will remain a living document of the IGF Dynamic Coalition on Schools of Internet Governance. (DC-SIG) and will be updated yearly based on the contributions of DC SIG participants and others.

One of the first tasks for the DC-SIG was to develop a taxonomy¹ for describing Schools of Internet Governance (SIG). There is a great variety among the existing programs and the features of the various types of schools that often makes it difficult to talk about these Schools and to describe them in a less ambiguous manner. The original Taxonomy snapshot released in 2019, evolved into this Toolkit document in 2020. This document lays out some of the details involved in creating a School of Internet Governance, and is intended to make it easier to talk about very different schools using similar terminology as the DC moves on to other tasks and to help groups who want to initiate or develop a school or to further develop their school.

Readers will notice that some sections are more developed than others. This is a work in progress as well as a living document. The content is a reflection of the interests and knowledge of those who volunteered to contribute text. The DC met 6 times over the last year to review and approve the new and edited text. Going forward, any reader who has been involved with a SIG who has knowledge in an item being discussed is invited to comment and to suggest edits or new content. The URL for the document can be found at the bottom of each page.

As the project goes on, information on various existing schools is being collected at <https://www.igschools.net/sig/sig/>. Readers involved in SIGs are invited to add their information to the map and to work with the DC on adding new information to the wiki.

¹ “**Taxonomy (general)** is the practice and science of classification of things or concepts, including the principles that underlie such classification.” <https://en.wikipedia.org/wiki/Taxonomy>

This doc: <https://docs.google.com/document/d/1EMliNy1UE2BiuND8eWp6V5-ghZ6ZVmqShodpJQyNOuo/edit?usp=sharing>
Comments and suggestions for change and update are welcome.

Table of Contents

Table of Contents	3
Topics for SIG Curricula	5
History of IG	5
Political Theory & IG	8
Legal aspects of IG	8
The technical basis of Internet	8
Human Rights	10
Freedom of Expression (FoE)	10
Right to Access	11
Freedom of Association	11
Internet as a public resource	11
Gender issues	11
Economic Issues	12
Business Issues	13
Intellectual Property and Copyright	13
Development issues	14
Current Affairs	15
Multistakeholder theory and practice	15
Diplomacy	15
Regulation and regulatory diversity	16
Data Governance and Data Sovereignty	17
Artificial Intelligence	17
Emerging issue topics, e.g.:	18
SIG Descriptors	19
Focus	19
Funding models	19
Length of Program	20
Metrics and Reporting	20
Partners	20
Residential Status	21
Requirements for acceptance into program	21
Types of Session	22
Number of Students per Class	22
SIG Readings	

Topics for SIG Curricula

As an interdisciplinary subject, most of those who decide to learn about internet governance often have a grounding in only one subject area that contributes to the study of internet governance. SIGs each decide the degree to which the program can introduce students to the other component areas of study involved in internet governance.

Not all topics and issues are covered in all SIGs, thus the list of topics is a compendium of the types of course found in some, and sometimes many, of the different programs. The descriptions given are brief abstractions based on the types of course material found in different schools.

1. History of IG

Many come to the study of internet governance with little background in the history of the internet. This part of the curriculum is sometimes used to bring the group to a basic level of understanding of how the field developed. Often this is accompanied by a reading list that can be completed before the program starts. Topics covered in a history course may include:

- ARPANET
- National and Regional History of the Internet
Each country and region has its own history about its connection to the Internet — what challenges had to be overcome, what institutions and people played a role in it, and what must be improved on today, among other points. SIGs may find it worthwhile to frame and present this local history.
- A Declaration of the Independence of Cyberspace, by John Perry Barlow
In 1996, John Perry Barlow published "A Declaration of Independence of Cyberspace."² The document was heavily influenced by a libertarian perspective and posits that cyberspace is beyond the regulatory capacity of States. Even in attempts to regulate it, there would be no mechanisms of enforcement. The users of cyberspace do not grant their consent for the establishment of a social pact.

Barlow's Declaration suggests cyberspace is a Wild West, beyond the reach of national laws. This claim would later be disputed and challenged.

- WSIS
The World Summit on the Information Society was a multiyear process intended to determine how to eliminate the digital divide. Much of Internet governance has

² <https://www.eff.org/cyberspace-independence>

This doc: <https://docs.google.com/document/d/1EMliNy1UE2BiuND8eWp6V5-ghZ6ZVmqShodpJQyNOuo/edit?usp=sharing>
Comments and suggestions for change and update are welcome.

centered around this aspiration. It had two main phases that bracketed a key multistakeholder UN working group.

- 2003's World Summit on Information Society
 - [Geneva Declaration of Principles](#)
 - [Geneva Plan of Action](#)
- WGIG³

The Working Group on Internet Governance (WGIG) was set up by the Secretary-General of the United Nations in accordance with the mandate given to him during the first phase of the World Summit on the Information Society (WSIS), held in Geneva, on 10-12 December 2003. The WGIG comprised 40 members from Governments, the private sector, and civil society, who all participated on an equal footing and in their personal capacity.

 - The WGIG had to deal with the following issues:
 - Develop a working definition of Internet governance
 - Identify the public policy issues that are relevant to Internet governance
 - Develop a common understanding of the respective roles and responsibilities of Governments, existing international organizations, and other forums, as well as the private sector and civil society in both developing and developed countries
 - The WGIG provided the following working definition of Internet Governance:

Internet governance is the development and application by Governments, the private sector, and civil society, in their respective roles, of shared principles, norms, rules, decision-making procedures, and programmes that shape the evolution and use of the Internet.

This definition is the centerpiece of many documents and of various courses. While still a working definition, it has also moved into the role of de-facto definition.
 - It was made clear that “Internet governance includes more than Internet names and addresses, issues dealt with by the Internet Corporation for Assigned Names and Numbers (ICANN): it also includes other significant public policy issues, such as critical Internet resources, the security and safety of the Internet, and

³ The background report is available here: <http://www.itu.int/net/wsis/wgig/docs/wgig-background-report.pdf>
The complete report is available here: <https://www.wgig.org/docs/WGIGREPORT.pdf>

This doc: <https://docs.google.com/document/d/1EMliNy1UE2BiuND8eWp6V5-ghZ6ZVmqShodpJQyNOuo/edit?usp=sharing>
Comments and suggestions for change and update are welcome.

developmental aspects and issues pertaining to the use of the Internet.”⁴

- 2005's World Summit on Information Society
 - [Tunis Commitment](#)
 - [Tunis Agenda for the Information Society](#)
- WSIS Forum

The WSIS Forum was established to facilitate the work being done in ICT and on the Internet to contribute to meeting the UN's Sustainable Development goals (SDGs).
- NETmundial Multistakeholder Statement

The Netmundial statement is the non-binding outcome of a bottom-up, open, and participatory process involving thousands of people from governments, the private sector, civil society, technical community, and academia from around the world. The NETmundial conference was the first of its kind. It hopefully contributes to the evolution of the Internet governance ecosystem.
- Internet Governance (IG) & Information and Communications Technology (ICT)

One of the issues that is challenging is finding the line between issues that are wholly related to Information and Communications Technology and those that belong to Internet Governance. Partly this occurs in cases where the technology is driven by or constrained by IG concerns. This can also occur in cases where the ICT drives or constrains the IG possibilities. Separation of technical issues from policy issues is usually one of degree along a continuum. Not only do some curricula get designed around the choice of a particular dividing point, this is also a concept that can be discussed in a classroom setting teaching both the interconnectedness of the technology with the governance and the discrimination between them.
- IGF and national / regional efforts

Paragraph 72 of the Tunis Agenda recommended the creation of a global forum. The first forum was held in 2006. Since then the IGF annual event has discussed public policy issues related to key elements of Internet Governance. Over a decade of existence has created a complex organization with many regional and national spins off. The growing phenomena of regional and national Internet Governance Forum (IGF) initiatives offer an opportunity to look into how various interpretations of the multistakeholder model play out in different cultural, political, and economic settings. The variety of ways in which the multistakeholder model is enacted are expressed through the organizational

⁴ <https://www.wgig.org/docs/WGIGREPORT.pdf>

This doc: <https://docs.google.com/document/d/1EMliNy1UE2BiuND8eWp6V5-ghZ6ZVmqShodpJQyNOuo/edit?usp=sharing>
Comments and suggestions for change and update are welcome.

structures and procedures of these events, their funding mechanisms, their agendas and formats, the kind of participation they attract and enable, and their potential influence on the national, regional, or global Internet governance debates.

2. Political Theory & IG

Covers the political dynamics and considerations of internet governance. There are many different and sometimes conflicting sets of political theories that pertain to the Internet and the power of/on the Internet. A class can explore one or more of these theories.

There are also a number of substantive topics that relate to the political nature of the Internet. Some of the sub-themes include:

- Different between the political nature of the Internet and of power on the Internet
- Influence of national political priorities on the Internet
- Influence of corporate policies on the Internet.
- Role of users on the Internet in the political tussle
- Role of technology in setting the political background of the Internet.

3. Legal aspects of IG

- International
What are the international laws that govern the Internet? How does international law not specifically related to the Internet apply to the Internet?
- National
What sorts of national legislation apply to the Internet? If the course is focused on a specific region or country, this can look into the existing and upcoming legislation of those specific countries. The topic can also include discussions of the types of legislation being applied to the Internet.
- Multi & cross-jurisdictional issues
To what degree does a law in one country apply to other countries? Given that different countries have different laws and that legal issues on the Internet are often cross-jurisdictional, how can this be best understood and dealt with?

4. The technical basis of Internet

- What is the Internet / how things work 101

This doc: <https://docs.google.com/document/d/1EMliNy1UE2BiuND8eWp6V5-ghZ6ZVmqShodpJQyNOuo/edit?usp=sharing>
Comments and suggestions for change and update are welcome.

It is considered important by many that policy practitioners understand the basics of how the Internet works and of what sorts of internet behavior are possible and what sorts are constrained by technical realities. The classes can be very varied and can use many different manners of explanation.

- Architecture

The Internet has evolved within a specific architectural framework. How has this evolved? How does architecture affect the use and abuse of the Internet?

- Security

What are the technical aspects of security on the Internet?

- Protocols

How protocols are developed and how they become standards. What kinds of protocols are there and what is their function? What is net neutrality?

- Naming & Addressing

- IPv4 Depletion and IPv6 Adoption
- How the DNS works
- IETF special names and the ICANN process
- Alternate naming system issues

- Routing

In addition to addressing, routing is one of the primary technologies responsible for the infrastructure of the Internet. There are several topics that can be covered on this topic.

- Types of routing protocol, e.g.
 - Metric vector
 - Shortest path
- Autonomous Systems
- Location identifiers and endpoint identifiers
- Scope of addresses and names
- Early vs late binding

- Internet Exchange Points

- An Internet exchange point (IXP) is a physical location through which Internet infrastructure companies such as Internet Service Providers (ISPs) and the content delivery networks (CDNs) connect with each other. These locations exist on the “edge” of different networks and allow network providers to share transit outside their own network. By having a

presence inside of an IXP location, companies are able to shorten their path to the transit coming from other participating networks, thereby reducing latency, improving round-trip time, and potentially reducing costs.

- In many SIGs, this is a topic that is coming up as Internet infrastructure increases its complexity and traffic.
- Organizations involved in technical innovation and maintenance of the Internet
This class should introduce the various technical organizations, such as the Internet Architecture Board (IAB), the Internet Engineering Task Force (IETF), the Internet Research Task Force (IRTF), the Internet Corporation for Assigned Names and Numbers (ICANN), Regional Internet Registries (RIRs), The Institute of Electrical and Electronics Engineers (IEEE), the World Wide Web Consortium (W3C), and others.

5. Human Rights

- Freedom of Expression (FoE)

Even though the various human rights are defined in several international covenants such as the Universal Declaration of Human Rights, the Covenant of Civil and Political Rights, the Covenant on Economic, Social and Cultural Rights, and others, the topic of Freedom of Expression is often highly dependent on each country's specific regulations. Below there a general outline of relevant issues which may be included in an IG school:

- **Foundation**
Freedom of Expression finds its basis in International Law in the Universal Declaration of Human Rights, Article 18, and in countries' Constitutions.
- **Limits**
By definition human rights have limits. Each country is sovereign in determining the restrictions on FoE it will employ. Those can range from outright censorship to prohibitions on calls to violence and hate speech, criminalization of racist speech, anti-defamation laws.
- **Content Removal**
Countries' regulations regarding content removal interact with the topic of freedom of speech. The technical tools employed to remove content are relevant as well. Content can be made inaccessible through the content layer, DNS (domain blocking), and even through the physical layer.
- **Intermediary Liability**

A country's intermediary liability regimen impacts platforms and how they control speech. Safe harbor provisions make them less likely to regulate content. Regulation ordering platforms to actively remove unlawful content make them more likely to over block.

- Private Regulation of Speech
Platforms are, increasingly more often, setting their own speech standards in their terms of use, community guidelines, and similar documents. It allows for the quick removal of harmful content but raises concerns over democratic discourse, as in many societies platforms concentrate a large fraction of political debate.
- Chilling Effects
Laws, regulations, state surveillance, intolerance, and other scenarios can deter individuals from exercising their freedoms online, for fear of negative consequences even if their actions are legal. This is called the "chilling effect."
- Right to Access
 - Access to the Internet has become an important condition for the exercise of freedom of speech. It also facilitates economic, social, and cultural development, by which inequalities are eliminated.
- Freedom of Association
 - Rights to unionize
 - Protections of freelance workers
 - Formation of groups online and the ability to participate anonymously.
- Internet as a public resource
What does it mean to be a public resource? What are the implications for the Internet of the nature of being a public resource? Who should be served by the Internet? Practice pertinent to constructions such as national regulation of the Internet, corporate control of Internet platforms and technology, and a people-centered Internet can be explored for their implications.
- Gender issues
The UN's Sustainable Development Goals (SDG) have Gender Equality as their fifth goal. Debates about gender and how it relates to the use of ICTs is a common occurrence in IG spaces, and they may include:
 - Diversity in governance spaces

Many Internet Governance initiatives such as the IGF have guidelines relating to gender inclusion, such as requiring or favoring proposals that have gender parity. Diversity is not understood as exclusively relating to gender; specific Governance Initiatives and Forums may adopt their own set of criteria -- like geographic distribution, multistakeholder composition, the inclusion of youths, etc.

- **Diversity in Technical Professions**
Women took an active role in the early advancements in computing. The Apollo Guidance Computer software was written by Margaret Hamilton, the first compiler was created by Grace Hopper. Operating punch card machines and writing programs for them was not often done by men. In more recent decades, however, computing and related fields have become an overwhelmingly male group of professions.

- **Access and Participation in the Digital Economy**
Women's participation in the digital economy and access to the Internet and ICTs may be restricted or impeded based on cultural, religious, and social arguments. This has far-reaching implications in the enjoyment of their human rights, such as restricting their learning opportunities and stopping them from informed, effective democratic debate.

It is also of note that, as the digital divide has decreased, very often it has been witnessed a corresponding increase in the gender divide on access.

- **Other issues that are sometimes discussed in SIGs include:**
 - Gender equity in the digital economy
 - Online violence against women (VAW)

6. Economic Issues

Among the variety of classes taught in Economy and IG, are classes related to various economic theories and how they explain the dynamic in IG and classes on the practical effects of economic factors. Some specific topics include:

- Public Goods vs. common goods
- Socio Anthropology Aspect
- Data Localization and its effects on local and international trade.

7. Business Issues

These classes introduce the business environment that can be affected by Internet Governance. How does business affect IG? What are their priorities for IG?

This doc: <https://docs.google.com/document/d/1EMliNy1UE2BiuND8eWp6V5-ghZ6ZVmqShodpJQyNOuo/edit?usp=sharing>
Comments and suggestions for change and update are welcome.

Topics include:

- Competition & consumers
- The Gig economy, e.g. ride-sharing, meal delivery, online marketplace for contract services, and lodging
- Agritech/Fintech/Video on Demand(VoD)/Care work
- Social media tax system
As the consumer appetite for media and entertainment (M&E) continues to change, M&E companies continually develop new digital business models to capitalize on trends. Among the issues that vary among jurisdictions are treatment of VAT, liability and expense of doing business, especially in terms of fees and taxation. Some governments are considering taxation of Social Media businesses as a source of revenue worth considering.
- Corporate Social Responsibility (CSR)
- Socially Driven Mission Organizations (SDMO), e.g. not for profit, in the public interest

8. Intellectual Property and Copyright

The topic of copyright and intellectual property is not often included inside Internet Governance but interacts with it in a variety of ways. It may include:

- Public Domain and Creative Commons
When an original work enters the public domain it can be redistributed and remixed. There are many circumstances through which a work enters the public domain, and the rules vary from country to country. Additionally, Creative Commons offers a series of pre-made licenses by which an author can allow the use, redistribution, and remix of their works while establishing a handful of restrictions. Both topics are important to IG in how they relate to cultural issues and access to information.
- Open-Source Licenses and Software
Free and Open source (FoSS) licenses indicate that a given piece of software can have its source code examined and modified. Open-source development is sometimes a topic in Internet Governance spaces. Sometimes source can be open without being free.
- Trademark and the Domain Name System

Well, known businesses can struggle with malicious actors buying domain names similar to their own with the goal of committing fraud. The International Federation of Red Cross and Red Crescent case within ICANN is of special interest.

- Brand Top-Level Domains
Brands may acquire TLDs of their own as a result of ICANN's new gTLD Program. The effect of these and other types of new gTLD are still a matter for discussion.

9. Development issues

There are several topics that take on greater significance in the light of the UN's Sustainable Development Goals. Some of the themes that can be covered in such sessions include:

- Access, what it means and what it includes, e.g. connectivity, relevant content, local languages and scripts
 - Meaningful access: construed as pervasive, affordable connection (of sufficient quality and speed) to the internet in a manner that enables individuals to benefit from internet use, including to participate in the public sphere, exercise human rights, access and create relevant content, engage with people and information for development and well-being, etc.; irrespective of the means of such access (i.e. whether via a mobile or other devices; whether through private ownership of a device or using a public access facility like a library) widens the divide for those who are left out of consideration
- The digital divide, how is the divide understood, and can it be closed.
 - Kinds of Digital Divide
 - Global Divide
 - Gender Divide
 - Economic Divide (COVID-19 related)
 - Disability Divide
 - Forcibly Displaced Persons Divide
- The role of community networks in closing the digital divide,
- The role of Best Practice documents as guides to development and as a way to identify challenges and solutions

10. Current Affairs

These classes cover the issues of the day. The issues can be classified as:

- International issues
- Regional Issues

This doc: <https://docs.google.com/document/d/1EMliNy1UE2BiuND8eWp6V5-ghZ6ZVmqShodpJQyNOuo/edit?usp=sharing>
Comments and suggestions for change and update are welcome.

- National issues
- Community issues
- Health issues

11. Multistakeholder theory and practice

- Roles and responsibilities of stakeholders
While the Tunis Agenda has laid out a defined set of stakeholders involved in internet governance and has assigned various responsibilities to these roles, it is not the only way of organizing stakeholders. Various organizations that consider themselves as working with a multistakeholder context have defined differing stakeholder models. Courses in this area can survey the variety of stakeholder models and look at some of the strengths and weaknesses of various ways of organizing stakeholders.
- Stages in the multistakeholder process
Various theories exist on the correspondence of different roles and responsibilities depending on the stage of a multistakeholder project, from inception to deployment. Different practices of the models define different sets of stages.
- Bottom-up and other organization models
Within the set of multistakeholder models, there are some that are top-down, some that are bottom-up and some that are hybrid. It may be useful to teach how these different models can be identified and how different techniques may sometimes be required for different models.
- Scaling considerations
Most multistakeholder efforts are still relatively small. As outreach succeeds it becomes necessary to develop new techniques for a multistakeholder process.

12. Diplomacy

Some schools offer a selection of courses on diplomacy, including history and diplomatic techniques.

“Digital diplomacy” has recently been the subject of significant debates, events, and activities at a variety of governance sites. The concept is often used without having been clearly defined and delimited. For some, it is restricted to the use of digital means, especially social networks, by diplomats to practice a kind of “Public Diplomacy 2.0”. In others’ views, it extends to foreign affairs and international relations with regard to all

This doc: <https://docs.google.com/document/d/1EMliNy1UE2BiuND8eWp6V5-ghZ6ZVmqShodpJQyNOuo/edit?usp=sharing>
Comments and suggestions for change and update are welcome.

matters related to the digital environment, including internet governance. Sessions could focus on recent transformations of diplomacy in the digital era, their drivers and their nature, whether and how they might change transnational power relations, and, ultimately, which values they carry and channel on the global scene.

13. Regulation and regulatory diversity

Proposals for the regulation of the Internet have greatly changed in tone over time. This section aims to showcase the evolution of the topic and how different countries have achieved their own conclusions on the matter. It may include:

- **The Internet as "The Wild West"**
This perspective, commonly seen in the 1990s after Barlow's Declaration, posits that the Internet is impossible to be regulated. This proposal assumes that the absence of state control would bring freedom to the users of the Internet. As a consequence, efforts to maintain it unregulated were desirable and conducive to human rights.
- **"Code is Law"**
Lawrence Lessig's "Code is Law" proposal has as its base the idea that human behaviour can be controlled by four main influences: market forces, regulation, social norms, and architecture. Architecture can be seen as the features of the world, either made or found. The Internet's architecture can be modified via code. In Lessig's theory, code itself can be used to regulate the Internet through non-legislative means.
- **Private Regulation and East Coast vs. West Coast Regulation**
With the increasing importance played by big platforms such as Facebook and Google and their central role as aggregators of users and content, the ways in which they govern their service have a regulation-like effect on its users and in society as a whole. Building over Lessig's Code is Law theory, East Coast regulation refers to the legislative bodies of the United States and how they regulate ICTs, and West Coast refers to the impact the Silicon Valley and tech businesses, in general, have via their products and services.
- **Digital Constitutionalism**
Digital Constitutionalism encompasses the initiatives and movements, originated from the mid 1990's onwards, which propose "a set of political rights, governance norms, and limitations on the exercise of power on the Internet"⁵ both in binding and non-binding format. Most notably, it encompasses the Dynamic Coalition on Internet Rights and Principles and the Bill of Rights-like laws being approved

⁵ Towards Digital Constitutionalism? Mapping Attempts to Craft an Internet Bill of Rights
Lex Gill, Dennis Redeker, Urs Gasser

This doc: <https://docs.google.com/document/d/1EMliNy1UE2BiuND8eWp6V5-ghZ6ZVmqShodpJQyNOuo/edit?usp=sharing>
Comments and suggestions for change and update are welcome.

around the world today, such as Brazil's Internet Civil Rights Framework and Italy's Declaration of Internet Rights.

- **Comparative Law and Diversity in Values**
Different countries and continents have their own priorities of values and this reflects in how they regulate the Internet. There is a wide diversity in approaches, and countries often exchange and learn from each other.

14. Data Governance and Data Sovereignty

Data governance (DG) is the process of managing the availability, usability, integrity, and security of the data in enterprise systems, based on internal data standards and policies that also control data usage. Topics include both Big Data and Open data. Effective data governance ensures that data is consistent and trustworthy and doesn't get misused, especially with GDPR from the EU and similar laws from other jurisdictions, since May 2018. It's increasingly critical as organizations face new data privacy regulations and rely more and more on data analytics to help optimize operations and drive business decision-making.

Data sovereignty is the concept that data are subject to the laws and governance structures within the nation it is collected. The concept of data sovereignty is closely linked with [data security](#), [cloud computing](#) and [technological sovereignty](#). Unlike technological sovereignty, which is vaguely defined and can be used as an umbrella term in [policymaking](#), data sovereignty is specifically concerned with questions surrounding the data itself. With the rise of cloud computing, many countries have passed various laws around control and storage of data. More than 100 countries have some sort of data sovereignty laws in place. With [self-sovereign identity](#) (SSI) the individual identity holders can fully create and control their credentials, although a nation can still issue a digital identity in that paradigm.

15. Artificial Intelligence

Artificial Intelligence is a dynamic field that covers a wide array of technologies usable in many fields. It is slated to bring about generalized productivity gains, with consequences to the Internet, economies, human rights, and many others. Topics may include:

- **History and Technical Basis of AI**
The concept of artificial intelligence dates back to the philosopher Charles Babbage and mathematician Ada Lovelace. In the two centuries since AI has gone through periods of rapid development and winters of stagnation. Nowadays it is a vast field with many areas, such as automated reasoning, robotics, computer vision, and natural language processing. It may also be beneficial to teach other distinctions within AI, such as generalized versus specialized AI.

- Machine Learning
AI can be achieved through the process of machine learning, which revolves around the use of data and learning algorithms. The machine learns about patterns on its own, which may lead to unintended consequences.
- Data and Internet of Things
AI relies on data for its development, which is why the Internet of Things and its capacity for mass data gathering benefits the advance of AI. Data protection regulations, on the other hand, may have a chilling effect on AI development.
- AI and Human Rights
While AI has the potential to offer solutions conducive to human rights, it also can repeat patterns of discrimination (notably, by having low quality or unrepresentative data) and be used for unlawful purposes. This includes the future of work and algorithmic fairness.
- Economic Development and Strategic Importance
AI is estimated to generate trillions of dollars over the next decades. More than a dozen countries either have published or are working on their National AI strategies and regulations to achieve their goals. The possible military applications of AI are also relevant.

16. Emerging issue topics, e.g.:

These topics vary greatly depending on the focus of the school and on the current issues that are being discussed in the wider Internet governance community. Coverage of these topics often includes not only discussions of the technical techniques but of the social effect of these new technologies.

- Internet of Things (IoT)
- Quantum Computing
- Social Responsibility of Technical People

SIG Descriptors

This section aims to establish some of the factors beyond content that schools consider in regard to establishing the SIG.

Focus

There are many different kinds of schools and each has a somewhat different focus. Many schools orient themselves on a theme, for example by region, advocacy emphasis or technical basis.

Within each of the schools the amount of class time concerned with core academic subjects topic and general operations, advocacy, or specific to a particular product strategy will vary.

Some formulas that have been used include:

- 100% market-driven
- Mostly market drive, some academic focus
- Split between market-driven and academic focus
- Mostly academic focus, some market-driven material
- 100% academic focus
- Advocacy basis
- Focused on a specific issue

Funding models

Most SIGs start out in bootstrap mode. Each develops a different model of funding that is adjusted to location, funding possibilities. Describing the reasons for different models and how they work, might be beneficial to a new school just starting out. Would also be useful for the anecdotal description of fundraising models, to the degree to which SIGs are willing to share such information for the benefit of new schools. At a later stage in the DC-SIG's work, a set of possible models will be described, these may include:

- For-profit
- Not for profit
- Socially Driven Mission Organization funding
- Sponsorships
- Faculty honorarium or payment
- Government Collaboration
- Fundraising
- Cooperation with other institutions or organizations

Length of Program

Schools on internet governance can be as short as a day or even a half-day. They can also extend several days, a week, or even longer. As most programs are crafted and as the specialty becomes academically acceptable, we may see more full-term courses or even or even degree programs.

- 1 day or less
- part of week
- full week
- weeks
- college term length
- certificate program
- module as part of a course/credit from academic institution
- Full degree program

With the Covid-19 pandemic an online modality has been incorporated in the design and development of the length of programs. Several of the existing schools have run virtual or hybrid programs during 2020. The decision to move a face to face Schools of Internet Governance require another set of skills, consideration and planning to be successful. This is a developing area. Some extensive work is being done in the area of remote SIGs by some of the DC SIG participants and will be a topic for inclusion in future versions of this toolkit. Examples of ongoing efforts will be referenced on the [DC SIG website](#).

Metrics and Reporting

As with all schools, there is a need to measure the effectiveness, utility, and appropriateness of courses and programs. There are various methods that can be used that include:

- Pre-event survey of topic suggestions
- Rapporteur daily reports on individual sessions
- Recording of sessions
- Fellow feedback sessions
- Faculty feedback sessions
- Post survey
- Post report

Partners

In setting up schools, sometimes a partnership can be established with the local ICT industry or with the technical community, especially the local technical community. Often these are a way to obtain the necessary funding.

Residential Status

Schools differ widely in terms of their environment, some are set in urban locations and behave in a manner similar to a conference or other schools. Others situate themselves in an isolated location and resemble nothing so much as a cloister. Some varieties of residential status include:

- All Fellows and faculty
 - Some faculty present for the entire program, some just for several days.
- Some Fellows and Faculty
- None

Requirements for acceptance into program

In its origin, the concept of SIGs was designed for PhD students level. However, some schools have opened the schools also for entry-level fellows or understand it as an outreach opportunity to youth. Both aspects could work but it should be made clear what the target group is and which pre-knowledge is expected and what the desired outcome should be. The programme and the modules pretty much depend on the knowledge of the fellows.

When establishing a SIG, educators/organizers need to decide on the criteria for accepting students. In schools that sponsor fellows with travel and scholarships, the applicant pool can become quite large. In trying to narrow a large applicant pool to a class, several techniques are used:

- Application to the program with predefined interest and experience categories
- Some experience in IG
- Personal commitment to the full program
- Some education in IG and related subjects
- Demonstration of potential to contribute meaningfully to IG initiatives
 - locally, regionally and/or globally
- Required reading,
- Completion of online courses
- Some assigned participation and speaking slots assigned for sponsors
- Sponsor designed
- Done for a specific group - custom programs
- Diversity of student based on criteria like gender, race, religion, national and cultural background, and experience level

Types of Session

Not all classes in all SIGs are run in the same manner. It is important to pick a variety of teaching methods in order to match a program to its intentions and students. It is also important to keep the program interesting and moving forward. Some of the methods include:

- Lectures
- Panels
- Interactive role-playing sessions
- Class assignments
- Participation oriented
 - encourage participants and give them the chance to share their knowledge.
 - Sessions where participants become resource persons and teach topics in which they are knowledgeable.
 - Role Play Exercise / Mock Conference

Over the years, many programs have adapted various active forms of learning. As with everything else in SIGs, these come in a variety of creative forms.

 - Single-day or less
 - Topical interactive competitive sessions
 - Extended practicum that lasts for several days and asks students to play roles over several days.
 - Roleplay can focus either on Issue-oriented approach or a process training approach. Some exercises combine both.
 - Competitive game show type events

Number of Students per Class

Programs vary from small classes of 20 or fewer to classes of 100 or more. There is no standard size, though different class sizes do require different approaches.

SIG Readings

Schools often create reading lists for their programs. Often a list of recommended readings for each topic is included

The DC SIG is working on a collected reading list from various SIG sources. The current reading list can be found here Further reference to school materials can be found at the DC SIG Website..

Operations Guide

A separate document is being developed that goes into the details of operating a school. This document can be found [here](#)