

Course Name	: Foreign Policy Analysis
Course Code	: BIRD 222
Course Level	: Level 4
Credit Unit	: 4CU
Contact Hours	: 60 Hrs

Course Description

The Course details the nature of policy analysis, different approaches in policy making, and various models in policy designing, characteristics of policy. It further explores numerous steps in policy making, features of policy management, and benefits of policy management.

Course Objectives

- To equip students with knowledge and skills about policy analysis.
- To provide them with a perspective of the country's economic, social and political policies.
- To enable students engage in constant discussions of how different policies should be formulated, managed and implemented.

Digital foreign policy

On the emergence of digital foreign policy you can consult: a [research report](#), and [conference summary](#) from the conference held on 2nd March 2021.

All countries (albeit with differences in emphasis depending on their circumstances and capabilities) recognise that digitisation plays a role in foreign policy. In the age of digitisation, diplomacy too is shifting and adapting to the new landscape.

As part of DiploFoundation's work on [diplomacy in the digital age](#), our experts approach digital technology from three angles: as a tool for diplomacy and foreign policy, as a topic for diplomacy and foreign policy, and as something that impacts the diplomatic environment. Yet, despite the importance of digitisation and digital topics for diplomacy and foreign policy, few countries have developed comprehensive digital foreign policy strategies.

In November 2020, Switzerland released its [Digital Foreign Policy Strategy 2021–24](#). The strategy is a follow-up to the [Swiss Foreign Policy Strategy 2020–23](#) which itself already paid explicit

attention to digitisation as one of four focus areas. This prompted us to focus our research and capacity building on digital foreign policy strategies with **three aims** in mind:

- assess and map the current situation
- identify best practices
- support [small and developing countries](#) in shaping their own strategies.

Mapping digital foreign policy strategies

Through our mapping, we aim to provide an overview of how countries communicate their approaches to digitisation in their foreign policies and official strategic documents.

We distinguish between **four categories**:

- comprehensive digital foreign policy strategies
- foreign policy strategies that make a reference to digitisation
- digital strategies that include foreign policy aspects
- digital strategic priorities communicated on MFA's websites

Please note that our mapping is a work in progress. If you have suggestions, comments, or questions, please contact us at data@diplomacy.edu.

Comprehensive digital foreign policy strategies

A comprehensive digital foreign policy strategy is a strategy document that outlines a country's approach to digital issues and digitisation in relation to its foreign policy. It touches on numerous digital issues and connects the dots between the ministry of foreign affairs and various other ministries and key stakeholders. It also outlines areas of policy priorities in regard to digitisation and how these priorities are pursued as part of the country's foreign policy.

This does not mean that the absence of a comprehensive digital foreign policy strategy indicates that a country is paying less attention to digital topics in its foreign policy. For example, although Germany does not have a comprehensive digital foreign policy strategy document, 'cyber foreign policy' is listed as one of the key [German](#) foreign policy topics on the website of its ministry of foreign affairs. Similarly, a number of countries, such as [Estonia](#), [Canada](#), and [Bosnia and Herzegovina](#), refer to digital topics in their respective foreign policy strategies.

In conclusion, a comprehensive digital foreign policy strategy sends a clear sign that digitisation is a foreign policy priority and sheds further light on the approach and priorities of the country.

What can we learn from countries with a comprehensive digital foreign policy strategy?

Below, we describe four countries (Australia, Denmark, France, and Switzerland) with comprehensive digital foreign policy strategies and two countries (the Netherlands and Norway) with strategies that follow a slightly more specialised angle. While the Dutch strategy approaches digitisation and foreign policy from the trade and development angle, the Norwegian strategy focuses entirely on development cooperation. Although not strictly an example of a comprehensive digital foreign policy strategy as per our definition, we have included the UK in this overview. The strategy of the Foreign and Commonwealth Office, which focuses on using digital tools in foreign policy and diplomacy, is a great example of the importance of digital tools in diplomacy and foreign policy, and provides a very comprehensive approach to the topic. We briefly describe these six strategies in the following.

Australia

The [Australian International Cyber Engagement Strategy](#) was published in October 2017, while a [progress report](#) was released in 2019.

- **Reasons for issuing a comprehensive strategy:** The strategy aims to be a ‘comprehensive and coordinated cyber affairs agenda’ which aims to increase the understanding of Australia’s priorities. It is supported by increased funding for Australia’s cyber engagement activities, and leads to greater prioritisation and coordination of digital issues with Australia’s foreign policy and diplomatic activities.
- **Priority areas:** The strategy highlights seven priority areas: (a) digital trade, (b) cyber security, (c) cybercrime, (d) international security and cyberspace, (e) internet governance and cooperation, (f)

human rights and democracy, and (g) technology for development. Cybersecurity is highlighted as a cross-cutting issue, a foundation on which the other priority areas can be further built upon. Throughout the document, there is, unsurprisingly, an emphasis on the Indo-Pacific region, especially when it comes to developing partnerships, development cooperation, and capacity building.

- **Digital tools for foreign policy and diplomacy:** The Australian strategy frames digital tools as ‘profound enablers of sustainable development and inclusive economic growth’.
- **Capacity building:** The strategy highlights capacity building in the Indo-pacific region. This includes, for example, cybercrime awareness raising, cybercrime law enforcement and prosecution capacity building, and human rights’ obligation awareness raising. Further, tech companies, and in particular start-ups, are supported through dedicated mechanisms in key locations worldwide. Internally, a cyber affairs training programme for Australian diplomats was developed and delivered.
- **Related institutions and domestic coordination:** The strategy sets the goal (8.04) to ‘establish a quarterly whole-of-Government meeting, convened by the Ambassador for Cyber Affairs, to coordinate and prioritise Australia’s international cyber activities’. In addition, an Industry Advisory Group for public-private engagement is proposed, and the business sector is seen as an important dialogue partner in the area of cybersecurity.

Denmark

In February 2021, Denmark released its strategy [‘Tech Diplomacy 2021–2023’](#).



Reasons for issuing a comprehensive strategy: In the ‘Strategy For Denmark’s Tech Diplomacy 2021–2023’, the Danish Ministry of Foreign Affairs sets out priorities towards a more just, democratic, and safe tech future. The document specifies that it intends to engage and work with like-minded countries, companies, and organisations for a more inclusive, sustainable, and human-centred technological development.

Priority areas: The ‘Tech Diplomacy’ strategy is based around three pillars: responsibility, democracy, and security.

In the context of responsibility, i.e. responsible behaviour, the strategy stipulates that Denmark will work together with tech giants in order to ensure that they operate on a level-playing field and that

they adhere to societal responsibility. The document also outlines that democratic governments should be in the driver's seat of technological development. As such, Denmark should 'champion global digital rules and regulations that build on democratic values and human rights'. To do so, Denmark will help steer the global discussion on various challenges related to tech companies' business models, and call for international solutions, including those on taxation of the digital economy. The strategy aims to make Denmark an 'international digital pioneer' by leading the way in responsible development and the application of new technologies in cooperation with the tech industry and other stakeholders.

Lastly, with regard to security, the strategy specifies that technology should support Denmark's safety and security. Denmark, therefore, aims to contribute to EU's and NATO's understanding of the security implications of new technologies, ensuring that both organisations remain at the head of technological development. Denmark also intends to increase its cooperation with like-minded countries and the tech industry to counter cybersecurity threats and seek clearer division of responsibility between states and the private sector in this regard.

Digital tools for foreign policy and diplomacy: The strategy refers to digital tools as a means to advance foreign policy objectives of many countries. In addition, it makes mention of various hacking tools utilised by cyber criminals and terrorists.

Capacity building: Given that decisions made by the tech industry may have an impact on the lives of Danish people, the strategy places Danish citizens at the centre. In order to gain insights into how citizens perceive technology, the Danish government intends to conduct annual polls, organise public events to raise awareness on the benefits and challenges of new technologies, and include multiple stakeholders in discussions on tech issues. It particularly highlights the need to include marginalised groups.

Related institutions and domestic coordination: Denmark's tech diplomacy is based on six roles:

- Representative of the Danish government and the central administration that deals with the global tech industry
- Adviser who combines knowledge on technological developments, endorses innovation, and promotes technology as an issue of relevance for the foreign and security policy agenda
- Convener and coalition builder with global stakeholders, including other countries, the private sector, international organisations, and civil society
- Contributor who shares expertise and insight with the Danish public on technological development and the impact of tech companies
- Policy developer who contributes to the development of Danish solutions to global challenges
- Global champion who sheds light on Denmark's role as a digital pioneer and promotes Danish tech exports and foreign investment in Denmark

France

In December 2017, France presented (Stratégie internationale de la France pour le numérique).

- **Reasons for issuing a comprehensive strategy:** The strategy is driven by the aim to articulate a governance model (situated within the European context) that is distinct from both the US and

Chinese model. The strategy argues in favour of a European internet that is open and interconnected with the global network. While aiming to reinforce the attractiveness, influence, and security of France and French actors, the strategy intends to promote an open, trustworthy, and diversified digital space. The document also emphasises the respect of fundamental rights, the principle of transparency and loyalty of digital platforms, and fair competition and taxation and to emphasise respect for fundamental rights, the principle of loyalty, and fair competition and taxation.

- **Priority areas:** The strategy is organised around three areas: governance, the economy, and security. In the context of governance, France sets out to promote a democratic, representative, and inclusive governance. It calls for a multistakeholder approach and the diversification of actors governing ICANN by endorsing the creation of a body that would promote diversity. Moreover, given that the development of standards and protocols represents a strategic interest for the industry, security, and data protection, France calls for a better participation of French and European public and private actors within standard-setting bodies. Intertwined with governance, France highlights that digital economy determines the power of a state within internet governance. Among other things, it favours the promotion of French tech companies beyond its national and the EU market. On security, the French digital strategy underlines the full respect of international law in cyberspace. It argues that efforts should be dedicated to the implementation of existing instruments (e.g. promotion and universalisation of the Budapest Convention), and that the negotiation of a new instrument in cyberspace is not necessary.
- **Digital tools for foreign policy and diplomacy:** The strategy makes reference to the position of ambassador of *French Tech*, an initiative that was established to promote the fundamental rights and freedoms of users in the digital space.
- **Capacity building:** The French strategy tackles capacity building from several angles. In the context of assistance to developing countries, access and affordable internet are the main objectives within France's *Development and Digital Plan*. In order to accompany developing countries in the development of universal access to digital services, France aims to support them in the field of infrastructure, services, regulation, and governance by sharing its experience through the French Development Agency (AFD) and Expertise France. Within the scope of the Global Partnership for Sustainable Development Data network, France aims to support developing countries in their efforts to create and share scientific data. In addition to its objective to promote the role of the International Organisation of the Francophonie (OIF) in international regulatory bodies, and the production and distribution of digital common goods, France intends to share its institutional innovative tools such as *service-public.fr* and *legifrance.gouv.fr*. With regard to capacity building of individuals, the document makes reference to the 'French digital school abroad' that allows individuals to pursue bilingual education and to educate themselves as per the French educational model.
- **Related institutions and domestic coordination:** The strategy attributes the role of collaboration with internal and external actors to France's Ministry for Europe and Foreign Affairs. As mentioned, it also proposed the position of ambassador of *French Tech*.

The Netherlands

In July 2019, the Dutch Ministry of Foreign Affairs launched the [Digital Agenda for Foreign Trade and Development Cooperation](#) strategy, which is a follow-up to the 2018 [Dutch Digitalisation Strategy](#) (see also [Dutch Digitalisation Strategy 2.0](#)).

- **Reasons for issuing the strategy:** The strategy starts with an observation that there are new interventions to use and facilitate digitalisation, new coalitions to promote digitalisation, and new knowledge to translate the impact of ongoing digitalisation into actions. Its main aims are ‘to exploit opportunities through education and work, to promote digitalisation for robust, sustainable food production, to strengthen civil society and to use digital technologies for people in need’.
- **Priority areas:** In the context of the three observations on new interventions, new coalitions, and new knowledge, the strategy outlines four priority areas (see also the available [infographic](#)): (a) digitalisation and the Netherlands’ international position, (b) digitalisation for development, (c) digital security and freedom online, and (d) digitalisation in the trade system. In relation to digitisation for development, the key areas of action are: education, entrepreneurship, and work; food, water, energy and climate change; strengthening civil society; and humanitarian aid and stability. As part of the priority on digitisation in the trade system, the strategy focuses on accommodating digitalisation in the multilateral trade system and supporting developing countries in digital economy and trade.
- **Digital tools for foreign policy and diplomacy:** The ministry aims to make better use of available data, and mentions its Datalab as an example of good practice. The strategy also highlights the importance of satellite data for development cooperation.
- **Capacity building:** With a focus on developing countries, the strategy mentions the need to support their participation in relevant negotiations and policy discussions, education programs, and strengthening civil society. These efforts are discussed in close relation to existing multilateral efforts and the world of various international organisations and initiatives supported by the Netherlands. Focusing on internal capacities, the strategy also acknowledges that additional recruitment of staff to improve knowledge and expertise in the area of digitisation within the ministry is needed.
- **Related institutions and domestic coordination:** The strategy acknowledges the importance of working with other ministries for knowledge-sharing and making use of synergies. It also suggests greater engagement with national and international ‘knowledge networks’, as well as private sector engagement through, for example, the ‘public-private trade promotion network’.

Norway

In 2019, the Norwegian Ministry of Foreign Affairs released the white paper [Digital Transformation and Development Policy](#).

- **Reasons for issuing the white paper:** The document aims to provide strategic guidance on the digitalisation of Norwegian development policy. It stresses that Norway will continue to prioritise development cooperation with partner countries whilst including digitalisation into its core areas.

- **Priority areas:** In addition to humanitarian action, the document lists the following as priority areas: health, education, climate and the environment, oceans, private-sector and agricultural development, renewable energy, the fight against modern slavery, human rights, and financing for development. Moreover, specific attention is paid to digitalisation barriers, namely, access, regulation, and digital competence and exclusion.
- **Digital tools for foreign policy and diplomacy:** In the white paper, Norway confirms its commitment to the principles of digital development which endorse digital tools and methods that are user-centric and correspond to existing data-driven sustainable ecosystems and contexts.
- **Capacity building:** One of the priorities for Norway is to strengthen the competences and capacities of public institutions in developing countries. The government also aims to promote cybersecurity capacity building in these countries, including institution building, investigative capacity related to ICT crimes, the development of relevant national legislation, as well as secure digital infrastructure. In the area of education, Norway's objective is to enable more people to acquire basic digital skills, placing an emphasis on the inclusion of marginalised groups. Moreover, under the Norwegian Programme for Capacity Development in Higher Education and Research for Development (NORHED), the government aims to enhance the quality of and expand access to higher education in developing countries.

Norway is very active on the multilateral level where it aims to enhance technical cooperation, promote knowledge-sharing, and support initiatives that promote further development and integration of African economies.

- **Related institutions and domestic coordination:** Norway recognises that the interplay between digitalisation and development should happen in a multilateral context. It therefore stipulates that its multilateral partners should employ digital tools and devise strategies for maximising the benefits of digitalisation, in particular for developing countries. To this end, Norway intends to promote digitalisation in multilateral organisations and forums. It equally highlights its willingness to support the efforts of development banks in providing adequate infrastructure in poor countries. Among other things, the Norwegian government reaffirms its support to digitisation projects in Africa such as the World Banks' Digital Moonshot for Africa.

Switzerland

As mentioned above, Switzerland released its [Digital Foreign Policy Strategy 2021–24](#) in December 2020. The strategy is a follow-up to the [Swiss Foreign Policy Strategy 2020–23](#), which itself already paid explicit attention to digitisation as one of its four focus areas.

- **Reasons for issuing a comprehensive strategy:** The strategy was developed from a 2017 mandate to explore 'how Switzerland could become the global epicentre of international governance in the area of cyberspace'. Therefore, it aims to 'raise Switzerland's profile in the area of digital governance, further develop its digital foreign policy and position International Geneva as a prime location for discussing digitalisation and technology'. It is also worth noting that digital issues are also strongly reflected in other strategic documents of the Swiss government and various

ministries, and that the strategy is framed as a response to the UN Secretary General's Roadmap for Digital Cooperation.

- **Priority areas:** The strategy outlines four priority areas: (a) digital governance, (b) prosperity and sustainable development, (c) cybersecurity, and (d) digital self-determination. These are further broken down into thematic areas. For example, digital governance comprises sections on a call for moderate regulation, capacity building, International Geneva, and science diplomacy.
- **Digital tools for foreign policy and diplomacy:** Switzerland mentions a number of relevant digital tools, in particular in the priority area on prosperity and sustainable development. In a foreign policy and diplomatic context, satellite images and big data analysis for conflict resolution and peacebuilding are explicitly mentioned. Digital tools are also mentioned, such as tools for improving humanitarian aid and crisis response.
- **Capacity building:** The strategy explicitly mentions capacity building in a foreign policy context and in particular emphasises that countries 'must have the necessary capacities, which include both the ability to develop strategies and policies as well as specific technical expertise' in order to reap the benefits of digitisation.
- **Related institutions and domestic coordination:** The Swiss strategy emphasises the whole-of-government approach that builds on cooperation between various ministries and government agencies. It further builds on 'direct democracy instruments' and the involvement of various stakeholders in political decision-making. International Geneva is recognised as a key hub in 'global digital policy' and accompanying infrastructure measures, such as data localisation, are mentioned.

United Kingdom

In November 2012, the UK Foreign and Commonwealth Office (FCO) published its [Digital Strategy](#). Since this strategy is from 2012, it is best to read it together with the [Future FCO](#) report from 2016 which made further suggestions regarding digital technologies and the work of the FCO.

- **Reasons for issuing the strategy:** The UK's strategy aims to 'embed the use of digital across every element of foreign policy work' and 'provide its services digitally by default, allowing [the FCO] to deliver more effective and responsive services'. The strategy is written under the impression of the Arab Spring which is seen as an important example of the changing landscape in which diplomacy is practised. In contrast to other strategies covered here, it does not make suggestions regarding policy, and focuses entirely on digital as a tool for foreign policy and service delivery. Rather the aim is to (a) innovate digital communications, (b) spread the use of digital in enhancing foreign policy objectives, and (c) deliver more open policy formulation and increase transparency.
- **Priority areas:** The strategy focuses on digital diplomacy, FCO service delivery, and suggestions for reaching the strategy's aims. Suggestions for the latter include: ensuring effective leadership of the digital agenda, ensuring the capability needed to deliver this digital agenda, providing staff with the access they need to digital media and tools, taking full advantage of the possibilities for digital diplomacy, continuing to produce excellent and integrated communications, and delivering digital by default for FCO services.

- **Digital tools for foreign policy and diplomacy:** Given the aims of the strategy, it provides a strong focus on the use of digital tools while acknowledging that this will require ‘changing how the day-to-day work of diplomacy is done in many parts of the FCO’. Suggestions include the use of social media by diplomats, the streamlining of FCO’s web presence, establishing a digital diplomacy blog, digitisation workflows, and including digital in crisis responses.
- **Capacity building:** Unsurprisingly, the focus of the strategy rests on building internal capacities, in particular through additional training on all levels and the recruitment of relevant staff. Digital diplomacy training is suggested for senior management and policy officers.
- **Related institutions and domestic coordination:** The FCO’s strategy suggests the role of a temporary Digital Transition leader, as well as establishing an expert digital transformation unit, a digital innovation fund, a digital training officer, and a network of internal digital champions.

Initial conclusions

- **Similar issues covered, yet details reveal nuances:** It is unsurprising that the four comprehensive strategies of Australia, Denmark, France, and Switzerland touch on a very similar set of issues. It is, for example, hard to imagine that a country would fail to mention cybersecurity as a priority issue. Yet, each strategy also reveals nuances in priorities and differences in approach. On the one hand, this is indicative of a country’s foreign policy priorities. On the other hand, nuances can also be explained by the date of publication of each strategy and the differences in the institutional setting of each country.
- **Coordination, the whole-of-government approach, and institutional setting:** Comprehensive digital foreign policy strategies work well in communicating a country’s priorities to both internal and external actors. They also play a useful role in coordinating and channelling the efforts of a country, and in bringing various domestic actors together. The Australian and Swiss strategies mention this as the ‘whole-of-government approach’. Such strategies can also be useful in announcing or creating additional coordination or institutional structures.
- **Digital as a tool for foreign policy and diplomacy:** Broadly speaking, there is a (sometimes implicit) recognition that digitisation also provides new tools for foreign policy and diplomacy across the strategies outlined here. The UK strategy is the only one which deepens the topic substantially and, having been published in 2012, is quite forward-thinking in this regard. We need to ask: should countries pay more attention to digital tools for diplomacy and foreign policy?

Conceptual reflections: Digitisation in/with/for foreign policy

Zooming out from these specific strategies, how can we make sense of digitisation and foreign policy?

For example, [upon launching the Swiss strategy](#), Federal Councillor Ignazio Cassis explained that ‘digitalisation is on the one hand an instrument, helping to simplify processes, for example in the area of consular services or IT. On the other, it is also a foreign policy matter.’

As mentioned, at Diplo we have been using a **three-part typology** that identifies digital technology as: (a) a tool for diplomacy and foreign policy, (b) a topic for diplomacy and foreign policy, and (c) as having an impact on the very environment in which diplomacy is practiced and foreign policy is

shaped. (For more information, visit our dedicated topic page [Digital Diplomacy | E-diplomacy | Cyber Diplomacy](#).)

Keeping with this more conceptual angle, we might also ask: **is digitisation a specialised field of foreign policy or does it cut across all areas of foreign policy?** The example of those countries with comprehensive digital foreign policy strategies clearly suggest that digitisation and digital issues cut across all areas of foreign policy. Other countries might be happier to have a focal point for digitisation and digital topics. Yet, it seems increasingly clear that no area of foreign policy is left untouched by digitisation and digital issues. This also poses internal organisational questions for foreign ministries, and raises questions of coordination across ministries and governmental agencies.

Internet governance and digital policy

Internet governance, also referred to as digital policy, deals with the policy issues associated with digital technology.

Diplo has been providing capacity development support to digital policy practitioners for almost 20 years. This includes online and blended courses, policy research, policy immersion, and community support. Since many [small and developing countries](#) have limited resources and institutional capacity in this sector, Diplo provides special assistance to practitioners from these countries.

What is internet governance?

Internet governance refers to the shared principles, norms, rules, decision-making procedures, and programmes that shape the evolution and use of the Internet. Governments, the private sector, and civil society each contribute to developing these principles, rules, and processes, in their respective roles. (WGIG, 2015)

The book *An Introduction to Internet Governance (7th ed.)*, by Dr [Jovan Kurbalija](#), is one of the most widely-used books by digital policy professionals and across universities. It has also been translated into 10 languages. The book provides a comprehensive overview of the main issues and actors in the field through a practical framework for analysis, discussion, and resolution of significant issues. [Download the latest edition, or any of the translated versions](#).

The internet governance taxonomy: 7 baskets, 40+ topics

Diplo classifies the main issues in internet governance and digital policy into seven categories, or ‘baskets’. These are [Infrastructure](#), [Cybersecurity](#), [Human Rights](#), [Legal and regulatory](#), [Economic, Development](#), and [Sociocultural](#). Many of the digital policy topics falling under each area are cross-cutting.

Diplo’s executive director Dr Jovan Kurbalija developed the taxonomy in 1997, and then introduced it in his book [An Introduction to Internet Governance](#). Diplo later adopted it in its internet governance courses.

Diplo’s digital policy experts review the taxonomy regularly to account for emerging trends in this vibrant process. Today, the [Digital Watch observatory](#) uses the taxonomy as its underlying structure.

The Digital Watch observatory

The Digital Watch observatory is a comprehensive internet governance and digital policy observatory which serves as a one-stop shop for ongoing developments and overviews of the main issues. It also provides an up-to-date calendar of global events, an overview of the actors active in each field, just-in-time event reports, and other resources related to every topic and process in internet governance and digital policy.

The observatory includes quantitative research (e.g. data-mining of open data, topic profiling), and relies on a team of 30+ digital policy experts from around the world, for digital policy research and analysis.

Our monthly internet governance briefings

The online briefings provide a zoomed-out update of the major developments. Every month, the briefings provide a much-needed space to discuss the main trends, and highlight key developments from previous weeks, all in a neutral way. The briefings are held on the last Tuesday of every month. Access the [archive of recordings, digests and other resources](#).

The monthly *Digital Watch Newsletter*

The monthly *Digital Watch Newsletter* provides in-depth analysis of digital policy developments taking place each month. It is published on the first week of every month (excluding July and December).

Since 2015, the newsletter has been providing digital policy practitioners a regular round-up of global developments. It also provides analysis on the most topical issues of the month. The barometer measures the prominence of policy topics compared to the previous month. Updates on events help practitioners keep track of events that may impact digital policy in one way or another. [Read or download](#) the latest newsletter.

Cybersecurity

Today’s headlines often feature the word ‘cyber’, reporting on threats related to the virtual world: online child abuse, stolen credit cards and virtual identities, malware and viruses, botnets and denial-of-service attacks on corporate or government servers, cyber-espionage, and cyber-attacks on critical infrastructure.

Cybersecurity came into sharper focus with the rapid expansion of the Internet’s user base. One side effect of the rapid integration of the Internet in almost all aspects of human activity is the increased vulnerability of modern society. Core services of modern society, such as communications, electric grids, transport systems, health services, and “smart cities”, are increasingly dependent on the Internet. They are frequent targets of cyber-attacks.

What are the real cybersecurity challenges? What is the role of diplomacy, international legal instruments, and regional and national policies in addressing these threats, and how efficient are

they? How does international cooperation in cybersecurity work, and what are the roles of the various stakeholders?

Diplo focuses on these and other related questions through [online and in situ courses](#), awareness-raising sessions and events, evidence-based analysis, policy research, illustrations, videos and other visuals. At the same time, the [GIP Digital Watch observatory](#), operated by DiploFoundation, maintains regular updates on cybersecurity issues, actors, processes and mechanisms.

Featured: Comic “The secret life of a cyber vulnerability”

This new comic brings a worrying, yet realistic and educative story that follows a life of a digital vulnerability, from its inception to its deployment for an actual cyberattack. Vulnerabilities are one of the main components of cyber-weapons, used equally for warfare, crime, terrorist or other attacks. Instead of being mitigated, they are often traded, stockpiled and used for attacks. In essence, the comic book discusses responsibility of various stakeholders – governments, private sector, end users – for global [cyber\(in\)security](#). Read more in our [research and publications section](#).

Holistic approach to cybersecurity

Current situation and challenges

Cybersecurity has come to the forefront of the international diplomatic and political agenda in United Nations committees, the North Atlantic Treaty Organization (NATO), the International Telecommunication Union (ITU), the Council of Europe (CoE), the Organisation for Economic Co-operation and Development (OECD), the Organization for Security and Co-operation in Europe (OSCE), the Commonwealth, the Group of Eight (G8), and the Group of Twenty (G20), to name just a few of the most important fora. In the meantime, attention to the possibility of cyber-war swings from hype to lack of attention, due to wide ignorance.

Cybercrime, which is often part of our real life experience, is dealt with through a number of international processes, as the judicial and law enforcement authorities cooperate across borders. Many countries have adopted national cybersecurity strategies and related legislation. A growing number of countries have set up national mechanisms for response to cyber-incidents (mainly in form of CERT or CSIRT), involving government as well as the corporate, academic, and NGO sectors. Some have declared ‘cyber’ as the fifth military domain, and have set up defensive and offensive cyber-commands within their armies.

Nevertheless, the risks are increasingly sophisticated, while the groups interested in exploiting cyberspace vulnerabilities have extended from underground communities of ‘black-hat’ hackers to global and well-organised criminal and terrorist groups, government security services, and defence forces. To make things more complicated, most of the Internet infrastructure and services are privately owned, with operators scattered around different global jurisdictions.

Multidisciplinary and multistakeholder response

A meaningful systematic response to cybersecurity risks depends on a deep understanding of the multidisciplinary aspects of cyberspace: the nexus of technology, law, psychology, sociology,

economy, political science, and diplomacy. Cybersecurity framework includes policy principles, instruments, and institutions dealing with cybersecurity. Thematically, it is an umbrella concept covering:

- Network security (including technical measures, organisational policies, standards and incident response)
- Cybercrime (including emerging challenges and frameworks to combating cybercrime)
- Internet safety (including user safety challenges and particularly child online protection)
- Critical infrastructure and resources (including security of the critical infrastructure, and critical Internet resources)
- Cyber-conflicts and cyber-norms (including challenges, application of international law to cyberspace, and main processes)
- Terrorist use of the Internet (including tools, targets and frameworks for combating terrorism)

Setting up national and international cybersecurity policies and mechanisms, however, requires looking at a broader context, primarily the links of security with economic development (including innovations, e-commerce and intellectual property rights), human rights (including privacy, online freedoms and trust), and Internet governance in general.

The efficiency of the response further depends on partnerships among stakeholders that can contribute to reducing the risks:

- government and regulatory authorities with their ability to create a legal, regulatory, and policy environment for cybersecurity;
- judicial institutions and law enforcement authorities with their competences and responsibility for criminal prosecution and cross-border cooperation mechanisms;
- the private sector and technical communities with their expertise and de-facto control over the majority of infrastructure, services, and standards;
- non-governmental organisations and academia with their knowledge, networks, and capacity to reach out to end-users and alert them about the misuse of cyberspace.

Capacity building

Comprehensive approach to capacity building

DiploFoundation plans, prepares and implements capacity building programmes in cybersecurity policy. The sustainability of capacity building requires moving beyond using the term as a political buzzword and employing disconnected sets of simple training sessions, short workshops, or events, to include building institutional, organisational, system, and networking capacities to deal with cybersecurity and the digital environment.

Our capacity building approach addresses both hard and soft capacities – from specialised knowledge and know-how to operational and adaptive capacities. It combines professional and academic online courses and in-situ training, coaching and support, policy immersion and research, webinars and remote participation at events, as well as community facilitation. In these activities, Diplo involves number of experts and lecturers from its own [Faculty](#), as well as from its [Partners](#). Diplo's [online community](#) gathers over 1600 alumni and associates from all over the world.

Capacity building portfolio

Online activities

Highly interactive online course bringing a group of 15-25 professionals together, with facilitation of certified online tutors and contributions from renowned experts in the field, as well as short webinars:

- [Annual professional online course in cybersecurity](#)
- [Annual academic online course in cybersecurity](#) (as a single course or within the post-graduate programme in contemporary diplomacy), accredited by the University of Malta
- Customised online courses in cybersecurity in cooperation and with support of partner institutions (such as for [South-Eastern Europe](#))
- Dedicated thematic webinars (such as for [diplomats](#), on [cyber-norms](#) or on [policy trends in building cybersecurity competences](#))

In-situ activities

Customised in-situ activities involving thematic lectures and discussions, skills building, process simulations, and technical show-cases:

- Training for youth professionals (such as for [Western Balkans](#))
- Training for diplomats (such as [Asia Cyber Diplomacy Workshop “Diplomacy: Between Tradition and Innovation”](#), or [course on “Internet Governance” for Geneva permanent missions](#))
- Awareness-raising and training events for diplomats (dedicated cybersecurity days such as [“Fighting Cybercrime through closer International Cooperation”](#) and [“Cybersecurity: a Strategic View”](#); [Scenario simulation exercise](#) organised during the OSCE Chairmanship Event on Effective Strategies to Cyber/ICT Security Threat; a luncheon event [“Towards a secure cyberspace via regional cooperation”](#) organised on the occasion of the second meeting of the 2016-2017 UN GGE)
- Practical exercises in form of CyberLab, with simulations of cyber-attacks, visits to Dark Web, trying the BitCoin market and exploring the potentials and risks of 3D printing and Internet of Things (such as that organised during the [22nd OSCE Ministerial Council](#) and [Vienna Cyber Diplomacy Day](#))

Research and mapping work

Policy research and mapping developments, processes, actors and instruments:

- Mapping cybersecurity trends and developments, processes, actors and instruments, reports and sources within [Digital Watch](#) of the Geneva Internet Platform pages (general pages on [cybersecurity](#), as well as dedicated pages such as for the [UN GGE process](#))
- Policy research work upon demand (see below)
- Visualisation of key cybersecurity challenges for awareness-raising and educational purposes (see below)

E-commerce and trade

Technology has significantly transformed the world's economy. The ability to make data flow worldwide, and the digitisation of information have enabled [digital business models](#) and spurred the growth of e-commerce.

Digitalisation of Trade

On the one hand, digitisation is leading to the **dematerialisation of products** that were previously commercialised as physical objects (such as books, films, games, and recorded music), while on the other, **digital flows underpin and enable every other kind of traditional cross-border flow.**

For example, [parcel tracking](#) is very important for the management and logistics of goods crossing the border. Packages have ‘digital wrappers’, a strain of digital information that is paired to a product, including information on the product, the exporter, the importer, and other information required for global tracking. In addition, even when ships carry physical products, customers increasingly retrieve, order, and pay for them online, generating a significant stream of cross-border data, which includes personal data.

The **COVID-19 pandemic** led to an [expansion of e-commerce](#) towards new firms, customers, and types of products, accelerating the uptake of e-commerce [by five years](#). The [COVID-19 and E-commerce: A Global Review report](#) found that, in Latin America, online marketplace Mercado Libre sold twice as many articles per day in the second quarter of 2020 as during the same period the previous year, while African e-commerce platform Jumia reported a 50% increase in the first six months of 2020.

The pandemic also showed the importance of enhancing investment on [e-commerce](#) enablers, since **the ability to benefit from e-commerce growth varied significantly** due to the gaps in access to the internet and connectivity, digital skills, and developed postal infrastructure.

The growth of e-commerce has brought innumerable benefits, but it also created significant **challenges for policymakers** and regulators, leading to a sense of urgency in developing legal frameworks that take into account the **impact of digitisation on the trade of goods and services.**

Against this backdrop, trade discussions have captured the growing **interplay between data governance and the digital economy**. E-commerce negotiations started to encompass provisions on a vast number of digital policy issues, many of them related to data governance, such as data flows and data

protection.

Current situation: E-commerce negotiations

** Stay up to date with negotiations taking place in the WTO Joint Statement Initiative on e-commerce by visiting the [JSI dedicated page](#) in the Digital Watch Observatory*

The growing relevance of e-commerce to the global economy enhances the importance of policy discussions at the national level, [regional trade agreements \(RTAs\)](#), and at the [World Trade Organization \(WTO\)](#).

RTAs have mushroomed in all parts of the world, serving as focal points of **interstate cooperation**, as well as incubators and **testing grounds for new trade rules**. At the WTO, discussions on e-commerce are taking place in two parallel tracks: the [WTO Work Program on Electronic Commerce](#), launched in 1998, and the [Joint Statement Initiative \(JSI\) on E-commerce](#) which aims to produce a binding agreement among its members.

E-commerce negotiations have not only increased in number, but also in complexity. The digital trade agenda now **encompasses both traditional trade topics (e.g. trade facilitation) and several digital policy issues**, such as:

- cross-border data flows and data localisation
- e-signatures and authentication
- network neutrality
- online consumer protection and privacy
- unsolicited commercial electronic messages (spam)
- open government data
- customs duties on electronic transmissions
- cybersecurity
- access to the source code of computer programs

Expand

E-commerce capacity development

The growing interplay between trade and digital policy calls for a multidisciplinary approach to capacity development which provides the **technical knowledge necessary to grasp the implications of policy proposals**.

Diplo's comprehensive [Digital Commerce online course](#) is designed to assist governmental and non-governmental actors to better understand **what digitisation and the internet bring to trade discussions**, and help them **reap the benefits of the digital economy**.

The Digital Commerce course has been offered for five years (2017–2021) by Diplo, [CUTS International, Geneva](#), the [International Trade Centre \(ITC\)](#), and the [Geneva Internet Platform \(GIP\)](#). **The publication ‘[Digital Commerce Course: a five-year assessment](#)’ provides an evaluation of the impact of the course.**

The specialised training helps both practitioners and policymakers to:

- Understand the global implications of digitalisation in trade discussions

- Access a vast array of good practices and case studies
- Participate more meaningfully in trade-related international forums
- Learn how global rules can facilitate development and leverage them for national benefits

Course participants benefit from:

- The **multidisciplinary knowledge** of course partners and [faculty](#), with extensive experience in the fields of international trade, digital policies, and Internet governance.
- A **thematic approach** that covers the increasing interplay between trade and digital policy issues.
- An **innovative and highly interactive methodology**, which allows them to immediately apply new knowledge in the daily routines.
- The **just-in-time nature** of the course: with the discussions and analyses also covering breaking news and the most recent developments.

POLICY ANALYSIS AND MANAGEMENT

Policy analysis is "determining which of various alternative policies will most achieve a given set of goals in light of the relations between the policies and the goals".^[1] However, policy analysis can be divided into two major fields. Analysis **of** policy is analytical and descriptive—i.e., it attempts to explain policies and their development. Analysis **for** policy is prescriptive—i.e., it is involved with formulating policies and proposals (e.g., to improve social welfare).^[2] The area of interest and the purpose of analysis determines what type of analysis is conducted. A combination of policy analysis together with program evaluation would be defined as Policy studies.

Policy Analysis is frequently deployed in the public sector, but is equally applicable to other kinds of organizations. Policy analysis has its roots in systems analysis as instituted by United States Secretary of Defense Robert McNamara during the Vietnam War.^[4]

Approaches to policy analysis

Although various approaches to policy analysis exist, three general approaches can be distinguished: the analycentric, the policy process, and the meta-policy approach.^[2]

The **analycentric** approach focuses on individual problems and their solutions; its scope is the micro-scale and its problem interpretation is usually of a technical nature. The primary aim is to identify the most effective and efficient solution in technical and economic terms (e.g. the most efficient allocation of resources).

The **policy process** approach puts its focal point onto political processes and involved stakeholders; its scope is the meso-scale and its problem interpretation is usually of a political nature. It aims at determining what processes and means are used and tries to explain the role and influence of stakeholders within the policy process. By changing the relative power and influence of certain groups

(e.g., enhancing public participation and consultation), solutions to problems may be identified.

The **meta-policy approach** is a systems and context approach; i.e., its scope is the macro-scale and its problem interpretation is usually of a structural nature. It aims at explaining the contextual factors of the policy process; i.e., what are the political, economic and socio-cultural factors influencing it. As problems may result because of structural factors (e.g., a certain economic system or political institution), solutions may entail changing the structure itself.

Methodology

Policy analysis is methodologically diverse using both qualitative methods and quantitative methods, including case studies, survey research, statistical analysis, and model building among others. One common methodology is to define the problem and evaluation criteria; identify all alternatives; evaluate them; and recommend the best policy agenda per favor.

Models

Many models exist to analyze the creation and application of public policy. Analysts use these models to identify important aspects of policy, as well as explain and predict policy and its consequences.

Some models are:

Institutional model

Public policy is determined by political institutions, which give policy legitimacy. Government universally applies policy to all citizens of society and monopolizes the use of force in applying policy. The legislature, executive and judicial branches of government are examples of institutions that give policy legitimacy.

Process model

Policy creation is a process following these steps:

- Identification of a problem and demand for government action.
- Formulation of policy proposals by various parties (e.g., congressional committees, think tanks, interest groups).
- Selection and enactment of policy; this is known as **Policy Legitimation**.
- Implementation of the chosen policy.
- Evaluation of policy.

This model, however, has been criticized for being overly linear and simplistic. In reality, stages of the policy process may overlap or never happen. Also, this model fails to take the multiple actors attempting the process itself as well as each other, and the complexity this entails.

Rational model

The rational model of decision-making is a process for making logically sound decisions in policy making in the public sector, although the model is also widely used in private corporations. Herbert Simon, the father of rational models, describes rationality as “a style of behavior that is appropriate to the achievement of given goals, within the limits imposed by given conditions and constraints”.^[6] It is important to note the model makes a series of assumptions in order for it to work, such as:

- The model must be applied in a system that is stable,
- The government is a rational and unitary actor and that its actions are perceived as rational choices,
- The policy problem is unambiguous,
- There are no limitations of time or cost.

Indeed, some of the assumptions identified above are also pin pointed out in a study written by the historian H.A. Drake, as he states:

In its purest form, the Rational Actor approach presumes that such a figure [as Constantine] has complete freedom of action to achieve goals that he or she has articulated through a careful process of rational analysis involving full and objective study of all pertinent information and alternatives. At the same time, it presumes that this central actor is so fully in control of the apparatus of government that a decision once made is as good as implemented. There are no staffs on which to rely, no constituencies to placate, no generals or governors to cajole. By attributing all decision making to one central figure who is always fully in control and who acts only after carefully weighing all options, the Rational Actor method allows scholars to filter out extraneous details and focus attention on central issues.^[7]

Furthermore, as we have seen, in the context of policy rational models are intended to achieve maximum social gain. For this purpose, Simon identifies an outline of a step by step mode of analysis to achieve rational decisions. Ian Thomas describes Simon's steps as follows:

1. Intelligence gathering— data and potential problems and opportunities are identified, collected and analyzed.
2. Identifying problems
3. Assessing the consequences of all options
4. Relating consequences to values— with all decisions and policies there will be a set of values which will be more relevant (for example, economic feasibility and environmental protection) and which can be expressed as a set of criteria, against which performance (or consequences) of each option can be judged.

5. Choosing the preferred option— given the full understanding of all the problems and opportunities, all the consequences and the criteria for judging options.^[8]

In similar lines, Wiktorowicz and Deber describe through their study on 'Regulating biotechnology: a rational-political model of policy development' the rational approach to policy development. The main steps involved in making a rational decision for these authors are the following:

1. The comprehensive organization and analysis of the information
2. The potential consequences of each option
3. The probability that each potential outcome would materialize
4. The value (or utility) placed on each potential outcome.^[9]

The approach of Wiktorowicz and Deber is similar to Simon and they assert that the rational model tends to deal with "the facts" (data, probabilities) in steps 1 to 3, leaving the issue of assessing values to the final step. According Wiktorowicz and Deber values are introduced in the final step of the rational model, where the utility of each policy option is assessed.

Many authors have attempted to interpret the above mentioned steps, amongst others, Patton and Sawicki who summarize the model as presented in the following figure (missing):

1. Defining the problem by analyzing the data and the information gathered.
2. Identifying the decision criteria that will be important in solving the problem. The decision maker must determine the relevant factors to take into account when making the decision.
3. A brief list of the possible alternatives must be generated; these could succeed to resolve the problem.
4. A critical analyses and evaluation of each criterion is brought through. For example strength and weakness tables of each alternative are drawn and used for comparative basis. The decision maker then weights the previously identified criteria in order to give the alternative policies a correct priority in the decision.
5. The decision-maker evaluates each alternative against the criteria and selects the preferred alternative.
6. The policy is brought through.

The model of rational decision-making has also proven to be very useful to several decision making processes in industries outside the public sphere. Nonetheless, many criticism of the model arise due to claim of the model being impractical and lying on unrealistic assumptions. . For instance, it is a difficult model to apply in the public sector because social problems can be very complex, ill-defined and interdependent. The problem lies in the thinking procedure implied by the model which is linear and can face difficulties in extra ordinary problems or social problems which have no sequences of happenings. This latter argument can be best illustrated by the words of Thomas R. Dye, the president of the Lincoln

Center for Public Service, who wrote in his book ‘Understanding Public Policy’ the following passage:

There is no better illustration of the dilemmas of rational policy making in America than in the field of health...the first obstacle to rationalism is defining the problem. Is our goal to have good health — that is, whether we live at all (infant mortality), how well we live (days lost to sickness), and how long we live (life spans and adult mortality)? Or is our goal to have good medical care — frequent visits to the doctor, well-equipped and accessible hospitals, and equal access to medical care by rich and poor alike?^[11]

The problems faced when using the rational model arise in practice because social and environmental values can be difficult to quantify and forge consensus around.^[12] Furthermore, the assumptions stated by Simon are never fully valid in a real world context.

However, as Thomas states the rational model provides a good perspective since in modern society rationality plays a central role and everything that is rational tends to be prized. Thus, it does not seem strange that “we ought to be trying for rational decision-making”.^[8]

Decision Criteria for Policy Analysis — Step 2

As illustrated in Figure 1, rational policy analysis can be broken into 6 distinct stages of analysis. Step 2 highlights the need to understand which factors should be considered as part of the decision making process. At this part of the process, all the economic, social, and environmental factors that are important to the policy decision need to be identified and then expressed as policy decision criteria. For example, the decision criteria used in the analysis of environmental policy is often a mix of —

- Ecological impacts — such as biodiversity, water quality, air quality, habitat quality, species population, etc.
- Economic efficiency — commonly expressed as benefits and costs.
- Distributional equity — how policy impacts are distributed amongst different demographics. Factors that can affect the distribution of impacts include location, ethnicity, income, and occupation.
- Social/Cultural acceptability — the extent to which the policy action may be opposed by current social norms or cultural values.
- Operational practicality — the capacity required to actually operationalize the policy. For example,

- Legality — the potential for the policy to be implemented under current legislation versus the need to pass new legislation that accommodates the policy.
- Uncertainty — the degree to which the level of policy impacts can be known.^[13]

Some criteria, such as economic benefit, will be more easily measurable or definable, while others such as environmental quality will be harder to measure or express quantitatively. Ultimately though, the set of decision criteria needs to embody all of the policy goals, and overemphasising the more easily definable or measurable criteria, will have the undesirable impact of biasing the analysis towards a subset of the policy goals.^[14]

The process of identifying a suitably comprehensive decision criteria set is also vulnerable to being skewed by pressures arising at the political interface. For example, decision makers may tend to give "*more weight to policy impacts that are concentrated, tangible, certain, and immediate than to impacts that are diffuse, intangible, uncertain, and delayed.*"⁸ For example, with a cap-and-trade system for carbon emissions the net financial cost in the first five years of policy implementation is a far easier impact to conceptualise than the more diffuse and uncertain impact of a country's improved position to influence global negotiations on climate change action.

Decision Methods for Policy Analysis — Step 5

Displaying the impacts of policy alternatives can be done using a policy analysis matrix (PAM) such that shown in Table 1. As shown, a PAM provides a summary of the policy impacts for the various alternatives and examination of the matrix can reveal the tradeoffs associated with the different alternatives.

Table 1. Policy analysis matrix (PAM) for SO₂ emissions control.

Once policy alternatives have been evaluated, the next step is to decide which policy alternative should be implemented. This is shown as step 5 in Figure 1. At one extreme, comparing the policy alternatives can be relatively simple if all the policy goals can be measured using a single metric and given equal weighting. In this case, the decision method is an exercise in benefit cost analysis (BCA).

At the other extreme, the numerous goals will require the policy impacts to be expressed using a variety of metrics that are not readily comparable. In such cases, the policy analyst may draw on the concept of utility to aggregate the various goals into a single score. With the utility concept, each impact is given a weighting such that 1 unit of each weighted impact is considered to be equally valuable (or desirable) with regards to the collective well-being.

Weimer and Vining also suggest that the "*go, no go*" rule can be a useful method for deciding amongst policy alternatives⁸. Under this decision making regime,

some or all policy impacts can be assigned thresholds which are used to eliminate at least some of the policy alternatives. In their example, one criterion "is to minimize SO₂ emissions" and so a threshold might be a reduction SO₂ emissions "of at least 8.0 million tons per year". As such, any policy alternative that does not meet this threshold can be removed from consideration. If only a single policy alternative satisfies all the impact thresholds then it is the one that is considered a "go" for each impact. Otherwise it might be that all but a few policy alternatives are eliminated and those that remain need to be more closely examined in terms of their trade-offs so that a decision can be made.

Case Study Example of Rational Policy Analysis Approach

To demonstrate the rational analysis process as described above, let's examine the policy paper "Stimulating the use of biofuels in the European Union: Implications for climate change policy" by Lisa Ryan where the substitution of fossil fuels with biofuels has been proposed in the European Union (EU) between 2005–2010 as part of a strategy to mitigate greenhouse gas emissions from road transport, increase security of energy supply and support development of rural communities.

Considering the steps of Patton and Sawicki model as in Figure 1 above, this paper only follows components 1 to 5 of the rationalist policy analysis model:

1. Defining The Problem – the report identifies transportation fuels pose two important challenges for the European Union (EU). First, under the provisions of the Kyoto Protocol to the Climate Change Convention, the EU has agreed to an absolute cap on greenhouse gas emissions; while, at the same time increased consumption of transportation fuels has resulted in a trend of increasing greenhouse gas emissions from this source. Second, the dependence upon oil imports from the politically volatile Middle East generates concern over price fluctuations and possible interruptions in supply. Alternative fuel sources need to be used & substituted in place of fossil fuels to mitigate GHG emissions in the EU.
2. Determine the Evaluation Criteria – this policy sets Environmental impacts/benefits (reduction of GHG's as a measure to reducing climate change effects) and Economical efficiency (the costs of converting to biofuels as alternative to fossil fuels & the costs of production of biofuels from its different potential sources) as its decision criteria. However, this paper does not exactly talk about the social impacts, this policy may have. It also does not compare the operational challenges involved between the different categories of biofuels considered.
3. Identifying Alternative Policies – The European Commission foresees that three alternative transport fuels: hydrogen, natural gas, and biofuels, will replace transport fossil fuels, each by 5% by 2020.
4. Evaluating Alternative Policies – Biofuels are an alternative motor vehicle fuel produced from biological material and are promoted as a transitional step until more advanced technologies have matured. By modelling the efficiency of the biofuel options the authors compute the economic and

environmental costs of each biofuel option as per the evaluation criteria mentioned above.

5. Select The Preferred Policy – The authors suggest that the overall best biofuel comes from the sugarcane in Brazil after comparing the economic & the environmental costs. The current cost of subsidising the price difference between European biofuels and fossil fuels per tonne of CO₂ emissions saved is calculated to be €229–2000. If the production of European biofuels for transport is to be encouraged, exemption from excise duties is the instrument that incurs the least transactions costs, as no separate administrative or collection system needs to be established. A number of entrepreneurs are producing biofuels at the lower margin of the costs specified here profitably, once an excise duty rebate is given. It is likely that growth in the volume of the business will engender both economies of scale and innovation that will reduce costs substantially.^[15]

Group model

The political system's role is to establish and enforce compromise between various, conflicting interests in society.

Elite model

Policy is a reflection of the interests of those individuals within a society that have the most power, rather than the demands of the mass.

Six-step model

1. Verify, define and detail the problem
2. Establish evaluation criteria
3. Identify alternative policies
4. Evaluate alternative policies
5. Display and distinguish among alternative policies
6. Monitor the implemented policy

Policy studies

Policy Studies is the combination of policy analysis and program evaluation.^[1] It "involves systematically studying the nature, causes, and effects of alternative public policies, with particular emphasis on determining the policies that will achieve given goals."^[2]

Policy Studies also examines the conflicts and conflict resolution that arise from the making of policies in civil society, the private sector, or more commonly, in the public sector (e.g. government).

It is frequently focused on the public sector but is equally applicable to other kinds of organizations (e.g., the not-for-profit sector). Some policy study experts graduate from public policy schools with public policy degrees. Alternatively,

experts may have backgrounds in policy analysis, program evaluation, sociology, psychology, philosophy, economics, anthropology, geography, law, political science, social work, environmental planning and public administration.

Traditionally, the field of policy studies focused on domestic policy, with the notable exceptions of foreign and defense policies. However, the wave of economic globalization, which ensued in the late 20th and early 21st centuries, created a need for a subset of policy studies that focuses on global governance, especially as it relates to issues that transcend national borders such as climate change, terrorism, nuclear proliferation, and economic development. This subset of policy studies, which is often referred to as international policy studies, typically requires mastery of a second language and attention to cross-cultural issues in order to address national and cultural biases. For example, the Monterey Institute of International Studies at Middlebury College offers Master of Arts programs that focus exclusively on international policy through a mix of interdisciplinary and cross-cultural analysis called the "Monterey Way".^[3]

Public policy

This article is about government action. Policy, both public and private, is a broader concept. The article on public policy doctrine discusses the use of the phrase 'public policy' in legal doctrine. For other uses, see Public policy (disambiguation).

Public policy as government action is generally the principled guide to action taken by the administrative or executive branches of the state with regard to a class of issues in a manner consistent with law and institutional customs. In general, the foundation is the pertinent national and substantial constitutional law and implementing legislation such as the US Federal code. Further substrates include both judicial interpretations and regulations which are generally authorized by legislation.^[1]

Other scholars define it as a system of "courses of action, regulatory measures, laws, and funding priorities concerning a given topic promulgated by a governmental entity or its representatives."^[2] Public policy is commonly embodied "in constitutions, legislative acts, and judicial decisions."^[3]

In the United States, this concept refers not only to the result of policies, but more broadly to the decision-making and analysis of governmental decisions. As an academic discipline, public policy is studied by professors and students at public policy schools of major universities throughout the country. The U.S. professional association of public policy practitioners, researchers, scholars, and students is the Association for Public Policy Analysis and Management

Government actions

Shaping public policy is a complex and multifaceted process that involves the interplay of numerous individuals and interest groups competing and

collaborating to influence policymakers to act in a particular way. These individuals and groups use a variety of tactics and tools to advance their aims, including advocating their positions publicly, attempting to educate supporters and opponents, and mobilizing allies on a particular issue.^[4]

As an academic discipline

As an academic discipline, public policy brings in elements of many social science fields and concepts, including economics, sociology, political economy, program evaluation, policy analysis, and public management, all as applied to problems of governmental administration, management, and operations. At the same time, the study of public policy is distinct from political science or economics, in its focus on the application of theory to practice. While the majority of public policy degrees are master's and doctoral degrees, several universities also offer undergraduate education in public policy.

Policy schools tackle policy analysis differently. The Harris School of Public Policy Studies at the University of Chicago has a more quantitative and economics approach to policy, the Heinz College at Carnegie Mellon uses computational and empirical methods, while the John F. Kennedy School of Government at Harvard University has a more political science and leadership based approach. The Indiana University School of Public and Environmental Affairs provides traditional public policy training with multidisciplinary concentrations available in the environmental sciences and nonprofit management.

The Jindal School of Government and Public Policy in India offers an interdisciplinary training in public policy with a focus on the policy making processes in developing and BRIC countries. In Europe, the School of Government of LUISS Guido Carli offers a multidisciplinary approach to public policy combining economics, political sciences, new public management and policy analysis.

Traditionally, the academic field of public policy focused on domestic policy. However, the wave of economic globalization, which ensued in the late 20th and early 21st centuries, created a need for a subset of public policy that focuses on global governance, especially as it relates to issues that transcend national borders such as climate change, terrorism, nuclear proliferation, and economic development.^[5] Consequently, many traditional public policy schools had to tweak their curricula to adjust to this new policy landscape.

Policy Management

Centrally manage policies, map them to objectives and guidelines, and promote awareness to support a culture of corporate governance.

RSA Archer Policy Management provides the foundation for a best-in-class governance, risk and compliance program with a comprehensive and consistent process for managing the lifecycle of corporate policies and their exceptions. The solution offers a centralized infrastructure for creating policies, standards and control procedures and mapping them to corporate objectives, regulations, industry guidelines and best practices. It allows you to communicate policies across your enterprise, track acceptance, assess comprehension and manage exceptions. Powered by the RSA Archer eGRC Platform, the Policy Management software solution gives you a meaningful understanding of what governs your business, and it enables you to formulate policies appropriately to aid in achieving corporate objectives and demonstrating regulatory compliance.

- Features
- Benefits
- Learn More

- **Centralize and Normalize Your Policies**

Centralize your existing policies, standards and control procedures, establishing the foundation for risk monitoring and compliance measurement activities. Also take advantage of the pre-loaded RSA Archer eGRC Content Library, which provides best-practice policies, control standards, control procedures, authoritative sources and assessment questions.

- **Rationalize Your Policies and Control Standards**

Map policies and standards to your corporate objectives and authoritative sources, such as PCI, ISO/IEC, COBIT, FFIEC, HIPAA, NIST and privacy legislation. Also add objectives and sources over time as your business evolves and new regulations, best practices and internal requirements emerge.

- **Communicate Policies, Track Acceptance and Assess Comprehension**

Communicate policies through dashboards, prompts at login, and email notifications that are relevant to specific roles, departments and business functions. Also promote policy comprehension and attestation through targeted Training and Awareness campaigns, and report results to senior management and regulators.

- **Manage Policy Exceptions**

Initiate and manage requests for policy exceptions automatically using built-in workflow and alert notifications. Also report on exceptions across the enterprise, monitoring them by control, department, severity or other meaningful criteria.

- **Support Enterprise Compliance Initiatives**

Issue questions from the RSA Archer eGRC Content Library within the RSA Archer Risk Management, Vendor Management and Compliance Management solutions to deliver targeted, online assessment campaigns that map to internal controls and external requirements.

- **Report on Your Policy Management Program**

Use real-time reports and dashboards to display policies and control standards mapped to specific regulatory requirements, identify gaps between your policies and the authoritative sources that govern your business, and monitor policy exceptions enterprise-wide.

Advocacy evaluation

Advocacy evaluation, also called *public policy advocacy design, monitoring, and evaluation*, evaluates the progress or outcomes of advocacy, such as changes in public policy. This is different from policy analysis, which generally looks at the results of the policy, or mainstream program evaluation, which assesses whether programs or direct services have been successful. Advocacy strives to influence a program or policy either directly or indirectly; therefore, the influence is being evaluated, rather than the results of that influence. Advocacy evaluators seek to understand the extent to which advocacy efforts have contributed to the advancement of a goal or policy. They do this in order to learn what works, what does not, and what works better in order to achieve advocacy goals and improve future efforts.

Goals of advocacy (dependent variables)

In order to evaluate something, one must know the goals of the program/activity, in this case - advocacy efforts. Policy advocacy evaluation focuses on the contribution towards achieving policy, and not on the results of that policy. Policy advocacy evaluators look at these dependent variables (many of which interrelate significantly with movement in the policy cycle):

Intermediate Goal Examples:

- Increased awareness of constituents about the need for policy (Problem Identification -> Agenda Setting)
- Change in rate of key-words use by politicians, sometimes starting from 0 (Problem Identification -> Agenda Setting)
- Increase in ratio of policy being implemented according to the adopted legislation (Adoption->Implementation)
- Developed capacity of advocacy actor or network of actors to conduct advocacy efforts

Ultimate Goals

- Policy change itself in the desired direction (of the policy cycle). This is the highest level intermediate outcome, and as an inherent best practice, is the goal of most policy advocacy efforts. Policy Advocacy works to move a policy through the policy cycle.

Distinct challenges of advocacy evaluation

- Contribution vs. attribution: Since multiple actors campaign simultaneously for and against any given policy, it is difficult to ascertain attribution. Evaluating contributions is preferred in this case as it allows multiple actors to influence the degree of success.
- Long term nature of advocacy: Since many advocacy goals are long term, measuring impact can be a challenge. Instead, outcomes, interim progress, and intermediary goals are the preferred measures of influence.
- Shifting strategies: Since the context that advocates work within is ever-changing, advocates adapt their strategies, which creates a difficult environment in which to monitor progress.
- Complexity and theories of change: logic models and theories of change for advocacy campaigns are inherently complex; for example: protests+lobbying+media campaigns -> contribution to policy change. These kinds of theories of change have so many layers, nuances, and uncontrollable factors to them that intra and inter organizational agreement is difficult, making strategic planning, and evaluation all the more challenging.

Typology of policy advocacy

Direct Advocacy (Directly trying to influence policy makers):

- Lobbying (also known as direct lobbying) is the act of attempting to influence decisions made by government officials, most often legislators or members of regulatory agencies. Various people or groups, from private-sector individuals or corporations, fellow legislators or government officials, or advocacy groups use lobbying.

Indirect Advocacy (Indirectly influencing policymakers by getting their constituents to advocate):

- Grassroots lobbying (also known as indirect lobbying) is a form of lobbying that focuses on raising awareness of a particular cause at the local level, with the intention of reaching the legislature and making a difference in the decision-making process. Grassroots lobbying is an approach that separates itself from direct lobbying through the act of asking the public to contact legislators and government officials concerning the issue at hand, as opposed to conveying the message to the legislators directly.
- Activism consists of intentional efforts to promote or prevent social, political, economic, or environmental change. Activism can take a wide range of forms including, from writing letters to newspapers or politicians,

political campaigning, economic activism such as boycotts or preferentially patronizing businesses, rallies, street marches, strikes, sit-ins, and hunger strikes.

- Astroturfing supports political, organizational, or corporate agendas, and is designed to give the appearance of a "grassroots" movement. The goal of such campaigns is to disguise the efforts of a political and/or commercial entity as an independent public reaction to some political entity—a politician, political group, product, service, or event.

Think tank

A **think tank** (or **policy institute**) is an organization that conducts research and engages in advocacy in areas such as social policy, political strategy, economics, military, technology issues and in the creative and cultural field. Most think tanks are non-profit organizations, which some countries such as the United States and Canada provide with tax exempt status. Other think tanks are funded by governments, advocacy groups, or businesses, or derive revenue from consulting or research work related to their projects.

The following article lists global think tanks according to continental categories, and then sub-categories by country within those areas. These listings are not comprehensive, given that more than 4,500 think tanks exist world wide. In general, this article is an introduction to the think tank landscape, and provides a way to quickly navigate to those of interest.

History

While the term "think tank" originated in the 1950s such organizations date to the 19th century. The Institute for Defence and Security Studies (RUSI) was founded in 1831 in London. The Fabian Society in Britain dates from 1884. The Brookings Institution began in Washington in 1916.

After 1945, the number of think tanks grew, as many smaller new think tanks were formed to express various issue and policy agendas. Until the 1940s, most think tanks were known only by the name of the institution. During the Second World War, think tanks were referred to as "brain boxes" after the slang term for the skull. The phrase "think tank" in wartime American slang referred to rooms where strategists discussed war planning. The term think tank itself, however, originally referred to organizations that offered military advice—most notably the RAND Corporation, founded originally in 1946 as an offshoot of Douglas Aircraft, and which became an independent corporation in 1948.

For most of the 20th century, independent public policy think tanks that performed research and provided advice on public policy were an organizational phenomenon found primarily in the United States, with a much smaller number in Canada and Western Europe. Although think tanks existed in Japan for some time, they generally lacked independence, having close ties to government ministries or corporations. There has been a veritable proliferation of "think

tanks” around the world that began in the 1980s as a result of the forces of globalization, the end of the Cold War, and the emergence of transnational problems. Two-thirds of all the think tanks that exist today were established after 1970 and over half were established since 1980.^[2]

The impact of globalization on the think tank movement is most evident in regions such as Africa, Eastern Europe, Central Asia, and parts of Southeast Asia, where there was a concerted effort by the international community to support the creation of independent public policy research organizations. A recent survey conducted by the Foreign Policy Research Institute’s Think Tanks and Civil Societies Program underscores the significance of this effort and documents the fact that most of the think tanks in these regions have been established in the last 10 years. Today there are over 4,500 of these institutions around the world. Many of the more established think tanks, having been created during the Cold War, are focused on international affairs, security studies, and foreign policy.^[2]

Also see the United Nations Development Programme definition.

Types

Think tanks vary by ideological perspectives, sources of funding, issue focus and prospective audience.^[3] Some think tanks, such as the Heritage Foundation, which promotes conservative principles, and the Center for American Progress on the progressive front, are more partisan in purpose. Others, including the Tellus Institute, which focuses on social and environmental topics, are more issue-oriented groups. Still others, such as the Cato Institute, promote libertarian social and economic theories based on Friedrich von Hayek's idea of free markets and individual liberty.

Funding sources and the targeted audiences also define the workings of think tanks. Some receive direct government support, while others rely on private individual or corporate donors. This will invariably affect the levels of academic freedom within each think tank and to whom or what the institution feels beholden. Funding may also reflect who or what the institution wants to influence; in the United States, for example, "Some donors want to influence votes in Congress or shape public opinion, others want to position themselves or the experts they fund for future government jobs, while others want to push specific areas of research or education."^[3]

A new trend, resulting from globalization, is collaboration between think tanks across continents. For instance, the Carnegie Endowment for International Peace operates offices in Washington, D.C., Beijing, Beirut, Brussels and Moscow.^[3]

The Think Tanks and Civil Societies Program (TTCSP) at the University of Pennsylvania annually rates think tanks worldwide in a number of categories and presents its findings in the "Global Go-To Think Tanks" rating index.^[4] However, this approach to the study and assessment of think tanks has been criticised by

think tank researchers such as Enrique Mendizabal and Goran Buldioski, Director of the Think Tank Fund, supported by the Open Society Institute.^{[5][6]}

Several authors have outlined a number of different ways of describing think tanks in a way that takes into account regional and national variations. For example from Diane Stone Diane Stone (2005):

- Independent civil society think tanks established as non-profit organisations –ideologically identifiable or not^[7]
- Policy research institutes located in or affiliated with a university
- Governmentally created or state sponsored think tank
- Corporate created or business affiliated think tank ^[8]
- Political party think tanks and legacy or personal think tanks
- Global (or regional) think tanks (with some of the above)

Alternatively, one could use some of the following criteria:

- Size and focus: e.g. large and diversified, large and specialised, small and specialised^[9]
- Evolution of stage of development: e.g. first (small), second (small to large but more complex projects), and third (larger and policy influence) stages^[8]
- Strategy, including: Funding sources (individuals, corporations, foundations, donors/governments, endowments, sales/events)^[9] and business model (independent research, contract work, advocacy);^{[10][11][12][13][14]} The balance between research, consultancy, and advocacy; The source of their arguments: Ideology, values or interests; applied, empirical or synthesis research; or theoretical or academic research (Stephen Yeo); The manner in which the research agenda is developed—by senior members of the think tank or by individual researchers, or by the think tank of their funders;^[15] Their influencing approaches and tactics (many researchers but an interesting one comes from Abelson^[16]) and the time horizon for their strategies: long term and short term mobilisation;^{[9][12]} Their various audiences of the think tanks (audiences as consumers and public -this merits another blog; soon) (again, many authors, but Zufeng^[17] provides a good framework for China); and Affiliation, which refers to the issue of independence (or autonomy) but also includes think tanks with formal and informal links to political parties, interest groups and other political players.^[18]

Functional approach in Latin America

Research done by Enrique Mendizabal^[19] shows that Latin American think tanks play various roles depending on their origins, historical development and relations to other policy actors. In this study, Orazio Bellettini from Grupo FARO suggests that they:^[20]

1. Seek political support for policies.

2. Legitimize policies – This has been clearer in Ecuador, Bolivia and Peru. New governments in Ecuador and Peru have approached think tanks for support for already defined policies. In Bolivia, the government led by Evo Morales has been working with NGOs and other research centres to do the same. However, in the Chilean context, many think tanks during the 1990s appeared to support and maintain the legitimacy of policies implemented during the previous decade by the dictator Augusto Pinochet.
3. Spaces of debate – In this case think tanks serve as sounding boards for new policies. In Chile, during the Pinochet dictatorship, many left wing intellectuals and researchers found ‘asylum’ in think tanks. In Ecuador, think tanks are seen as spaces where politicians can test the soundness of their policies and government plans.
4. Financial channels for political parties or other interest groups – In Ecuador and Bolivia, German foundations have been able to provide funds to think tanks that work with certain political parties. This approach has provided support to the system as a whole rather than individual CSOs.
5. Expert cadres of policy-makers and politicians – In Peru after the fall of the Fujimori regime, and in Chile after the fall of Pinochet, think tank staff left to form part of the new governments. In the U.S., the role of leading think tanks is precisely that: host scholars for a few months or years and then see them off to work in policy.

How a think tank addresses these largely depends on how they work, their ideology vs. evidence credentials, and the context they operate in (including funding opportunities, the degree and type of competition they face, their staff, etc.).

This functional approach addresses the inherent challenge of defining a think tank. As Simon James aptly noted in 1998, "Discussion of think tanks...has a tendency to get bogged down in the vexed question of defining what we mean by ‘think tank’—an exercise that often degenerates into futile semantics.^[21] It is better (as in the Network Functions Approach) to describe what the organisation should do. Then the shape of the organisation should follow to allow this to happen. The following framework (based on Stephen Yeo’s description of think tanks’ mode of work) is described in Enrique Mendizabal's blog "onthinktanks":

First, think tanks may work in or based their funding on one or more ways, including:^[22]

1. Independent research: this would be work done with core or flexible funding that allows the researchers the liberty to choose their research questions and method. It may be long term and could focus on ‘big ideas’ with no direct policy relevance. On the other hand, it could focus on a key policy problem that requires a thorough research and action investment.
2. Consultancy: this would be work done through commissions with specific clients and addressing one or two key questions. Consultancies often respond to an existing agenda.

3. Influencing/advocacy: this would be work done through communications, capacity development, networking, campaigns, lobbying, etc. It is likely to be based on research based evidence emerging from independent research or consultancies.

Second, think tanks may base their work or arguments on:

1. Ideology, values or interests
2. Applied, empirical or synthesis research
3. Theoretical or academic research

According to the National Institute for Research Advancement, a Japanese think tank, think tanks are "one of the main policy actors in democratic societies ..., assuring a pluralistic, open and accountable process of policy analysis, research, decision-making and evaluation".^[23] A study in early 2009 found a total of 5,465 think tanks worldwide. Of that number, 1,777 were based in the United States and approximately 350 in Washington DC alone.^[24]

Criticism

In some cases, corporate interests have found it useful to create "think tanks." For example, The Advancement of Sound Science Coalition was formed in the mid 1990s to dispute research finding a link between second-hand smoke and cancer.^[25] According to an internal memo from Philip Morris referring to the United States Environmental Protection Agency (EPA), "the credibility of the EPA is defeatable, but not on the basis of ETS (environmental tobacco smoke) alone. It must be part of a larger mosaic that concentrates all the EPA's enemies against it at one time."^[26]

According to the left-wing non-government organization Fair.org, right-wing think tanks are often quoted and rarely labeled. The result is that sometimes think tank "experts" are depicted as neutral sources without any ideological predispositions when, in fact, they represent a particular perspective.^[27] In the field of education, think tank publications are subjected to expert review by the National Education Policy Center's "Think Twice" think tank review project

A think tank is often a "tank", in the intellectual sense: discussion only in a closed circle protected from outside influence isolates the participants, subjects them to several cognitive biases (groupthink, confirmation bias) and fosters members' existing beliefs. This leads to surprisingly radical and even unfeasible ideas being published. Many think tanks, however, purposefully attempt to alleviate this problem by selecting members from diverse backgrounds.

Eightfold Path (policy analysis)

The **Eightfold Path** is a method of policy analysis assembled by Eugene Bardach, a professor at the Goldman School of Public Policy at the University of California, Berkeley.^[1] It is outlined in his book *A Practical Guide for Policy Analysis: The*

Eightfold Path to More Effective Problem Solving, which is now in its fourth edition.^[2] The book is commonly referenced in public policy and public administration scholarship.^[3]

Bardach's procedure is as follows:

1. Define the Problem
2. Assemble Some Evidence
3. Construct the Alternatives
4. Select the Criteria
5. Project the Outcomes
6. Confront the Trade-offs
7. Decide
8. Tell Your Story

A possible ninth-step, based on Bardach's own writing, might be "Repeat Steps 1 - 8 as Necessary."

The New York taxi driver test

The New York taxi driver test is a technique for evaluating the effectiveness of communication between policy makers and analysts. Bardach contends that policy explanations must be clear and down-to-earth enough for a taxi driver to be able to understand the premise during a trip through city streets. The New York taxi driver is presumed to be both a non-specialist and a tough customer.

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Scott Wiggins, Bank of America

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