international law of contemporary media
session 3: int’l telecommunications law

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interactive sessions: the rules of the game

- 15 minutes per group for the presentation of the arguments
- 5 minutes per group for counter-arguments (i.e. arguments that “destroy” the arguments of the opposing party)
- 2 minutes for in-group discussion and tactic-building
- 5 minutes for rebutting these counter-arguments
- a day before: arguments in a key-word-fashion description; no more than 1 page

goals of the day

- overview of the telecommunications rules at the international level
- rationales behind the existing patchwork of rules
- role and function of the International Telecommunication Union (ITU)
- regulation of satellite communications
- paradigm shifts in the regulation of telecommunications (from the state-owned PTT to competitive markets, and now to global governance of infrastructure)
- net neutrality
int’l telecommunications law: explaining a patchwork of rules

- digitization / convergence
- different rationales for regulation and different origin of the rules (e.g. pre- and post-Cold War; pre- and post-liberalization)
- multiple organizations adopting sometimes overlapping or diverging rules
- new forms of governance that are not strictly state-centred and inter-national

It is however not about the convergence of devices only.
the communications model: layered structure

- **content layer**
  (humanly meaningful messages, communication)

- **logical layer**
  (standards, protocols, software)

- **physical layer**
  (networks, hardware, all devices connected)

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**telecom regulation: rationales**

- **economic:**
  - network industry (also e.g. railways, water/gas supply)
  - natural monopoly theory (incredibly high sunk and fixed costs, i.e. costs to build the network and the costs to maintain it)
  - state-owned enterprises, often part of the administration (PTT); legalised monopoly

- **societal:**
  - essential communication means
  - universal service (basic services, coverage, quality, affordability for all)

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**example: universal service**

- universal service still needed? constituent elements?
- examples: public pay phones
- path dependencies
- Swisscom - universal service licensee (2008-2018)
- for the first time including broadband internet.

**mobile penetration Europe**

- 130% >
- 115-130%
- 100-115%
- < 100%
• new type of universal service needed?

int’l telecommunications law
• telecommunications inherently trans-national nature
• International Telegraph Union (1865)
• International Telecommunication Union, ITU (1932), based in Geneva
• specialized United Nations agency (1947)
• presently 193 members (Switzerland – member since 1866)
• membership includes also 700 private companies and NGOs

ITU
• permanent and non-permanent bodies
• non-permanent: the Plenipotentiary Conference (plenus + potens, full + power). The supreme ITU body; representatives of all member states; meets every 4 years
• general policy directions; budget; elects members of the Council, the General Secretary; amendments to the ITU Constitution and the Convention
• permanent: the Council. Max 25% of the MS; regional representation; highest organ between the conferences
ITU’s multi-faceted work is structured into three sectors:

- **Radiocommunication Sector (ITU-R)**
  global management of the radio-frequency spectrum and satellite orbits; aims at ensuring interference-free operations of radiocommunication systems. This is ensured through implementation of the **Radio Regulations** and **Regional Agreements**, and their updates through the processes of the **World Radiocommunication Conferences**.

- **Telecommunication Standardization Sector (ITU-T)**
  develops international standards and secure interoperability amongst the already existing ones. The work is essentially done in expert study groups, whose suggestions are transformed into recommendations at the **World Telecommunication Standardization Assemblies** (e.g. H.310 for broadband audiovisual communications; H.323 for videoconferencing, H.264/MPEG-4 AVC for video compression; E.164 recommendation defining the format of telephone numbers).

- **Telecommunication Development Sector (ITU-D)**
  makes available the newly developed technical standards to developing countries; technical assistance for the building of communication systems, but also for financial, educational and administrative issues.

**Substantive ITU Law**

- **Proclaimed principle**: Member States recognise the right of the public to correspond by means of the international service of public correspondence. The services, the charges and the safeguards shall be the same for all users in each category of correspondence without any priority or preference (Ätherfreiheit).
- However the state sovereignty and the principle of prior consent are the effectively applied rules and limit the so proclaimed right to international public communications.
- Member States reserve the right to cut off any other private telecommunications which may appear dangerous to the security of the State or contrary to its laws, to public order or to decency.
- Each Member State reserves the right to suspend the international telecommunication service, either generally or only for certain relations and/or for certain kinds of correspondence.
- Member States accept no responsibility towards users of the international telecommunication services, particularly as regards claims for damages.
- Principles of secrecy and efficiency of telecommunications.

**Frequency Distribution**

- until 1973, ‘first come, first served’ basis
- frequencies as limited resources / digital dividend not fully acknowledged
- planning of radio frequencies is done through the **Radio Regulations**, which are an intergovernmental treaty; issued every 3-4 years at the **World Communication Conferences**
- **Radio Regulations** define: allocation of different frequency bands to different radio services; the mandatory technical parameters to be observed by radio stations, especially; procedures for coordination (ensuring technical compatibility) and notification (formal recording and protection in the **Master International Frequency Register**)
- on the basis of the so allocated frequencies, the state authorities distribute them amongst private users.
satellites

• geostationary orbit: above the Equator, at 35,786 km
• medium Earth orbit: at 8,000-20,000 km
• low Earth orbit: at 500-2,000 km

satellite communications

- if an operator wants to place a satellite into orbit, the ITU Member State must place a request with the Radio Regulations Bureau. The Bureau checks the slot and whether it is still free. If there are no MS voices against, it is registered in the Master International Frequency Register and future claims for this slot are blocked
- implications: “paper satellites” (e.g. claiming 6 times more slots than would be actually available in Asia). Some satellite projects have not waited for ITU approval
- while the ITU envisions a dispute settlement procedure, this has not yet been used in practice; most disputes settled bilaterally
satellite communications

- origins: with the successful launch of Sputnik I in 1957, the operation of the satellite systems was initially a highly charged political arena with important military (“Cold War”) implications
- Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, 1967: spectrum and orbital slots common heritage of mankind
- at that time, national, generally state-owned, monopoly operators; the first satellite systems were accordingly the subject of international treaty, rather than private endeavour
- 1964: First int’l satellite organisation INTELSAT: US-led consortium of 20 governments
- other organizations: INMARSAT, EUTELSAT, INTERSPUTNIK, presently all privatized with int’l supervisory organization attached

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trends in telecom rules evolution

- 1st NetWorld Order (NWO): mid-19th century until 1980s: the PTT model; sovereignty as the baseline requirement for global governance; perfectly reflected in the law of the ITU
- 2nd NWO: 1980-1995: liberalization and privatization; from PTT to PTO; pressure from transnational companies and major industrialized countries; competition that is not reflected in the ITU law; ITU loses relevance; forum-shopping (from ITU to WTO)
- 3rd NWO: 1995 until now: complex governance models “from above” and “from below”; increasing role of private stakeholders; self-governance models (example: standard setting); pressure from civil society and developing countries (WSIS)

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example 1: standard setting

- standards particularly important for the smooth function of communications
- initially given by the PTTs
- later agreed on in the ITU; lengthy procedures; thousand of pages of technical specifications
- with the advent of competition and private players, this process too cumbersome (because of the sheer number of ICT standards to be discussed and because of the pace of technological advances)
- standards as strategic tools of market behaviour (standard wars – Betamax v. VHS; Blu-Ray v. HD-DVD; open standards; industry cooperation); interoperability
interoperability as a necessity?

example 2: net neutrality

- The principle of net(work) neutrality holds that the network should be neutral to the content being passed and that intermediaries should pass all packets, while the intelligence is located at the edges of the network where necessary.
- The end-to-end principle of the internet.
- Controversies, also involving the ITU.

In many other ways the internet can be seen as a source of creative destruction. It can be considered the dismantling force for several legacy industries (e.g. print news), but at the same time it brings about a new wave of opportunities, making services and content accessible to a larger audience. Since this is happening on a global scale, attempts made by individual nations to control or stop it has seen diverse effects – the most common effect of such attempts being a negative impact on the overall development of the country in question. On the other hand national authorities are of course justified in taking measures to prevent criminal activity and to ensure that public policy and moral standards are being upheld in the content and services available over the net.

This balancing of the pros and cons is an important general consideration for policy-makers talking about internet and internet service regulation. Each measure must be understood and the effects of interventions weighed up. Decisions must also take time into consideration – the fast moving, and changing nature of the internet make it futile to bring about regulation based only upon historical precedent. Future looking policies must be designed and operated so as to be ready to adapt to new technologies, trends and above all new business models.

2.3 Classification of internet applications

There is no international agreement on the classification or taxonomy of the myriad services that the internet has to offer. Even organizations such as the FCC summarily classify all internet services as “Title 1: information services”, as distinct from “Title 2: telecommunication services”.

Here we will segment applications based on a broad set of use cases (Figure 3) which cover a significant majority of the internet applications. Although not exhaustive, it provides a blueprint for examining regulatory approaches towards internet applications. This lack of completeness is also symbolic of how the internet continues to grow – new applications and use cases develop as technologies and needs evolve. In addition typical applications (e.g. Facebook) can span multiple use cases. Typically, providers’ business models initially focus on one or two use cases and begin horizontal expansion to encompass other cases later in their growth cycle.

For each use case, the market growth, business strategies and impact will be evaluated. This will be typified through an example of a major market representative of each case.

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wcit 2012, dubai

- clash of institutions / clash of cultures
- US, EU wanted slim text of high level principles that clearly excluded application to Internet; failed
- developing countries wanted more state control, revenue; also failed
- ITU Secretariat undermined trust and claims of neutrality
- overheated rhetoric of a new digital “Cold War”
- little prospect of universal, multilateral harmonization of internet rules through binding regulatory instruments
- some states and groupings could pursue restrictive interpretations at domestic, bilateral, regional levels

net neutrality regulation:
recent examples from the United States and the European Union

United States

Image in blog article by Simon Maloy, Media Matters for America (2013).
United States
In February 2015, the FCC introduced new net neutrality rules (the Open Internet Order), by reclassifying broadband Internet access services as “telecommunications services” under Title II of the Telecommunications Act.

- **Prohibits broadband providers**
  - Blocking access to lawful content, applications, services or non-harmful devices
  - Throttling traffic on the basis of content, applications, services or non-harmful devices
  - Prioritizing traffic in exchange for payment (“paid fast lanes”)

- **European Union**
  In June 2015, the EU approved a new net neutrality regulation – key elements:
  - Internet access providers **cannot block, slow down, alter, degrade or discriminate** against specific content, applications or services, or classes thereof, except:
    - to implement a court order, for security purposes or
    - to prevent or mitigate the effects of temporary and exceptional network congestion provided that equivalent types of traffic are treated equally.
    - Internet access providers can prioritise “specialized services” provided that they are offered over logically distinct capacity and the network capacity is sufficient to provide them in addition to internet access services and they are not to the detriment of the availability or quality of internet access services.

- **United States, cont’**
  - FCC has reserved the authority to address, on a case-by-case basis, practices that unreasonably interfere with the ability of consumers to access lawful content
  - Imposes certain transparency obligations on broadband providers in relation to promotional rates, fees, surcharges and data caps
  - Allows broadband providers to engage in “reasonable network management”
  - Applies equally to fixed and mobile broadband services
European Union

• Internet access providers can prioritise "specialized services" provided that they are offered over logically distinct capacity and the network capacity is sufficient to provide them in addition to internet access services and they are not to the detriment of the availability or quality of internet access services.

thank you.

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