



DiploFoundation

Overview of IG Issues

DiPLLO
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Classification

- Infrastructure and Standardisation Basket
- Legal Basket
- Economic Basket
- Socio-Cultural Basket
- Development Basket

What

- Infrastructure
- Demonopolisation
- Liberalisation
- Costs and Price Regulation/Tariffs
- Spectrum allocation and licensing
- Interconnectivity (operators and services providers)
- Technical Standards
- Domain Names
- Convergence

Infrastructure and Standardisation

What

- Legal environment
- Regulatory framework
- Jurisdiction
- Liability
- Cyber-Crime
- Intellectual Property Rights
- Consumer Protection

Legal

What

- e-Commerce
- e-Business
- e-Money
- Trade in Services
- Partnerships (supranational and regional and global; public-private/stakeholders)

Economic

What

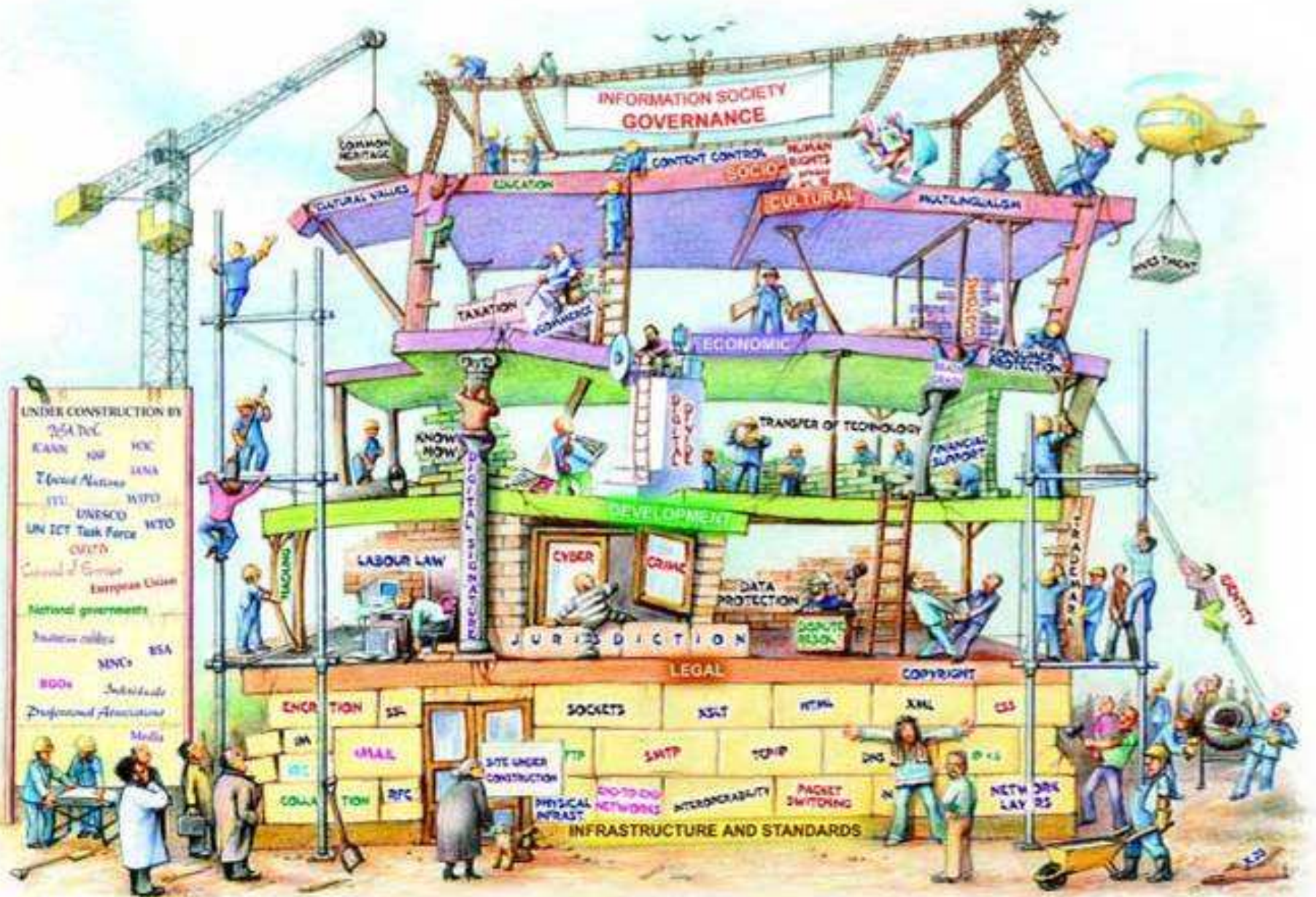
- Education, e-Education, distant learning...
- Research and development;
- Content control and policy
- Security and safety
- Privacy
- Multilingualism
- Local content
- Arts, Culture & Tourism

Socio-Cultural

What

- e-Government
- e-Health
- Fiscal incentives
- ICT leadership
- Awareness and literacy
- Urban and Rural Development
- Gender Equity and Empowerment
- Community Access Programmes
- Human resources, Capacity Building and Education
- Skill Development and Transfer of Technology
- Universal Access and Service
- Access
- Accessibility
- Youth and ict
- Indigenous participation

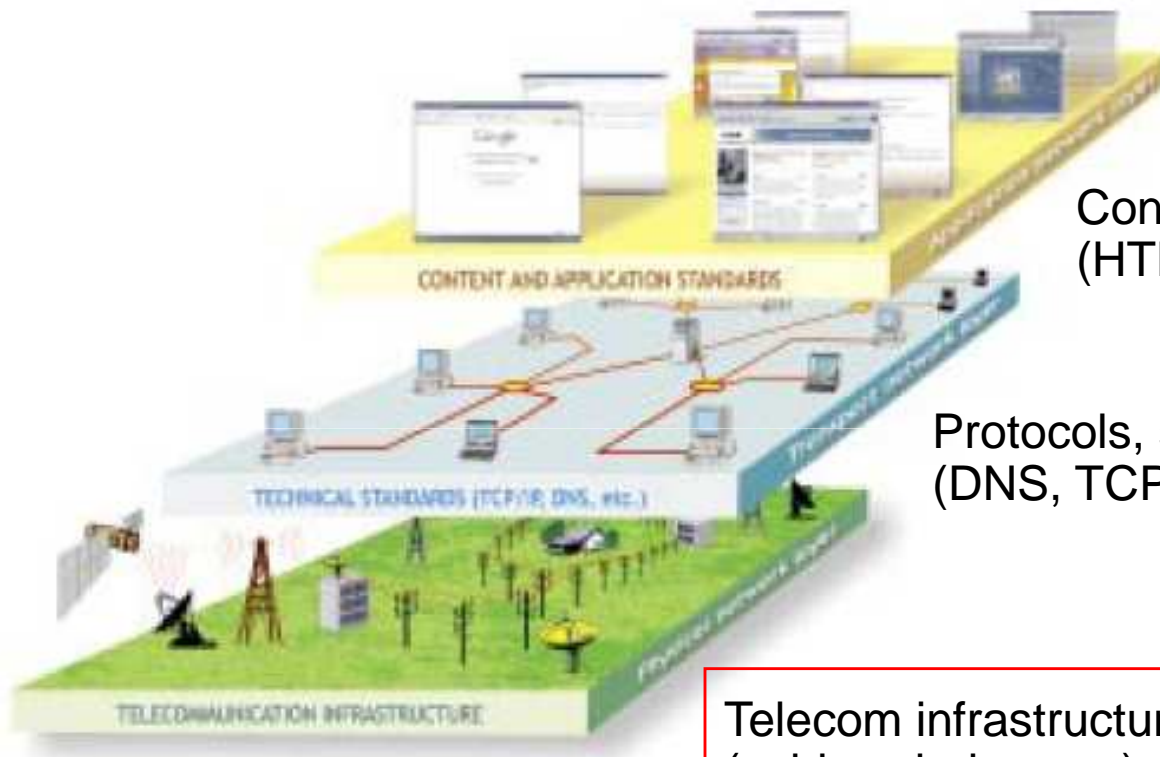
Development



CONCEPT: BALDI • GELBSTEIN • KLARBALDI • ILLUSTRATION: ZORAN MARIĆ • ILLUSTRATION INFORMATION IS AVAILABLE IN THE INFORMATION SOCIETY LIBRARY AT <http://www.diplo.org/edu/inf>

www.diplo.org/edu/inf © 2003 DIPLO This is an illustration of Peter's research and training methodology on Internet governance.

Layers



Content and applications
(HTML, FTP, XML)

Protocols, standards and services
(DNS, TCP/IP, SSL...)

Telecom infrastructure
(cable, wireless, ...)

Infrastructure

Infrastructure:

- Copper (backbone, dial-up, ADSL, cable)
- Copper (power-lines)
- Fibre (backbone, FttH)
- Wireless (WiFi, WiMax)
- GSM (EDGE, CDMA)
- Sattelite

Infrastructure

Issues:

- Last mile
- Liberalisation of telecom market
- Demopolisation
- Interconnection
- Privatisation (?)
- Wireless spectrum regulation
- Backbone positioning
- IPv6
- ccTLD

IP Addresses and Issues

IP and issues

- Structured space
- 4x8 bits (i.e. 4x0-255)
- Unique address (?)
- Scarse resources (4 billion addresses)
- NAT (Network Address Translation)
- Private and public addresses

Way forward:



IPv6 - definite but large enough pool of addresses
(430,000,000,000,000,000,000)

Domain Name System (DNS)

Dissection of a web (DNS) address:

[http:// www. diplomacy. edu /ig
office@ mtid. gov. rs](http://www.diplomacy.edu/igoffice@mtid.gov.rs)

Top-Level Domains (TLD) 

- a) gTLD – generic: com, edu, gov, org; net, int; biz, travel, info, ...
- b) ccTLD - country code: yu, rs, uk, eu, bw, za

Internet Service Providers (ISP)

Functional arrangements:

- Connection
- IP addresses
- Servers
- Payments

Issues:

- ISP Market and Telecom Monopoly
- Liability of ISPs (copyright, content, security)
- Internet eXchange Points (IXPs)



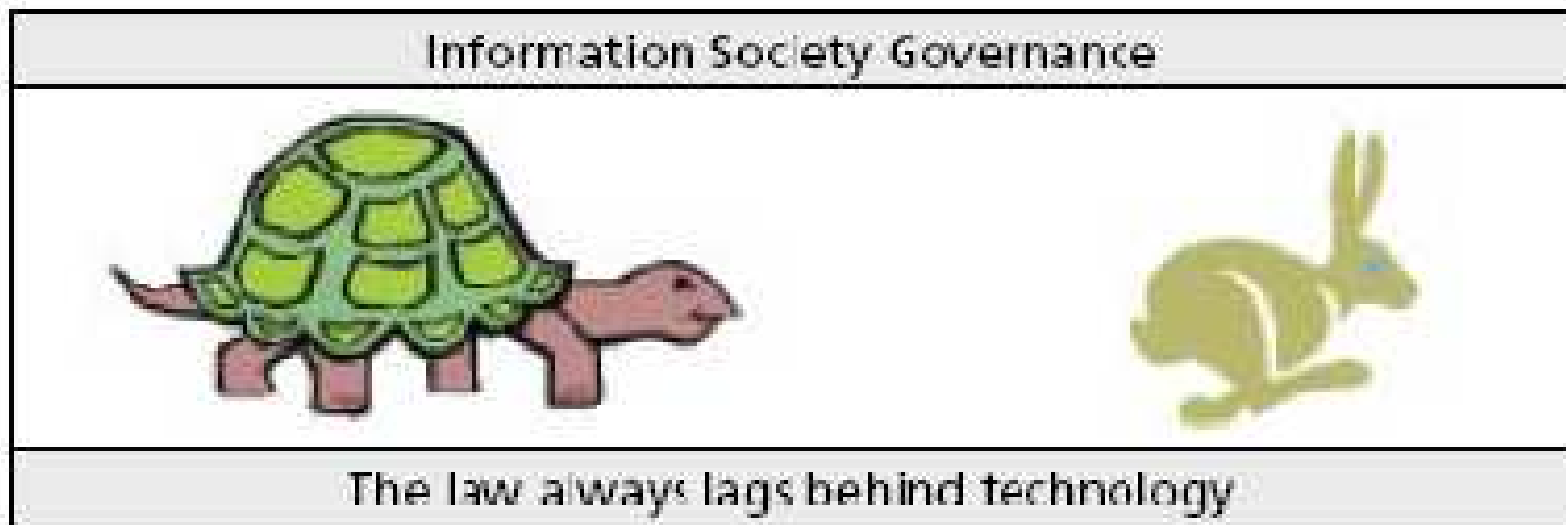
Other Issues

- Web Standards
 - HTML, XML
 - World Wide Web Consortium (W3C)
- Open Source
- Converging Technologies and Markets
 - Voice-over-IP (VoIP)
 - Internet Television (IPTV)
 - Music-, Games- and Video-on-Demand (M/G/VoD)
 - Mobile devices
- Internet Security and Encryption

Legal Mechanism

Legislation

- privacy, data protection, IPR, taxation, cybercrime
- prevention or cure ?
- is legislation enough ?



Legal Mechanism

Social Norms

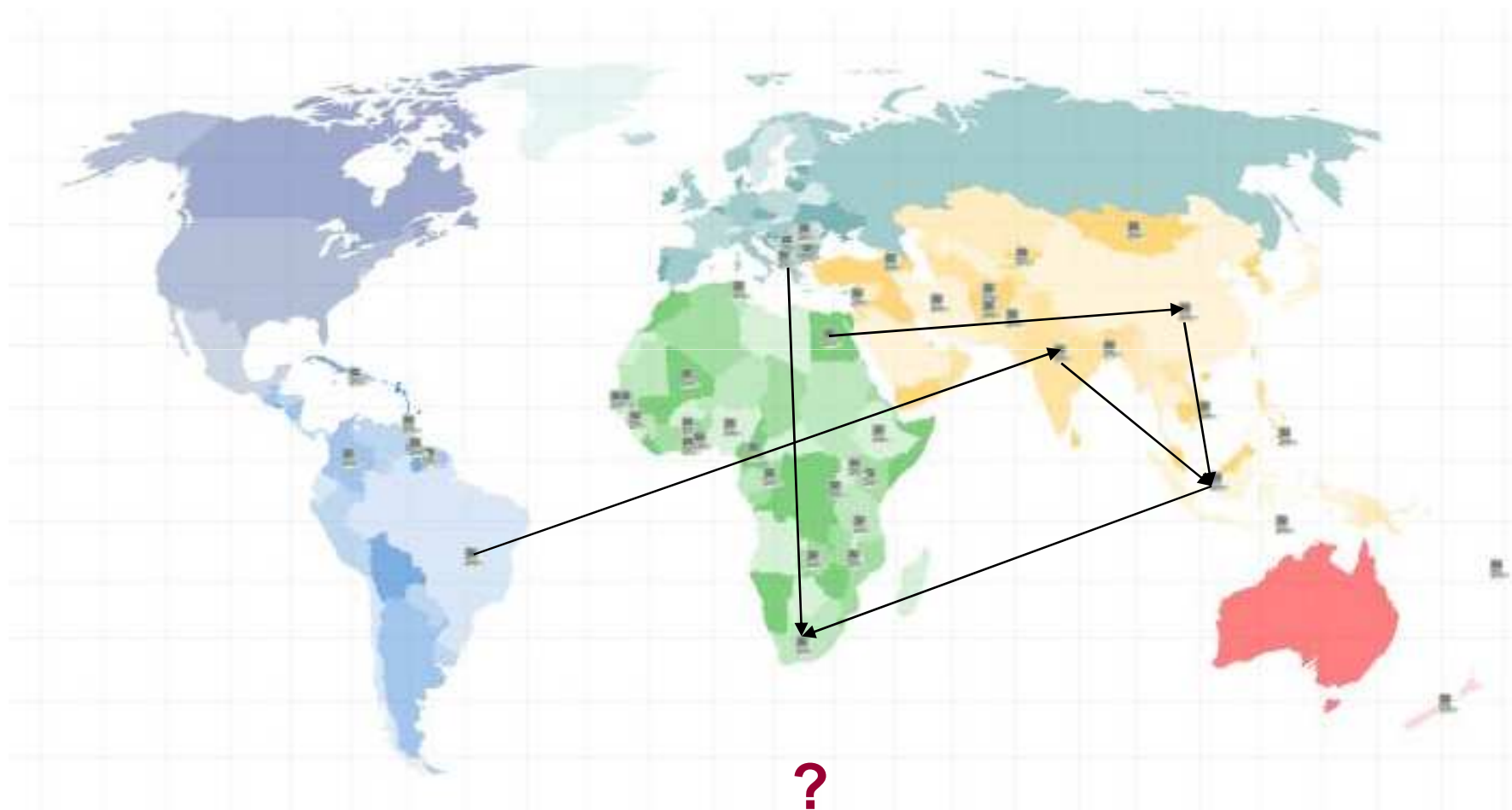
- no legal enforcement
- netiquette
- is it still possible? ?

Self-Regulation

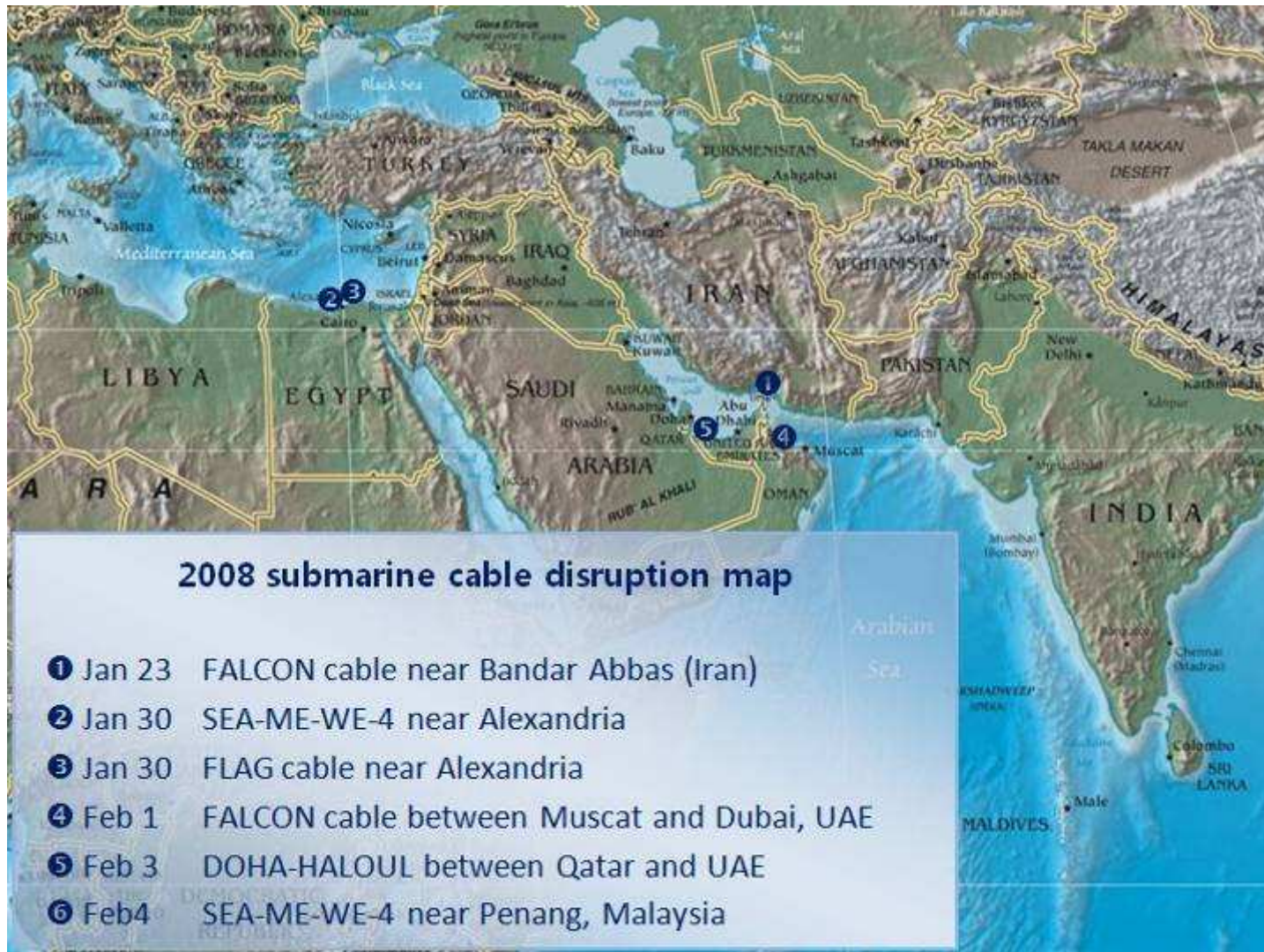
- Codes of practice
- ISPs: content ?

Regulation through code

Jurisdiction



Jurisdiction



Jurisdiction Techniques

Key questions

- *procedural jurisdiction*: which court has authority?
- *substantive jurisdiction*: which rules should be applied?
- *enforcement jurisdiction*: how should the decisions be implemented?

Criteria

- *Territorial link*: the right of the state to rule over persons and property in their territory
- *Personal link*: the right of the state to rule over its citizens wherever they might be located
- *Effects link*: the right of the state to rule on the economic and legal effects on a particular territory

Jurisdiction cases

Case CompuServe (1996)

locations: Germany and USA

issue: porn

solution: German law

collateral damage: US access

challenge: most restrictive legislation

Case Yahoo.fr (2001)

locations: France and USA

issue: nazi material

solution: technical

Old vs. new approach?

Arbitration

Advantages

- promptitude
- third-party involvement
- choice of party, procedures and legislation
- tradition in business
- online arbitration
- enforcement by New York Convention on Recognition and Enforcement of Foreign Arbitral Awards

Example:

Uniform Domain-Name Dispute Resolution Policy (UDRP) for domain space



Intellectual Property Rights (IPR)

Movies

Domains

MP3 and music

Books

Knowledge and ideas -> Global economy

Illustrations

Software

Photos

Trademarks and Patents

TLD trademark protection: UDRP

- compulsory
- in white paper on ICANN
- arbitration by WIPO
- for gTLDs only, not for ccTLDs

Patents and idea

- technology
- software (?)
- “crazy idea” (‘1-click’, hypertext links)

Copyrights

Copyrights = the expression of an idea!

Copyrights vs. global and indigenous knowledge
author rights vs. moral rights
creativity vs. increased creativity

?

“Fair use” provisions

Copyrights and Development? ?



Attribution



Attribution ShareAlike



Attribution No Derivatives



Attribution Noncommercial



Attribution Noncommercial ShareAlike



Attribution Noncommercial No Derivatives



Security and Safety

Technology can be both enabling
and threatening!

Security and Safety

Perpetrators

- hackers
- cyber-criminals
- cyber-warriors
- cyber-terrorists

Targets

- individuals
- business
- government
- public institutions
- critical infrastructure
- military assets

Type of action

- data interception
- data interference
- illegal access
- spyware, malware, viruses, trojans
- phishing and e-scams
- identity theft
- copyright and IPR theft
- DNS attacks

Security and Safety

Issues

- e-Commerce, trust and security
- Privacy and security
- Domain name security and DNSSec
- Cyber-terrorism and cyber-warfare
- New labour (“farming”)
- Children safety
- Objectionable content
- Cyber-bullying and harassment
- Improper virtual conduct
- Addiction
- Need for global cooperation
- e-Evidences
- Surveillance vs. human rights

Levels of Security Measures

1. individual (good digital hygiene)

2. corporate

- private companies and banks
- other institutions (schools, universities)
- ICT/Internet industry (ISPs and telecommunication companies)

3. national level

- government in general
- law-enforcement agencies in particular

4. regional level

- various regional initiatives
- in Europe: European Union and Council of Europe
- other regions?

5. global level

- professional associations (standardisation bodies)
- international organisations (ITU and other international organisations)

e-Commerce

Forms ?

- business-to-consumer (B2C)
- business-to-business (B2B)
- business-to-government (B2G)
- consumer-to-consumer (C2C)



Issues

- digital signature
- dispute resolution
- protection of customers
- cybercrime
- taxation

Consumer protection

- payment cards and data
- misleading advertising
- delivery of defective product or services

Digital Signatures

Authentication of users online

Replacement for a signature

Not only regulation – new concept!

Issues

- privacy and digital signature
- standardisation and risks of incompatibility
- monopolies and high costs of digital IDs

Content Policy

Sensitive content types:

- ***ius cogens* content:** child pornography, justification of genocide, and incitement or organization of terrorist acts
- **culturally sensitive content:** pornography, gambling
- **politically and ideologically sensitive content:** nazi, but also other censorships

Content Policy

- Web 2.0 Challenge: Users as Contributors

it is estimated that by mid 2006 YouTube contained over 6 millions videos, while the total time that people spent in watching these materials was over 9000 years

- Content Control vs. Freedom of Expression

US First Amendment guarantees broad freedom of expression

- Who Should be Responsible for Content Policy? ?

Governments / ISPs / Users / Software vendors

Multilingualism and Cultural Diversity

Issues

- English as lingua franca of Internet
- Linguistical and cultural diversity of content
- Translation machines
- Internationalised Domain Names
- Web2.0 opportunities and threats

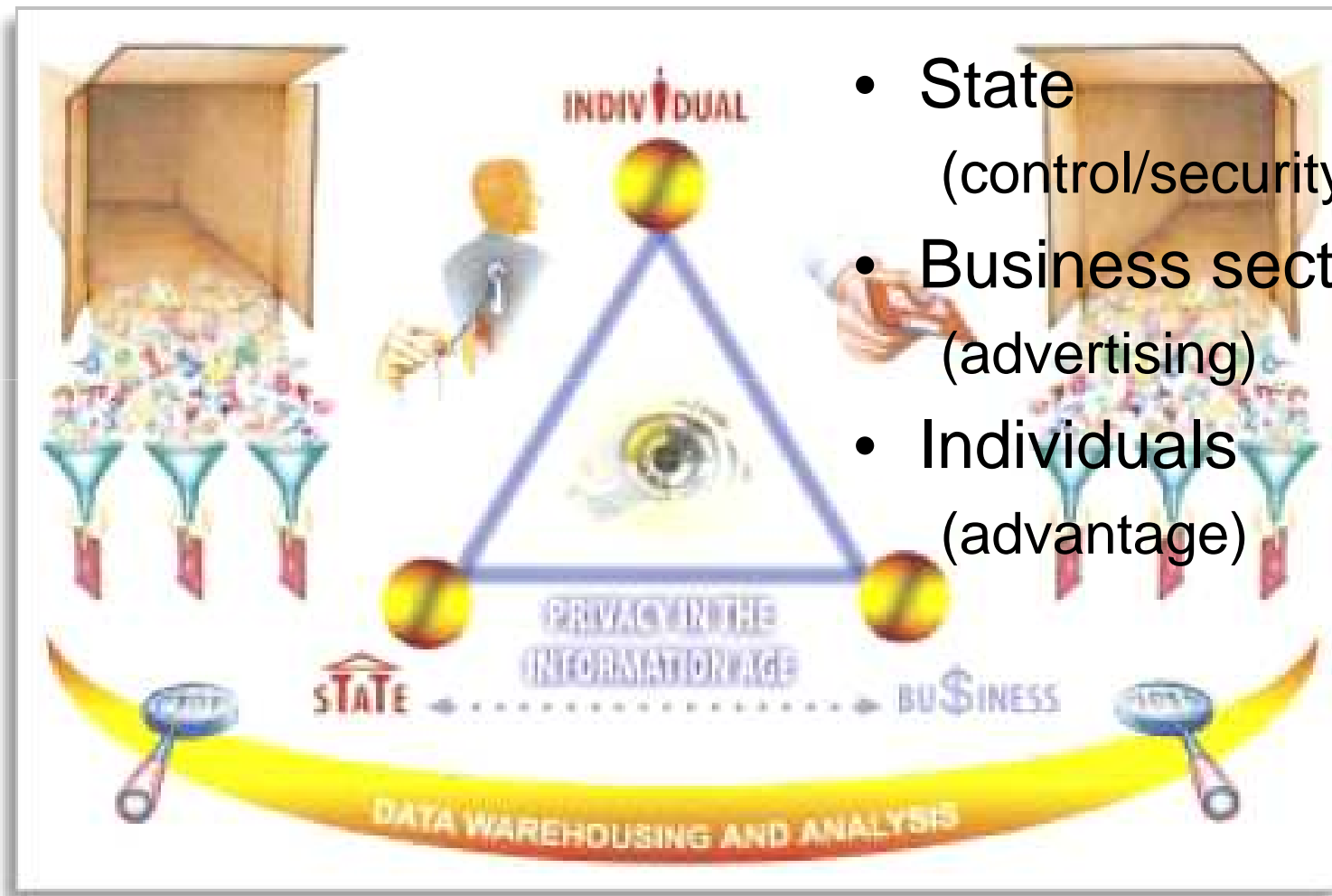
“new Internet users find it helpful to learn English and employ it on-line, thus reinforcing the language’s prestige and forcing subsequent new users to learn English as well”

Education

Issues

- Numerous forms of online education
- Standardisation
- Quality assurance
- Recognition of academic degrees
- Reliable sources of information (relying on sources of “personal flavored” information)
- Informal education
- Life-long learning
- Access to knowledge and education
- Language issues

Privacy



Privacy

Solution?

- **Technology**

- P3P
- Freenet
- Anonymizers
- PGP



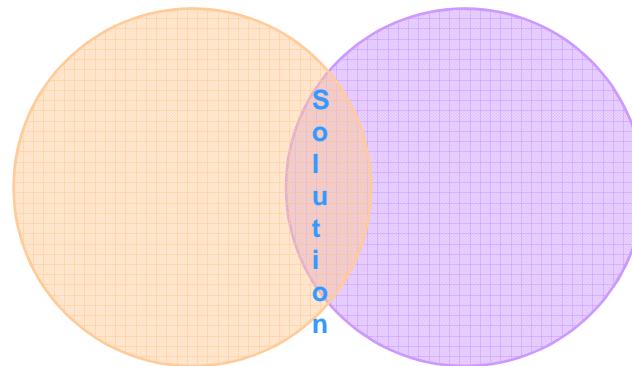
Technical

- **Legislation**

- International/National legislative
- Directive/Convention/Guidelines



Legal



Digital Divide

Between HAVEs and HAVE NOTs

- access and capabilities to use ICT
- awareness of the importance of ICTs and knowledge of how to use them

Digital divide exists

- between 'North' and 'South', 'West and East'
- within countries and between countries
- between rural and urban populations
- between the old and the young
- between men and women
- ...

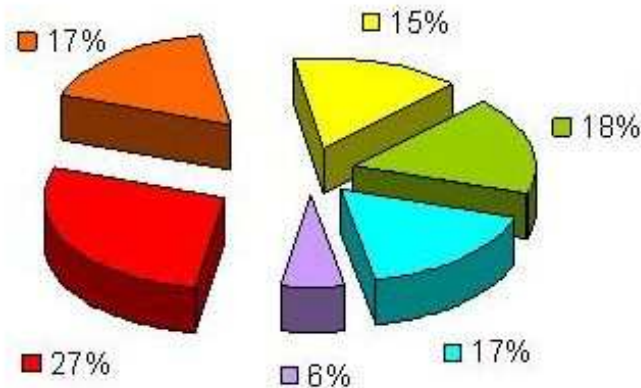
Digital Divide

Education?

Preferred online activity:

1. Searching for information
2. e-mails, messages
3. Checking favourite web sites
4. Using Internet for the work/school
-
11. Blogs
12. Online gaming

Nonusers: the reason for NOT using the Internet



Universal Access

International aspect

Access to All

National aspect

Universal Access / Service

(subsidise access costs in remote areas and regions with high connection costs - financed by regions with low connection costs, primarily the big cities)

Guaranteed services:

- Connection to the public telephone network at a fixed location
- Access to publicly available telephone services
- Availability of a directory information service
- Availability of public pay telephones.
- Facilities for disabled users and those with special social needs

Development

Reaching the next billion

Access for all

Infrastructure investments

Last mile problem

IPv6 transition

Market liberalisation

Economic models for connectivity

Spam

Network neutrality

Open source

Multilingualism and local content

Questions?





DiploFoundation

visit:

www.diplomacy.edu/ig

contact us:

ig@diplomacy.edu

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