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# Internet Governance Case Study

Justice4All is an anti-terrorism organization dedicated to obtaining compensation for victims of terrorism. The organization has long sought damages from the Government of Iran, for what it claims are state-sponsored terrorism activities that have claimed the lives of many people. The Government of Iran has few assets in the United States. However, Justice4All believes that there is great value in the domain name extension dot-ir. Indeed, it believes that it can both compensate victims and hamper the government's cyber-related activities by seizing control of its domain name extension.

Justice4All has just filed a lawsuit in U.S. court claiming that the U.S. has jurisdiction over all domain names given the presence of ICANN within the country. It is demanding that the court order the transfer of the domain as compensation for damages under a national anti-terrorism compensation law.

# Internet Governance Case Study

Please consider the fact situation and be prepared to discuss:

- 1. Who owns or controls dot-ir?
- 2. Does the U.S. have jurisdiction over all domains?
- 3. If not, who (if anyone) has jurisdiction? Who (if anyone) should have jurisdiction?

#### Obama Wants a Global Community to Run the Internet, but It Could End Up in the Hands of China. Or Putin

By Benny Avni / March 25, 2014 4:43 PM EDT



#### Internet governance An online Risorgimento

Apr 26th 2014, 20:19 by J.P. | SÃO PAULO

Timekeeper

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"IF WE want things to stay as they are, things will have to change." The words, uttered by a Sicilian aristocrat on the eve of Italian unification in Giuseppe Tomasi di Lampedusa's classic "The Leopard", neatly sum up the sentiment at NETmundial. The big internet-governance powwow held in São Paulo on April 23rd-24th brought together 1,200-odd participants, including government officials, boffins, representatives of NGOs and business from 97 countries. Most shared a desire to prevent the internet's break-up. This, many believe, requires an overhaul of the way it is run.

## Ted Cruz's Fight to Protect the Open Internet

The Texas senator blocks legislation that could lead to world-wide censorship of the Web.



# Quietly, symbolically, US control of the internet was just ended

At a luxury hideaway in Morocco, two years of talks on Icann's running of the internet finished with a deal to put multiple global stakeholders in charge



# Internet Governance

- 1. How the Internet is managed/governed
- 2. Trademarks/domain names
- 3. Net neutrality
- 4. Surveillance
- 5. Privacy
- 6. Copyright
- 7. Freedom of Speech/censorship

### domain name system

- <u>Numbers</u> IP addresses 87.123.345.76
- <u>Names</u> Domain names news.google.com, tau.ac.il
- Hierarchies within domains
  - Top level domain extension (.com)
  - Second level name (google)
  - Third level sub-name (news)
- Each name matches to a number

#### Key issues

- Who gets to allocate?
- Who gets them? Under what conditions? How are disputes resolved?
- Who governs?

## domain name system - numbers

- Blocks of IP addresses allocated to corporations, ISPs, academic institutions, etc.
- Concern about running out of numbers IPv4 vs. IPv6

## domain name system - numbers

- Who allocates IANA Internet Assigned Numbers Authority
- Delegate specific allocations to Regional Internet Registries (RIRs)
  - ARIN
  - RIPENCC
  - AFRINIC
  - APNIC
  - LACNIC

### domain name system - names

- Today over 300 million domain names
- Each unique string matches to an IP address
- Several types of domains
  - <u>Generic TLDs</u> .com, .net, .org, .edu., .int., .mil, .gov
  - <u>ccTLDs</u> .ca, .il, .uk, .fr, .hk
  - <u>Unsponsored gTLDs</u> .biz, .info, .name
  - <u>Sponsored gTLDs</u> .travel, .coop, .pro, .aero, .museum
  - <u>Opening the floodgates</u> hundreds of new possibilities
    - 17 million registrations
    - .xyz, .link, .top, .science, .party, .berlin
- Who gets to allocate? What rules for registration?

# How does it work?

- 1. User seeks to send email/visit to a website
- 2. Browser/ISP "looks up" the IP address
- 3. The look-up may go no further than the ISP or may escalate to the DNS server
- 4. Once IP address is identified, email is sent or browser resolves the query

domain name system - names Root server (mirrored, TLD info, ICANN control) Registries (gTLDs, ccTLDs) Registrars (single, competitive) Registrants (domain name holders)

#### domain name system - root server

#### **Root server (mirrored, TLD info, ICANN control)**

Registries (gTLDs, ccTLDs)

Registrants (domain name holders)

## domain name system - root server

- "ruling the root" root server is the single point of information
- Server located in Virginia, USA
- Server is mirrored by 13 other servers worldwide
- Very small database list of recognized domains (gTLDs, ccTLDs) and their registries
- Doesn't point to individual domain name registrations
- Key issues:
  - How do you get in the database?
  - How do get taken out of the database?
  - How do you change the contents of the database?
  - What happens if more than one root?

#### domain name system - registries Root server (mirrored, TLD info, ICANN control)

#### **Registries (gTLDs, ccTLDs)**

Registrars (single, competitive)

Registrants (domain name holders)

# domain name system - registries

- Several responsibilities:
  - Determine registration rules
  - Determination registry policies (some required)
  - Manage the registry
    - Maintain the registry database names, numbers
  - May manage registrations (many do not)
- Many different models for profit, non-profit, govt run, academic-run, etc.
- Key issues:
  - How do you get to be a registry?
  - ICANN, government relationships

## domain name system - registrars Root server (mirrored, TLD info, ICANN control)

#### Registries (gTLDs, ccTLDs)

#### **Registrars (single, competitive)**

Registrants (domain name holders)

## domain name system - registrars

- Many TLDs employ competitive registrar system
  - Company that registers domain names
  - Typically contractually "regulated" by registry
  - "Purchases" domain at wholesale price from registry; free to resell to the public at any price
  - Maintains direct relationship with registrant
  - Subjects registrant to domain name policies via contract
- Hundreds of domain name registrars for gTLDs
- ccTLDs employ various models
- Registrars employ different biz models direct sale, resellers

# domain name system - registrants Root server (mirrored, TLD info, ICANN control) Registries (gTLDs, ccTLDs) Registrars (single, competitive) **Registrants (domain name holders)**

# domain name system - registrants

- Individuals, companies, etc. who hold rights to domain name
- Contractual rights, rarely treated as a property right
- Renewable contract
- First come, first serve
- May be subject to registration restrictions ie. presence requirements, limit on number of domains, restricted names
- Contract typically references wide range of policies