



อินเทอร์เน็ต กับ ไอที

กาญจนา กาญจนสุด

ศาสตราจารย์

คณะวิศวกรรมและเทคโนโลยี

และ

ผู้อำนวยการ

Internet Education and Research Lab (IntERLab)

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ยุคบุกเบิก

Governance without Governments

It was also feared that they would introduce time-consuming and costly procedures which would reduce the speed of innovation on the Internet and block the creation of new Internet services and applications.

The reason and justification for such a non-governmental approach came from the practical and successful experiences of the first 20 years of the Internet. The absence of specific governmental legislation was seen by many observers as one of the main reasons for the incredible success of the Internet.

Lots of debates -- new stakeholders emerged!!

Some groups reduced Internet Governance to the management of the technical Internet core resources; for others Internet Governance included all public policy issues related to the Internet, including eCommerce, cybercrime and freedom of expression.

Wolfgang Kleinwachter <http://www.intgov.net/papers/35>

Open Technology Management

- Technology: To make the Internet work better and to support new applications
 - IETF
- Core Technology Resources: Name and Addresses
 - IANA

Internet Engineering Task Force (IETF)

- to make the Internet work better by producing high quality, relevant technical documents that influence the way people design, use, and manage the Internet
- The goals of the Internet Standards Process are:
 - technical excellence;
 - prior implementation and testing;
 - clear, concise, and easily understood documentation;
 - openness and fairness; and
 - timeliness.
- <http://www.ietf.org/>

Internet Assigned Numbers Authority (IANA)

- ดูแลประสานงานการทำงานของ DNS Root, IP addressing และ Protocol resources รวมถึงดูแลลงทะเบียน RFC ตั้งแต่ 70's
- ทำการให้บริการอย่างเที่ยงธรรม รับผิดชอบ และมีประสิทธิภาพ
- ปัจจุบันอยู่ภายใต้ ICANN
- <http://www.iana.org>

Internet Society

ISOC

The Internet Society (ISOC) set up in 1992 by activists from the various Internet groups, in particular from the IETF, created the “Internet Society” (ISOC) as a not-for-profit educational organization. ISOC also became a platform for discussing political, legal, economic and social implications in the development of the Internet.

http://www.livinginternet.com/i/ii_summary.htm

Open Technology Management

- Technology: To make the Internet work better and to support new applications
 - IETF
 - W3C
- Core Technology Resources: Name and Addresses
 - IANA
 - ICANN

ICANN

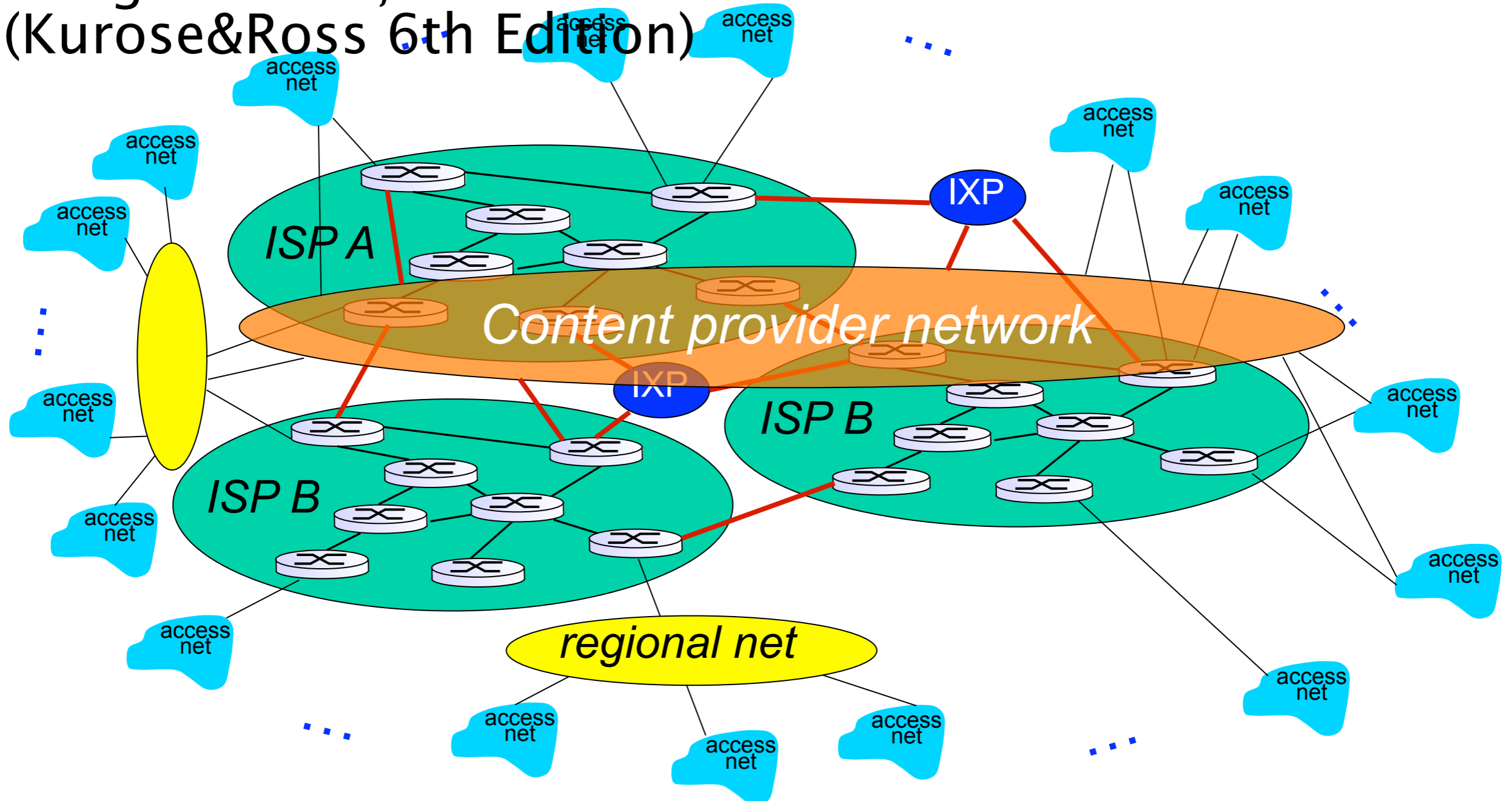
- Jon Postel was managing the domain names, the address allocation, protocol and RFC registration.
- 1988 Agreement between US Government and IANA by Jon Postel for stability of the Internet
- 1998 ICANN was established as a non-profit Public Benefit Corporation under California Law

W3C

- ดูแลพัฒนาการทางเทคนิคด้านเว็บ
- กำหนดมาตรฐานเช่น [Web Design and Applications](#), [Semantic Web](#), [XML Technology](#), [Web of Services](#), [Web of Devices](#), [Browsers and Authoring Tools](#)
- <http://www.w3.org>

Internet structure: network of

... and content provider networks (e.g., Google, Microsoft, Akamai) may run their own network, to bring services, content close to end users (Kurose&Ross 6th Edition)



Innovation!



Innovation!



Instagram



foursquare



flickr



Today we have a multi-stakeholder model of Internet governance



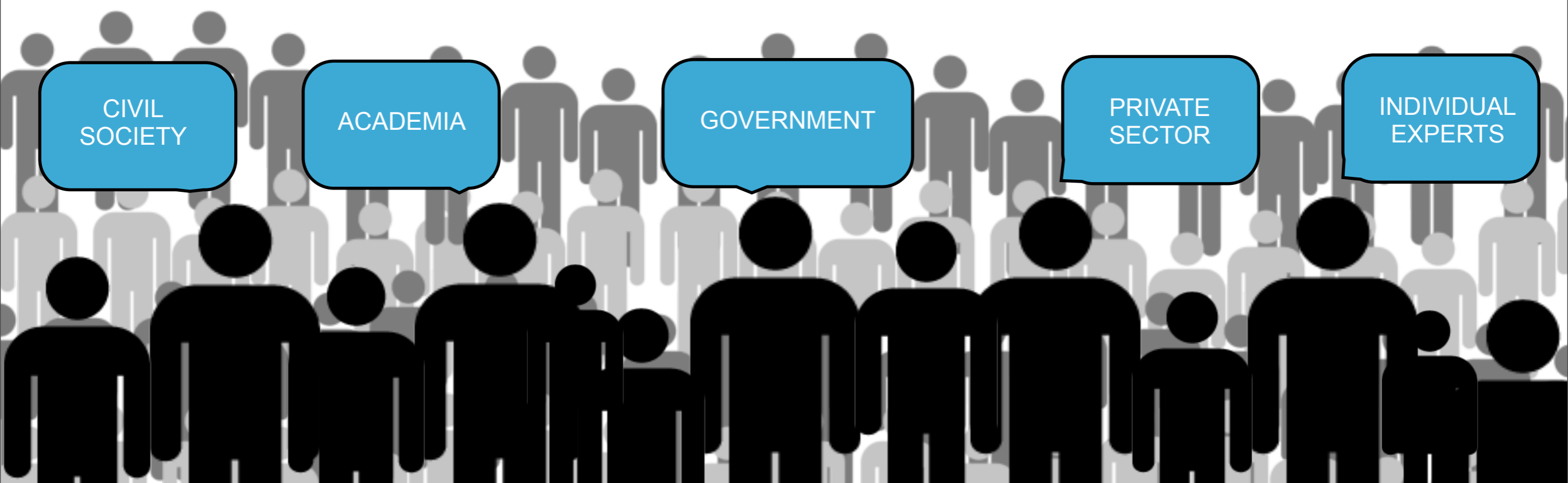
CIVIL
SOCIETY

ACADEMIA

GOVERNMENT

PRIVATE
SECTOR

INDIVIDUAL
EXPERTS



ISSUE :
INTERNET SECURITY



UN Convention on Cybercrime

ISSUE :
FREEDOM OF EXPRESSION



UN Human Rights Treaty

ISSUE :
COPYRIGHT



Brussels Convention

ISSUE :
CHILD PROTECTION



UN Human Rights Treaty

ITU

- Oldest intergovernmental organization under the UN
- Technical transformation!
 - Postal Service
 - State Monopoly Telecom Service
- ITR
 - 1988 Melbourne -> liberalization of telecommunication industry
 - 2012 Dubai ?? Internet ??
 - What TH should consider "Avoid limitation for Innovation"

ITU and the Internet

- ITU-T X.25 standard designed in 70's
 - Packet Switching like the Internet
 - Virtual Circuit -- dumb terminal and similar to the telephone
 - X.25 was replaced by TCP/IP or the Internet in late 80's - early 90's
- ITU-T ATM defined in late 80's
 - Virtual circuit for voice and data

ITU and the Internet (cont'd)

- ITU-T

- 2009 ITU was proposed to distribute IPv6 addresses http://www.circleid.com/posts/20091116_itu_and_ipv6_transition_controversy_at_the_igf/
- 2009 "Next Generation Network" (NGN) IP, MPLS and SIP

- 2012 ITR

- Preparation since 2004
- Many proposed ideas can upset the Internet
- Proposals from China - Security, ETNO - Senders Pay Model, Middle East - Routing; Russia on IPv6 address allocation

ข้อต่างทางความคิด

- เทคนิค
 - Internet
 - end-to-end: dumb net smart device
 - Connectionless
 - ITU
 - Dumb end device but smart network
 - Connection-Oriented, Virtual circuit

ข้อต่างทางความคิด

- ค่าบริการ
 - Internet
 - ผู้ใช้จ่ายการเชื่อมโยงปลายทางกับ Internet
 - ITU
 - Telcos
 - ปริมาณข้อมูล

ข้อต่างทางความคิด

- การควบคุมดูแล
 - Internet
 - รัฐบาลมีส่วนร่วม
- ITU
 - Intergovernment Organization

Network Security Workshop

Asian Institute of Technology,

Thailand

19-22 November 2012

Organizer

Internet Education and Research Lab

Asian Institute of Technology

Thailand

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