Tuesday, October 9, 2012

# A View of Top-Down Internet Governance

## Jesse Sowell
## MIT ESD PhD Candidate

Explorations in Cyber
International Relations
Massachusetts Institute of Technology     Harvard University

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# Take-aways first

- ITRs are being renegotiated
  - ITRs regulate traditional interconnection costs
  - Under current ITRs, Internet is exempt (Art. 9)
  - Internet is cutting into international telecom revenue streams
- Proposals (state responses) include
  - Route and origin identification
  - Regulation of peering arrangements

- How should the community:
  - Convey positive economic outcomes of the existing Internet industry to regulators?
  - Engage with top-down governance/regulatory organizations?

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The "g" word. I am going to try to convince you that it isn't all that evil and that you are doing some of it already…

- How should the
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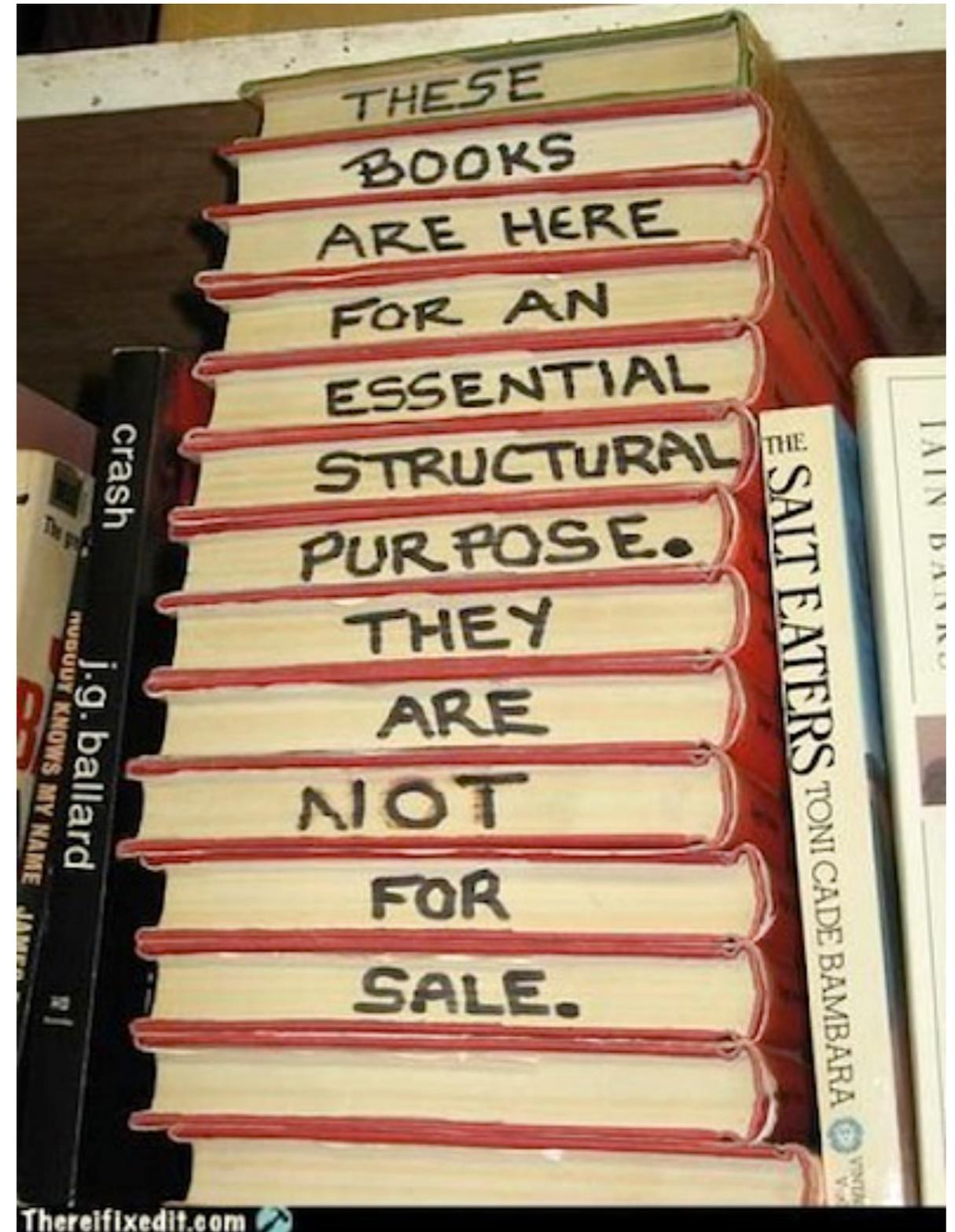  - Engage with top-down governance/regulatory organizations?
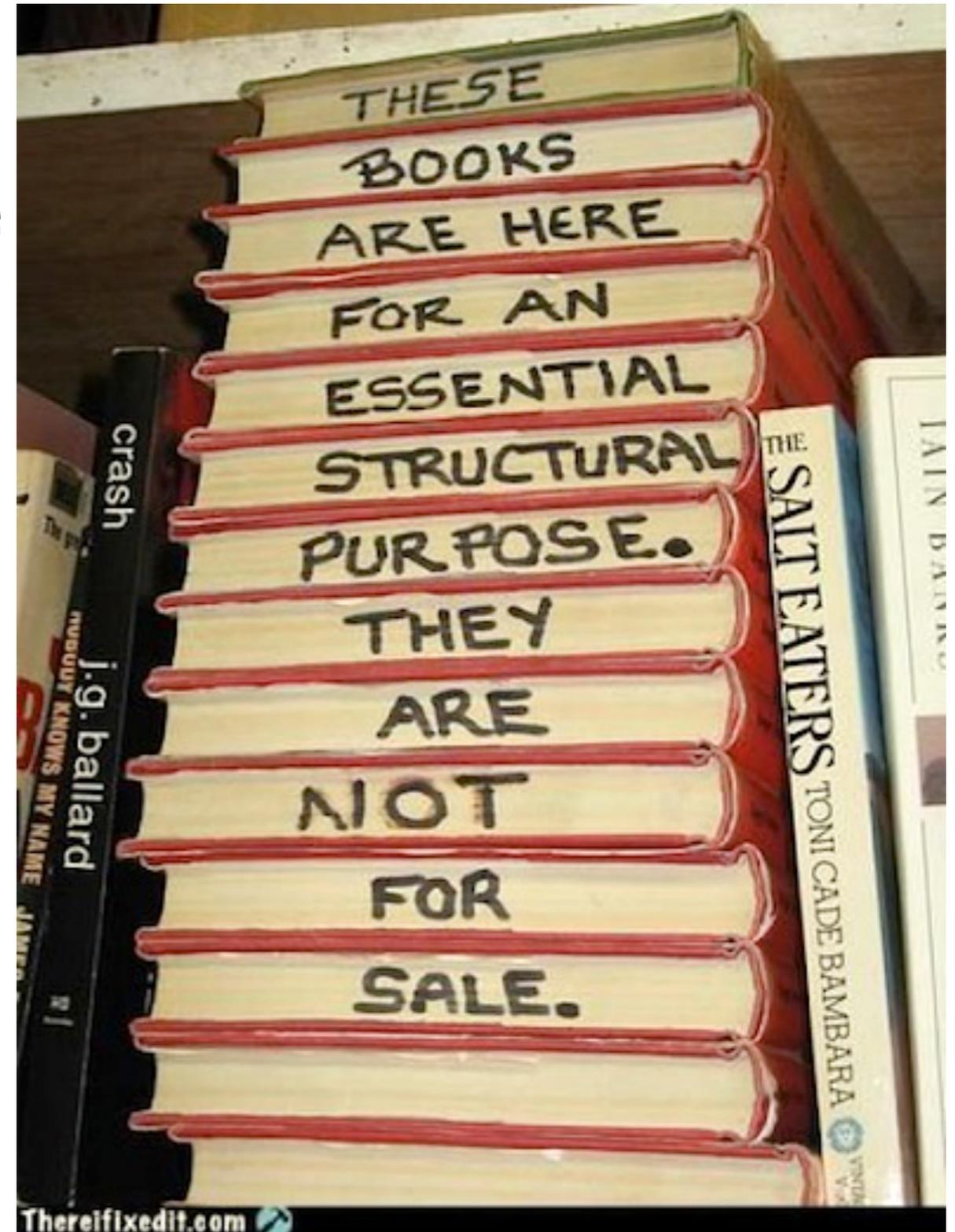
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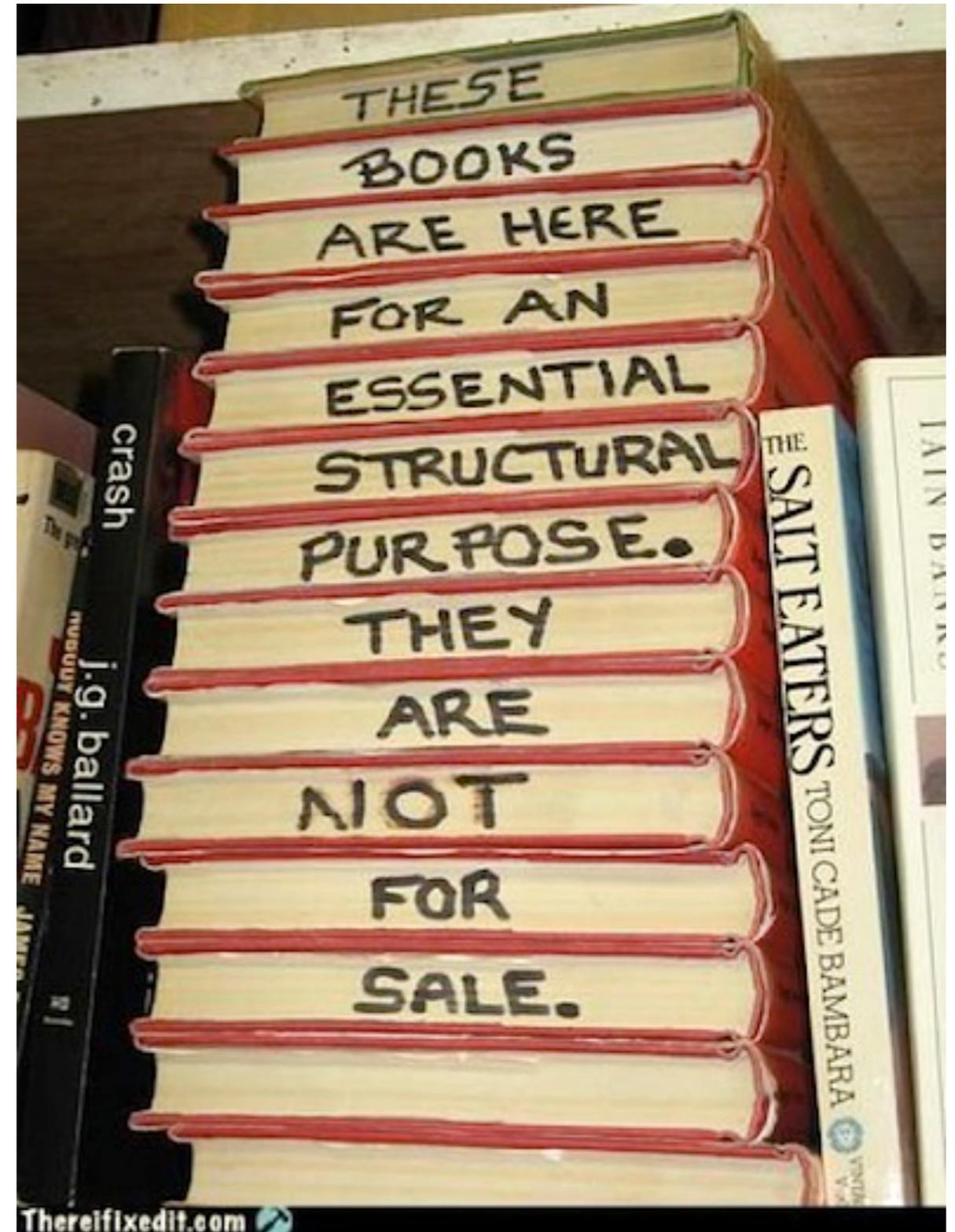
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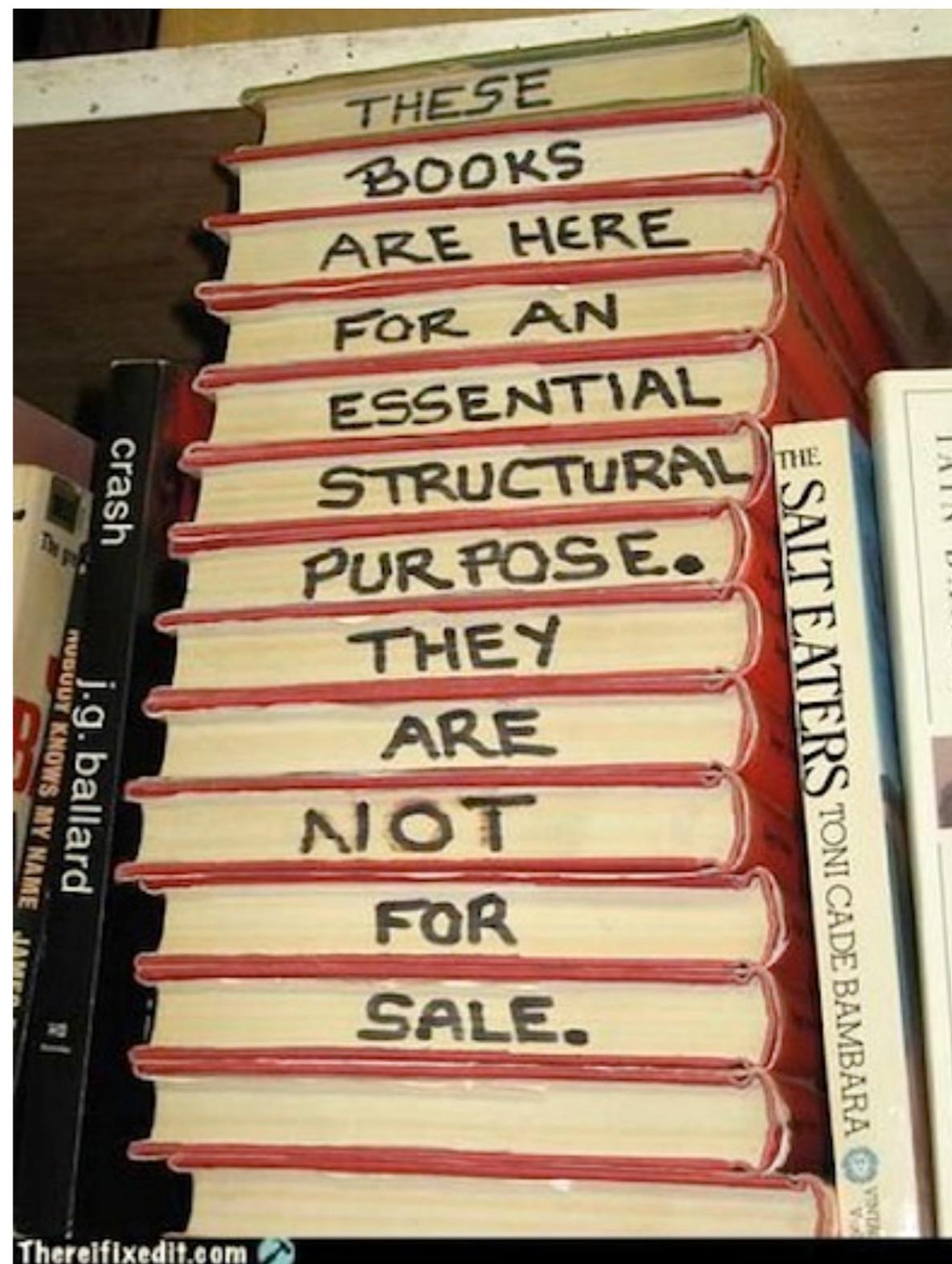
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# About book-ish definitions...

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- Definitions help frame the problem



4

# About book-ish definitions...

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- Definitions help frame the problem
- Regulators: ***what***

THESE BOOKS ARE HERE FOR AN ESSENTIAL STRUCTURAL PURPOSE. THEY ARE NOT FOR SALE.

Thereifixedit.com

crash

j.g. ballard
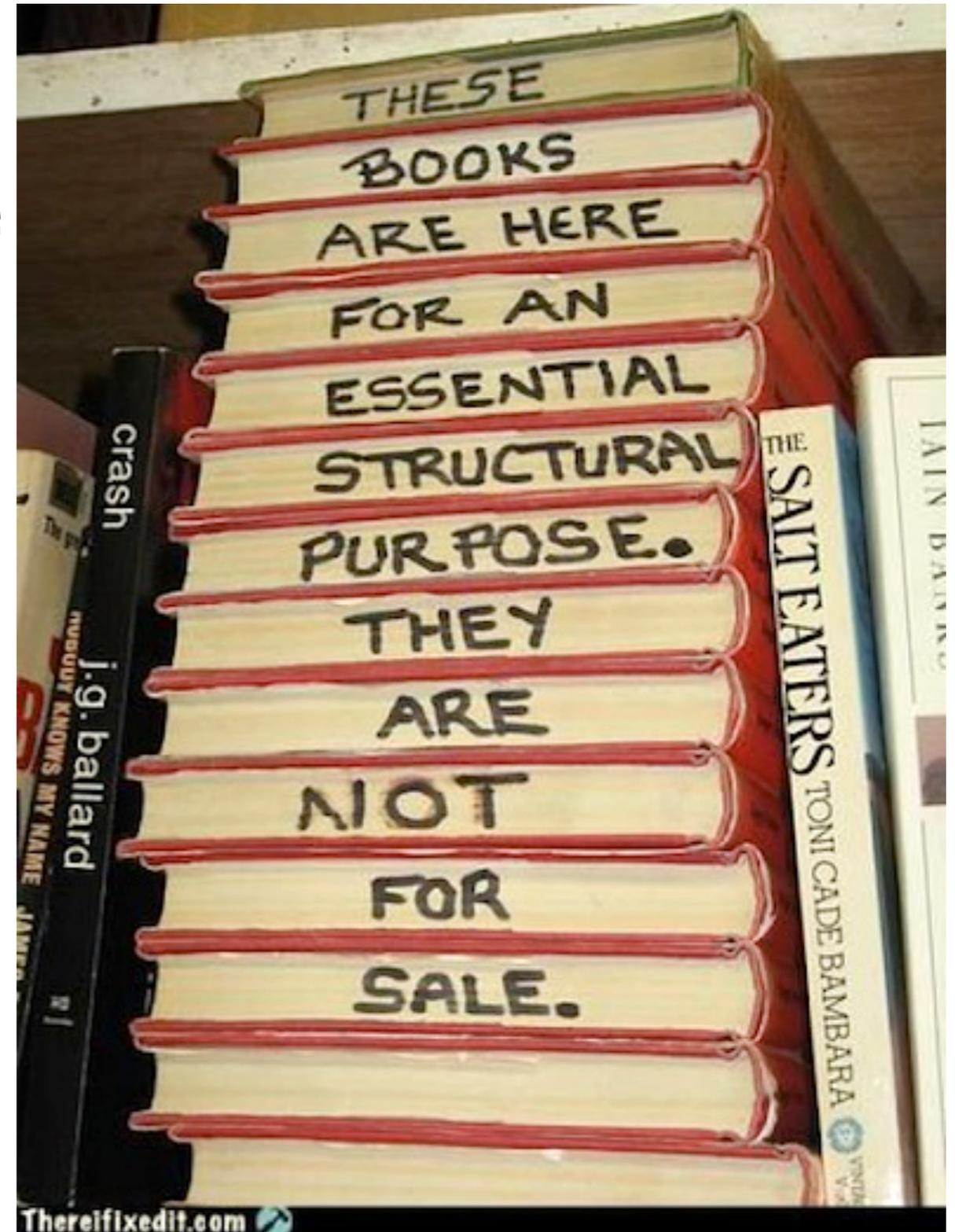
NOBODY KNOWS MY NAME

THE SALT EATERS TONI CADE BAMBARA

IAIN BANKS

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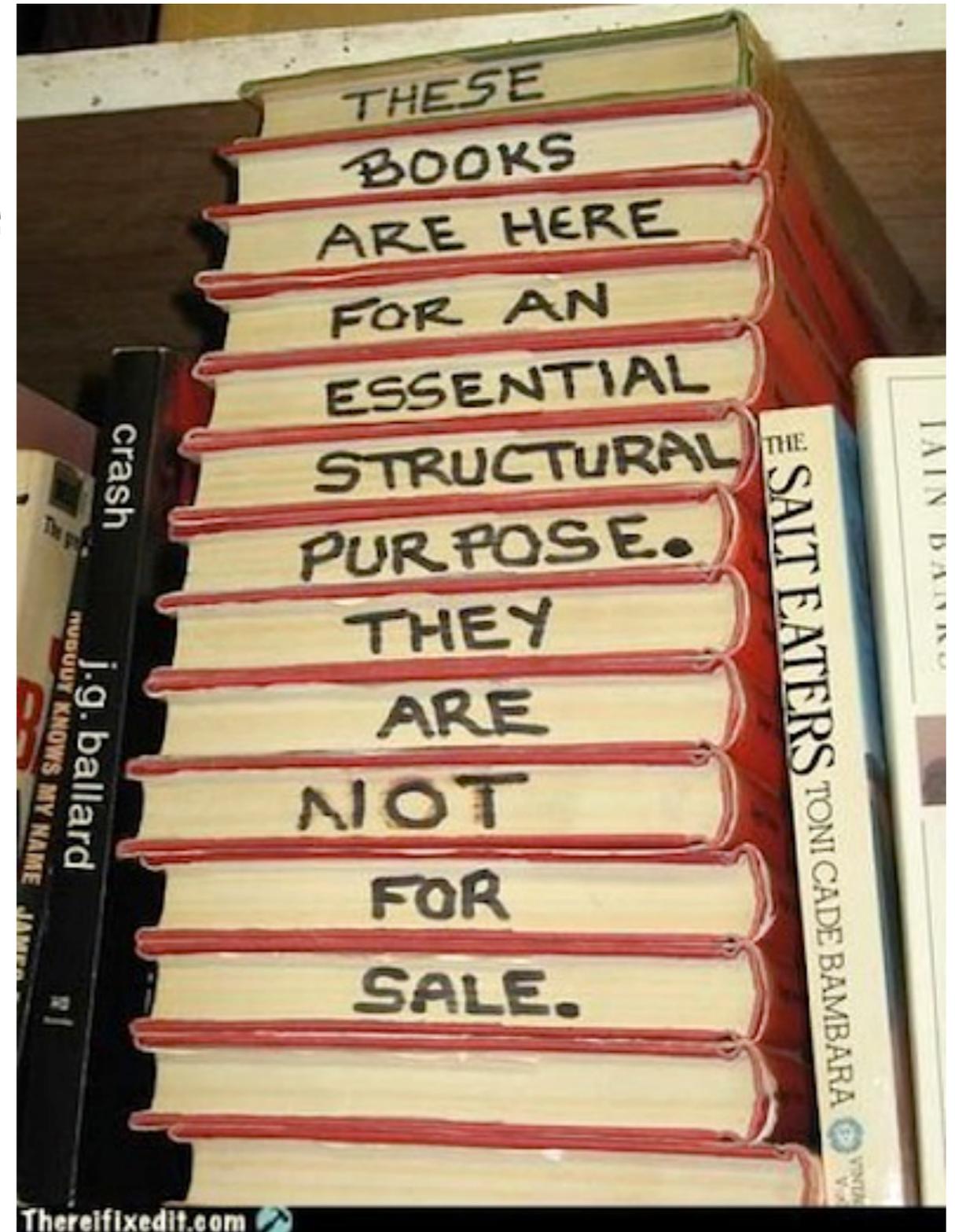
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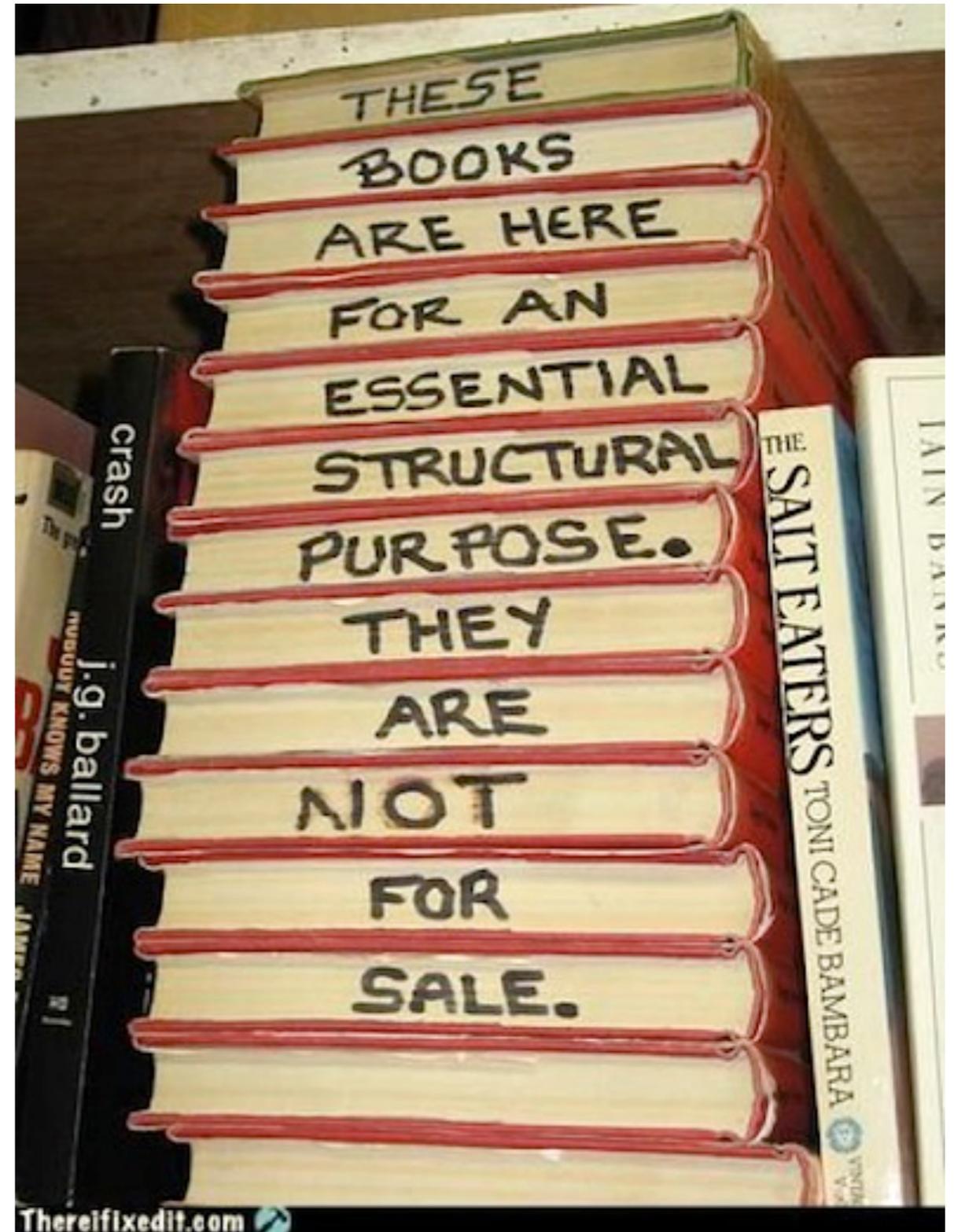


4

# About book-ish definitions...

- Pretty, but not really the *focus*
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- Regulators: **what**
- Operators: **how**

- ***Discussion points: How to facilitate communication between operator communities and regulators?***



4

# Internet Governance

Internet governance is the development and application by Governments, the private sector and civil society, in their **respective roles**, of shared principles, norms, rules, decision-making procedures, and programmes that shape the evolution and use of the Internet.

http://www.itu.int/wsis/docs2/tunis/off/6rev1.html, Art. 34

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Governments retain a privileged role (that capital "G" isn't a typo)

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Internet governance is the **development and application** by Governments, the private sector and civil society, in their respective roles, of shared principles, norms, rules, decision-making procedures, and programmes that shape the evolution and use of the Internet.

> Doesn't really mention who is doing development and application, lots of contention here on how

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Internet governance is the development and application by Governments, the private sector and civil society, in their respective roles, of **shared principles, norms, rules, decision-making procedures, and programmes** that shape the evolution and use of the Internet.

Standard definition of a regime, but who creates these? What contributes to legitimacy and authority? We will see lots of contenders...

http://www.itu.int/wsis/docs2/tunis/off/6rev1.html, Art. 34

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How? What mechanisms are effective? What evidence do we have they are effective?

http://www.itu.int/wsis/d... Art. 34

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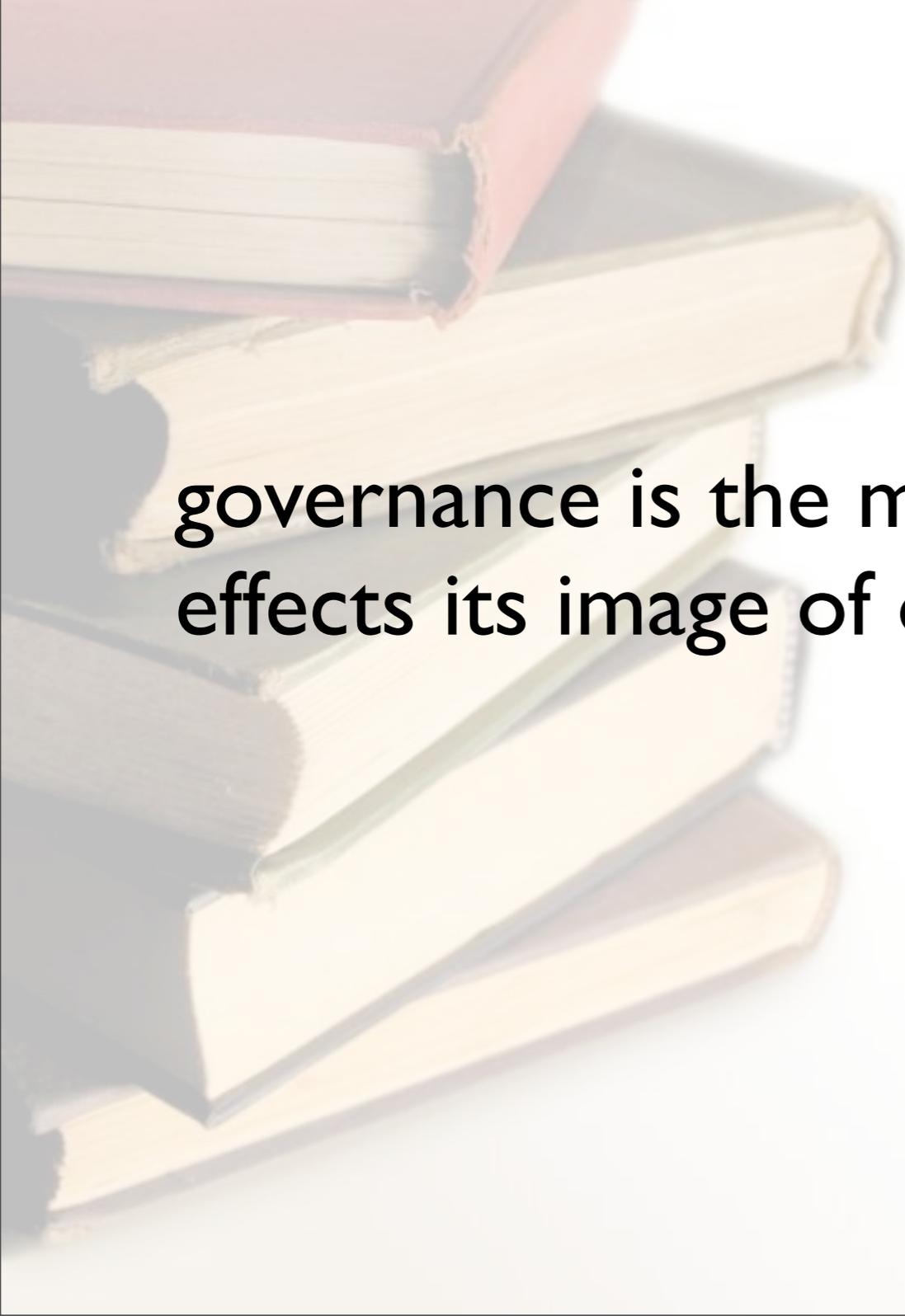
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This is a broad definition that tells us *what*, but not *how*.

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# Governance (How)

governance is the means by which a community effects its image of order

O. E. Williamson, *The Mechanisms of Governance*. New York, NY: Oxford University Press, 1996.

10

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Means is interpreted as the pragmatic mechanisms a community has either implicitly or explicitly adopted

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governance is the ***means by which a community*** effects its ***image of order***

**What is it that the community has found reifies its goals? What does the community value? Given this context, why are these effective?**

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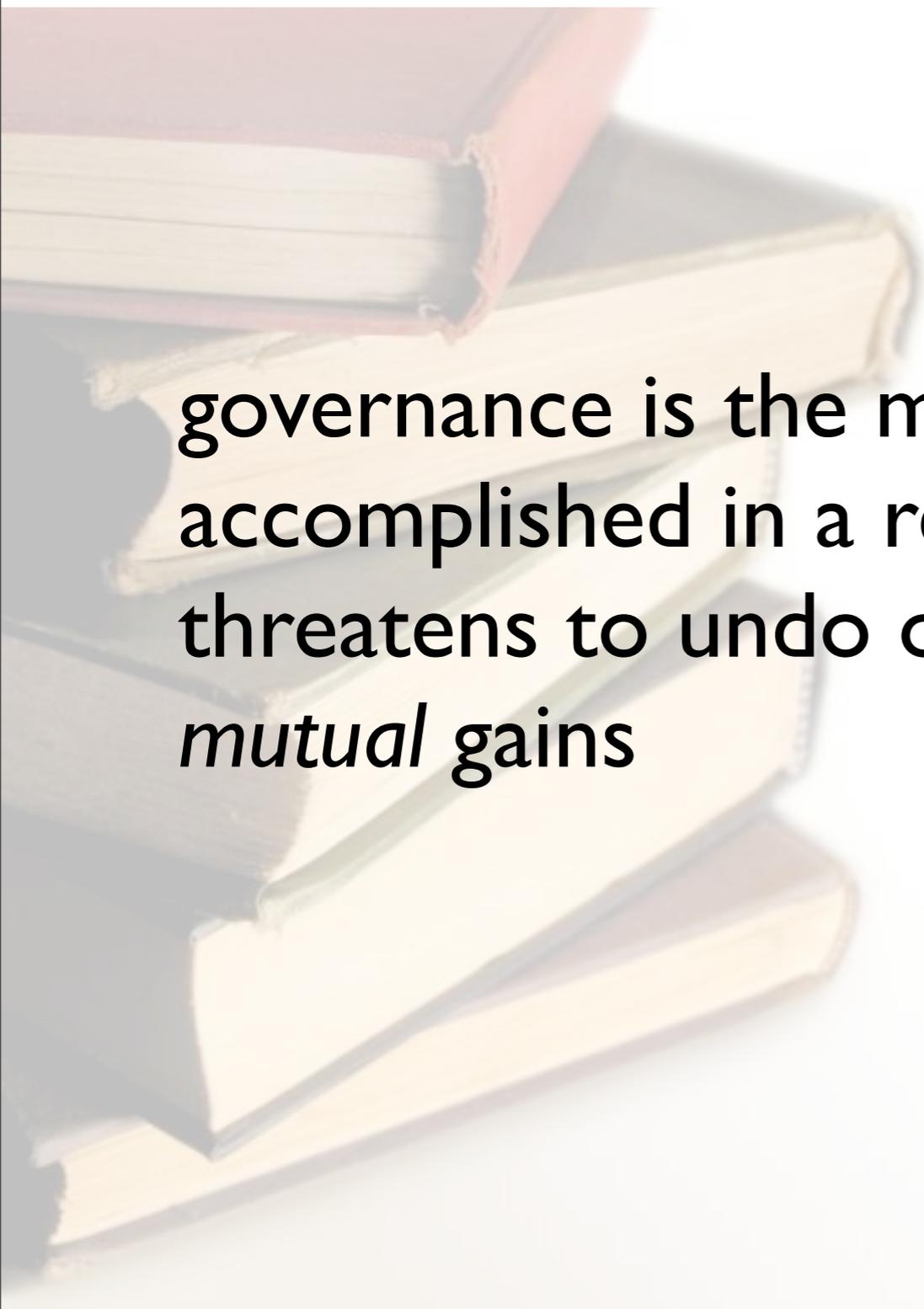
governance is the ***means by which a community*** effects its ***image of order***

What is it that the community has found reifies its goals? Waht does the community value? Given this context, why are these effective?

Should read **images** of order, there are lots of communities, each of which operates more or less differently

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13

# Governance (unpacking means)

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There is a very distinct difference in the economics of traditional telecom versus Internet.  Re conflict, there's also a nice conversation about dispute resolution in our future...

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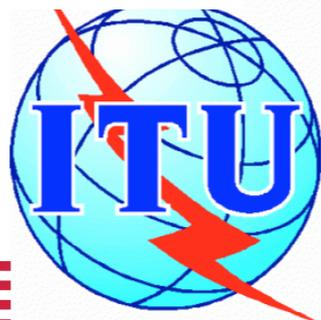
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# Who governs?

Tuesday, October 9, 2012

We are here :)

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...and more generally here, many familiar with "bottom-up" organizations...

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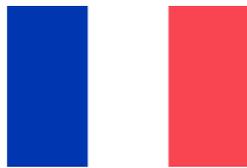
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Power and legitimacy delegated by states---this is the basis of authority in this group

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So....why do the folks in the UN and ITU feel Internet regulation is necessary?

# WSIS Principles Origins

(World Summit on the
Information Society)

- Millennium Development Goals (2000)
  - Peace, security, disarmament
  - Development and poverty eradication
  - Protecting our common environment
  - Human rights, democracy and good governance
  - Protecting the vulnerable
  - Meeting the special needs of Africa
  - Strengthening the United Nations

http://www.un.org/millennium/declaration/ares552e.pdf

# WSIS Principles Origins

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Terminology issues with policy jargon:
for instance, "capacity building" translates
to training and outreach, etc.

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# WSIS Principles

- Multi-stakeholder
- Development of ICT foundation
- Access to information and knowledge
- Capacity building
- Building confidence and security in the use of ICTs
- Enabling environment (for e-government, economy)
- ICT enabling empowerment
- Cultural diversity and local content
- Media
- Ethical dimensions
- International and regional cooperation

Drawn from:

D. MacLean, ed., *Internet Governance: A Grand Collaboration*. New York, NY: The United Nations Information and Communications Technologies Task Force, 2004. and http://www.itu.int/wsis/docs/geneva/official/dop.html

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> The bottom-up community is already doing some of this. How can these efforts be conveyed to actors attempting to develop new processes?

> After a bit of negotiation, the result is the Internet Governance Forum...the IGF

Drawn from:

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# IGF as Mandated

- Governance characteristics
    - Lightweight, decentralized structure
    - Transparent, democratic, and multilateral

- Mandate
    - Discuss policy issues
    - Foster discourse
    - Interface between institutions
    - Exchange of information and best practices
    - Advise stakeholders on Internet development
    - Identify emerging issues
    - Contribute to capacity building
    - Promote and assess WSIS principles

http://www.itu.int/wsis/docs2/tunis/off/6rev1.html, Art. 72.

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Once again, a lot of this is done by the bottom-up community. The difference here is that the IGF is policy wonk friendly. It is a talking forum for exchanging ideas.

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- Mandate

If we have so much in common, what's the big deal? Some states want more than a talking forum, thus **(re)**enter the ITU...

- Advise stakeholders on Internet development
- Identify emerging issues
- Contribute to capacity building
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# ITU

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  - Created 1865, oldest IGO
  - Primary telecom standards and coordination body until early 1990's
- Organization
  - ITU-R: allocates radio spectrum and satellite orbits
  - ITU-T: technical standards and telecomm interconnection
  - ITU-D: telecomm access and ops for developing regions

- *Facilitates* telecomm treaties such as the International Telecommunications Regulations

http://www.itu.int/net/about/

24

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At the moment the ITU **itself** does not have regulatory power but that may change

http://www.itu.int/net/about/

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# ITRs in a Nutshell

- International Telecommunications Regulations are a treaty, signed by ITU *member states*

- Baseline definitions
  - international telecommunication
  - international route
- Operational issues
  - safety of life and priority of telecommunications
  - calculation of charges and accounting
  - binding of ITU-T recommendations

- **Currently Article 9 special arrangements exempts Internet communication**

http://www.itu.int/oth/T3F01000001, Art. 2, 5, 6, 9, App. 1, Res. No. 3, Rec. No. 3.

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  - calculation of charges and accounting [historically includes standards and cost structures]
  - binding of ITU-T recommendations

What are the key drivers, the points of contention?

# Key Drivers

- **Economic:** Lost telecom revenue (VoIP)

- **Political:** Asserting political control; assuring ITU/state preeminence

- **Technical:** New ITU role in standards, address allocation, and others

Drawn from Sally Wentworth's ITRs presentation.

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# Key Drivers

- **Economic:** Lost telecom revenue (VoIP)

- **Political:** Asserting political control; assuring ITU/state preeminence

- **Technical:** New ITU role in standards, address allocation, and others

How do the top-down folks see bottom-up organizations?

Drawn from Sally Wentworth's ITRs presentation.

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# An Interpretation of Bottom-up

- "The most powerful actors are able to exercise a significant degree of policy and regulatory control **'from the bottom up'** by pursuing national and regional interests across a **wide range of forums**, while the most powerful private actors are able to exercise an equally significant degree of market control by **coordinating their activities through private forums**, or through the exercise of raw market power.  But what is often missing are **opportunities for the less powerful to be engaged in discussion of global governance issues, to participate in decision-making processes, to understand the consequences** of these decisions, and to adapt their policies, regulations, and practices accordingly."

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  The ITU has a complementary perspective...

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# ITU Perspective

- Quotes from ITU Secretary General Hamadoun Touré

  - "[w]e need updated ITRs because without them we risk the collapse of the ICT networks which underpin all communications technologies, including the internet."
  - thinking of recent regulatory failures in finance and banking, Touré is looking for "a framework that will avoid any catastrophe"



http://www.whoswholegal.com/news/features/article/29378/the

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**Enter new proposals for the ITRs, coming in December 2012!**

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# ITR Proposals

- Mandated application of ITU-T recommendations
- Countermeasures against spam and malware
- Dispute settlement
- Interconnection
  - Peering arrangements
  - Impact of costs of international traffic
- Misuse of numbering, naming, addressing and subscriber identification
- Cybersecurity (signaling, traffic, and billing info)
- "Appropriate" use of billing models
- "New technologies" regulation
- Address allocation/distribution

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> Why stop here? Let's get specific...

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# ITRs: Revisiting Definitions
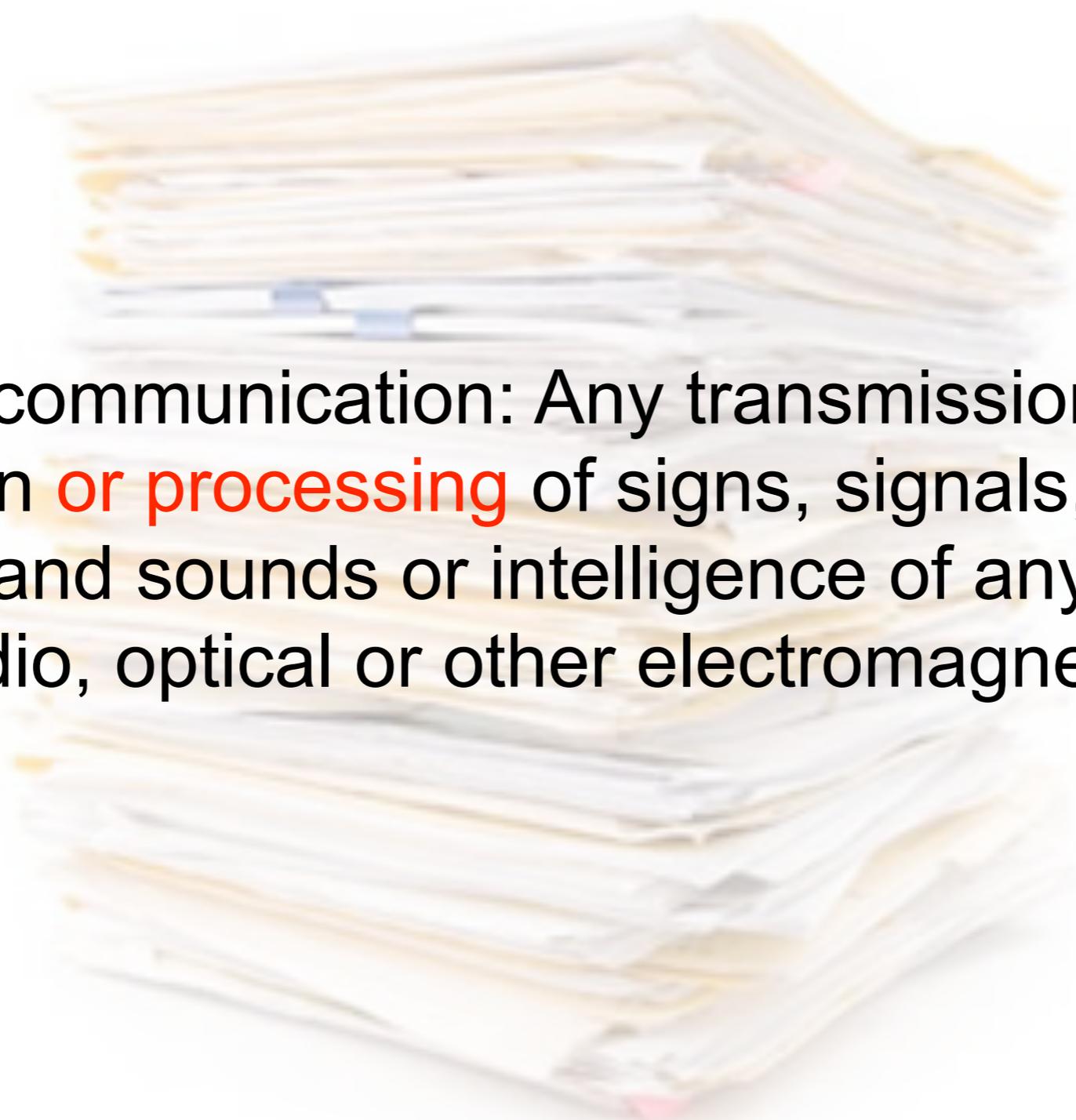
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> This captures not only L2, L3, L4 but also L7+. Essentially anything that looks like a "connection/session/circuit" that might have an identity/origin

Tuesday, October 9, 2012

# ITRs: Revisiting Definitions

- 2.2 International telecommunication service: The offering of a telecommunication capability <span style="color:red">including, but not limited to: offering of a telecommunication capability in roaming, international public telegram service, telex, traffic termination services (including Internet traffic termination), any kind of circuit provision services, other services integral to provision of international telecommunication services</span> between telecommunication offices or stations of any nature that are in or belong to different countries.

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"Antidote" to Article 9. This means Internet traffic is telecommunications traffic, and, among other things these modes of traffic are subject to termination rates.

# ITRs: Transit

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- 2.12 *Termination rate:* A rate set by the destination administration/ROA for terminating incoming traffic regardless of origin.

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This is typical of the accounting rate system. Given the redef to include processing, this could also include considering an HTTP session something akin to a circuit...that can be charged

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# ITRs: Dispute Resolution

- Option 2 ADD: new 6.7: Member States shall ensure that each party in a negotiation or agreement related to or arising out of international connectivity matters, including those for the Internet, <span style="color:red">will have access to alternative dispute resolution mechanisms and</span> will have standing to have recourse to the <span style="color:red">relevant regulatory or</span> competition authorities of the other party's country.

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This could go in a few directions. The language and comments imply WTO-style dispute resolution, but we already see dispute resolution mechanisms such as the Arbiters in RIPE.

# ITRs: Routing

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and charge!

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Not to mention the implications for political speech and activism.

# ITRs: Misuse and Authority

- 3.5 Misuse and misappropriation of numbering resources should be prevented to the greatest extent practicable, by implementing the relevant ITU-T Resolutions and Recommendations and, as appropriate, by **transposing them to national laws.**

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Sources: spam and fraud prevention; equitable distribution of resources

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# ITRs: ....



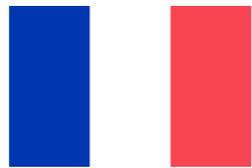- <span style="color:red">and many more...</span>

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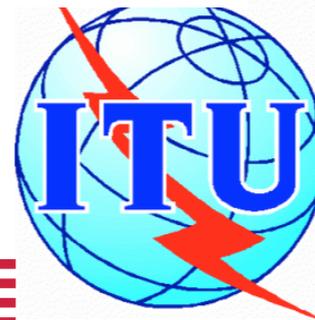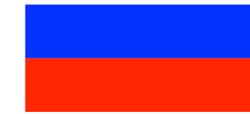About 16 pages of ITR content has grown to >200 pages (and growing) of comments by states
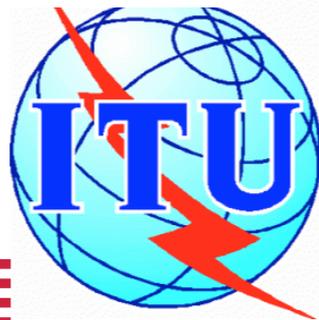
41

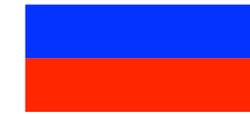Motivated regulator peddling "what"

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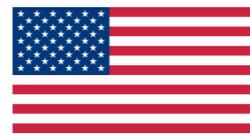Communities with operational capacity to inform and provide the "how"

Motivated regulator peddling "what"

Communities with operational capacity to inform and provide the "how"

How should feedback between these work?

Thank you!

Comments or questions: **jsowell@mit.edu**