



The Impact of Law and Regulation on Digital Technologies in Thailand

Bangkok, August 23, 2017

Dr. Urs Gasser

Professor of Practice, Harvard Law School

Executive Director, Berkman Klein Center for Internet & Society, Harvard University

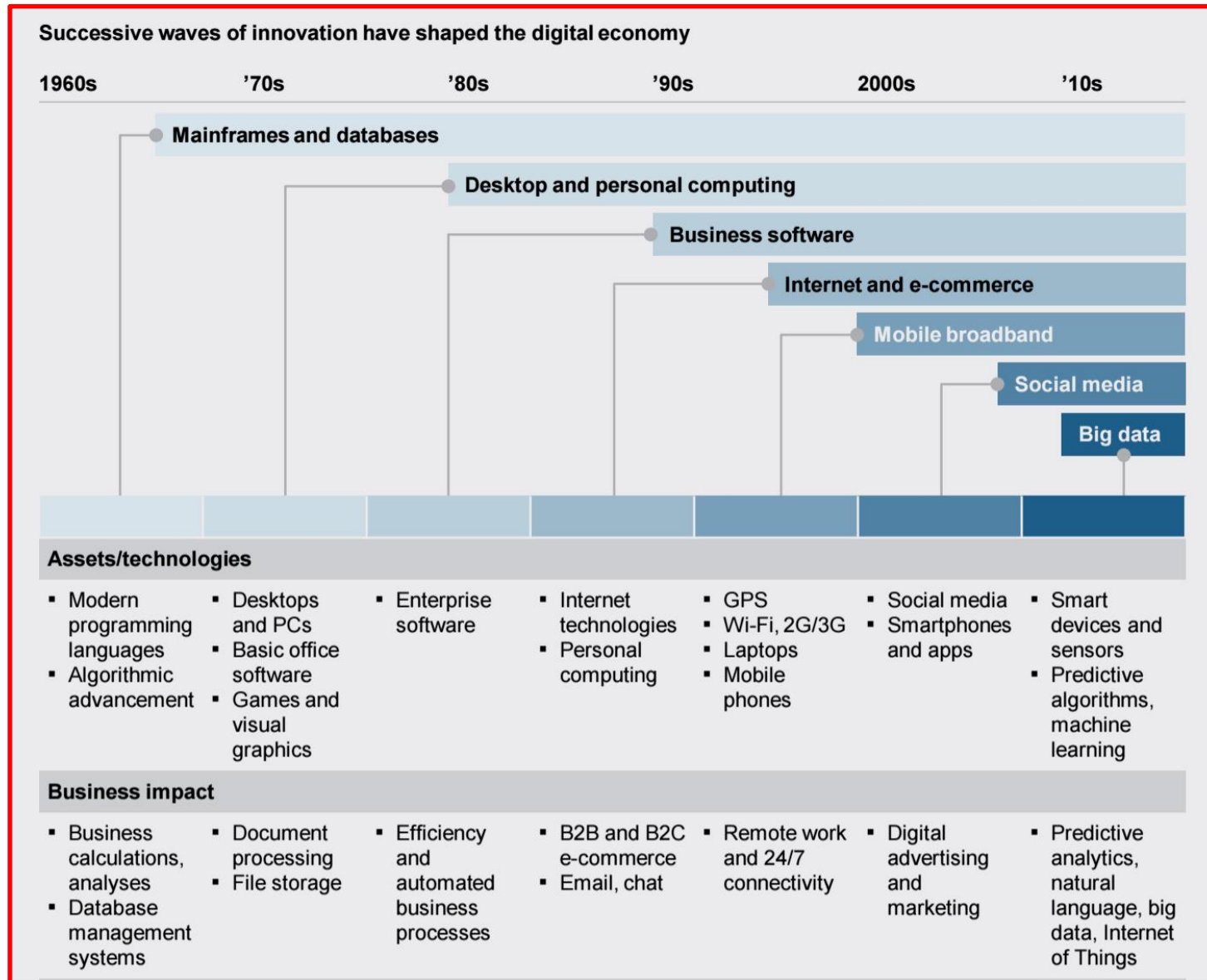
Overview

1. Segment 1: Internet Law and Regulation: Challenges and Possible Approaches
2. Segment 2: Substantive Issues – Comparative Perspectives
3. Segment 3: Approaches to National Digital Governance – Examples from other Countries
4. Segment 4: Closing Exercise

SEGMENT 1

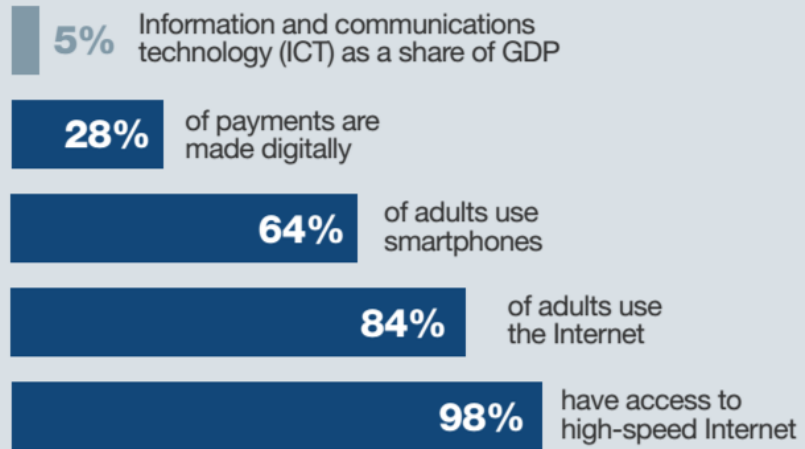
1 Regulating the Digital Economy: Trends and Challenges

Accelerating Waves of Innovation



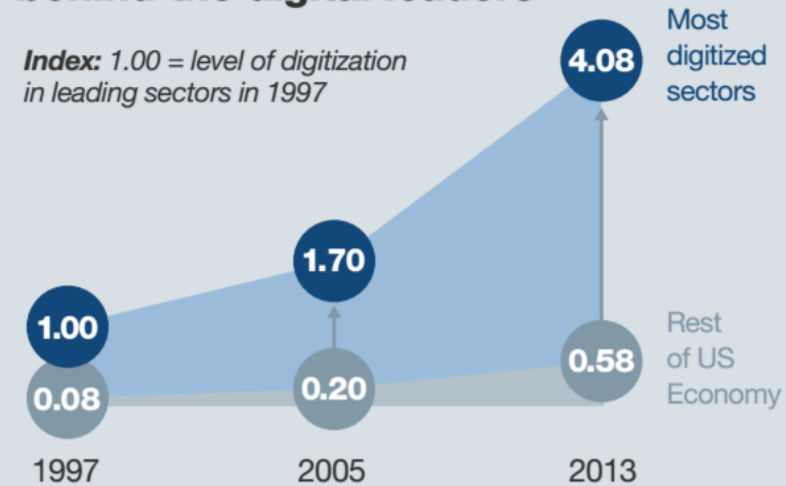
Impact on the Economy

Digitization now touches most of the economy...



...yet most sectors lag far behind the digital leaders

Index: 1.00 = level of digitization in leading sectors in 1997



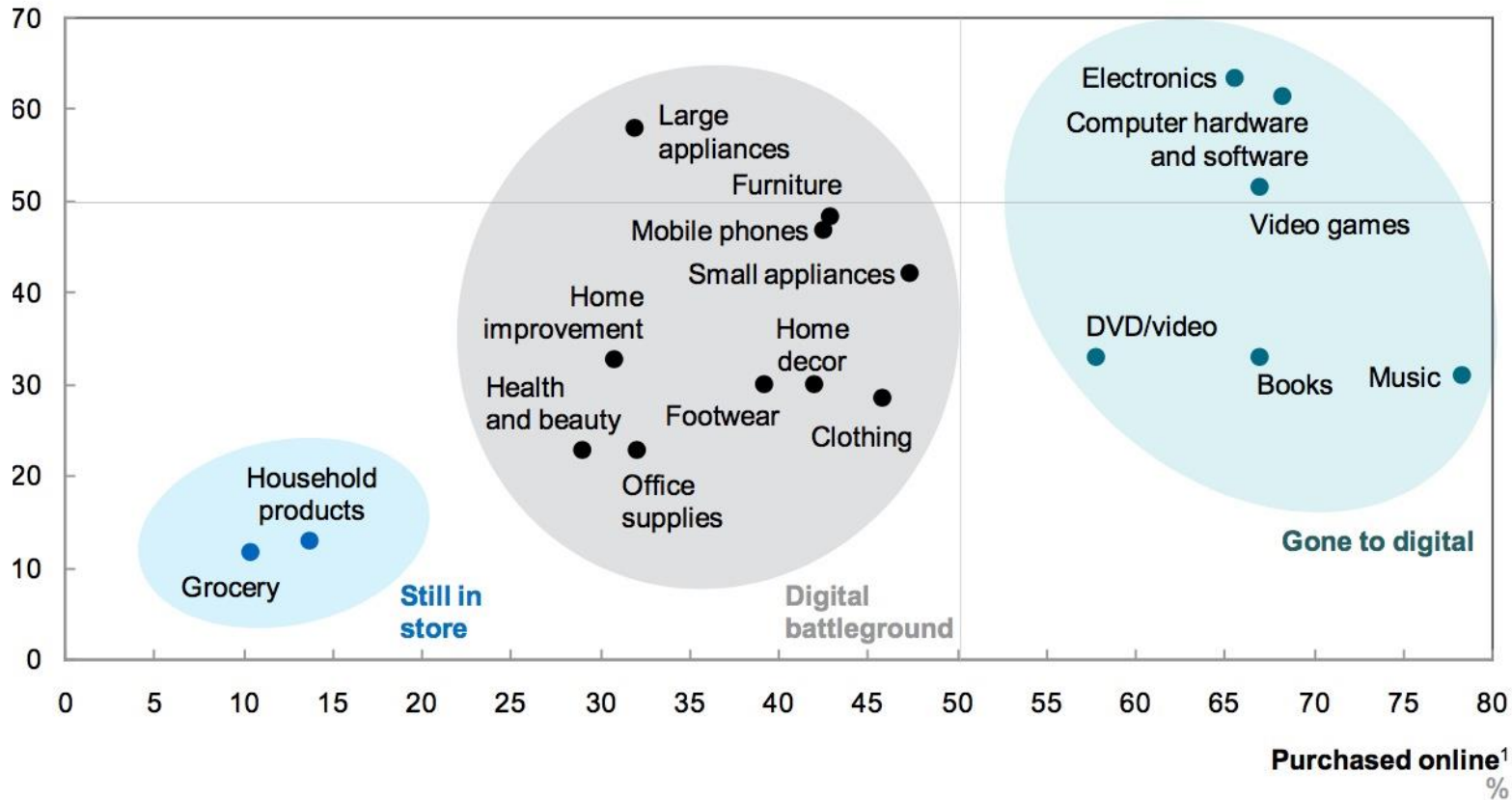
There is a large gap between the digital “haves” and “have-mores”

Example: Online Purchases

Customers are going online to make purchases in a broad range of product categories

Researched online¹

%

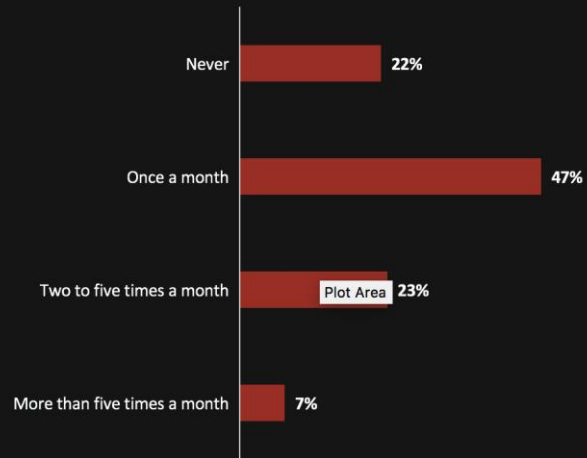


¹ As a percentage of those who bought a product in the respective category in the last 6 months.

SOURCE: McKinsey TMT Digital Insights 2014 US yearly survey

Expanding Frontier – and Challenges

Only 22% of online global citizens say they never buy goods or services online.



Q15. How frequently do you buy goods or service online?
Base: All Respondents (23,291)

Among those who never shop online, the key reason they do not is a lack of trust.

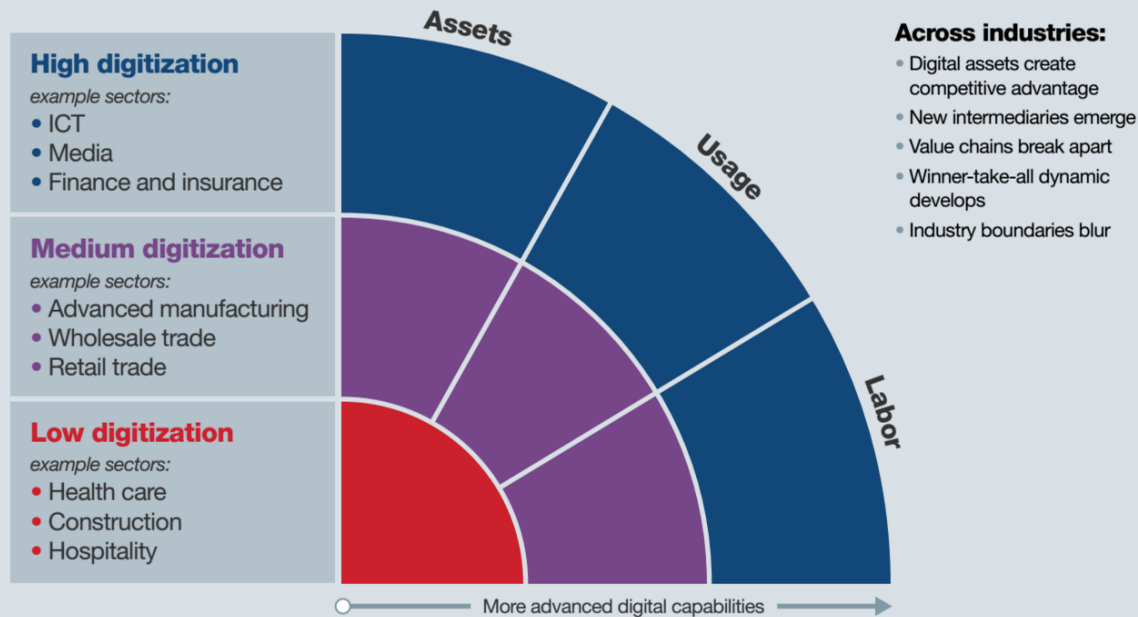


Q16. Why do you not purchase goods or service online?
Base: Never Buy Goods or Services Online (n=4,565)

<https://www.cigionline.org/internet-survey>

Expanding Frontier – and Challenges

MGI's **Industry Digitization Index** combines 27 indicators to measure the digital assets, digital usage, and digital workers in each sector



As the digital frontier expands, there is constant pressure to **adapt and evolve**

Companies

- The digital leaders never stop inventing and experimenting; incumbents have to do the same. The biggest risk is being disrupted while sitting on the sidelines.
- Build a strong balance sheet of digital assets, and find a way to monetize consumer surplus.
- Use digital to reinvent every process and build a more customer-focused, productive organization.

Policy makers

- As more tasks can be automated, jobs at all skill levels will be redefined. New training pathways and institutional responses will be critical.
- The speed of innovation calls for a more agile, test-and-learn approach to regulation and policy.
- Government can expand participation by providing access and infrastructure, enhancing digital literacy, and digitizing its own services.

Digitization could add some **\$2.2 trillion to annual GDP by 2025** in three areas alone— and this is only part of the potential

At the Core: Disruptive Technologies

- Technologies that create a new market and value network, by disrupting existing business, economics, culture, and the way we live.
- McKinsey identifies four factors of disruptive technologies:
 1. Rapidly advancing technology (“breakthrough”)
 2. Large scope of potential impact (e.g. IoT – billions of objects)
 3. Massive economic impact (e.g. advanced robotics and 6.3 trillion in labor costs globally)
 4. Economic impact that upends status quo (AI’s impact on jobs, lives)
- Technology is an important driver of disruptive innovation (but only one factor).
- Examples: Advanced robotics, AV, IoT, Cloud, 3D printing, AI

Disruptive Technologies: Two Examples

For each example, briefly identify some key challenges associated with it. The following questions might be helpful:

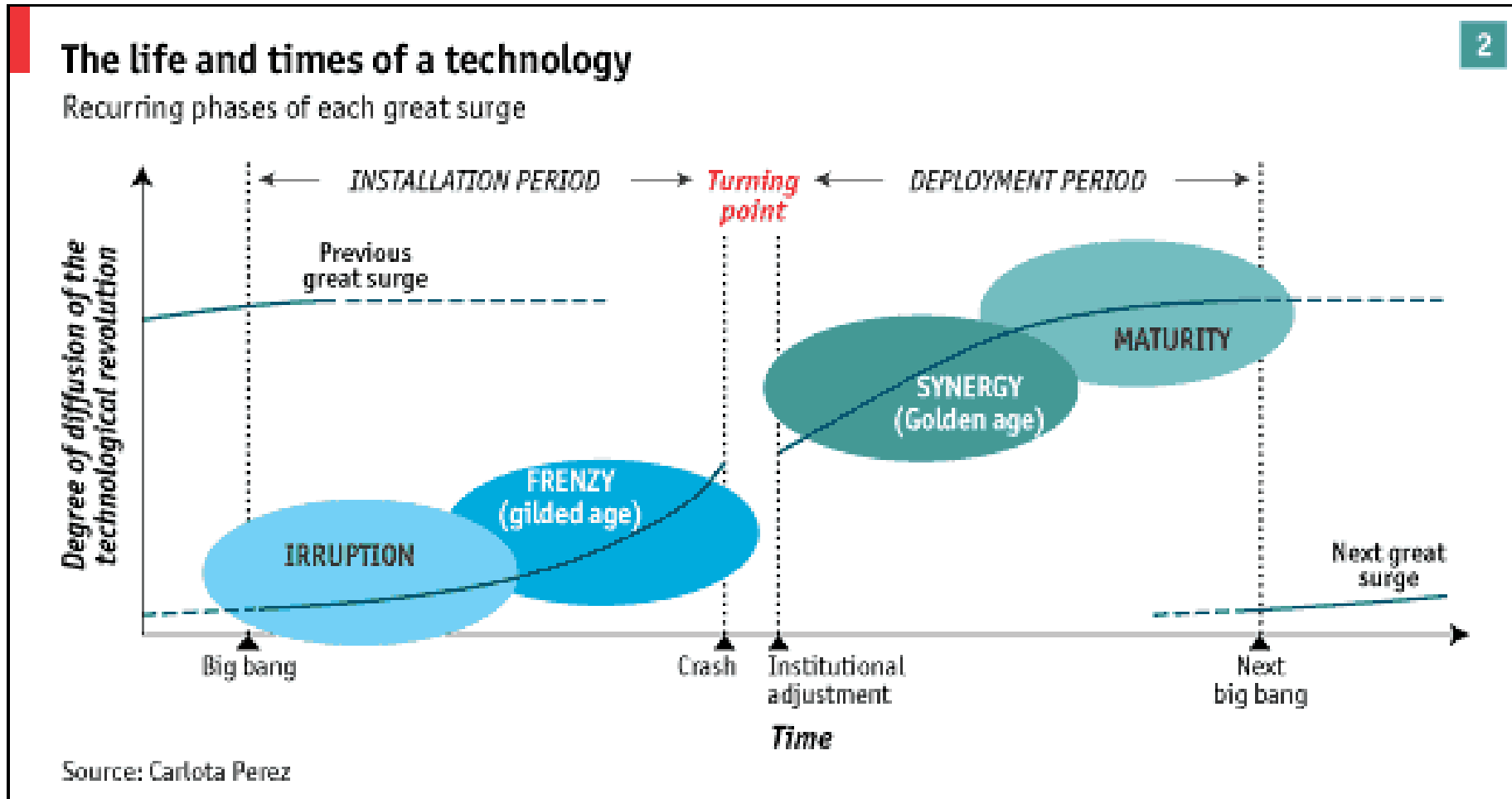
- What, where, and how are these technologies disrupting?
- What are the effects of the disruption?
- What are key legal and regulatory issues/concerns?
- What is different about the new disruptive technology, innovative business model, etc.?
- Who are the key actors involved?





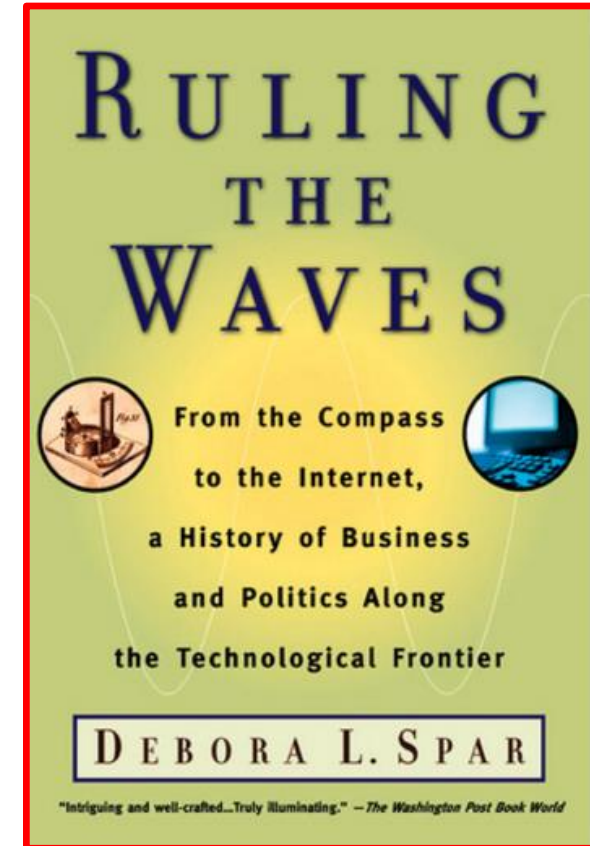
2 Law and Regulation: Traditional Response Patterns and New Challenges

Cycles of Disruption 1 (Carlota Perez)

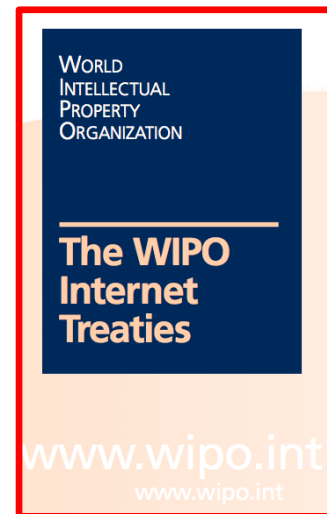
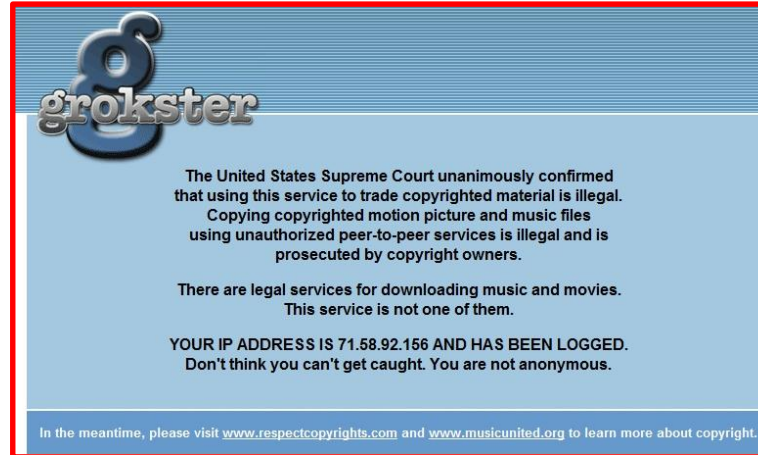
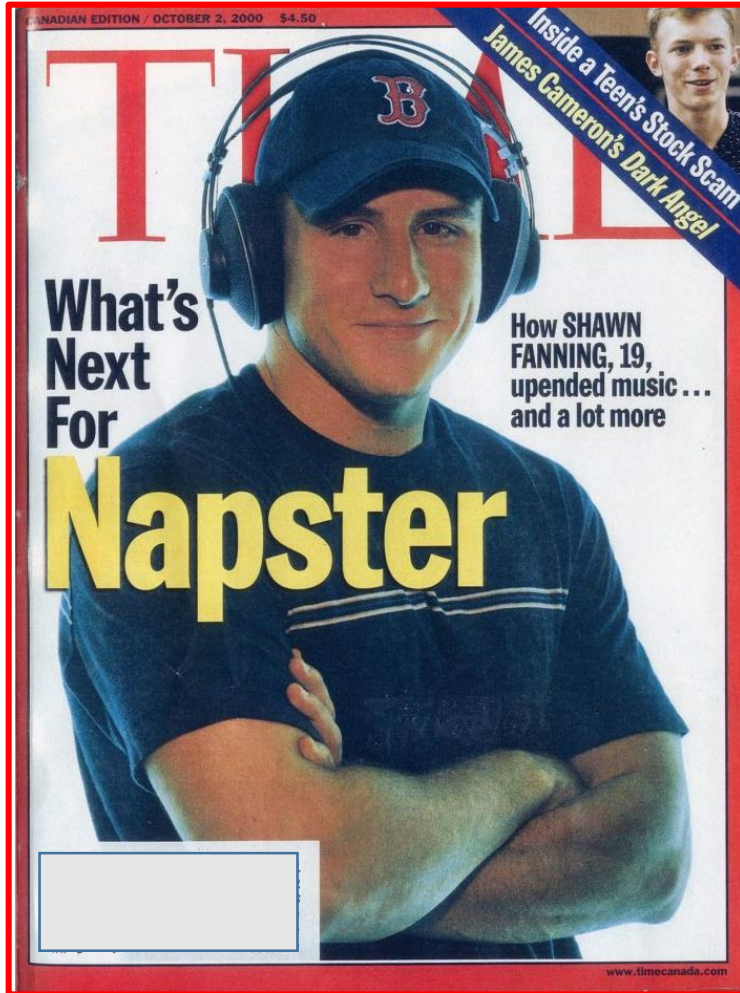


Cycles of Disruption 2 (Debora Spar)

- Cycle with four phases of innovation in information and communication technologies
 1. Innovation
 2. Commercialization
 3. Creative Anarchy
 4. Rules and Regulation
- Legal uncertainty at very early stages of innovation cycle
 - Legal system provides an early warning mechanism (e.g. IP law)

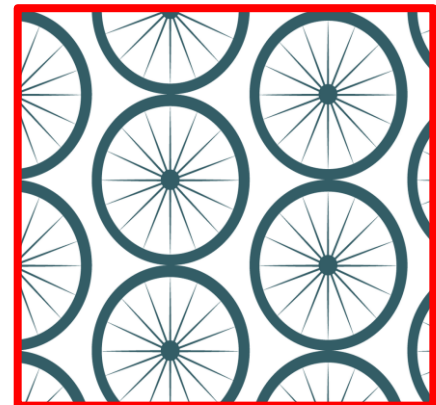
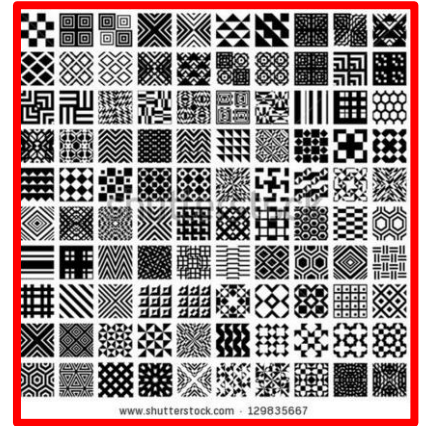


Example: Digital Media Crisis



Legal Response Patterns

- The legal system has developed different approaches to interact with technological changes (“response patterns”):
 - *Subsumption*, i.e. application of old rules to new phenomenon (default approach)
 - *Innovation*, i.e. enactment of new law (legislator) or introduction of new doctrines (courts)
 - *Gradual responses* over time
- Discussion: How are these patterns challenged by today’s developments in the digital economy and ecosystem?

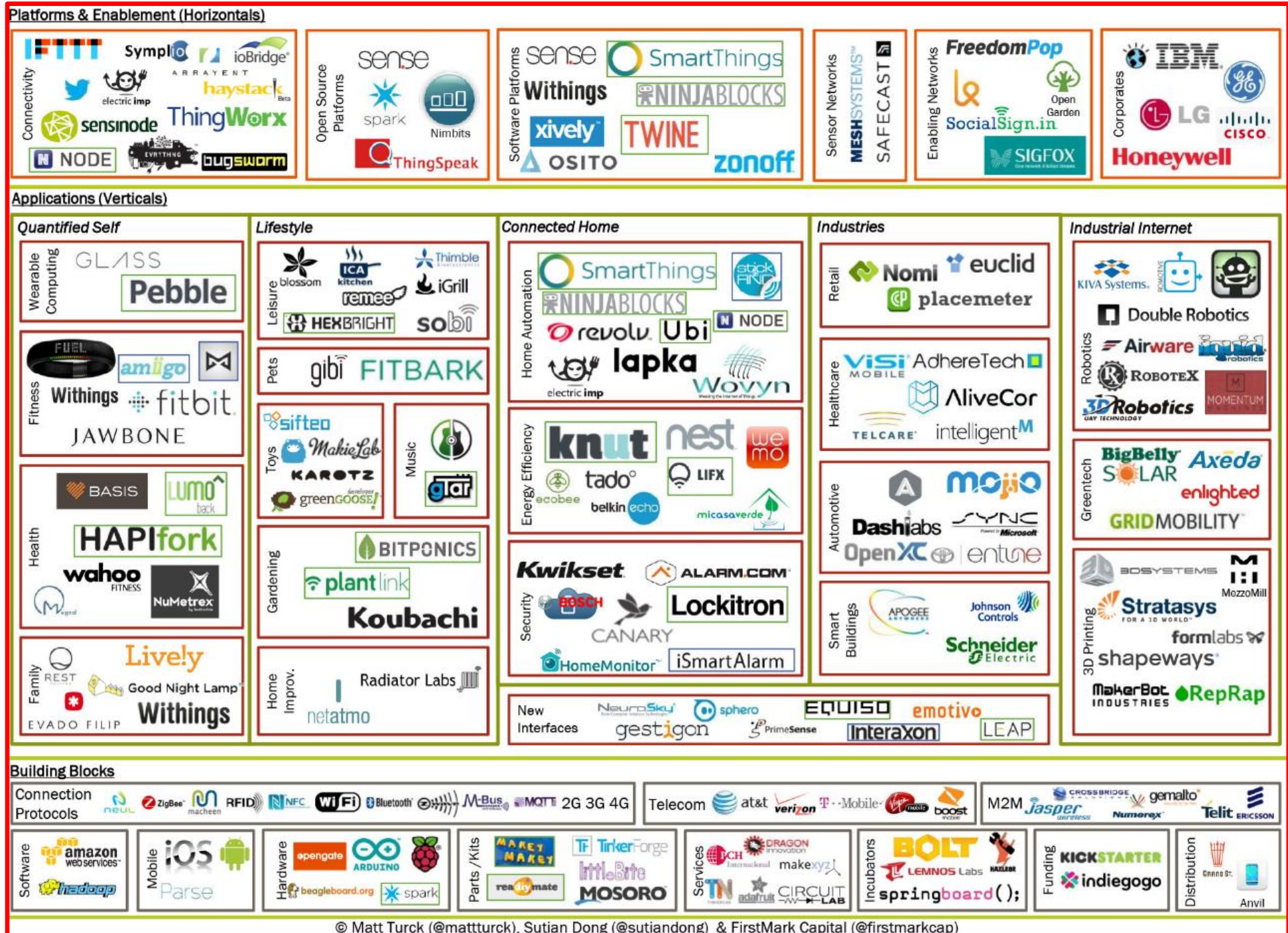


Regulating Disruptive Technologies in the Post-Regulatory State

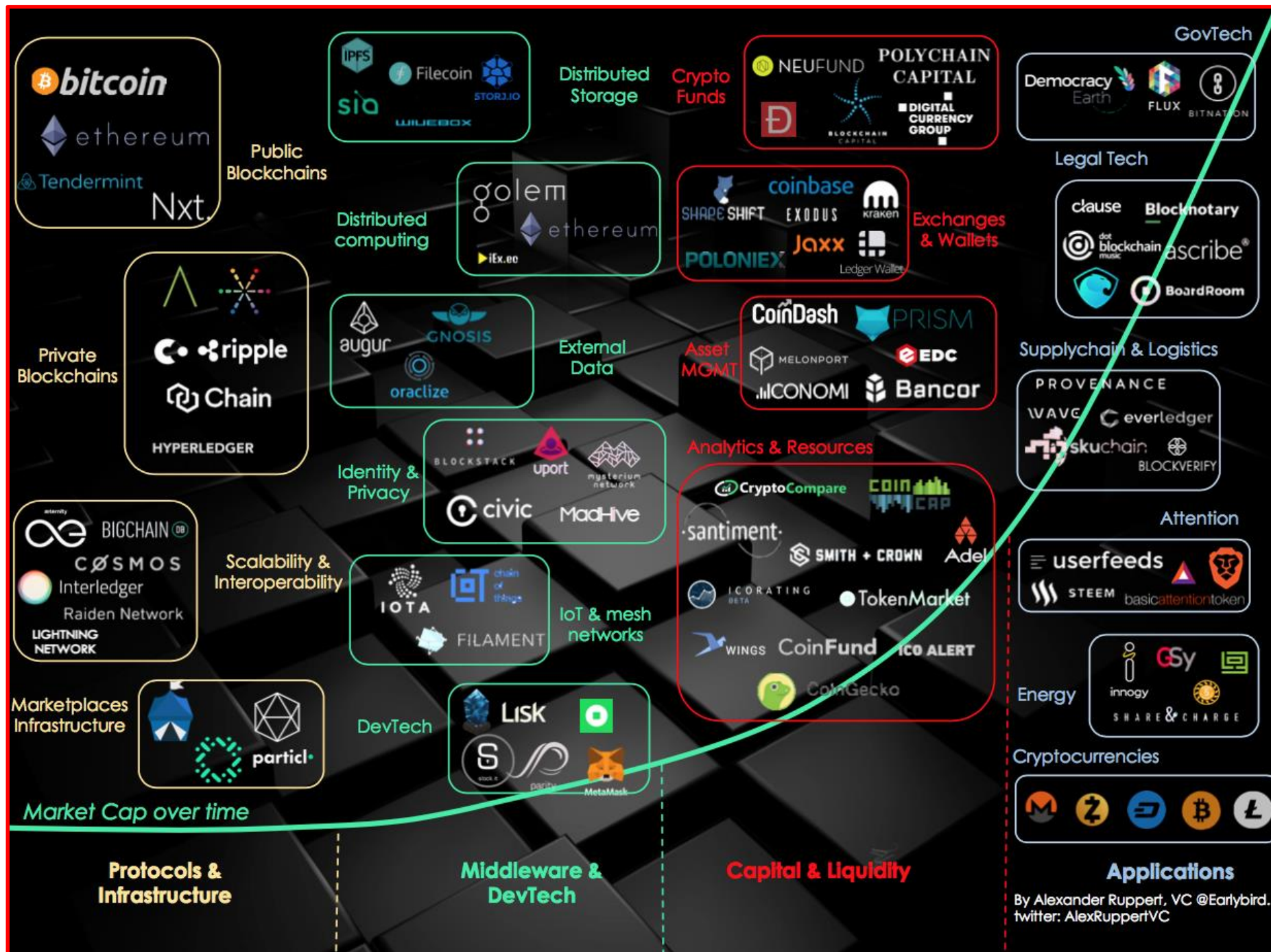
Four broader attributes of the digital ecosystem make regulation of disruptive innovation even more complex:

1. Variety in controllees
2. Variety in controllers
3. Variety in (and evolving) norms
4. Variety in control mechanisms

Example 1: IoT Ecosystem



Example 2: Crypto Sector



Regulating Digital Economy: Challenges for Lawmakers and Regulators

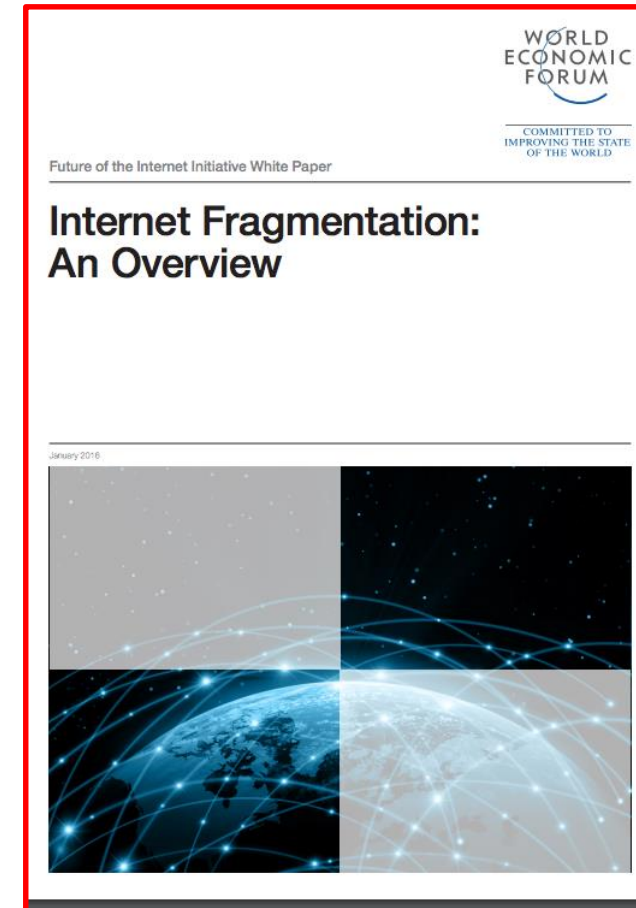
- Decision-makers face a variety of inherent challenges in “regulating” the digital economy, including:
 - *Justification*: Justifications for intervention, including market power, often shift faster than regulation can adapt.
 - *Prioritization*: Good regulation is a scarce resource.
 - *Reconciliation*: Managing competing policy goals and value trade-offs.
 - *Timing and Change*: Technology evolves faster than regulatory processes.
 - *Design*: Match legal designs with unique challenges of different technologies.
 - *Internationalization*: Regulatory challenges are increasing regional and global.
 - *Enforcement*: Law on the books versus law in action in decentralized environments.
 - *Unintended consequences*: Good intentions but undesirable outcomes are possible.

Biggest Ecosystem Challenge

How to avoid the fragmentation of the Internet and destroy the generative power of digital technologies?



<https://www.economist.com/news/international/21709531-left-unchecked-growing-maze-barriers-internet-will-damage-economies-and>



http://www3.weforum.org/docs/WEF_FII_Internet_Fragmentation_An_Overview_2016.pdf

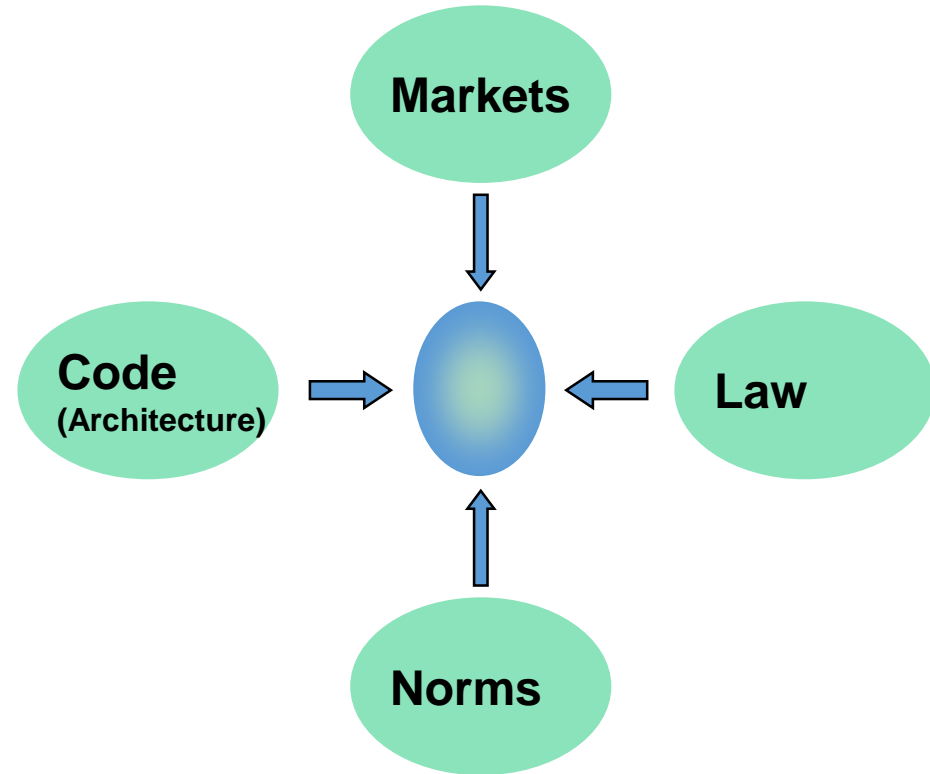
2 Regulatory Models in Cyberspace

Overview: Moving Beyond Law

- Addressing the fast-paced evolution and unique challenges of disruptive technologies requires a shift from law and government towards a more holistic *governance* approach.
- Effective governance in the digital age is based on three concepts:
 - Multimodal: Consider and combine different “modes of regulation”.
 - Multilayer: local, national, regional, and global engagement.
 - Multistakeholder: government, companies, civil society & academia, co-creating policy solutions.
- However, law continues to play a key role.

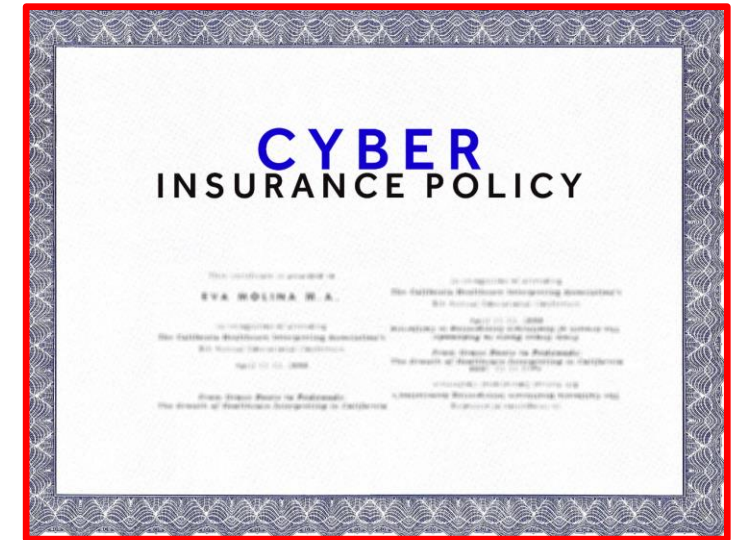
Governance: Multimodal

- Consider all “modes of regulation” and work towards blended regimes
 - Law
 - Standard setting
 - Transparency
 - Information sharing
 - Self-regulation
- Over the past decade, increased importance of “code” as a “regulator” in digital environments
- Requires interdisciplinary expertise, education, mind-set



Source: Lessig, Code and Other Laws of Cyberspace (1999)

Example: Cybersecurity



Deep Dive 1: Lex Informatica/Code-Based Regulation

- New Chicago School: “Architecture” as a mode of regulation
 - In Cyberspace, architecture is code, and “code is Law” (Lawrence Lessig).
 - Design of code shapes/constrains human behavior in the digitally connected environment
 - Technologists set the rules through hardware and software choices
 - Governments can shape “code” and use it as indirect mode of regulation (example: content filters, DRM systems)
- Similarly, concept of *lex informatica* (Joel Reidenberg): Forming information policy rules through technology
 - In analogy to *lex mercatoria*
 - Parallel rule system, both regulatory tools (design and legal tools) are available to a hierarchical regulator

Legal Regulation v. Lex Informatica

	<i>Legal Regulation</i>	<i>Lex Informatica</i>
<i>Framework</i>	Law	Architectural Standards
<i>Jurisdiction</i>	Physical Territory	Networks
<i>Content</i>	Statutory/Court Expression	Technical Capabilities Customary Practice
<i>Source</i>	State	Technologists
<i>Customized Rules</i>	Contract	Configuration
<i>Customization Process</i>	Low Cost Moderate Cost Standard Form High Cost Negotiation	Off-the-Shelf Configuration Installable Configuration User Choice
<i>Primary Enforcement</i>	Court	Automated, Self-execution

Example: Encryption



WIKIPEDIA
The Free Encyclopedia

- Main page
- Contents
- Featured content
- Current events
- Random article
- Donate to Wikipedia
- Wikipedia store

Interaction

- Help
- About Wikipedia
- Community portal
- Recent changes
- Contact page

Tools

- What links here
- Related changes
- Upload file
- Special pages
- Permanent link
- Page information
- Wikidata item
- Cite this page

Print/export

- Create a book

Not logged in | Talk | Contributions | Create account | Log in

Article | **Talk** | Read | Edit | View history | Search Wikipedia

FBI–Apple encryption dispute

From Wikipedia, the free encyclopedia

The **FBI–Apple encryption dispute** concerns whether and to what extent courts in the [United States](#) can compel manufacturers to assist in unlocking [cell phones](#) whose [data](#) are [cryptographically protected](#).^[1] There is much debate over public access to strong encryption.^[2]

In 2015 and 2016, [Apple Inc.](#) has received and objected to or challenged at least 11 orders issued by [United States district courts](#) under the [All Writs Act](#) of 1789. Most of these seek to compel Apple "to use its existing capabilities to extract data like contacts, photos and calls from locked [iPhones](#) running on operating systems [iOS 7](#) and older" in order to assist in criminal investigations and prosecutions. A few requests, however, involve phones with more extensive security protections, which Apple has no current ability to break. These orders would compel Apple to write new software that would let the government bypass these devices' security and unlock the phones.^[3]



An iPhone 5C, the model used by one of the perpetrators of the 2015 San Bernardino attack



RIETTA.COM™
Web Apps Where Security Matters

Home | Team | Appsec Learning | Services | Blog | Contact Us

You are reading [The Rietta Blog](#), a publication about the web since 2005.

APR 8TH, 2016 ♦ WRITTEN BY FRANK RIETTA ♦ [COMMENTS](#)

U.S. Senate Bill Seeks to Ban Effective Encryption, Making Security Illegal

The anticipated Feinstein-Burr *Compliance with Court Orders Act*, an anti-security bill that would require the disclosure of data in an intelligible format to a government agency (the bill is currently in committee). A draft copy was uploaded by The Hill last week, but whether it has been submitted officially within the Senate is unclear.

become a supporter

theguardian

news / opinion / sport / arts / life

tech / world / UK / science / cities / global development / more



WhatsApp rolls out full encryption to a billion messenger users

In the wake of Apple's encryption battle with the FBI, the latest version of Facebook's popular messenger tool will add strong encryption to texts and calls

Discussion

- What are the strengths and weaknesses of code-based regulation?
- How does code-based regulation address the challenges of lawmaking and regulation in the digital economy? Which challenges remain unresolved?
- Where do you see the main areas of application?

Deep Dive 2: Self- and Co-Regulation

- Self-regulation based on the principle of subsidiarity, i.e. governmental intervention should only take place if actors in a relevant context are unable to find suitable solutions themselves.
- Two types of self-regulation:
 - Concept of private groups, who make autonomous decisions that limit behavior, bound by laws of general application.
 - Concept within a framework set by the government (directed self-regulation, co-regulation, etc.)
- Self-regulation to be considered where its application leads to higher efficiency than traditional legal mechanisms, and if compliance with private rules is higher than with alternative arrangements.

Example: Code of Conduct on Illegal Hate Speech (EU)



European Commission - Press release

European Commission and IT Companies announce Code of Conduct on illegal online hate speech

Brussels, 31 May 2016

The Commission together with Facebook, Twitter, YouTube and Microsoft (“the IT companies”) today unveil a code of conduct that includes a series of commitments to combat the spread of illegal hate speech online in Europe.

The IT Companies support the European Commission and EU Member States in the effort to respond to the challenge of ensuring that online platforms do not offer opportunities for illegal online hate speech to spread virally. They share, together with other platforms and social media companies, a collective responsibility and pride in promoting and facilitating freedom of expression throughout the online world. However, the Commission and the IT Companies recognise that the spread of illegal hate speech online not only negatively affects the groups or individuals that it targets, it also negatively impacts those who speak out for freedom, tolerance and non-discrimination in our open societies and has a chilling effect on the democratic discourse on online platforms.

Discussion

- What are the strengths and weaknesses of self- and co-regulation?
- How does self-regulation address the challenges of lawmaking and regulation in the digital economy? Which challenges remain unresolved?
- Where do you see the main areas of application?

Deep Dive 3: A Role for Law & Regulation

- The tools of governance are critical for addressing disruptive technologies and innovation, but that does not mean law is irrelevant
- In the age of governance, law remains important in at least four ways:
 1. Law as embodiment of fundamental values
 2. Law as coordinating mechanism
 3. Law as indirect force
 4. Law as foundation
- Pro memoria: Digital technologies can also *strengthen* the rule of law, access to justice, and human rights

Law: Fundamental Values

- Law provides the formal space to engage in a public dialogue about the fundamental values that may be in conflict with the impacts of disruptive technologies
- Disruptive technologies create numerous tensions:
 - Privacy vs customization
 - Personal data security vs national security
 - Incumbent industries vs start-up platforms
 - Traditional forms of labor vs automation
 - ...
- Law is space to stabilize the upheaval and discuss these fundamental values

Law: Coordinating Mechanism

- Law serves as a coordinating force that can bridge various stakeholders in ways that would be impossible otherwise, both in process and in result
 - *Procedural* coordination: the legislative and regulatory processes can create pathways for coordination and dialogue
 - Example: Apple v. FBI case resulted in congressional hearings, numerous legal briefs, all leading to coordination both within and across stakeholder groups
 - *Resultant* coordination: law and regulation can itself direct coordination
 - Example: reforms to government agency structure in order to improve both inter-agency coordination on cybersecurity risks, as well as information sharing systems between the public and private sectors

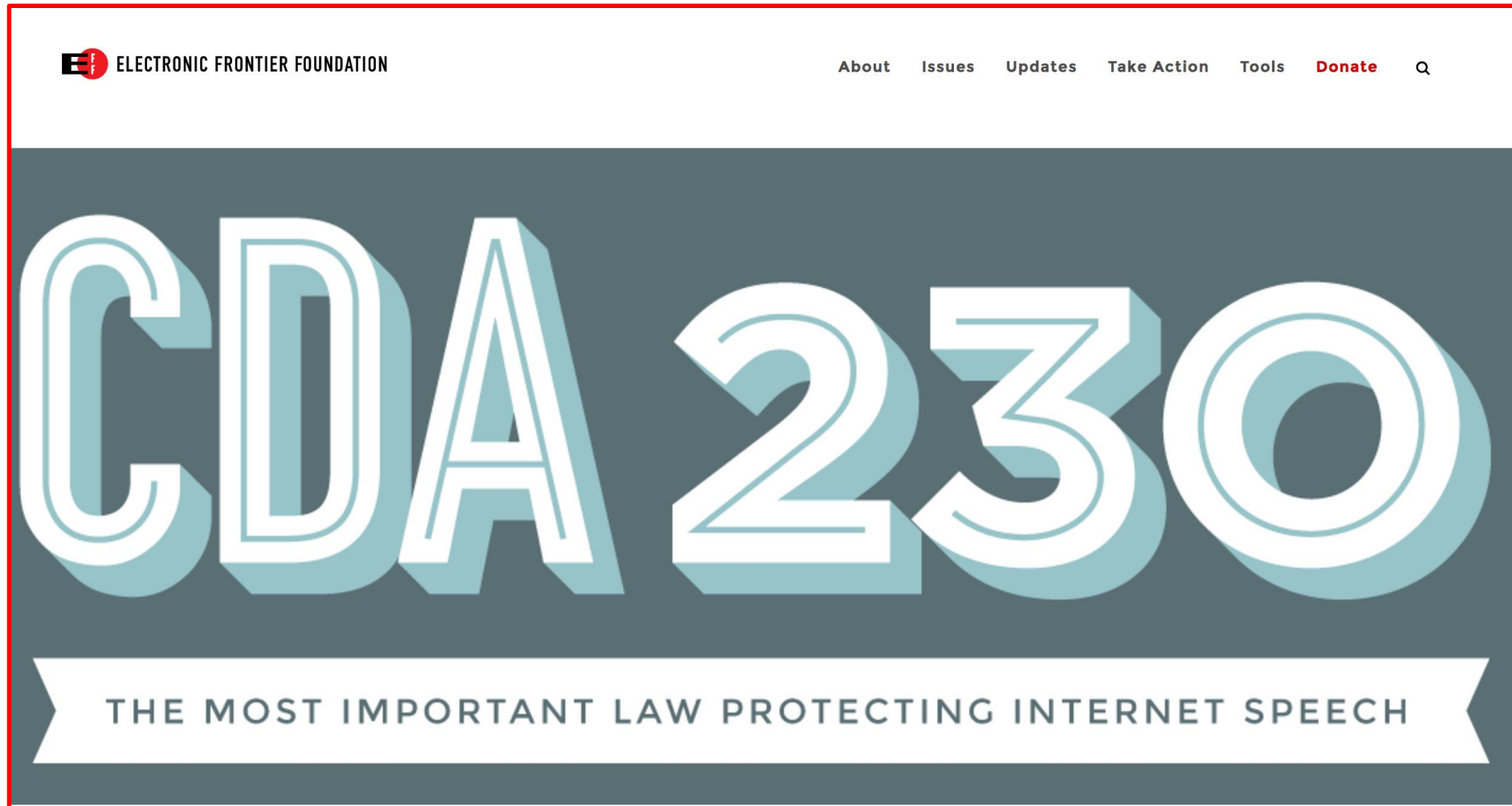
Law: Indirect Force

- Although there are many circumstances where application of law and regulation is ill-suited to directly addressing fast-paced disruptive technologies, it can be used effectively to *indirectly* affect these technologies
- Examples:
 - Directly regulating the privacy protections in products and services vs. enabling consumer protection agencies to monitor product and service privacy commitment and compliance
 - Direct imposing cybersecurity standards vs. supporting testing laboratories to increase transparency around cybersecurity practices

Law: Foundation and Enabler

- Digital technologies did not emerge in a legal vacuum – they reflect a legal foundation that already exists
- Relationship between sound and robust legal framework and innovation broadly acknowledged
- The interplay between law and technology is not static; just as disruptive technologies might trigger adjustments in law and regulation, changes to law and regulation will shape the next generation of disruptive technologies
 - Example: the complex and limiting regulatory system of taxicab licensing, insurance, and medallions was a primary factor in the structure of ride-sharing platforms

Example: CDA 230



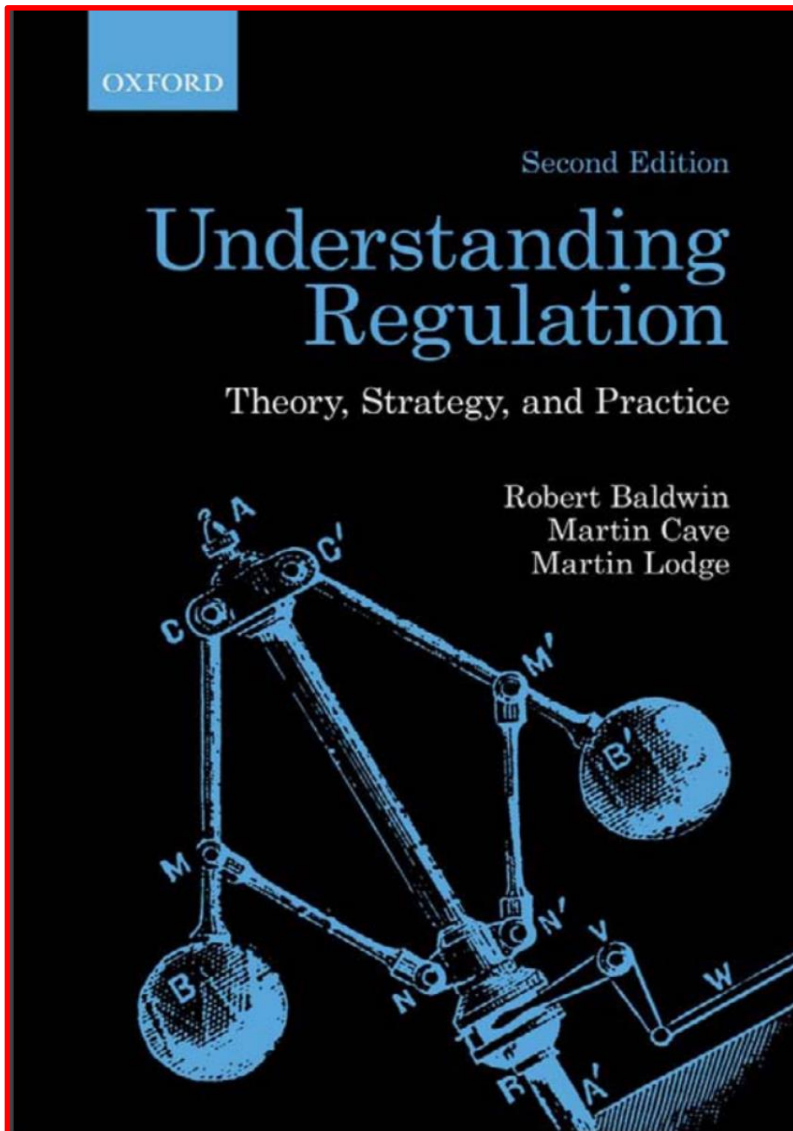
<https://www.eff.org/issues/cda230>

Regulatory (Legal) Strategies

Consider full spectrum of regulatory (legal) strategies (see Baldwin/Cave, Understanding Regulation):

- *Command & control*—where legal authority and the command of law is used to pursue policy objectives.
- *Incentive-based regimes*—where contracts, grants, loans, subsidies, or other incentives are used to influence conduct.
- *Market-harnessing controls*—where governments channel competitive forces to particular ends (for example, by using franchise auctions to achieve benefits for consumers).
- *Disclosure regulation*—where information is deployed strategically (e.g. so as to empower consumers).
- *Direct action*—where the state takes physical action itself (e.g. to contain a hazard or nuisance).
- *Rights and liability*—where rights and liability rules are structured and allocated so as to create desired incentives and constraints (e.g. rights to clean water are created in order to deter polluters).

Further Reading



■ CONTENTS

LIST OF FIGURES	xi
LIST OF TABLES	xii
ABBREVIATIONS	xiii
1 Introduction	1
PART I FUNDAMENTALS	
2 Why Regulate?	15
3 What is 'Good' Regulation?	25
4 Explaining Regulation	40
5 Regulatory Failure	68
6 Regulating Risks	83
PART II STRATEGIES	
7 Regulatory Strategies	105
8 Self-regulation, Meta-regulation, and Regulatory Networks	137
9 Franchising	165
10 Emissions Trading	195
PART III RULES AND ENFORCEMENT	
11 Enforcing Regulation	227
12 Responsive Regulation	259
13 Risk-based Regulation	281
14 Standards and Principles	296
PART IV QUALITY AND EVALUATION	
15 Cost-Benefit Analysis and Regulatory Impact Assessment	315
16 Accountability, Procedures, and Fairness	338
17 Regulatory Competition and Coordination	356

x CONTENTS

PART V REGULATION AT DIFFERENT LEVELS OF GOVERNMENT

18 Multi-level Regulation	373
19 Regulation and the European Union	388
20 Regulation and Development	409
21 Global and International Regulation	425

PART VI NETWORK ISSUES

22 Regulating Prices in Natural Monopolies	443
23 Using Competition in Network Industries	452
24 Separation and Contestability in Network Industries	466
25 Implementing Price Controls	476
26 Efficiency and Innovation in Network Industries	492

PART VII CONCLUSIONS

27 Conclusions	505
-----------------------	------------

SELECT BIBLIOGRAPHY	509
---------------------	-----

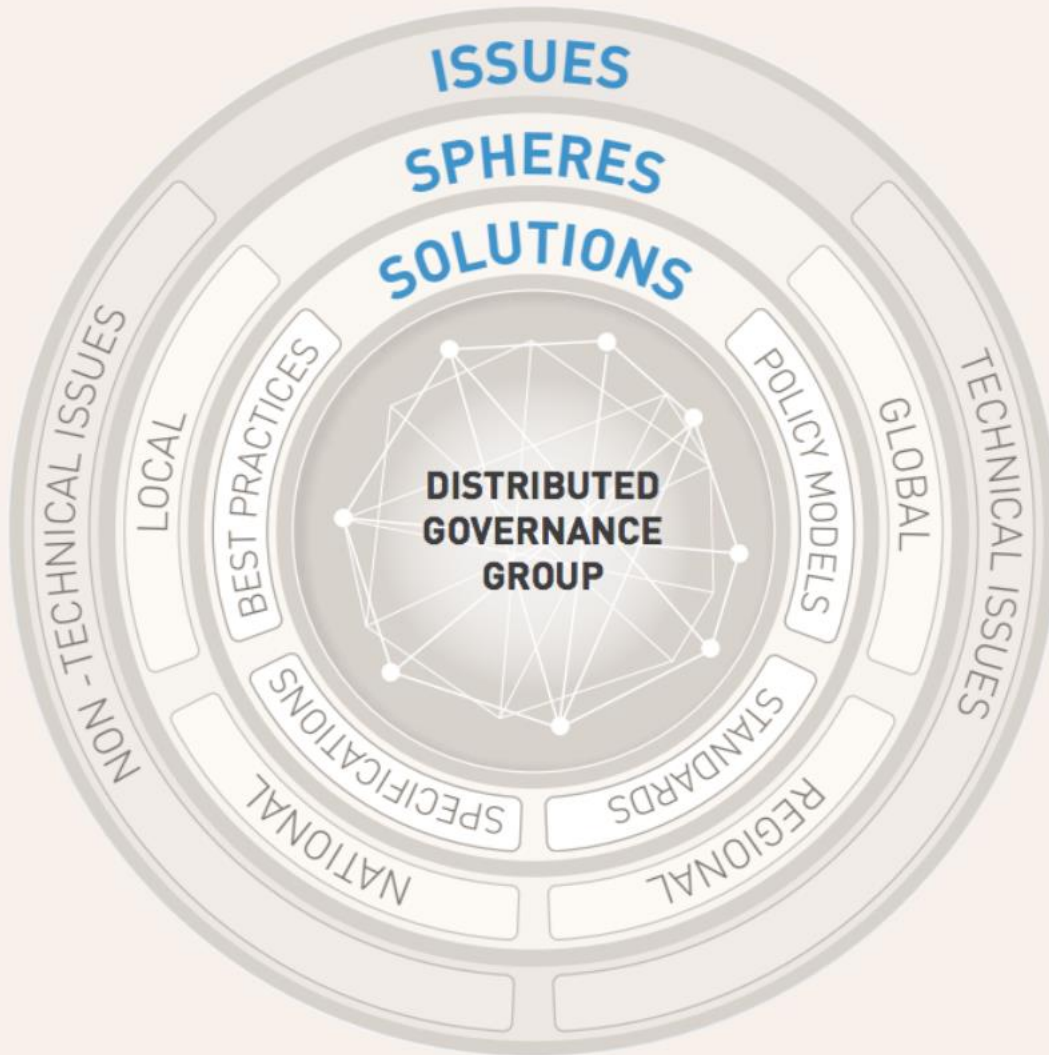
INDEX	531
-------	-----

3 Multi-Stakeholder Governance

Governance: Multistakeholder

- Addressing the complex challenges and embracing the full potential of digital technologies requires a range of skills, knowledge, and perspectives that are often unavailable in a single place
- Robust solutions benefit from input from a variety of stakeholders, including:
 - Private sector
 - Governments
 - Academia
 - Civil society
- Important approach across all governance functions, incl. issues identification, development and selection of approaches, implementation, and evaluation

Collaborative, Decentralized IG Model



Towards a Collaborative, Decentralized Internet Governance Ecosystem

Report by the Panel on Global
Internet Cooperation and
Governance Mechanisms

Available at:

<https://www.internetsociety.org/sites/default/files/Internet%20Governance%20Report%20iPDF.pdf>

Example: EIDG (Germany)

Mini Case Study #1

Enquete-Kommission Internet und digitale Gesellschaft (“EIDG”)

The Enquete Commission on Internet and Digital Society was a parliamentary inquiry body of the German Bundestag, which conducted its work between May 2010 and April 2013. Enquete Commissions are special bodies of the Bundestag, and form an interface between policymakers, academics, and professional experts in order to consider broad and complex societal issues that cannot be dealt with sufficiently through regular legislative processes. The EIDG was formed to consider the challenges digitization presents for politics and society.

The EIDG included 34 members, including 17 experts and practitioners from industry, trade unions, civil society and academia and 17 democratically elected members of parliament. It was structured around working groups designed to address different aspects

of the topic. The working groups used public and private meetings and drafted preliminary reports for discussion by the broader group. The public was also incorporated through an online platform, although delays in implementation meant public participation was limited and could not be fully integrated into the EIDG’s working procedure.

Political influences had a noticeable impact on the EIDG. While its links to the Bundestag guaranteed resources

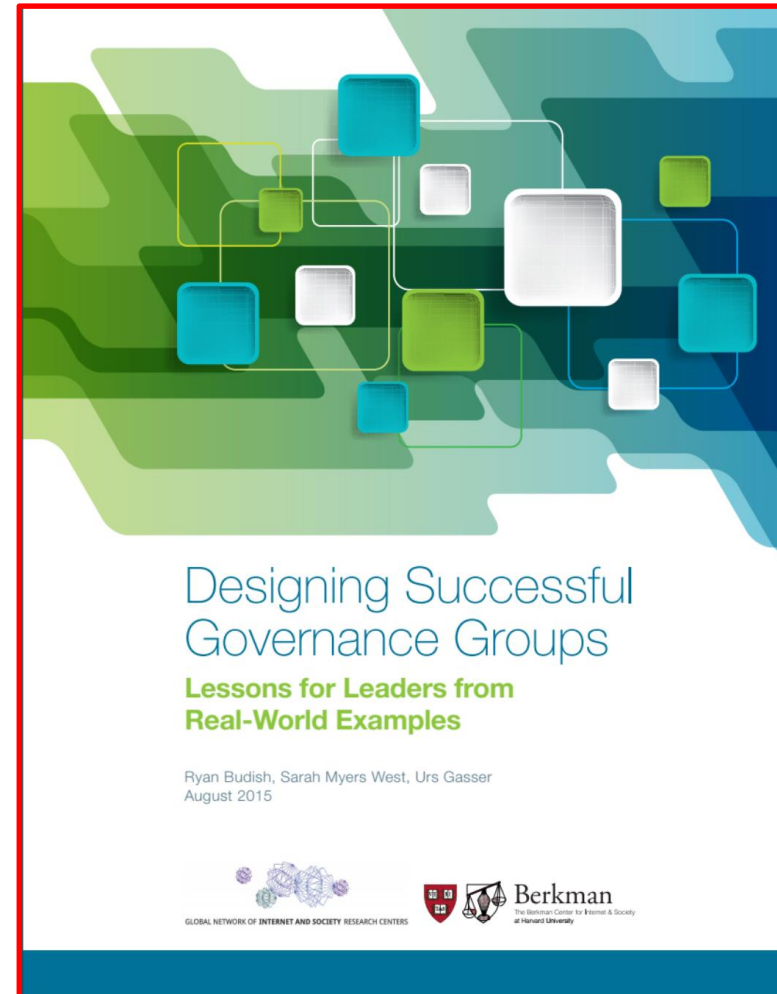
and stability for the process, these links also tied the Commission’s work to political dynamics. Although formally independent, experts on the Commission were appointed by members of political parties and thus were expected to align with their party’s views on specific issues. Furthermore, the use of majority voting on certain issues inhibited consensus building. Despite these detractions, the process enabled policymakers to integrate knowledge from a range of experts on very nuanced and complex issues, helping to develop a more substantial grounding for future Internet policymaking in Germany.



<https://cyber.harvard.edu/node/99052>

Further Reading

<https://cyber.harvard.edu/node/99052>

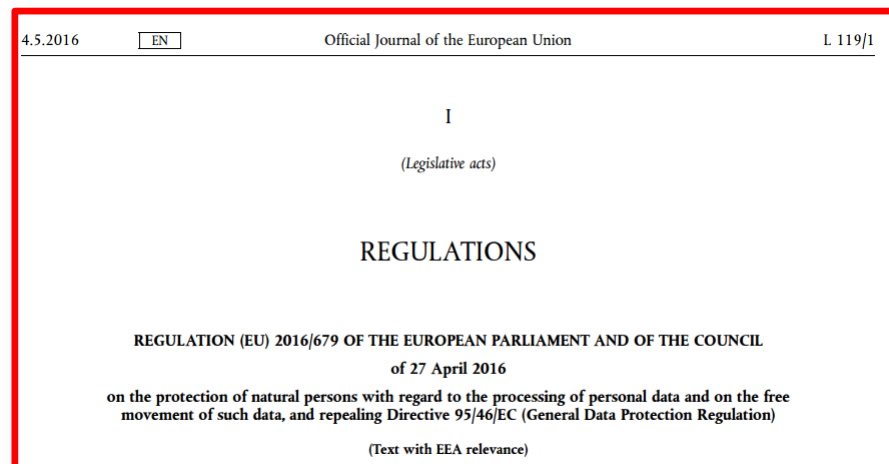
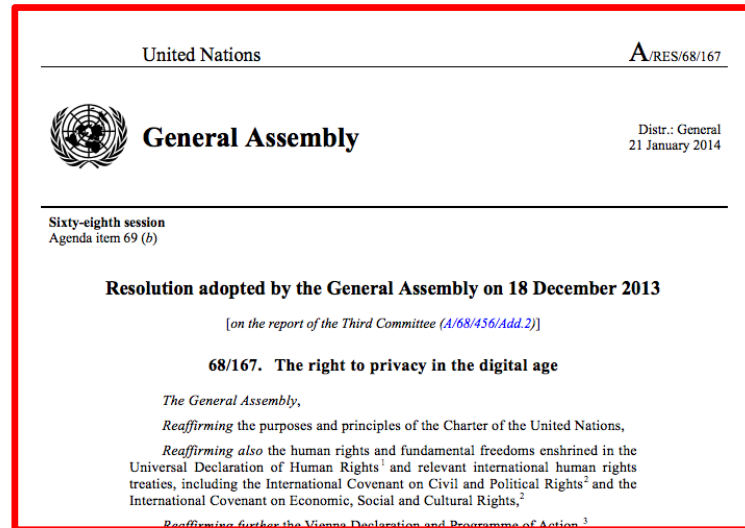


https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2549270

Governance: Multilayered

- Many of the challenges of disruptive technologies occur at the local, national, regional, and global levels; effective solutions require working at and across each layer of governance
- Multilayered governance is not only necessary to “tame” disruptive technology, but also:
 - “For governments and national policy making, facilitating increased international collaboration and complementing inward with more outward-looking approaches is now key to sustained success in innovation”*
 - The Global Innovation Index 2016: Winning with Global Innovation, p. 12
- Removing barriers to global cooperation and flow of ideas, knowledge, and people are new priorities in innovation policy

Example: Digital Privacy and Big Data



SEGMENT 2

1 Hate Speech on the Internet

Definitions and Perspectives

“Hate speech” as speech that demeans or attacks a person or people as members of a group with shared characteristics such as race, gender, religion, sexual orientation, or disability.

- Perspective 1: outcome-based with a focus on the harm to groups or individuals.
- Perspective 2: intent of the speaker.
- Perspective 3: content of the speech.

“Online harrassment” as “unwanted contact that is used to create an intimidating, annoying, frightening, or even hostile environment for the victim and that uses digital means to reach the victim” (A. Lenhart).

- Includes doxxing, revenge porn, gender-based harrassment, etc.

“Dangerous speech” as that which increases the risk of violence through a range of rethorical techniques and may contain explicit threats or incitement to violence (S. Benesch).

Phenomenon (US)

FOR RELEASE JULY 11, 2017

Online Harassment 2017

Roughly four-in-ten Americans have personally experienced online harassment, and 62% consider it a major problem. Many want technology firms to do more, but they are divided on how to balance free speech and safety issues online

BY Maeve Duggan

<http://www.pewinternet.org/2017/07/11/online-harassment-2017/>

Roughly four-in-ten Americans have personally experienced online harassment

% of U.S. adults who have experienced _____ online



Any harassment 41

Only less severe behaviors 22

Any of the more severe behaviors 18

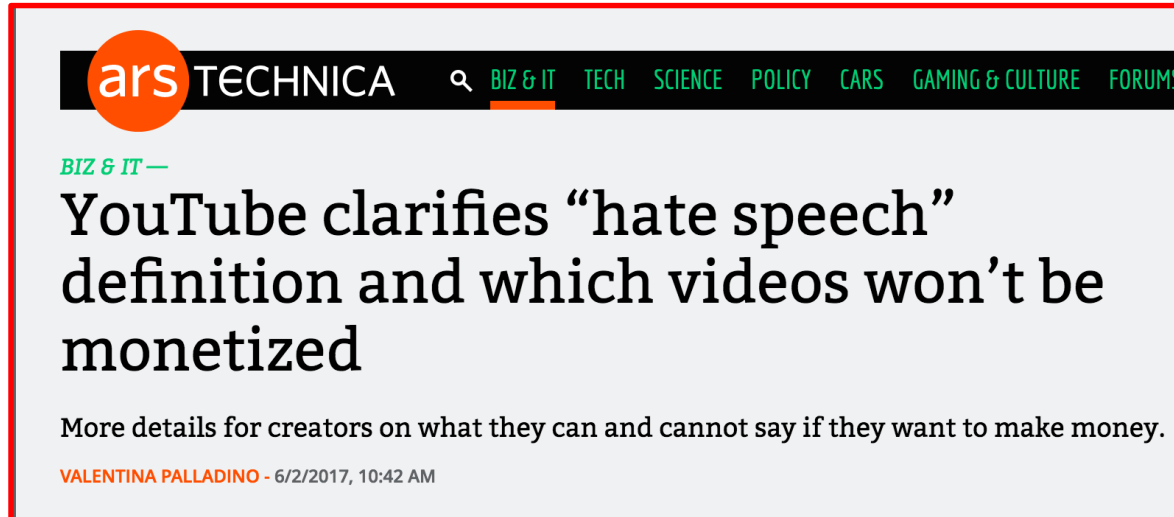
Source: Survey conducted Jan. 9 -23, 2017.
"Online Harassment 2017"

PEW RESEARCH CENTER

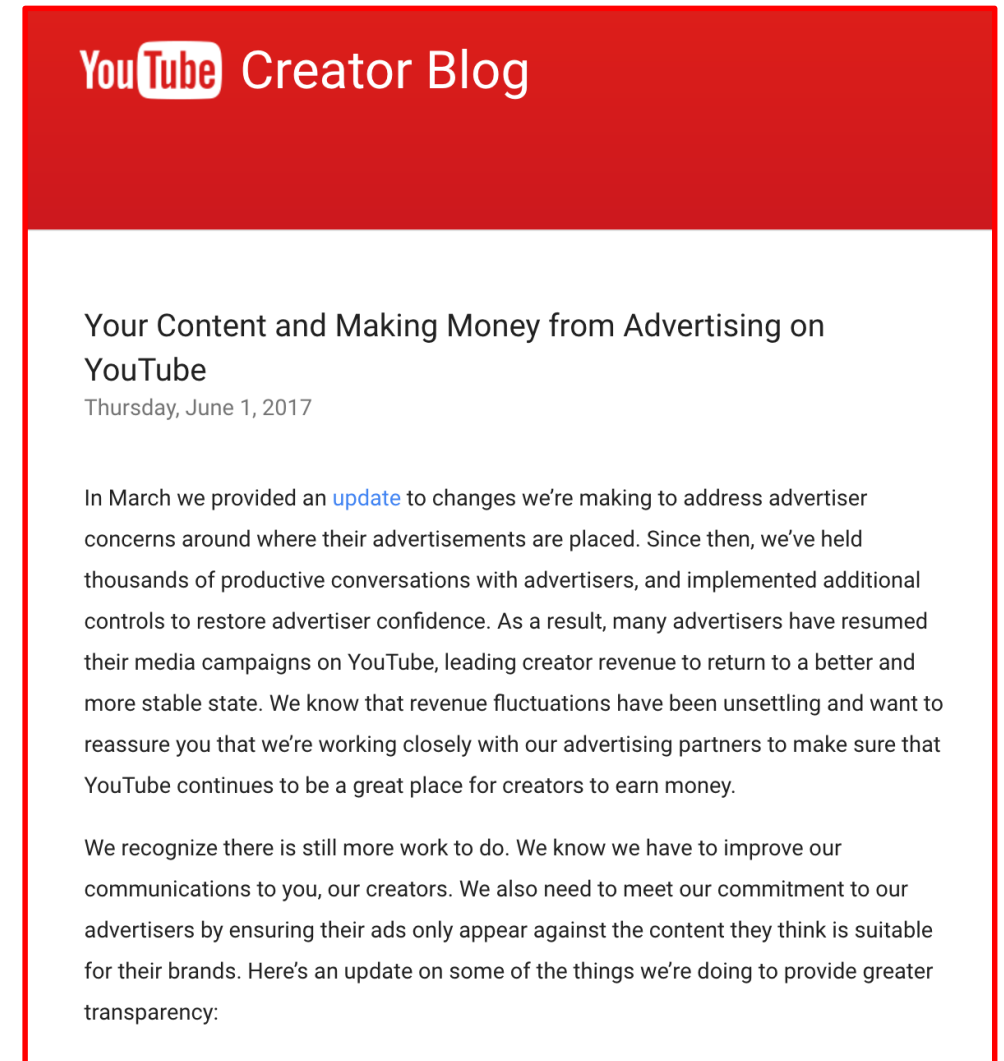
Hate Speech Regulation: A Hard Problem

- *Definitional issues*: Hate or harmful speech consists a range of phenomenon that overlap and intersect, and include a variety of types of speech that cause different harms.
- *Normative issues*: Trade-offs and tensions between protecting the interests of vulnerable populations and victims of harmful speech online and protecting freedom of expression; allocation of (shared?) responsibility among dynamic actors network.
- *Design issues*: Legal remedies often under- or overinclusive, plus enforcement problems; civil society responses important, but early-stage; role of intermediaries and commercial vs. public interests, etc.

Example: YouTube



<https://arstechnica.com/information-technology/2017/06/what-is-hate-speech-on-youtube-video-site-offers-clarity/>



<https://youtube-creators.googleblog.com/2017/06/your-content-and-making-money-from.html>

Example: International Covenant on Civil and Political Rights (ICCPR)

Article 19

1. Everyone shall have the right to hold opinions without interference.
2. Everyone shall have the right to freedom of expression; this right shall include freedom to seek, receive and impart information and ideas of all kinds, regardless of frontiers, either orally, in writing or in print, in the form of art, or through any other media of his choice.
3. The exercise of the rights provided for in paragraph 2 of this article carries with it special duties and responsibilities. It may therefore be subject to certain restrictions, but these shall only be such as are provided by law and are necessary:
 - (a) For respect of the rights or reputations of others;
 - (b) For the protection of national security or of public order (ordre public), or of public health or morals.

Article 20

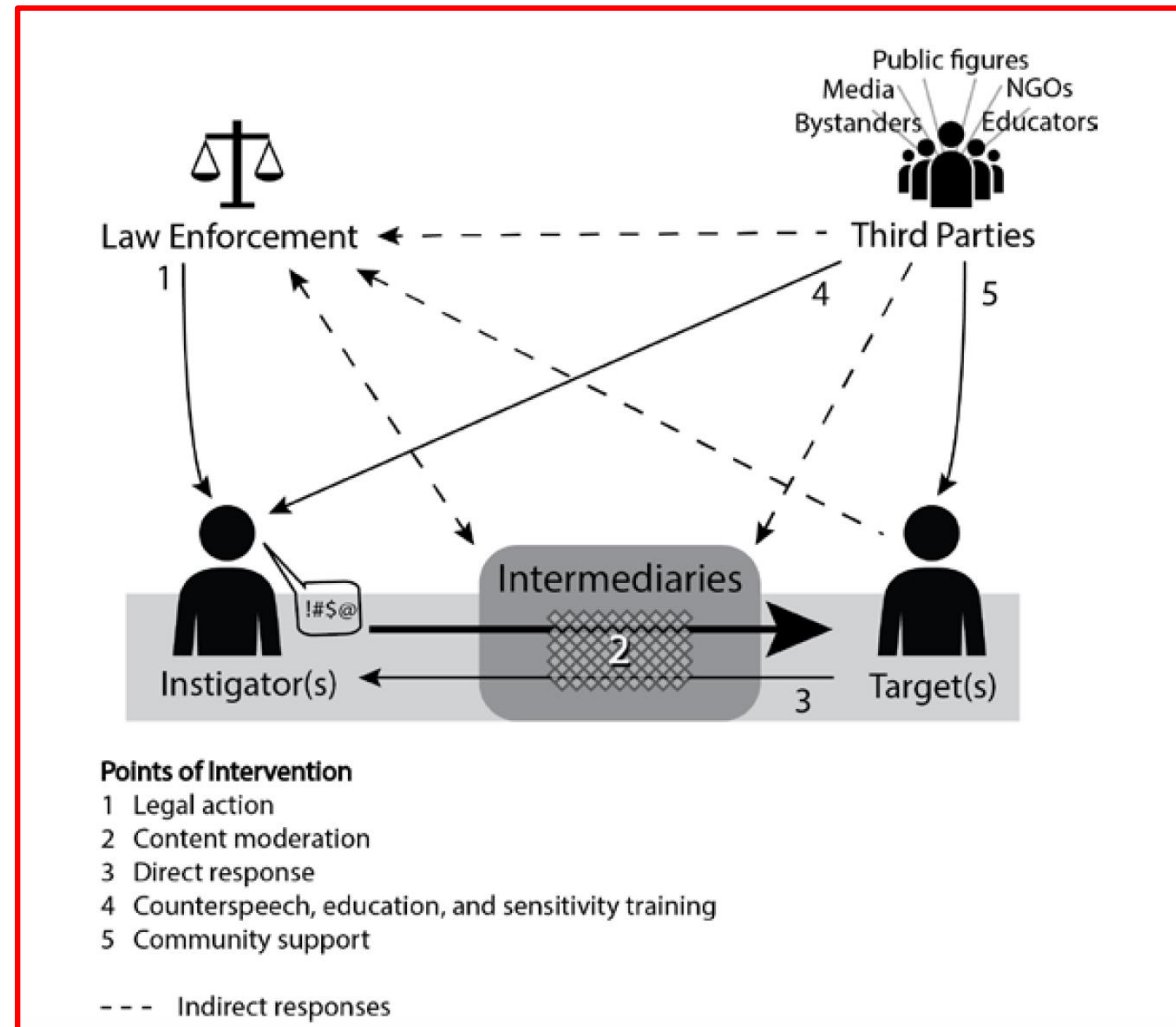
1. Any propaganda for war shall be prohibited by law.
2. Any advocacy of national, racial or religious hatred that constitutes incitement to discrimination, hostility or violence shall be prohibited by law.

State of Research

Despite increasing attention to the topic, we still lack a full understanding of the reach and impact of harmful speech online and know relatively little about the efficacy of different interventions. Moreover, our understanding of the collateral costs of various interventions is rudimentary. Core questions include:

- How widespread is the phenomenon, who participates, who is harmed, and how?
- Is it increasing or decreasing, and how does it vary over time? Or is there evidence that the prevalence of harmful speech is steady and only receiving increased attention online?
- Are there signs of the normalization of harmful speech online? How are the actors that participate in harmful speech organized? How are they influenced by leaders, governments, public figures, and the media?
- What is the social network structure of groups that engage in harmful speech and what is the role of key influencers? How can we better understand the interplay between ingroup and out-group interactions?
- What contextual factors are associated with the incidence, intensity, and impact of harmful speech online?

Complex Dynamics: Actors, Interventions



Possible Approaches and Strategies

	Legal	Content curation & filters	Normative
Reduce incidence and prevalence	Pursuing action against instigators of illegal speech	Terms of service enforcement Taking down posts Blocking users	Education/Literacy Counter-speech Public leadership
Mitigate impact	Validation Punitive awards	Individually controlled blocking features	Counter narratives Media representation Community support

Complicating Factor: Rise of Algorithms



Berkman Klein Center

Follow

The Berkman Klein Center for Internet & Society at Harvard University was founded to explore c...
Aug 9 · 15 min read

Exploring the Role of Algorithms in Online Harmful Speech

Reflections from a recent workshop hosted by the Berkman Klein Center in collaboration with the Shorenstein Center on Media, Politics, and Public Policy at Harvard and the Institute for Strategic Dialogue

By David Talbot and Jeff Fossett

The topic of online harmful speech—from harassment and cyber-bullying to terrorist recruitment and media manipulation—is a growing focus of academic research and government regulation. On June 29 and 30, 2017, the Berkman Klein Center, the Shorenstein Center on Media, Politics and Public Policy at the Harvard Kennedy School, and the Institute for Strategic Dialogue (ISD), a London-based think tank, co-hosted “Harmful Speech Online: At the Intersection of Algorithms and Human Behavior” to discuss how market dynamics, behavioral drivers, laws, and technology contribute to the spread of harmful speech online and inform measures to constrain it. This report provides a sample of the conversations that took place during

Case Study 1: NetzDG (Germany)

- Social media platforms with more than 2 million registered users are required to delete “evidently unlawful” content within 24 hours of being flagged.
- Where the decision is not “evident”, operators have up to 7 days to assess the content. They can take longer if users are asked to weigh in, or if they pass the decision onto a joint industry body (“regulated self-regulatory body”).
- Platforms that receive more than 100 complaints (incl. flagged content) must publish a bi-annual report in German on how they deal with such complaints.
- Platforms meeting the threshold criteria must establish a point of contact within Germany to facilitate contact with government authorities and illicit content has to be stored within EU territory for 10 weeks to allow for investigation.
- If platforms consistently fail to comply with these requirements, they face fines of up to €50 million.

Reactions & Discussion

≡

COUNCIL on
FOREIGN
RELATIONS

ForeignAffairs.com

TrendingAfghanistanExtremismNAFTANorth KoreaImmigration

Member Login

Q

from Net Politics and Digital and Cyberspace Policy Program

Germany's Misguided Social Media Law Is a Minefield for U.S. Tech

U.S. tech firms have always found the European market a tricky one to navigate. Germany's new social media law is the latest challenge they will have to overcome.

Blog Post by Guest Blogger for Adam Segal

June 26, 2017

f


t

in

✉

🖨

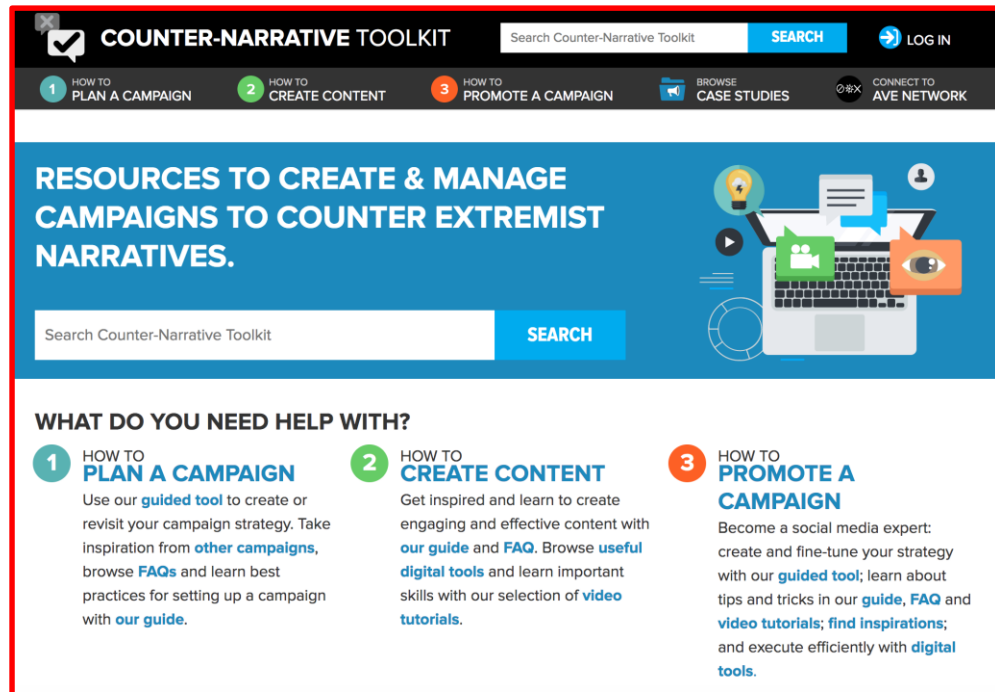
📄



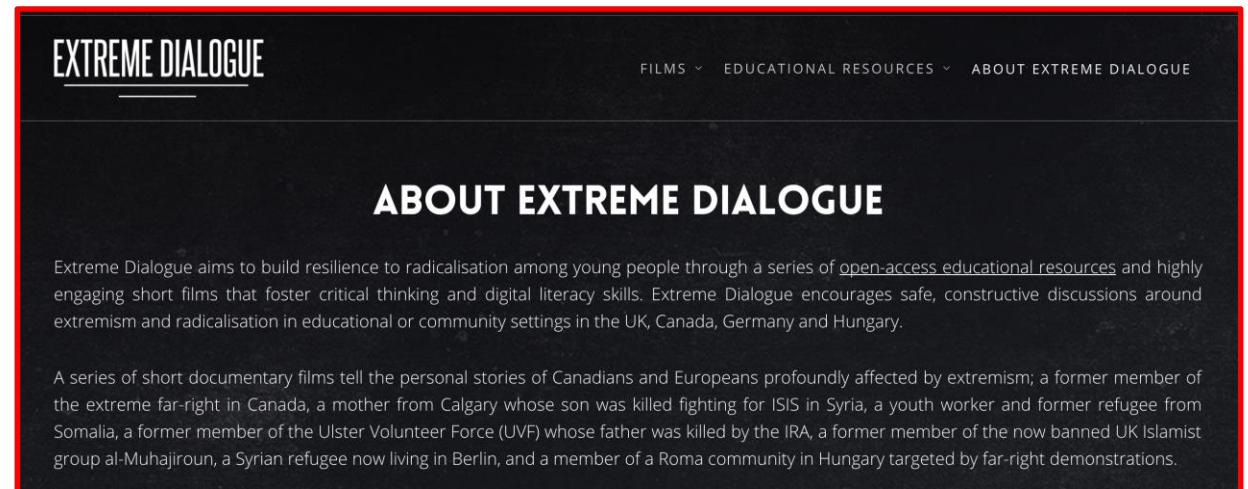
The Bundestag, the lower house of Germany's parliament on March 22, 2017. Hannibal Hanschke/Reuters

<https://www.cfr.org/blog/germanys-misguided-social-media-law-minefield-us-tech>

Case Study 2: Counter-Speech



<http://www.counternarratives.org/>



<http://extremedialogue.org/about/>

Reactions & Discussion

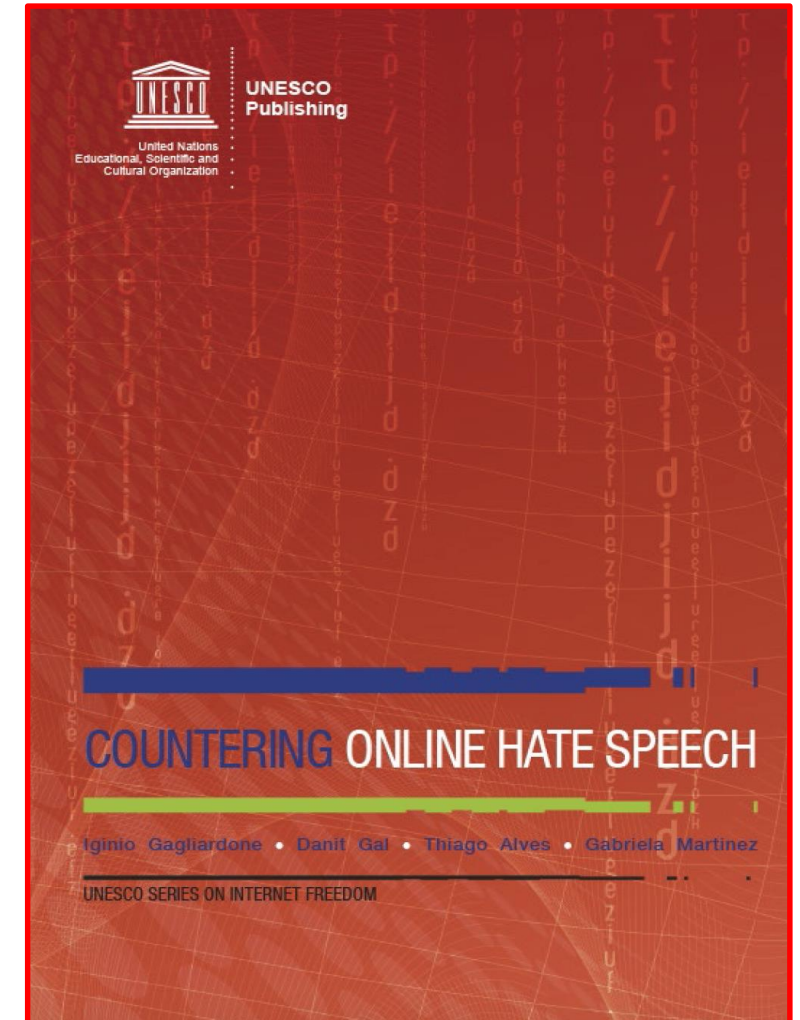
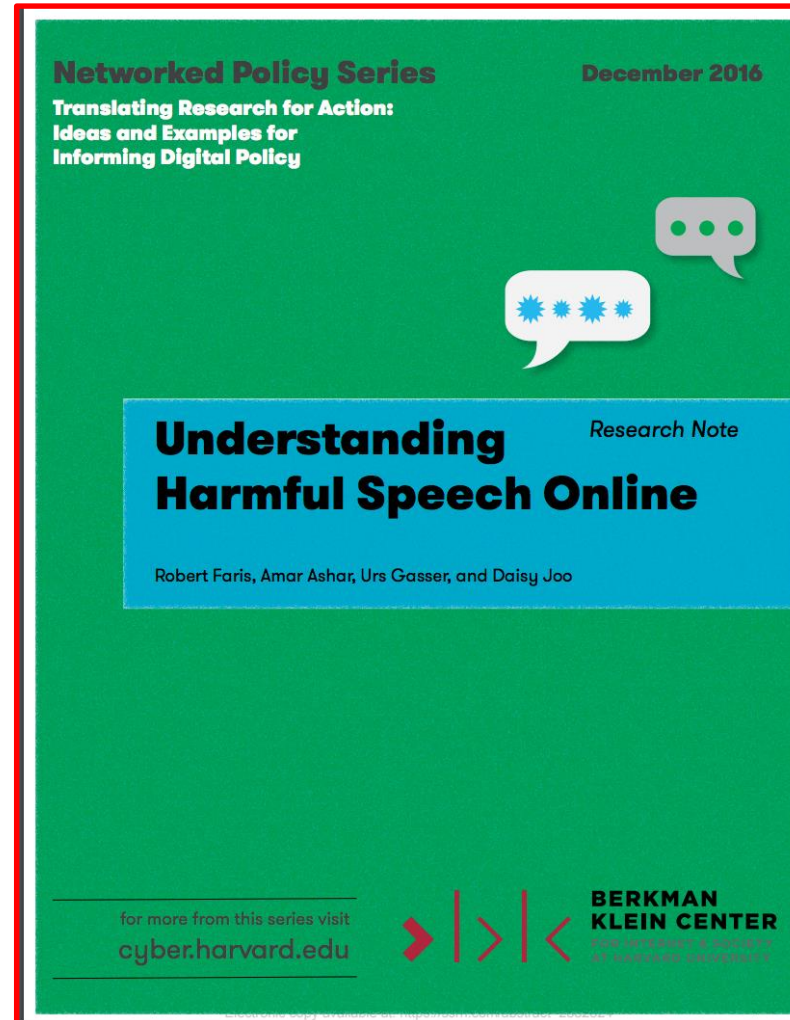
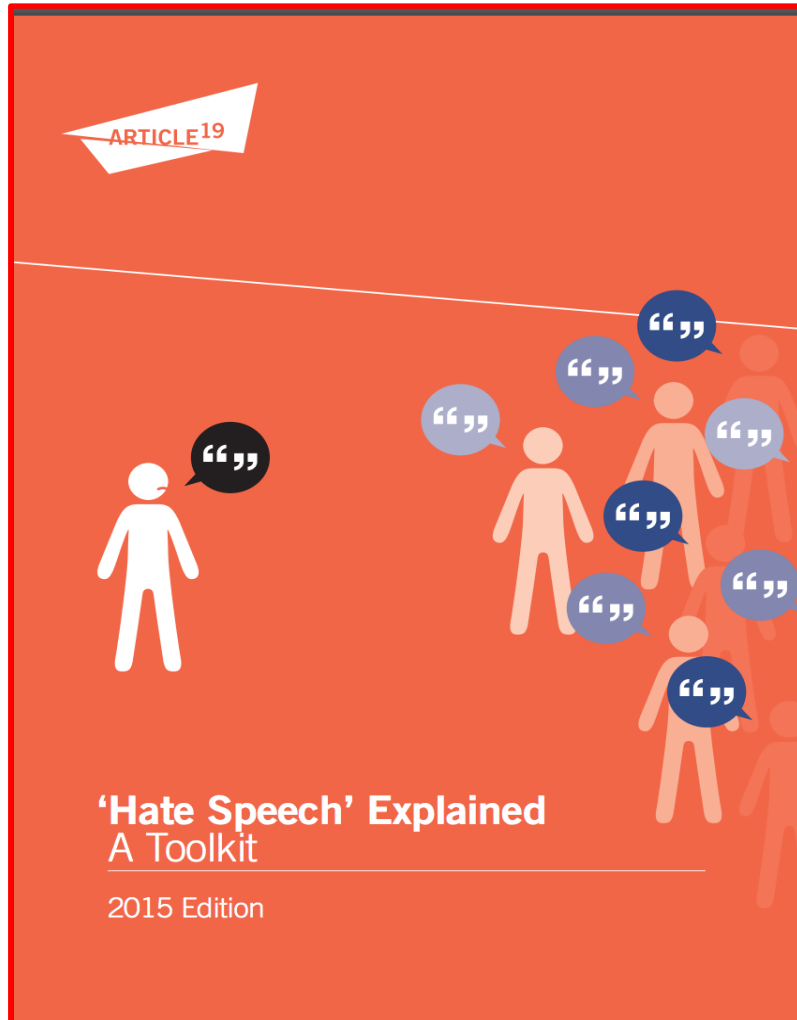


Conclusion

“By implementing a methodology that incorporates partnerships, curation, content creation, deployment, and evaluation, this study demonstrates that the use of counter-narrative messaging with measurable impact is replicable and scalable, though not without difficulty. Working with multiple partners and campaigns, we now have a much better idea of the interplay between key factors such as geography, language, ideology, audience, and media platforms.”

Further Reading

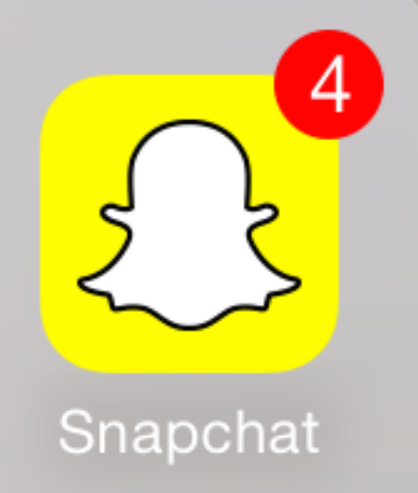
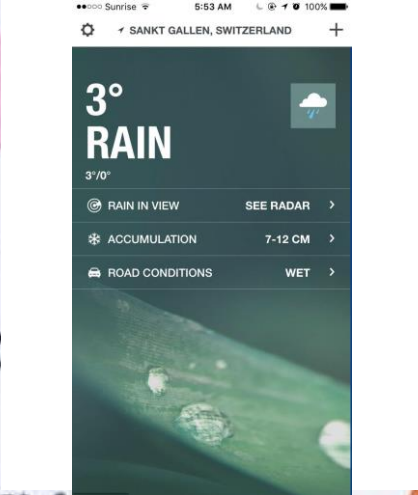
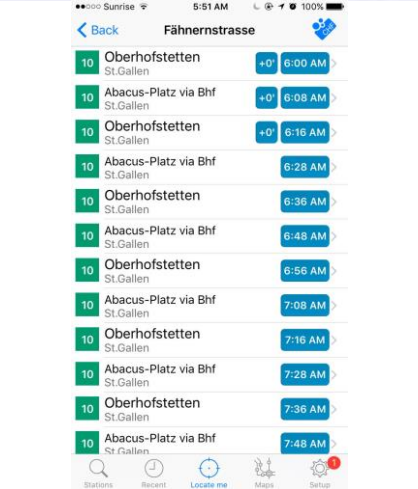
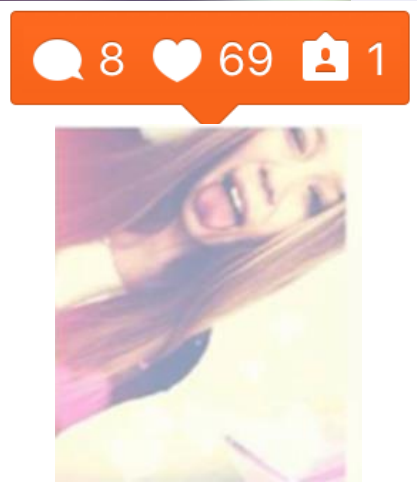
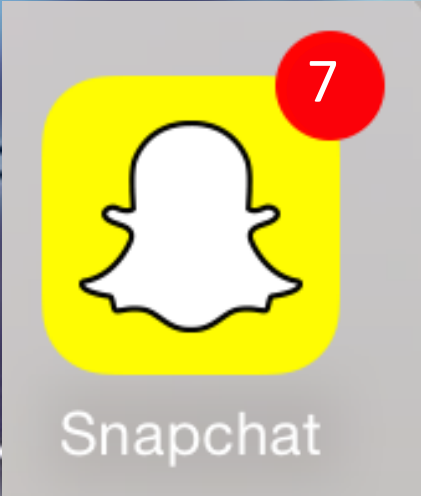
<https://cyber.harvard.edu/research/harmfulspeech>



https://www.article19.org/data/files/medialibrary/38231/Hate_speech_report-ID-files--final.pdf

2 Digital Privacy

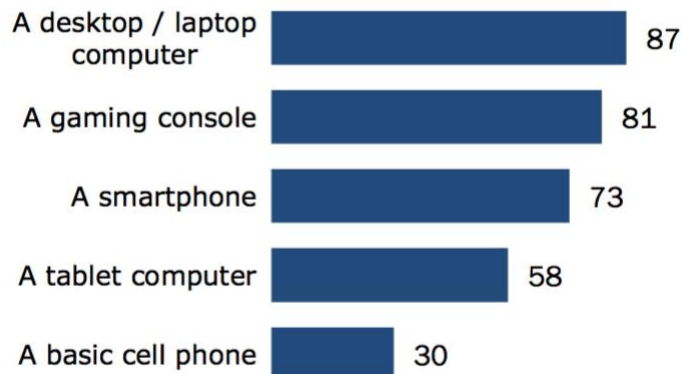
Example: Ananda (16 years)



"Digital Natives" (Generational Shift)

Teens' Phone, Computer & Console Access

% of all teens who have or have access to the following:



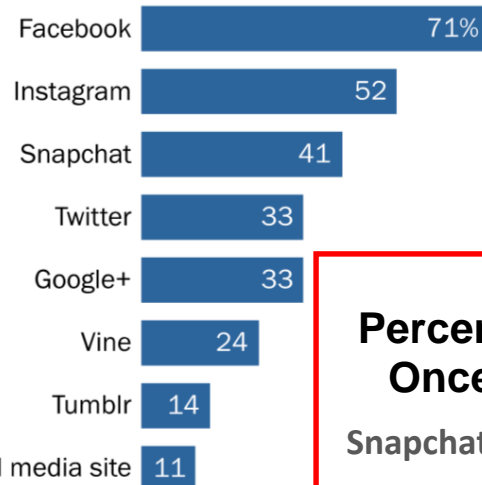
Source: Pew Research Center's Teens Relationships Survey, 25-Oct. 9, 2014 and Feb. 10-Mar. 16, 2015 (n=1,000, 13 to 17).

PEW RESEARCH CENTER

91% of Teens Use the Internet on a Mobile Device

Facebook, Instagram and Snapchat Top Social Media Platforms for Teens

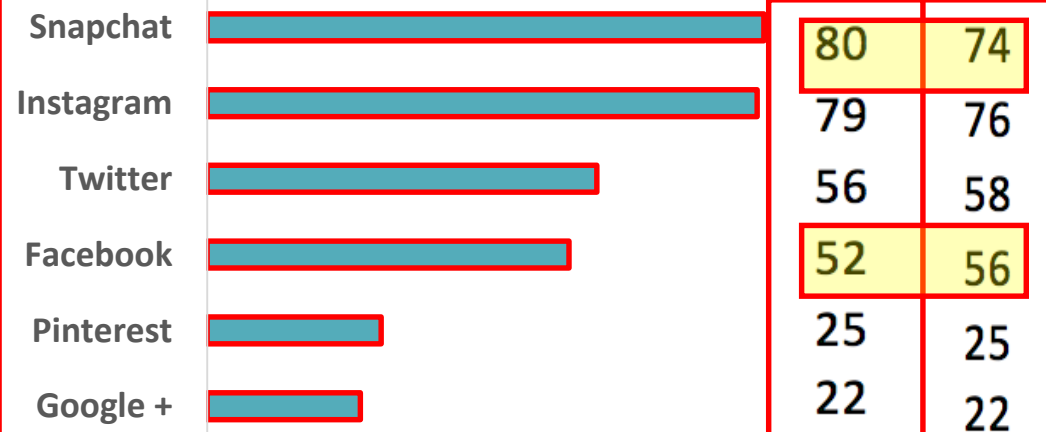
% of all teens 13 to 17 who use ...



Source: Pew Research Center's Teens Relationships Survey, 25-Oct. 9, 2014 and Feb. 10-Mar. 16, 2015. (n=1,000, 13 to 17).

PEW RESEARCH CENTER

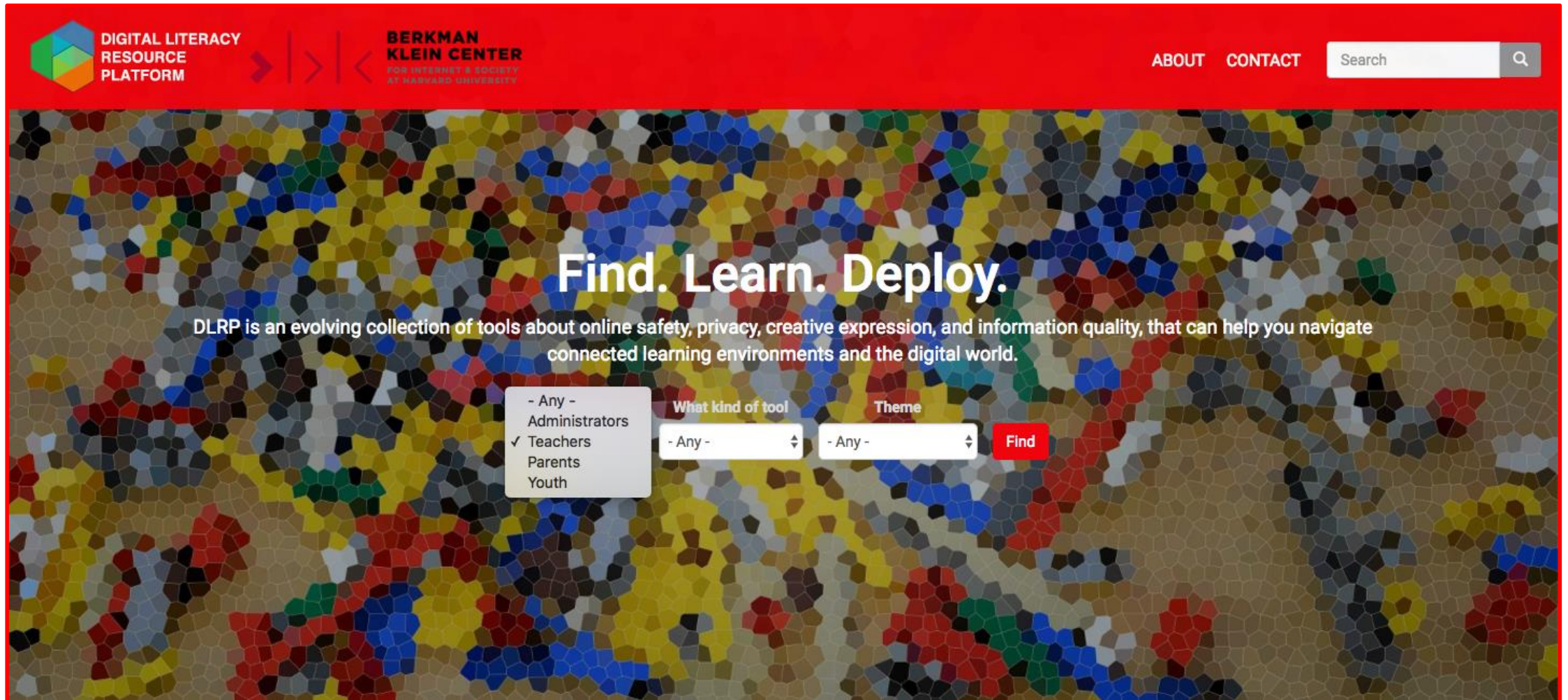
Percentage of Teens Who Use SNS Once A Month - Fall 2016 + 2015



Findings for Policymakers from Focus Groups

- *Semantic interoperability*: Use of term such as “privacy” means different things to different groups (e.g. youth = reputation, social dimension of privacy; adults = institutional dimension of privacy).
- *Perceived vs. real problem*: Adults worry about loss of privacy among youth based on sharing-behavior. Evidence shows much more nuance. But: commercial use of data as big blind spot among youth.
- *Importance of education*: Consider full range of approaches and tool, beyond law, with an emphasis on education and digital literacy. Move towards human-centric approaches needed given speed of change in technology and markets.

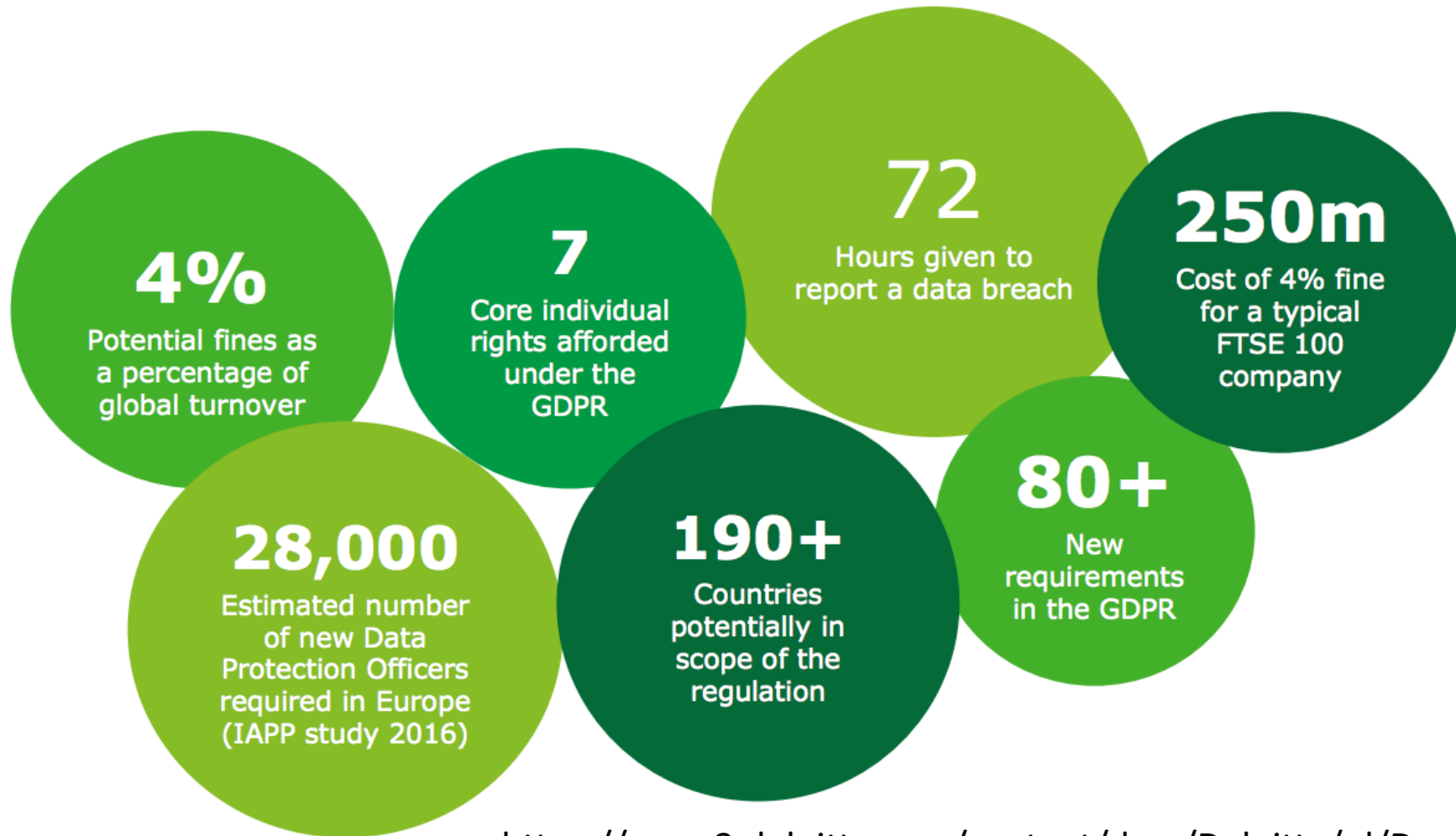
Example: DLRP



Important Developments (EU): GDPR

- January 2012 reform announced to strengthen privacy rights and boost Europe's digital economy; GDPR Enacted on December 15, 2015; enforcement date: May 25, 2018
- Aims of the General Data Protection Regulation:
 - Supervisory Authorities
 - Harmonization and “one-stop shop” approach
 - Increased enforcement and sanctions
 - Strengthening Individual Control
 - Stricter consent forms & the right to withdraw consent at any time
 - Implied consent no longer a legal basis or when there is an imbalance between the data subject and controller
 - Right to access, correction and erasure in combination with the right to withdraw consent
 - Transparency principle requiring data collectors to implement transparent and easily accessible data processing policies
 - Increased Responsibility and Accountability of Data Processors and Controllers
 - Stricter “privacy by default”
 - Affirmative actions by data controllers required to protect the data
 - Notifications of data subjects and authorities in the case of a security breaches

GDPR – What Changes?



<https://www2.deloitte.com/content/dam/Deloitte/nl/Documents/risk/deloitte-nl-risk-gdpr-vision-approach.pdf>

International Impact

- GDPR applies to data controllers and processors outside the EU whose processing activities relate to the offering of goods or services (even if for free) to, or monitoring the behavior (within the EU) of EU data subject (Art. 3(2)).
 - “Offering goods or services” more than mere access to a website or email address. May include use of language or currency of a Member States with the possibility of ordering goods/ services there, and/or monitoring customers or users who are in EU
 - Example: Thai Controller targeting EU customers via website and sales in EURO = GDPR applies, even if site not hosted in the EU
 - “Monitoring of behavior” includes all types of Internet tracking and profiling
 - Example: Thai Controller placing tracking technology on hard-drives in the EU = GDPR applies (monitoring of behavior in the EU)
- GDPR Art. 27 requires designation of a representative of controllers or processors not established in the EU (some exceptions)
- SA may take action against EU-based representative, but not against the controller/processor in third country
 - But might cut off data flows (e.g. ordering local telco provider); representative might be sued and held accountable

GDPR: Accountability Requirements

- Data Protection Principles under GDPR similar as under DPD, but extensive new *accountability requirements* to demonstrate compliance (see Art. 5(2)).
- Includes requirement to maintain relevant documentation on processing activities; to conduct data protection impact assessment for risky processing; and implementation of privacy by design and by default (e.g. via data minimization).
 - *Documentation*: Develop personal data map and processing inventories (what data collected? For what purpose? How is data processed? Legal basis for each activity? Where is data stored? How long retained? Who has access? Transfers? Etc.); keep records of all processing (incl. breaches of vendors); implement appropriate and effective policies and processes.
 - *Privacy by design and default*: Consider data protection from start of project, assess privacy impact/risks; consider data minimization as default. Ensure that product design teams consider privacy.
 - *Data privacy impact assessment*: Required if using new technologies and processing is likely to result in high risks to the rights and freedoms of individuals (e.g. CCTV; profiling/predictive analytics w/ automated decision making).
 - *Data protection officers*: Required when company's core activities involve large-scale monitoring of individuals, or large scale processing of sensitive data.

Privacy Programs

Legal/Policy	IT/System	Personnel
Policies: Information practices must be covered by adequate policies reflecting GDPR obligations (e.g., HR, consumer/customer, vendor/supplier, IT & Info sec, breach response, data retention, online/offline)		
Procedures: Accountability may require revision of processes and procedures to ensure effective implementation of policies (e.g., administration of rights, breach response, vendor management, audit protocols, access management, PIAs/DPIAs)	Privacy by design/default	DPO
Controls: Effective/recurrent auditing and complaint handling	Accommodation of privacy rights	Staffing/Privacy Personnel
Documentation: Build system inventory; keep records required for provision to Supervisory Authorities; document (i) administration of rights, (ii) audit cycles and actions taken, (iii) complaint handling and follow-up, (iv) “accountability-related measures” (breach, consent, ...)	Information security	Awareness and training

Source: www.AlstonPrivacy.com

GDPR: Individual Rights (Overview)

- GDPR *strengthens* existing and creates *new rights* for individuals


Directive	GDPR
Right of Access - Art. 12(a)	Right of Access - Art. 15
Right to Rectification - Art. 12(b)	Right to Rectification - Art. 16
Limited Right to Erasure - Art. 12(b)	(Expanded) Right to Erasure - Art. 17
	New! Right to Restriction of Processing - Art. 18
	New! Right to Data Portability - Art. 20
Right to Object - Art. 14	(Expanded) Right to Object - Art. 21
Automated Individual Decisions - Art. 15	Automated Individual Decisions - Art. 22

- *Expanded right to object*: Any processing based legitimate interest can be objected to by simply demanding a stop. Requires companies to map out what processing is conducted for what purposes; policies need to reflect interests that will override user objections. Marketing-related processing will always need to stop. Fraud/crime prevention likely to survive customer objection.

SEGMENT 3


1 Evidence-Informed Policymaking and Other Best Practices

Emerging Best Practices



BETTER POLICIES FOR BETTER LIVES

> A to Z



OECD Home

About

Countries ▾

Topics ▾

> Français

[OECD Home](#) > [Directorate for Public Governance](#) > Evidence-informed policy making

> Budgeting and public expenditures

> Fighting corruption in the public sector

> Public employment and management

> Public procurement

> Digital government

> Innovative government

> Regulatory policy





> Risk governance

Evidence-informed policy making


GOVERNING BETTER THROUGH EVIDENCE-INFORMED POLICY MAKING

26-27 June 2017, OECD Conference Centre

[Agenda](#) | [#evidence4gov](#)

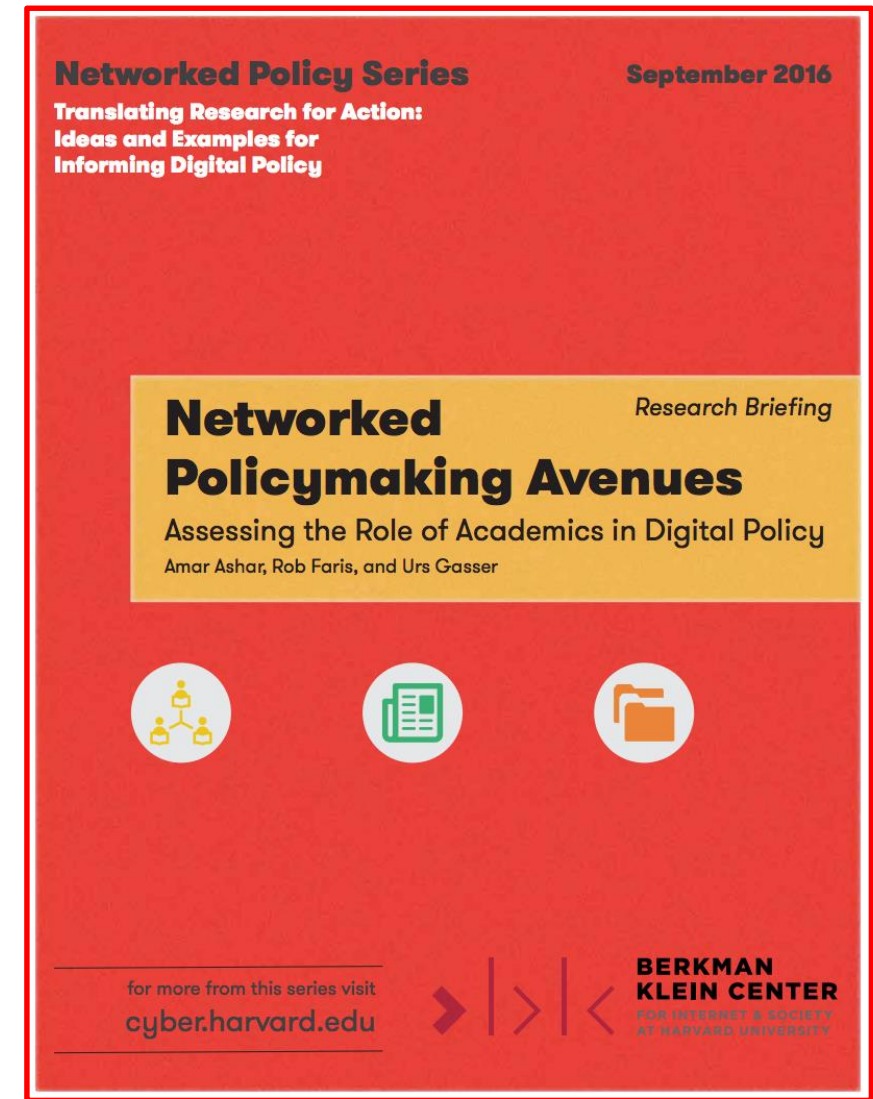
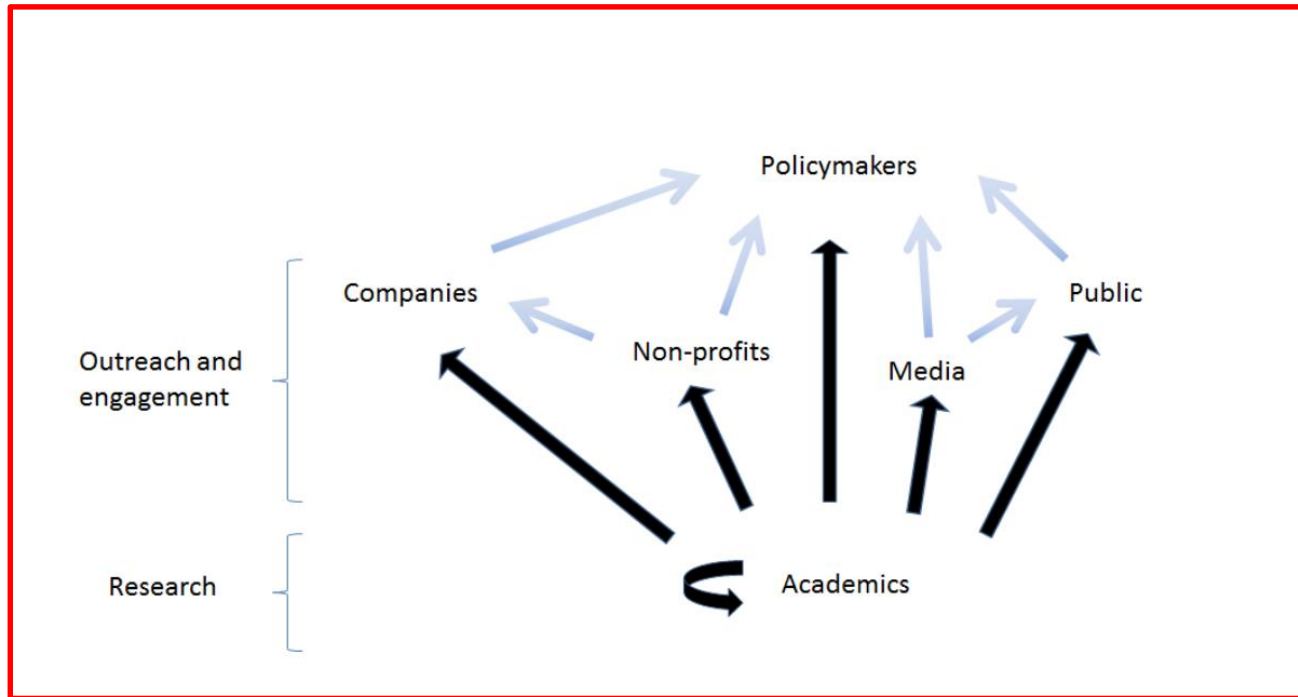


Feeding high-quality evidence into policy making remains difficult, but is essential for improving public interventions. Governing better through evidence-informed policy making requires building capacity for the effective use and demand of evidence at all levels of government. This event on evidence-informed policy making developed a strategic agenda for the OECD on how to connect policy evidence on what works and what doesn't.



79

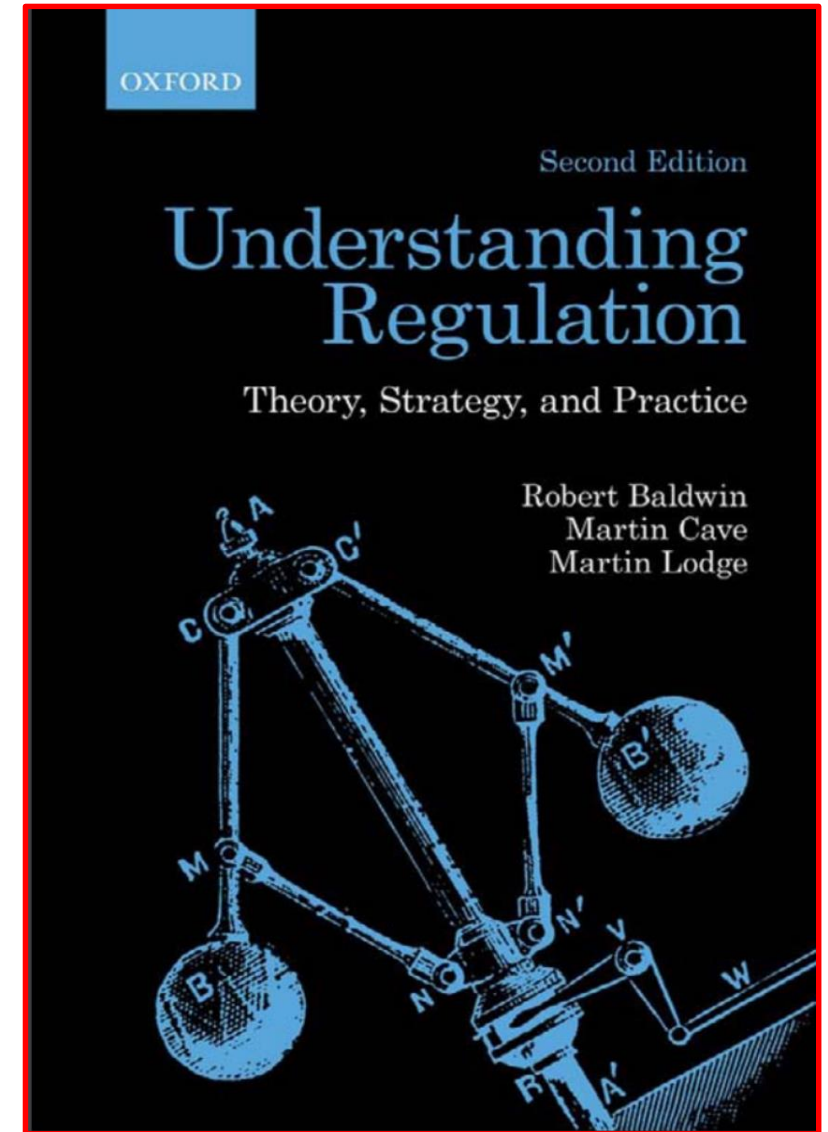
Building Interfaces



<https://cyber.harvard.edu/publications/2016/NetworkedPolicy-making>

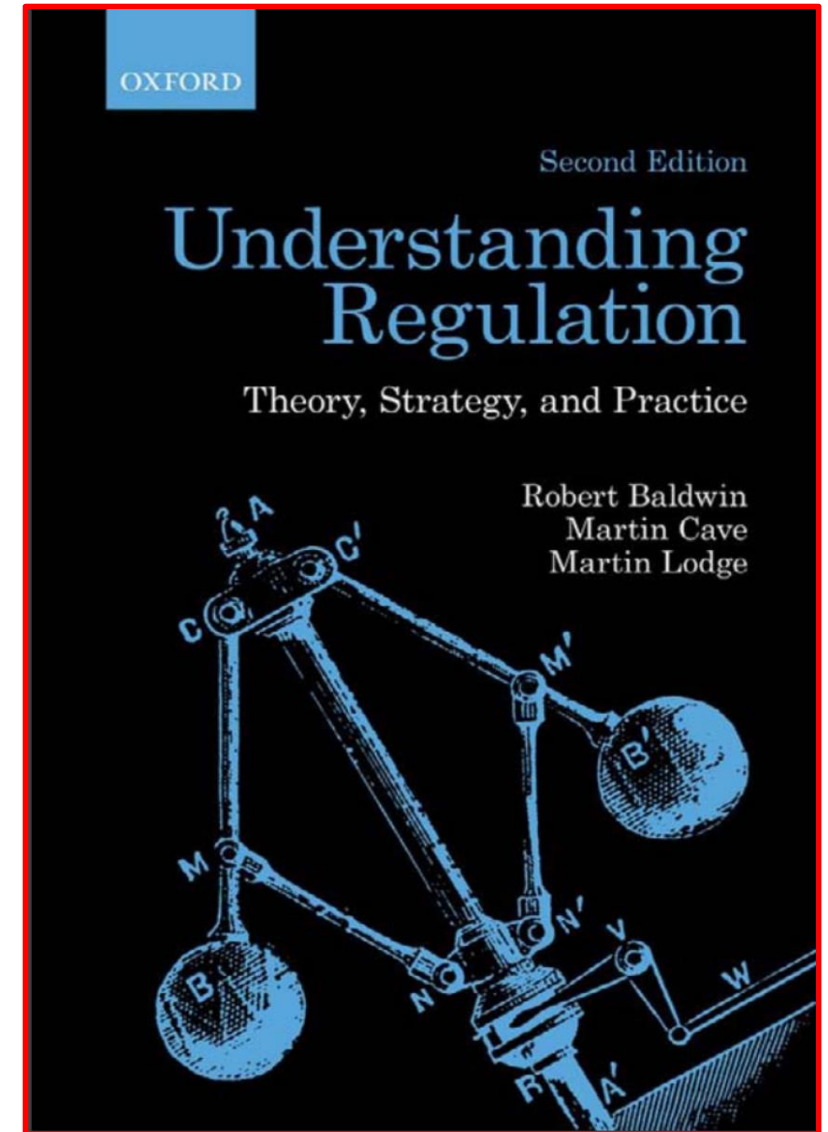
Criteria for Good Regulation

1. Is the action or regime supported by legislative authority?
2. Is there an appropriate scheme of accountability?
3. Are procedures fair, accessible, and open?
4. Is the regulator acting with sufficient expertise?
5. Is the action or regime efficient?



Criteria for Good Regulation

1. Is the action or regime supported by legislative authority?
2. Is there an appropriate scheme of accountability?
3. Are procedures fair, accessible, and open?
4. Is the regulator acting with sufficient expertise?
5. Is the action or regime efficient?



Learning Systems

- Even when pursuing an evidence-informed approach, law- and policymakers and regulators are often required to make decisions under uncertainty and complexity.
- Creates a structural need for learning (legal, regulatory) systems so that new knowledge can be incorporated when it comes available: Responsive regulation, smart regulation, etc.
- Institutional repertoire still relatively limited, incl.
 - Collaborative rulemaking
 - Periodic reviews
 - Sunset clauses
 - Backward planning method
 - Independent agency with decision-making power

2 National Digital Strategies

Introduction: Roles of Government

- Governments can play different roles when it comes to engagement with the digital economy, digital technology, and digital policy-making
- Example: Analysis of national Cloud Computing strategies highlights the following roles (Gasser & O'Brien, 2014):

- *Governments as Users* – governments are adopting cloud computing services to take advantage of its costs savings and innovative features
- *Governments as Regulators* – acting through their legislative, judicial, regulatory branches, governments regulate to implement policy through the rule of law
- *Governments as Coordinators* – governments coordinate public and private initiatives, through standard setting processes, and by facilitating the sharing of information between private and public stakeholders
- *Governments as Promoters* – governments actively promoting the cloud industry by endorsement, funding, and incubation programs
- *Governments as Researchers* – governments conducting or funding research on technical or societal issues related to cloud computing
- *Governments as Service Providers* – governments providing cloud services for use by other government agencies or the public

Singapore: Leader in Digitization



- 100% connected homes and 150% device penetration.
- Strong digital government as a pillar, top leadership sponsorship & Singapore IDA.
- Evolving regulatory framework, strong user-centricity, incl. willingness of government to experiment and take risks and enter PPPs:
 - *Stage 1 - Automation and availability*: where government is very focused on digitizing its services and making it available on-line. Focus is mainly on citizens needs and engagements.
 - *Stage 2 - Mobility and simplicity* (single platform/portal): where government adopt a more integrated service delivery platform and portal to simplify user experience, targeting both citizens and enterprises.
 - *Stage 3 - Predictability, collaboration, and personalization*: where government becomes smarter about using customer data, rely more on AI to think ahead / anticipate things, and proactively provide personalized services. It also creates a fully open platform for citizens and enterprises to develop and customize their own services (digital communities).
- Major limitation of Singapore model's replication: small city-state with a single layer of government, which can instigate and implement such innovations very quickly.

Sweden: Low-Risk Entrepreneurship

- Sweden is the second-most productive tech hub in the world on a per-capita basis, after Silicon Valley, producing 6.3 billion-dollar companies per million people. One of the most open, competitive, and diverse economies in the world.
- Risk-friendly -- provided by the generous cradle-to-grave welfare system.
- Governmental support to access to personal computers and construction of ICT infrastructure during the late 1990s.
- Key takeaways:
 - Improvements of digital literacy need not solely be focused on the education system.
 - Achieving significant and sustainable impact from taxpayer-funded investments is likely to be a long-term play.
 - Given the dynamic nature of technology, it is important that politicians do not worry too much about trying to predict how investments might generate a return in the short term, but rather focus on longer-term capacity for innovation and entrepreneurship.



Brazil: Multi-Stakeholder Governance

- Brazilian Internet Steering Committee (CGI), comprised of 21 members from government, industry, technical and academic community.
- Unique Internet governance model for the effective participation of society in decisions involving network implementation, management, and use.
- Non-government members are democratically elected, no sector has majority.
- Responsible for Internet strategic planning, recommending standards for technical and operational procedures, and establishing guidelines to orient relationship between government and society.
- Challenge: Quest for consensus is never an organized or orderly process.



Further Reading (forthcoming)



Discussion

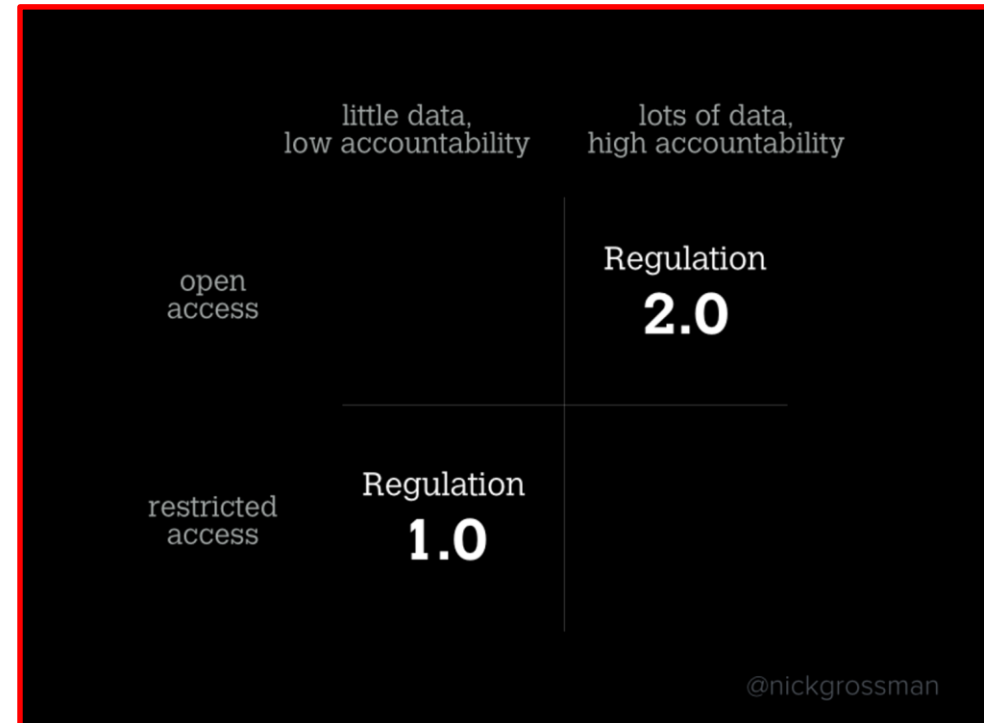
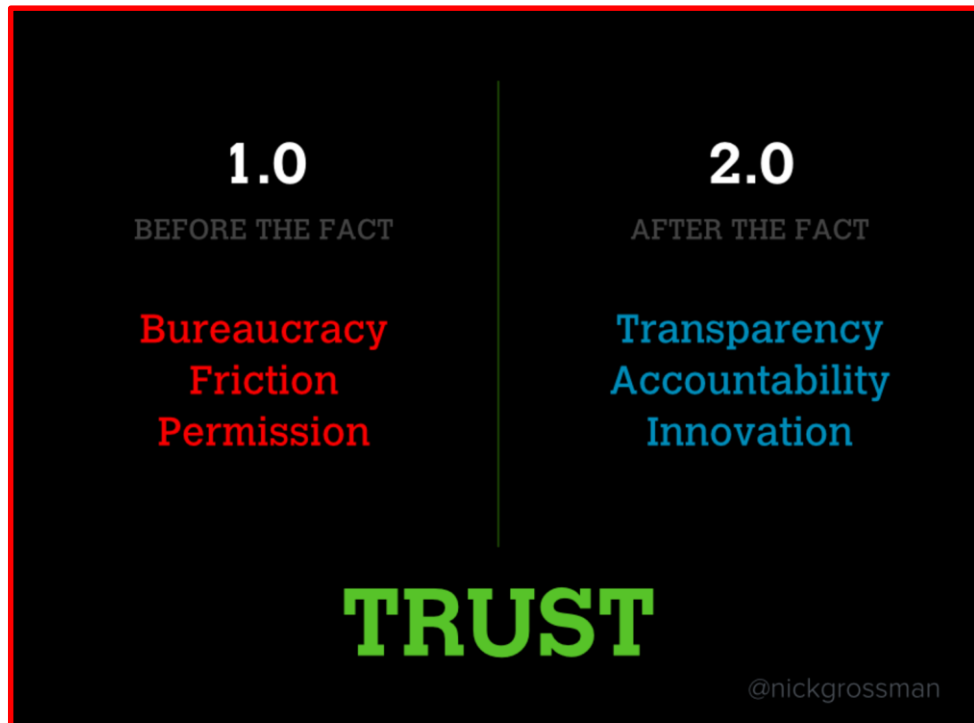
- Which of these country examples are of particular interest in the context of Thailand?
- What are the core elements of the (future) digital strategy for Thailand? What's the role of the government?
- What are lessons learned from Thailand with regard to law and policy of digital economy and technology?

3 Outlook and Some Concepts

Law and Regulation: Shifting Paradigm

- *Old paradigm*: Law is often seen in tension with digital technologies – technology as a “threat” and *problem*.
 - A cat and mouse game
 - Technology undermines privacy/security/labor/markets/... and law must respond, through subsumption, innovation, or gradual adjustments.
 - Historically this has been an accurate description of the progress of technology and law.
- Opportunity for a *new paradigm*: Disruptive technology can be harnessed to be a part of the *solution space* to privacy/security/labor/markets/... challenges.
 - Fusing computer science, law, policy, sociology, economic disciplines in a strategic way (incl. shared vocabulary for semantic interoperability).
 - Developing new types of technology to be deployed in collaboration with legal, regulatory, and policy changes.

Example: Regulation 2.0

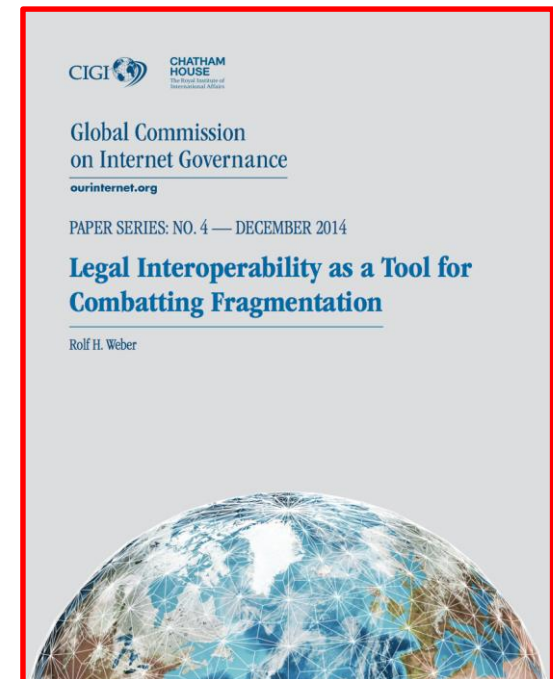
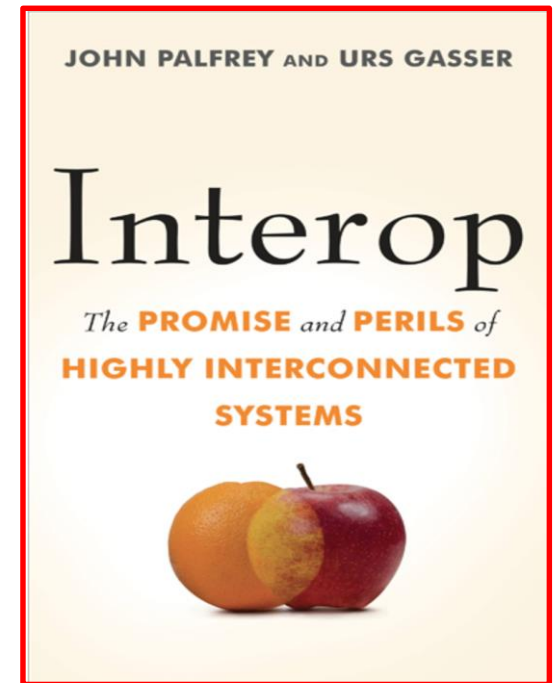


<http://datasmart.ash.harvard.edu/news/article/white-paper-regulation-the-internet-way-660>

Legal Interoperability

“Legal interoperability addresses the process of making legal rules cooperate across jurisdictions, on different subsidiary levels within a single state or between two or more states. Whether new laws should be implemented or existing laws adjusted or reinterpreted to achieve this interoperability depends on the given circumstances [...].

In view of the increasing fragmentation of the legal environment in cyberspace, efforts must be undertaken to achieve higher levels of legal and policy interoperability in order to facilitate global communication, to reduce costs in cross-border business, and to drive innovation and economic growth. Interoperable legal rules can also create a level playing field for the next generation of technologies and cultural exchange [...]” (Weber 2014).



Next Frontier: Artificial Intelligence

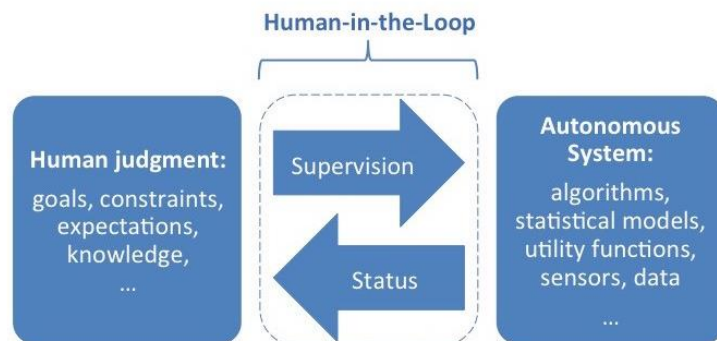
Society-in-the-Loop

Programming the Algorithmic Social Contract

MIT Media Lab director [Joi Ito](#) recently published a thoughtful essay titled “[Society-in-the-Loop Artificial Intelligence](#),” and has kindly credited me with coining the term. Now that it is out there, I wanted to elaborate a little on what I mean by “society in the loop,” and to highlight the gap that it bridges between the humanities and computing.

Human-in-the-Loop

What I call “society in the loop” is a scaled up version of an old idea that puts the “[human in the loop](#)” (HITL) of automated systems. In HITL systems, a human operator is a crucial component of a control system, handling challenging tasks of supervision, exception control, optimization and maintenance. Entire fields of study focus on how to best engineer HITL systems to optimize performance, making the most of human judgment while avoiding human limitation, such as susceptibility to information overload, or systematic cognitive bias.



VIEWPOINT

Designing AI Systems that Obey Our Laws and Values

By Amital Etzioni, Oren Etzioni

Communications of the ACM, Vol. 59 No. 9, Pages 29-31

[10.1145/2955091](#)

[Comments \(2\)](#)

VIEW AS: SHARE:



Operational AI systems (for example, self-driving cars) need to obey both the law of the land and our values. We propose AI oversight systems (“AI Guardians”) as an approach to addressing this challenge, and to respond to the potential risks associated with increasingly autonomous AI systems.³ These AI oversight systems serve to verify that operational systems did not stray unduly from the guidelines of their programmers and to bring them back in compliance if they do stray. The introduction of such second-order, oversight systems is not meant to suggest strict, powerful, or rigid (from here on ‘strong’) controls. Operations systems need a great degree of latitude in order to follow the lessons of their learning from additional data mining and experience and to be able to render at least semi-

autonomous decisions (more about this later). However, all operational systems need some boundaries, both in order to not violate the law and to adhere to ethical norms. Developing such oversight systems, AI Guardians, is a major new mission for the AI community.

SIGN IN for Full Access

User Name

Password

[» Forgot Password?](#)

[» Create an ACM Web Account](#)

SIGN IN

ARTICLE CONTENTS:

[Introduction](#)

[Terra Incognita](#)

[Different Kinds of AI Guardians](#)

[Interrogators](#)

[Who Will Guard the AI](#)

[Guardians?](#)

[References](#)

[Authors](#)

[Footnotes](#)

SEGMENT 4

Closing Exercise

In groups, please discuss on of the following questions:

1. Which of the current digital economy issues in Thailand would benefit from a multi-stakeholder approach?
2. Where can and should law play an enabling role in the future of Thailand's digital economy?
3. How do you measure success when “regulating” the digital economy?

Q & A

Thank You

Email: ugasser@law.harvard.edu

Twitter: @ugasser