

# Intersection of Policy and Technology

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## Introduction

Policy and technology are intersecting more and more because technology is seen as all pervasive and all-powerful. Regulations are an attempt to exert control but must be clear and based in engineering reality to be effective. The Internet crosses national borders so global policy which cooperates across national borders is needed. How can we create a dialog between policy makers, CSIRTs, operators, researchers, vendors, and representatives from standards communities so that global consensus based policy which is rooted in solid engineering principles is created?

## Tension between Policy and Technology

There is an inherent tension between policy makers and technology creators in democratic regimes. Policy makers are rightfully slow to act. Consensus between many parties needs to be obtained. The impact of laws may be long-lasting and affect many people. Rapid change in laws may lead to chaos.

The motto of Silicon Valley may be “move fast and break things”. By the time policy makers see that there is need to regulate, much has happened. Today, we rely on self-regulation which may be at odds with some technology business models. Often there is a precipitating event followed by inevitable overreach by government to regulate. Let’s look at what has happened recently, how effective it has been, where the gaps are and what may be expected to happen in the near future.

## Current Regulations

GDPR: The General Data Protection Act is an effort by the EU to protect privacy of citizens online. Many services on the Internet are provided for free by technology companies who sell personal data to advertisers on their platforms. GDPR has been effective in that data privacy is now seen as a major concern. Whether marketing of personal data has stopped by such platforms remains to be seen. Many users simply click the button to allow use of their data without a full understanding of the implications.

When GDPR went into effect, there were unintended results. Some sites started to block EU users, some redirected them to stripped down versions of the sites, some companies ceased operations entirely. Lawsuits were immediately filed for “forced consent” [1]. It remains to be seen whether GDPR truly protects the consumer’s privacy.

There are other regulations such as the EU Copyright Act and the Australian Encryption Policy. Each is worthy of a lengthy analysis but due to the constraints of the 2-page limit on this document, these will not

be discussed further.

**Industry Regulators:** Some industries have their own regulators. For example, within the United States, the Payment Card Industry (PCI) regulates credit card providers. HIPAA regulates the health insurance industry. The FCC regulates communications. The FTC regulates trade. What happens in the U.S. matters. Often, the actions of a powerful nation state regulator are copied by other nations.

In this arena, what has happened is a hodge podge of regulations which are implemented and interpreted differently across sectors. For example, PCI says that “you must be at the latest version of encryption”. Does that mean the latest version created by a standards organization? The latest version supported by a particular product vendor? In reality, what happens is that business partners interpret regulations differently causing problems in operations.

Other examples abound. For example, the FCCs of various countries have created numerous versions of Net Neutrality. There is not even agreement on what is meant by “Net Neutrality”.

## Areas Ripe for Regulation

**Cryptocurrency:** The advertisement from a conference called “Blockchain against Evil” puts it well. “Imagine that you’re a supervillain and you want to fund your dastardly plans. You know what might come in handy? Decentralized, censorship-resistant, anonymous payments technology.”

**Bio and Nano Tech:** Take a look at a startup called Kernel ( <https://kernel.co/#story>) who wants to embed a chip in the human read-write memory organ: the hippocampus. Imagine the possibilities for cyber attacks.

## Summary

What should be done in this arena? The intersection of policy and technology is one of the most important areas of discussion today and for the foreseeable future. Decisions are being made without transparency by for-profit companies: both large giants and tiny startups. Regulations can indeed hamper innovation but no guidance at all may lead to ineffective regulations..

Consensus on policy is more difficult than for engineering. The gap between what is needed and what is possible is much wider. Round tables or an open dialog about issues may be an achievable goal. In the 1990’s, there was a non-profit called the Internet Law and Policy Forum focusing on similar issues. It was a collaboration of people from policy, business and technology. Perhaps an organization such as that to create a dialog between policy makers, CSIRTs, operators, researchers, vendors, and representatives from standards communities could be revived.

[1] [https://en.wikipedia.org/wiki/General\\_Data\\_Protection\\_Regulation#](https://en.wikipedia.org/wiki/General_Data_Protection_Regulation#)