03 June 2017

Internet Futures

What will shape the Internet of the Future?

ANNIVERSARY YEAR
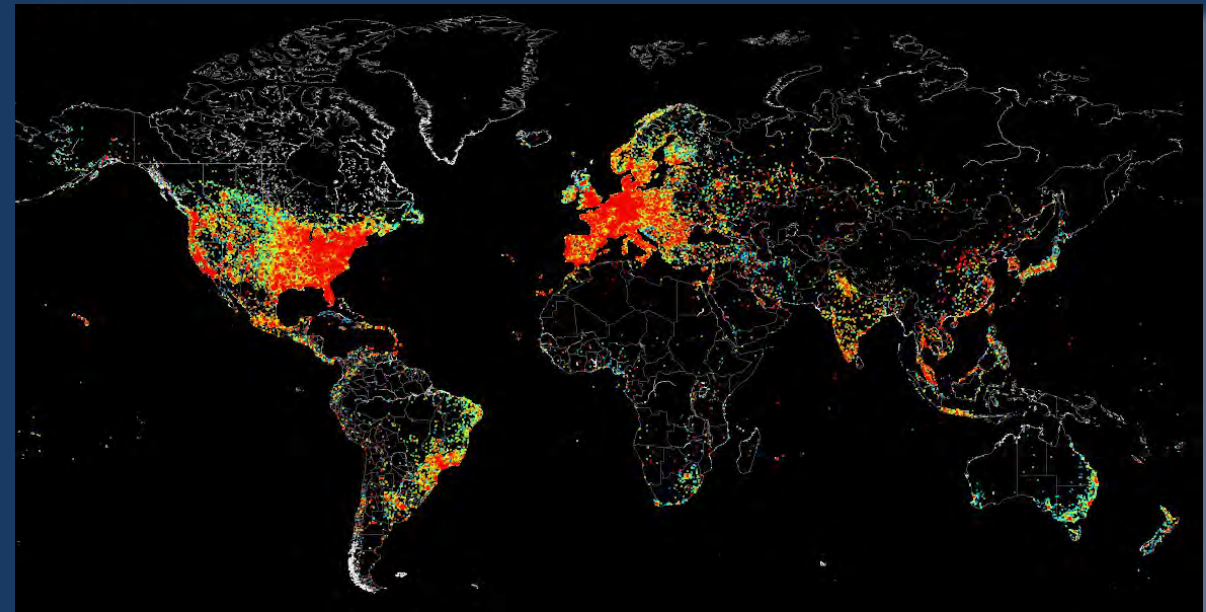**25th**

Internet Society

The Internet of the Past and Today

NSFNET T3 Network 1992

All Devices Connected to Internet

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1992

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The Internet of Future

Internet Society

- The Internet Society is 25 years old – we have been around the Internet space for a long time

- We understand the history of the Internet to where it is today

- On the basis of our experience and knowledge about the world, our community has some ideas on how the Internet is likely to develop over the next 5-10 years

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"Prediction is very difficult, especially if it's about the future"

Niels Bohr

Internet Futures Project

Introduction

A global, community driven endeavor initiated in 2016 to identify factors that could change the Internet as we know it.

2,500 survey responses from over 160 countries

130 expert interviews across the globe

15 roundtable discussions around the world

have been conducted that will result in the

2017 ISOC Global Internet Report

2017 ISOC Global Internet Report
(Release in September 2017)

Internet Society

Internet Futures Project
Purpose

The Internet Futures Project aims to:

- Better understand the **forces of change** shaping the future of the Internet

- Gather a global perspective on the **trajectory of change** over the next five to seven years

- Make recommendations on how to shape the Internet's future, for ISOC and for other stakeholders

Internet Futures Project
Report Areas

The soon to be released report will reflect ISOC's analysis, findings and recommendations that will include:

- Three **"Impact Areas"** and six **"Drivers"** identified through consultations

- Insights into **how** those drivers, and their **interdependence**, may **shape** the future of the Internet

- Preserving the **fundamental properties** of the Internet for **governments** and other **stakeholders**

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What Will Shape the Future Internet?

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DRIVERS

Internet and the Physical World

Role of Government

Artificial Intelligence

Internet Economy

Cyber Threats

Networks, Standards and Interoperability

IMPACT AREAS

Personal Freedoms and Rights

Digital Divides

Media, Culture and Society

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What is our Community Telling us?

> *"Access will not be achieved as hoped if trust is not addressed."*
>
> \- Technical expert, Middle East

All stakeholder groups across all regions see **extremely high investment** and **innovation in Internet security** in the future.

Having said that, those with a technology or academic background believe that the level of investment in Internet security technologies today is higher today than do their counterparts in public policy or civil society.

What is our Community Telling us? (cont.)

"The economy is changing far faster than the rules governing it. The system we have in place to regulate business is stuck in the 20th century notion of how the economy works."

- Private sector, Europe

Every stakeholder and region felt the future was likely to see the **level of government regulation** of the Internet **increasing** in the future.

Respondents from Africa seem to predict the greatest increase in regulation.

Business respondents perceive the level of regulation today to be lower than respondents with a public policy background.

What is our Community Telling us? (cont.)

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> *"Liberal values are weakening around the world - doesn't bode well for Internet. 'Winter is coming."*
>
> - Civil society, Europe

Respondents from Europe and North America (while they agreed the benefits would outweigh the risks) predicted **a trend toward greater risks than benefits**.

Otherwise, most respondents believe that the benefits of the Internet will continue to outweigh the risks.

Driver: Artificial Intelligence and Machine Learning

"*You have the uncertainty of what the inputs are, the magic of what the process is doing at driving a conclusion which are for our "good" and that is a terrifying prospect in my mind, because we have no idea what is going on"* - Technologist, Europe

"AI will enable greater transparency of data collection and provide users with greater control of its use"

- Technologist, Europe

Logic

- AI and machine learning may become embedded in all forms of technology that incorporate data exchange and analysis, including the Internet and related applications.

- Raises uncertainties, including the potential loss of human agency and decision-making, lack of transparency in how algorithms make decisions, discrimination, the pace of technological change outstripping governance and policy, and ethical considerations.

Driver: Personal Freedoms and Rights

Logic

- The growth and ubiquity of the Internet is a sign of progress and innovation.

- However, it may reach a tipping point where the risks to society and freedoms grow faster than the benefits.

- While the impact on personal freedoms and human rights in a future that is ever more connected is far from clear, it is likely that challenges related to surveillance and the loss of privacy and control over one's data will become more pressing.

> *"The Future of the human race depends on a healthy, free and open internet."*
>
> - ISOC member, India

> *"The Internet is not leading to a rights based society but rather to a surveillance society."*
>
> - Civil society, Europe

Observations – Leading to Recommendations

- Notable that **civil society** is not seen as a *driver* of change in the Internet.

- Community still sees the **Multistakeholder model** as important for the future & in need of **strong support**

- **Empowerment of end users** comes up repeatedly throughout the work in terms of rights, privacy, economics, new technologies, security, etc. There is a perception that users are **losing power** (linked back to MS model)

- The **values** and **abilities** that form ISOC's foundation are still seen as highly relevant for the future **BUT**…

- People are worried that these values are in **jeopardy**.

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