CAN
INTERNET
PROTOCOLS
AFFECT
HUMAN
RIGHTS?

IRTF RG
Human Rights Protocol Considerations
(hrpc)

IETF 101
Thursday March 21 2017
15:50 – 17:50

Co-Chairs:
Niels ten Oever University of Amsterdam
Avri Doria APC

Administrivia

Mailinglist
https://www.irtf.org/mailman/listinfo/hrpc
Github
https://github.com/nllz/IRTF-HRPC
Meetecho (remote participation)
http://www.meetecho.com/ietf101/hrpc/
Minutes
http://etherpad.tools.ietf.org/p/notes-ietf-101-hrpc
Intro website
https://hrpc.io

Agenda

- Beginning (5 min)
    - Scribe, Note takers
    - Agenda Review
    - Assorted document status
- Update from the Hackathon (10 min)
- Luca Belli on “Network Self-Determination” (30 Min)
- Update on draft-irtf-hrpc-guidelines (10 min)
- Update on draft-irtf-hrpc-anonymity (10 min)
- Update on draft-tenoever-hrpc-association (10 min)
- Update on draft-tenoever-hrpc-political (10 min)
- Update on implementation of 451 (10 min)
- Human Rights Review Team (10 min)
    - Update on any drafts under RFC8280 considerations review
- Open Discussion
- AOB

Note Well

This is a reminder of IETF policies in effect on various topics such as patents or code of conduct. It is only meant to point you in the right direction. Exceptions may apply. The IETF's patent policy and the definition of an IETF "contribution" and "participation" are set forth in BCP 79; please read it carefully.

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Definitive information is in the documents listed below and other IETF BCPs. For advice, please talk to WG chairs or ADs:

- BCP 9 (Internet Standards Process)
- BCP 25 (Working Group processes)
- BCP 25 (Anti-Harassment Procedures)
- BCP 54 (Code of Conduct)
- BCP 78 (Copyright)
- BCP 79 (Patents, Participation)
- https://www.ietf.org/privacy-policy/ (Privacy Policy)

Document Review Request

- Document quality relies on reviews, please review documents in your working group and at least one other document from another working group.
- If you'd like documents you care about reviewed, put the effort in to review other documents.

Status of research group

- October, 27, 2014 - Publication of Proposal for research on human rights protocol consideration
- IETF91 - November, 13, 2014: Presentation during saag session
- March 9, 2015 - Publication of Proposal for research on human rights protocol considerations - 01
- January 2015 - Proposed research group in the IRTF
- IETF92 - March 22 to 27, 2015 – Session & Interviews with members from the community
- June 2015 - Interim Meeting
- July 2015 - Publication of Methodology and Glossary drafts
- IETF93 - July 2015 – Session
- IETF94 November 2015 – Screening of film Net of Rights, updates of Glossary, Methodology, Report drafts, Users draft, paper, session
- December 2015 – Research Group chartered
- IETF95 April 2016 – Session, new Research draft, updated Report and Censorship draft, & 3 talks
- IETF96 July 2016 – Session, new Research Draft – road tests, reviews, text & 3 talks
- IETF97 November 2016 – Session, new Research Draft – reviews, talk
- February 2017 – Research Group Consensus on draft-irtf-hrpc-research-11
- IETF98 March 2017 – Session, two news drafts, four talks, plenary talk
- IETF99 July 2017 – Session, four new drafts, one talk, running code, draft passed IRSG poll
- IETF100 November 2017 – Session, one RFC, two talks, hackathon, five new drafts
- IETF101 March 2018 – Session, four new drafts, one talk, hackathon, review team

Context and objective of the RG

- To expose the relation between protocols and human rights, with a focus on the rights to freedom of expression and freedom of assembly.
- To propose guidelines to protect the Internet as a human-rights-enabling environment in future protocol development, in a manner similar to the work done for Privacy Considerations in RFC 6973.
- To increase the awareness in both the human rights community and the technical community on the importance of the technical workings of the Internet and its impact on human rights.

Presentation + Q&A: Luca Belli

Network Self-determination: When building the Internet becomes a right

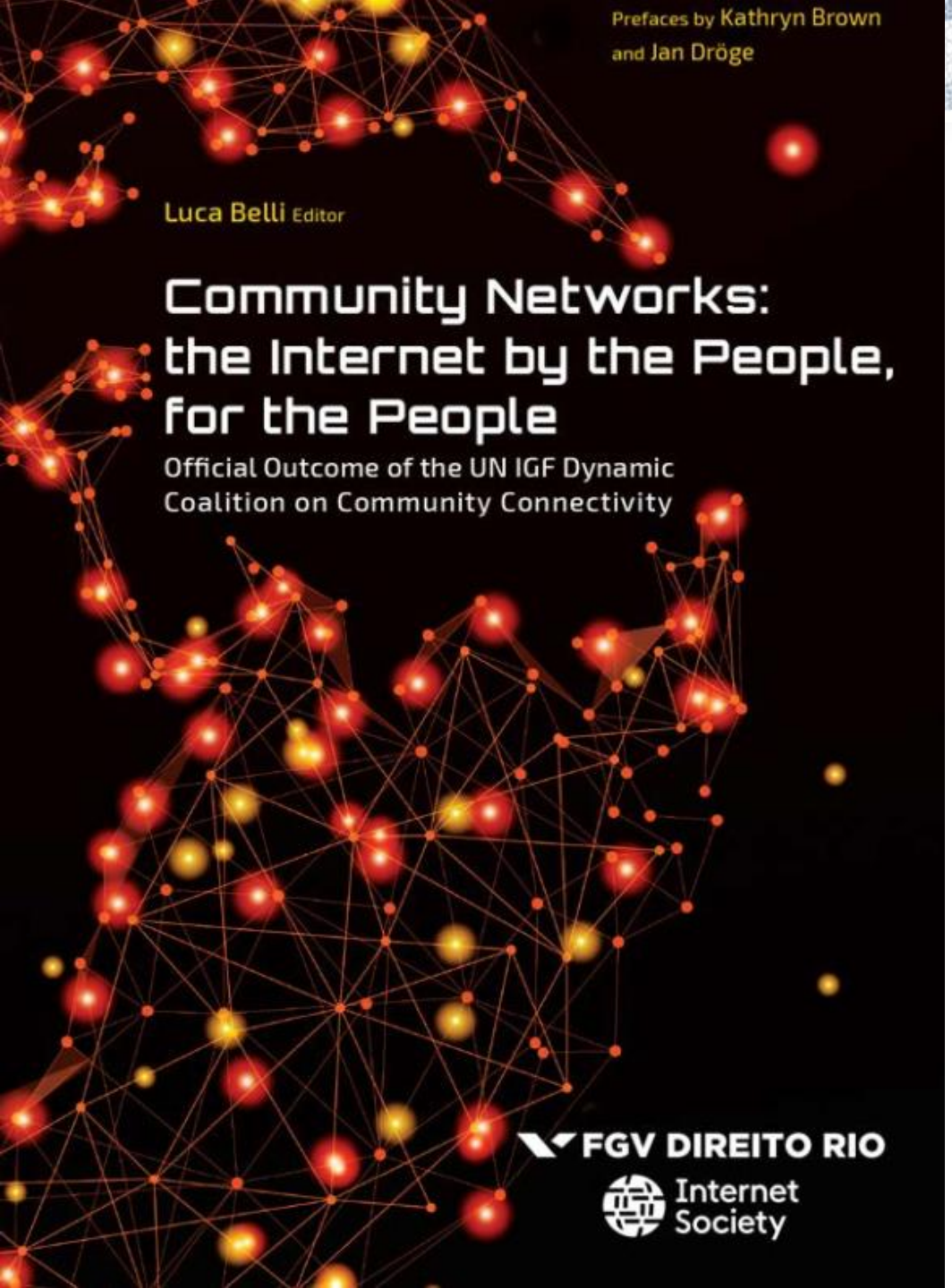
FGV DIREITO RIO

Network Self-determination:
When building the Internet becomes a right

22 March 2018

IETF 101, London

Luca Belli, PhD
luca.belli@fgv.br
@1lucabelli



communityconnectivity.xyz

Network Self-determination

Right to free development of network infrastructure

Instrumental condition to allow the full exercise of **h**uman **r**ights

*"the right to freely **associate** to define, in a **democratic** fashion, the **design**, **development** and **management** of **network infrastructure** as a **common good**, in order to freely **seek**, **impart** and **receive information** and **innovation**"*

[Docs] [txt|pdf] [draft-irtf-hrpc...] [Tracker] [Diff1] [Diff2]

INFORMATIONAL

Internet Research Task Force (IRTF)
Request for Comments: 8280
Category: Informational
ISSN: 2070-1721

N. ten Oever
ARTICLE 19
C. Cath
Oxford Internet Institute

October 2017

Research into Human Rights Protocol Considerations

*"the **d**esign and **d**evelopment of the **I**nternet **i**nfrastructure have a growing **i**mpact on **s**ociety"* (**RFC 8280**)

*"Internet as an **e**nabling **e**nvironment for **h**uman **r**ights"* **(RFC 8280)**

Network **S**elf-**d**etermination

A concept based on **H**uman **R**ights **L**aw

and on **emprirical evidence**

1. Observable phenomena

Current World Population

7,609,446,632

view all people on 1 page >

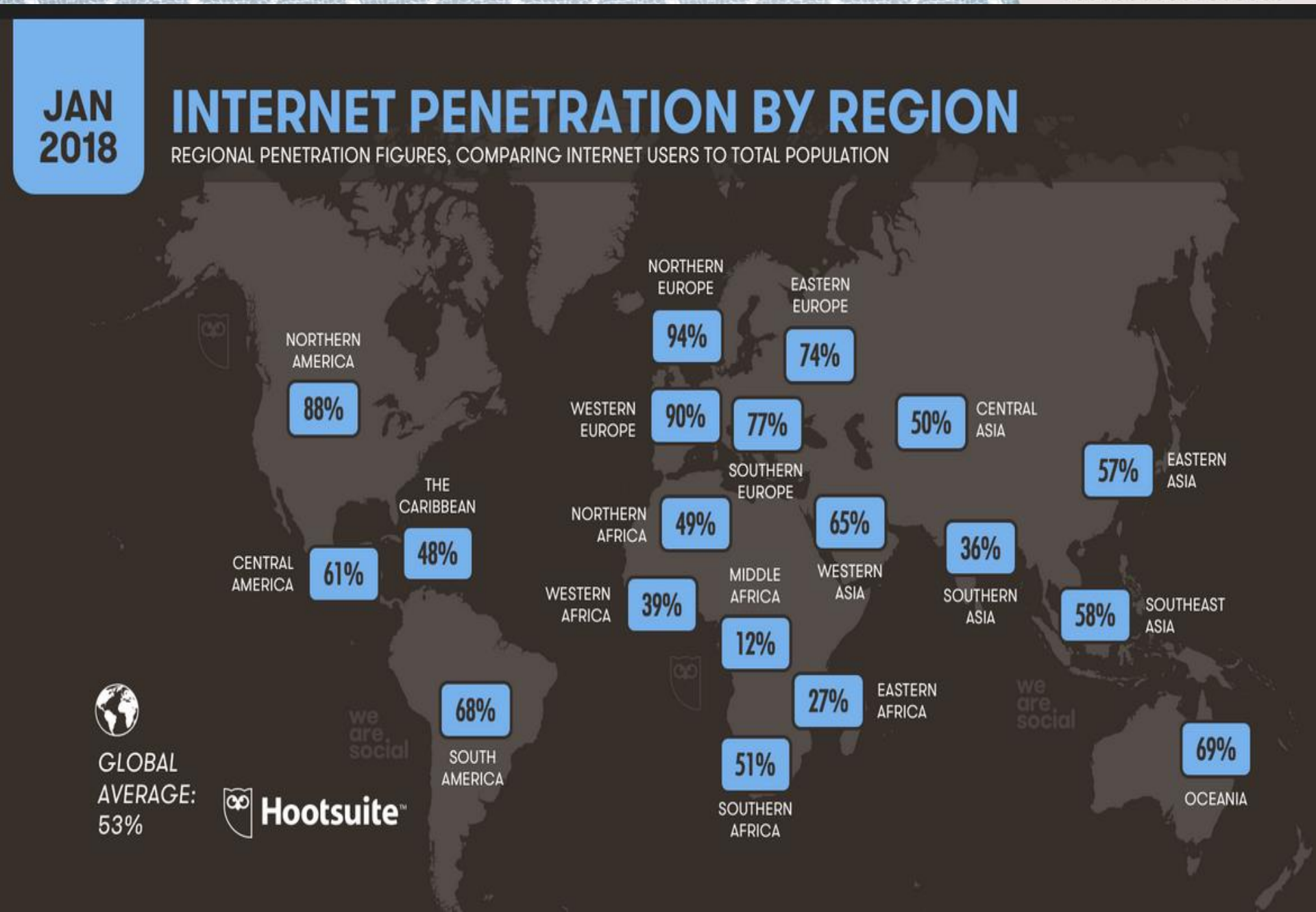
3,874,141,165

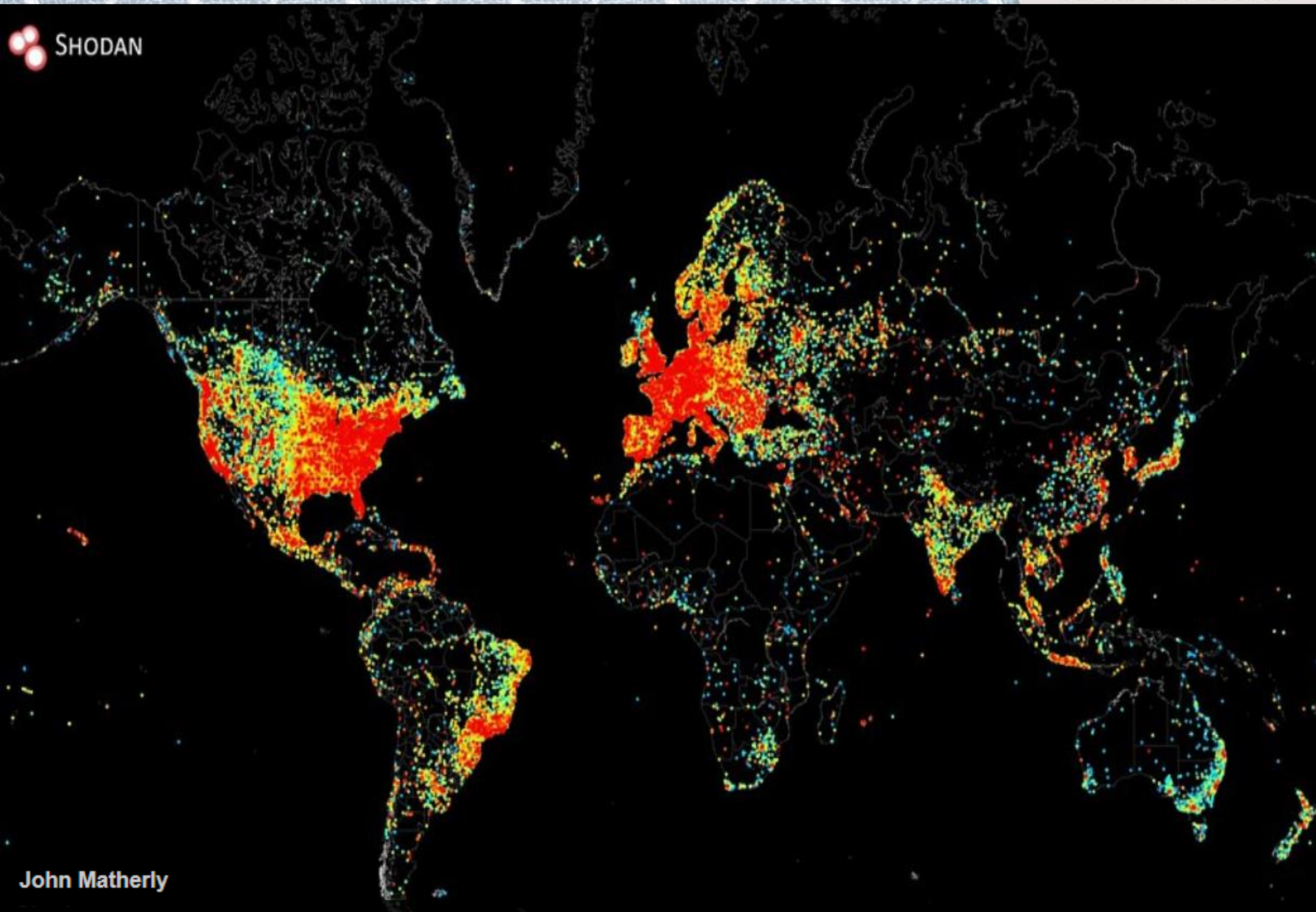
Internet Users in the world

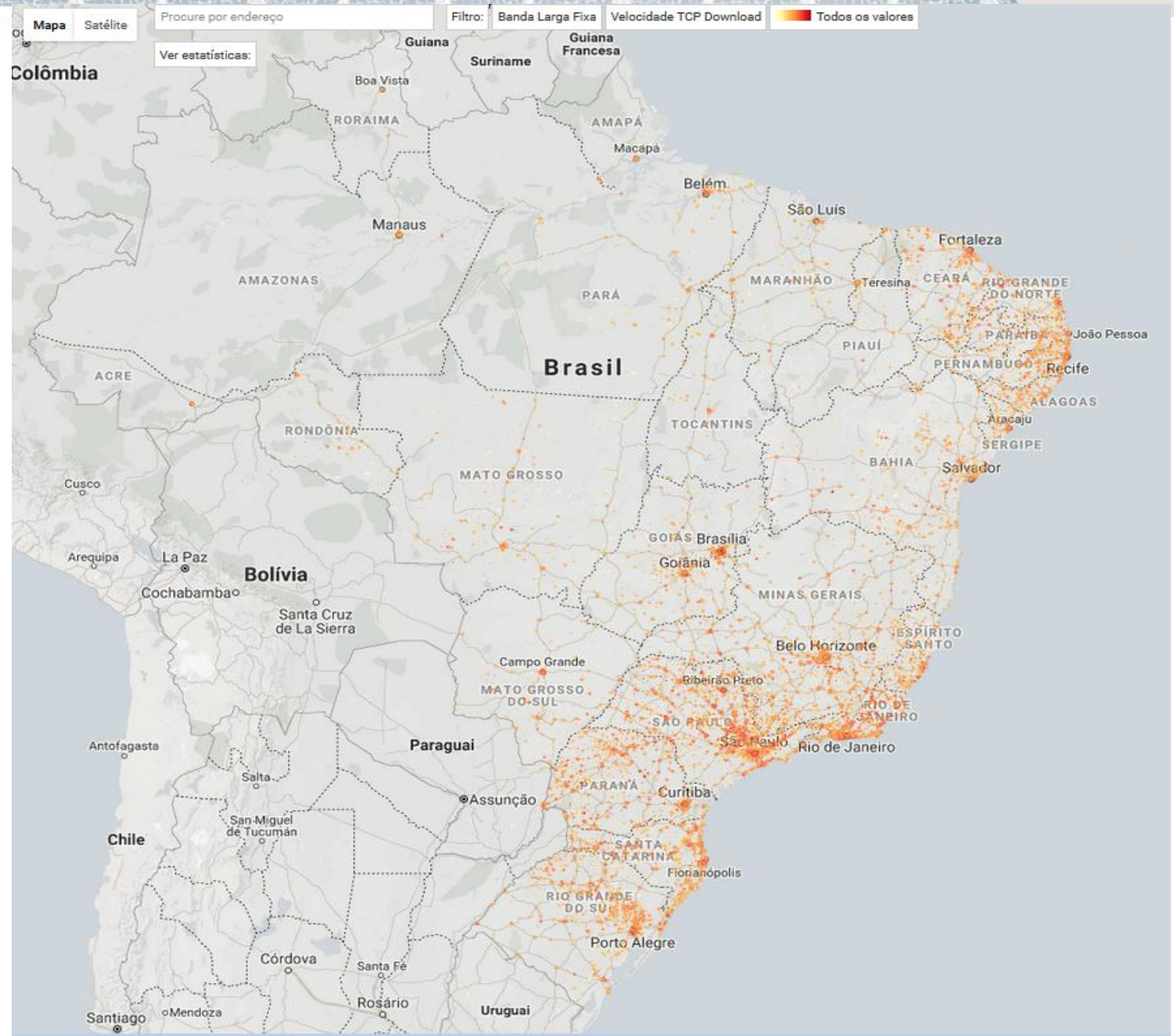
sources more info watch all

Current estimates from elaboration of data provided by:

- International Telecommunication Union
- World Bank Group
- United Nations Population Division


JAN 2018
INTERNET PENETRATION BY REGION
REGIONAL PENETRATION FIGURES, COMPARING INTERNET USERS TO TOTAL POPULATION
NORTHERN AMERICA
88%
NORTHERN EUROPE
94%
EASTERN EUROPE
74%
WESTERN EUROPE
90%
77%
SOUTHERN EUROPE
50%
CENTRAL ASIA
57%
EASTERN ASIA
THE CARIBBEAN
48%
CENTRAL AMERICA
61%
NORTHERN AFRICA
49%
65%
WESTERN ASIA
36%
SOUTHERN ASIA
WESTERN AFRICA
39%
MIDDLE AFRICA
12%
58%
SOUTHEAST ASIA
27%
EASTERN AFRICA
68%
SOUTH AMERICA
51%
SOUTHERN AFRICA
69%
OCEANIA
GLOBAL AVERAGE: 53%
Hootsuite
we are social
we are social


SHODAN
John Matherly


Mapa
Satélite
Procure por endereço
Filtro:
Banda Larga Fixa
Velocidade TCP Download
Todos os valores
Ver estatísticas:
Colômbia
Guiana
Suriname
Guiana Francesa
Boa Vista
RORAIMA
AMAPÁ
Macapá
Belém
São Luís
Manaus
Fortaleza
AMAZONAS
PARÁ
MARANHÃO
Teresina
CEARÁ
RIO GRANDE DO NORTE
PARAÍBA
João Pessoa
PIAUÍ
PERNAMBUCO
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GOIÁS
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MINAS GERAIS
Santa Cruz de La Sierra
ESPÍRITO SANTO
Belo Horizonte
Campo Grande
Ribeirão Preto
MATO GROSSO DO SUL
RIO DE JANEIRO
SÃO PAULO
São Paulo
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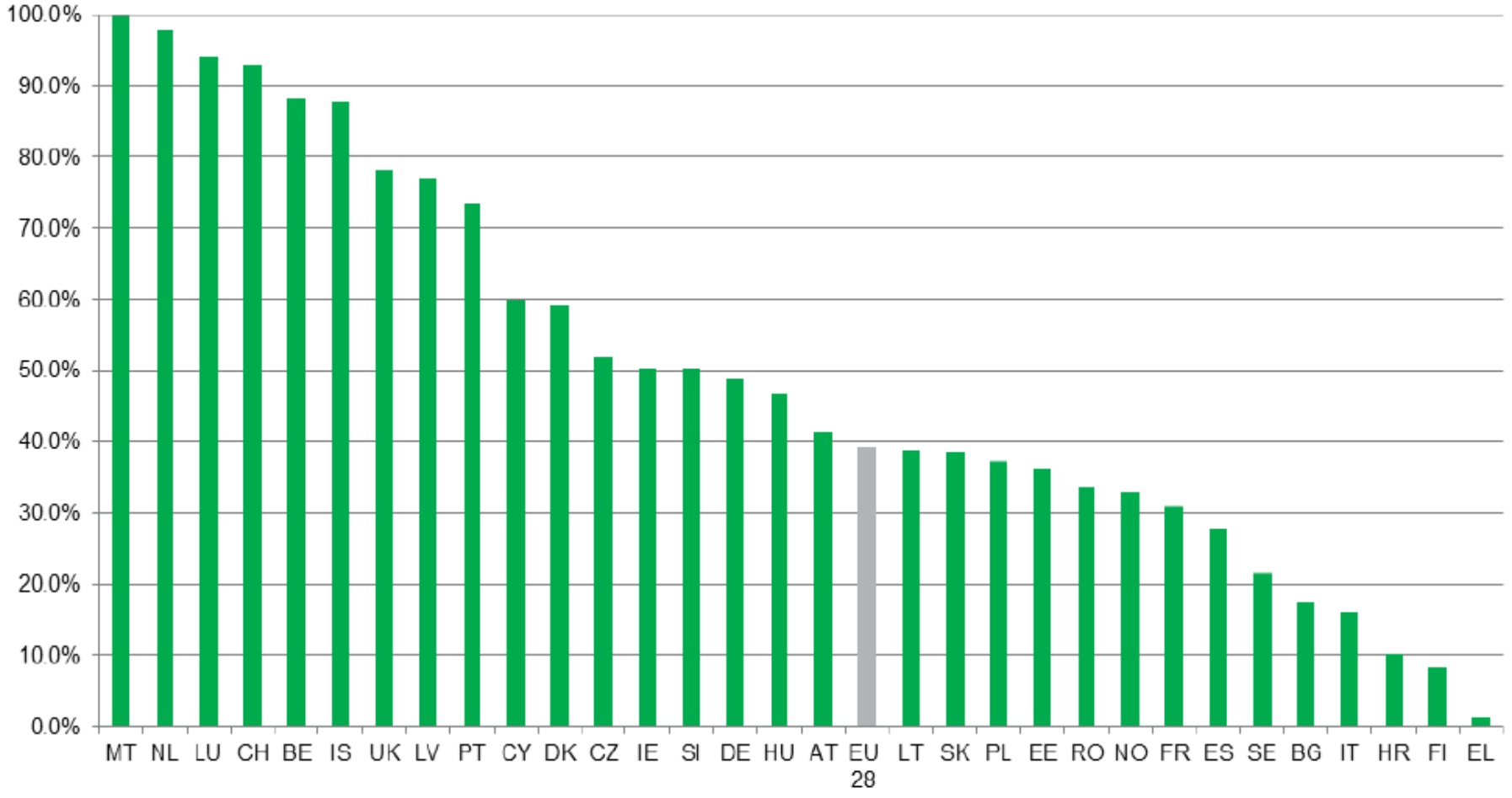
Antofagasta
Paraguai
Salta
PARANÁ
Curitiba
Assunção
San Miguel de Tucumán
Chile
SANTA CATARINA
Florianópolis
RIO GRANDE DO SUL
Porto Alegre
Córdova
Santa Fé
Rosário
Santiago
Mendoza
Uruguai

*"The **rural EU average** for NGA technologies, at **39.2%,** continued to be **considerably lower** than **total NGA coverage (76.0%)**"* (EC 2017)

Overall NGA coverage by country, rural areas, 2016



Source: Broadband Coverage in Europe 2016, a study by IHS Markit and Point Topic for the European Commission

© 2017 IHS Markit

Mainstream networks are...

not so mainstream

Internet Research Task Force (IRTF)
Request for Comments: 7962
Category: Informational
ISSN: 2070-1721

J. Saldana, Ed.
University of Zaragoza
A. Arcia-Moret
University of Cambridge
B. Braem
iMinds
E. Pietrosemoli
The Abdus Salam ICTP
A. Sathiaseelan
University of Cambridge
M. Zennaro
The Abdus Salam ICTP
August 2016

Alternative Network Deployments: Taxonomy, Characterization, Technologies, and Architectures

“mainstream networks” (RFC 7962)

- usually **large** **networks** spanning wide areas

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- controlled in a **top-down fashion** by the operator

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- usually **large networks** spanning wide areas
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- require a **substantial investment**

"mainstream networks" (RFC 7962)

- usually **large networks** spanning wide areas
- controlled in a **top-down** fashion by the operator -> **centralised approach**
- require a **substantial investment**
- **no user participation** in the network design, deployment and operation

Why people are not connected?

It depends….

Why people are **not connected**?

- Connectivity is **unavailable**

Why people are not connected?

- Connectivity is unavailable
- Connectivity is too expensive

Why people are not connected?

- Connectivity is unavailable
- Connectivity is too expensive
- Lack of interest

Why people are not connected?

- Connectivity is unavailable
- Connectivity is too expensive
- Lack of interest
- Low level of literacy

What if you could build your network yourself?

2. Community Networks

Crowd-sourced networks

built by **groups** of **individuals** in a

bottom-up fashion

utilised and managed by the

local community as commons

Distributed architecture

- Usually based on **wireless** technology (IEEE 802.11 family of standards)

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- Use **low-cost Wi-Fi equipment** and exploit **unlicensed spectrum** bands

- Usually based on **wireless** technology (IEEE 802.11 family of standards)
- Use **low-cost Wi-Fi equipment** and exploit **unlicensed spectrum** bands
- Can also be based on **fibre infrastructure**

guifi·net

Red de telecomunicaciones abierta, libre y neutral

freifunk.net

RHIZOMATICA

ALTER MUNDI

DEF
DIGITAL EMPOWERMENT *foundation*

broadband B4RN for the rural north

Virtuous circle of

knowledge and **innovation**

new services
by the community for the community

- maps
- instant messaging apps
- VoIP services
- local e-commerce platforms
- e-health apps, etc.

Positive externalities of DIY connectivity:

- Freedom of expression

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- Education and capacity building

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- Decentralization

Positive externalities of DIY connectivity:

- Freedom of expression
- Education and capacity building
- Permissionless innovation
- More “interesting” Internet
- Decentralization
- Employment opportunities

2. Human Rights Law

*"the right to freely **associate** to define, in a **democratic** fashion, the **design**, **development** and **management** of **network infrastructure** as a **common good**, in order to freely **seek**, **impart** and **receive information** and **innovation**"*

1. *the right to freely **associate***
2. *to define, in a **democratic** fashion, the **design**, **development** and **management** of **network infrastructure** as a **common good**,*
3. *in order to freely **seek**, **impart** and **receive** **information** and **innovation***

1. *"the right to freely **associate**"*

art. 20 UDHR, art. 22 ICCPR, etc.

3. *"in order to freely **seek**, **impart** and*

***receive information** and **innovation**"*

Art. 19 UDHR; art 19 ICCPR, etc.

2. *"to **define**, in a **democratic fashion**, the design, development and management of network infrastructure as a common good"*

(internal) **Self-determination**

A **governance** system in accordance with the

will of the **people**

All peoples must be **free** to determine their political status and to **pursue** their **economic**, **social** and **cultural development**

Art. 1 UDHR, 1(3) ICCPR & ICESCR, etc.

Informational Self-determination

the capacity of the individual to **determine** the

disclosure and **use** of his/her **personal data**

"Census" decision, BVerfGE

*"Personal data is the new **currency** of the digital world."*

Meglena Kuneva, 2009

The Economist
Theresa May v Brussels
Ten years on: banking after the crisis
South Korea's unfinished revolution
Biology, but without the cells
The world's most valuable resource
amazon
Google
Data and the new rules of competition

Zero rating offerings

the practice of **imposing limited data caps** and **not counting data consumption** of **selected apps** against users' monthly **data allowance**

Purposes of the **most common ZR** models?

- **lure (new) users** with a selection of **sponsored services**

Purposes of the **most common ZR** models?

- lure (new) users with a selection of sponsored services
- **orientate user choice** and **attention** (*i.e.* **data production**) towards integrated services

Purposes of the **most common ZR** models?

- lure (new) users with a selection of sponsored services
- orientate user choice and attention (*i.e.* data production) towards integrated services
- sell to app providers **preferential access** to the operator's consumers

Advantage for **app** consumers

Data consumption of specific services is not payed

Problems

active Internet **prosumers** are turned into **passive app consumers**

Problems

active Internet **prosumers** are turned into **passive app consumers**

sponsors/**operators** **decide** which **apps** are **subsidized**

Problems

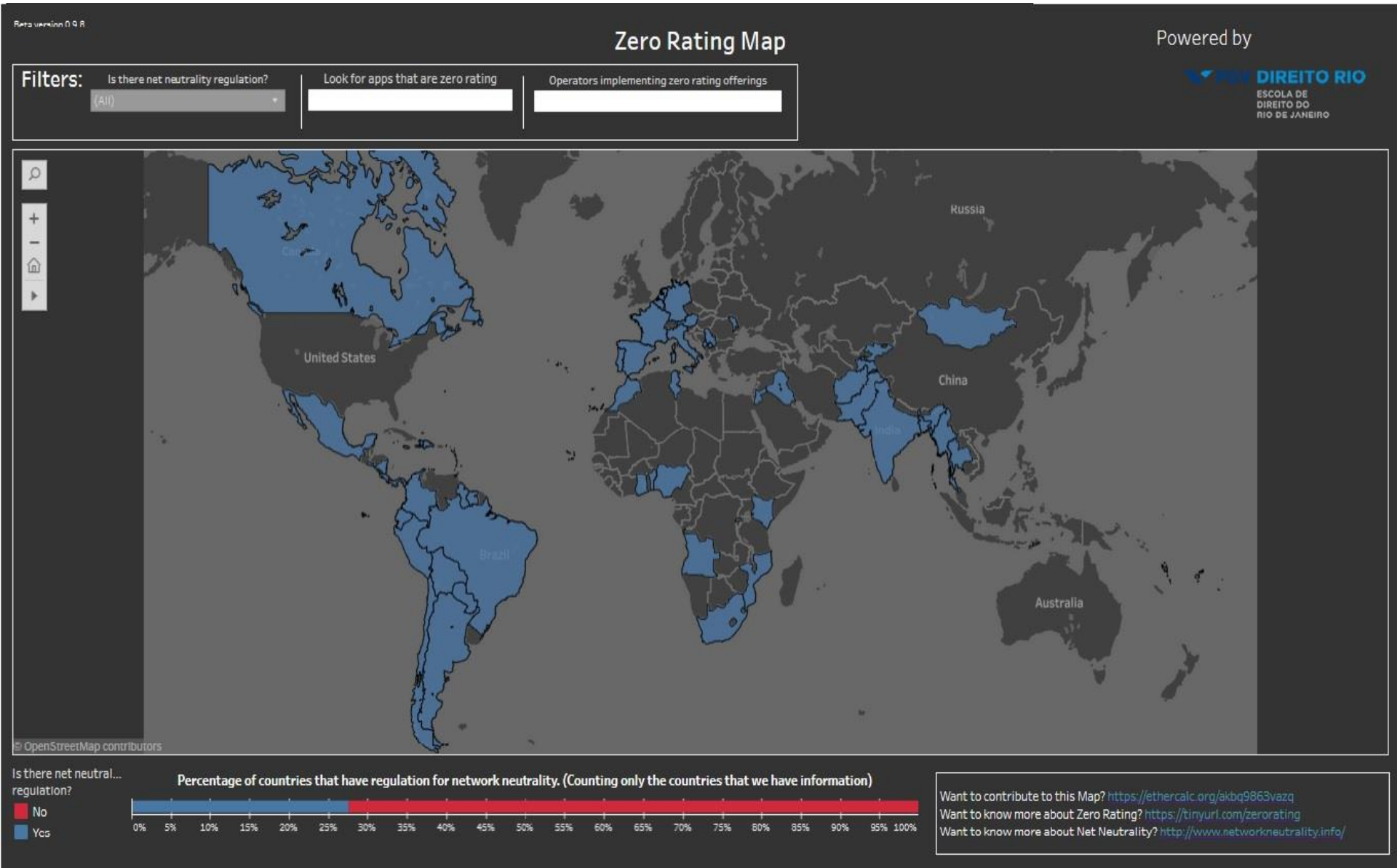
active Internet **prosumers** are turned into **passive app consumers**

sponsors/operators decide which **apps** are **subsidized**

the **Internet** is **centralized** and **fragmented** into **clusters of sponsored apps**

FGV DIREITO RIO

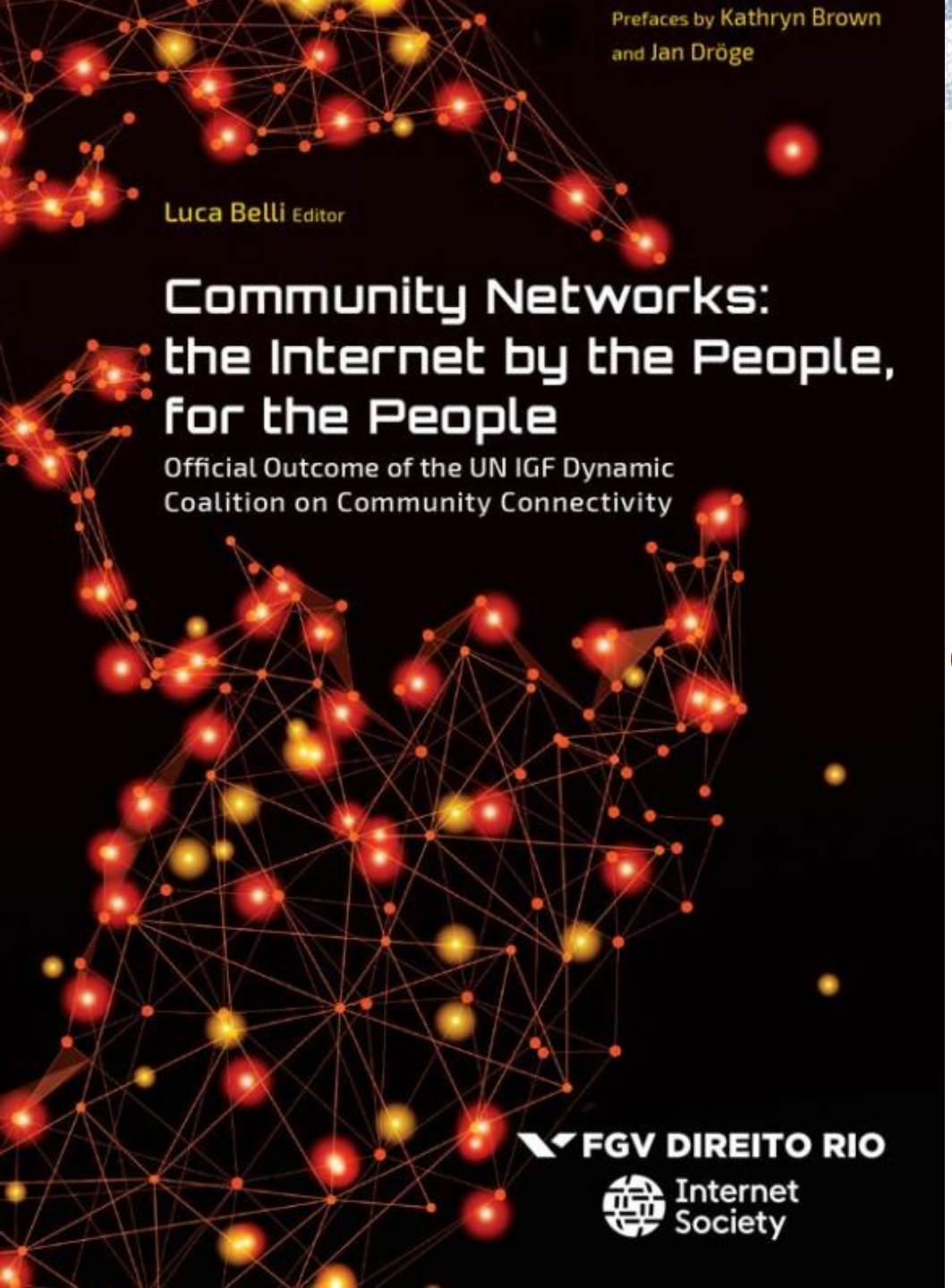
zerorating.info



Minitelization of the Internet?

Why not allowing the people to build the Internet themselves?

Thank you
for your attention!



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draft-irtf-hrpc-guidelines

RG adoption (yay)

s/intellectual property/protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author (art 28)

draft-irtf-hrpc-anonymity

Anonymity draft

Stéphane Bortzmeyer - AFNIC

IETF 101 - London

Current state

Current state

- `draft-irtf-hrpc-anonymity`

Current state

- `draft-irtf-hrpc-anonymity`
- Very few reviews

Open questions

Open questions

- We could use more examples of the need to anonymity

Open questions

- We could use more examples of the need to anonymity
- The section about objections to anonymity needs work

Open questions

- We could use more examples of the need to anonymity
- The section about objections to anonymity needs work
- Pay attention to `draft-mm-wg-effect-encrypt`, just adopted

Tasks

Tasks

- Too little activity until now. Is there still interest?

Tasks

- Too little activity until now. Is there still interest?
- Read, comment, review, PR!

draft-tenoever-hrpc-association

Freedom of Association and Internet Infrastructure

draft-tenoever-hrpc-association-04

Niels ten Oever – University of Amsterdam

Gisela Pérez de Acha – Derechos Digitales

"We shape our tools and, thereafter, our tools shape us.”

- John Culkin (1967)

1. Overview of changes

a) The right to protest is no longer an angle of analysis
b) Removal of the filter bubble section in the literature review
c) New vocabulary
d) Different research questions
e) Changes in structure
f) Added two discussions
   - Protocols vs. Platforms
   - The Internet as an association

New research questions

1. How does the internet architecture enable and/or inhibit freedom of association and assembly?

2. If the Internet is used to exercise the right to freedom of association, what are the implications for its architecture and infrastructure?

New vocabulary

- Architecture
- Autonomous System (AS)
- Border Gateway Protocol (BGP)
- Connectivity
- Decentralization
- Distributed system
- Infrastructure
- Internet

Internet

the Network of networks, that consists of Autonomous Systems that are connected through the Internet Protocol (IP).

A persistent socio-technical system over which services are delivered

A techno-social assemblage of devices, users, sensors, networks, routers, governance, administrators, operators and protocols

An emergent-process-driven thing that is born from the collections of the ASes that happen to be gathered together at any given time. The fact that they tend to interact at any given time means it is an emergent property that happens because they use the protocols defined at IETF

New structure

6.1. Conversing
    6.1.1. Mailing Lists
    6.1.2. Multi-party video conferencing and risks
    6.1.3. Internet Relay Chat
6.2. Peer-to-peer networks and systems
    6.2.1. Peer-to-peer system achitectures
    6.2.2. Version control
6.3. Grouping together (identities)
    6.3.1. DNS
    6.3.2. ASes
7. Discussion: Protocols vs Platforms
8. Discussion: The Internet as an association

We argue that the Internet constitutes an association (and not an assembly)

The Internet is made of up interconnected ASes which jointly form an association. This association should be protected.

2. Discussion

If every network is an association within the association, does it have absolute freedom to implement its own rules?

Or does the importance of a functioning 'larger' association (the Internet) prevails over the preferences of the smaller associations (individual ASes)?

And how does this impact users who for assemblies and association across ASes

When do ASes become part of the association? Upon receiving AS? Upon announcing routes? Upon shipping packets?

What are the implications of stating that the Internet should be protected as an association?

3. Way Forward

Technical

- The obligation to pass (some) packets?

Legal

- What are the consequences of the right to freedom of association under international human rights law? What are the limitations? What does it enable?
- How are they applied to the Internet as an association?

Comments?

Disagreements?

Research Group adoption?

draft-tenoever-hrpc-political

draft-tenoever-hrpc-political-04

On the Politics of Standards

How this fits in hrpc

Protocol impacts (RFC8280)

Dynamics impacting protocols (and architecture) development (this document)

What

Describing the political aspects of protocols

Why

- Internet is part of the basic infrastructure of information societies

Why

- Internet is part of the basic infrastructure of information societies
- Protocols that are being developed in the IETF influence information societies

Why

- Internet is part of the basic infrastructure of information societies
- Protocols that are being developed in the IETF influence information societies
- Part of this process is political (which includes economics), but this is not described in RFCs

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- Internet is part of the basic infrastructure of information societies
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- Part of this process is political (which includes economics), but this is not described in RFCs
- We need to take this into account if we want to understand our own decision making

Why

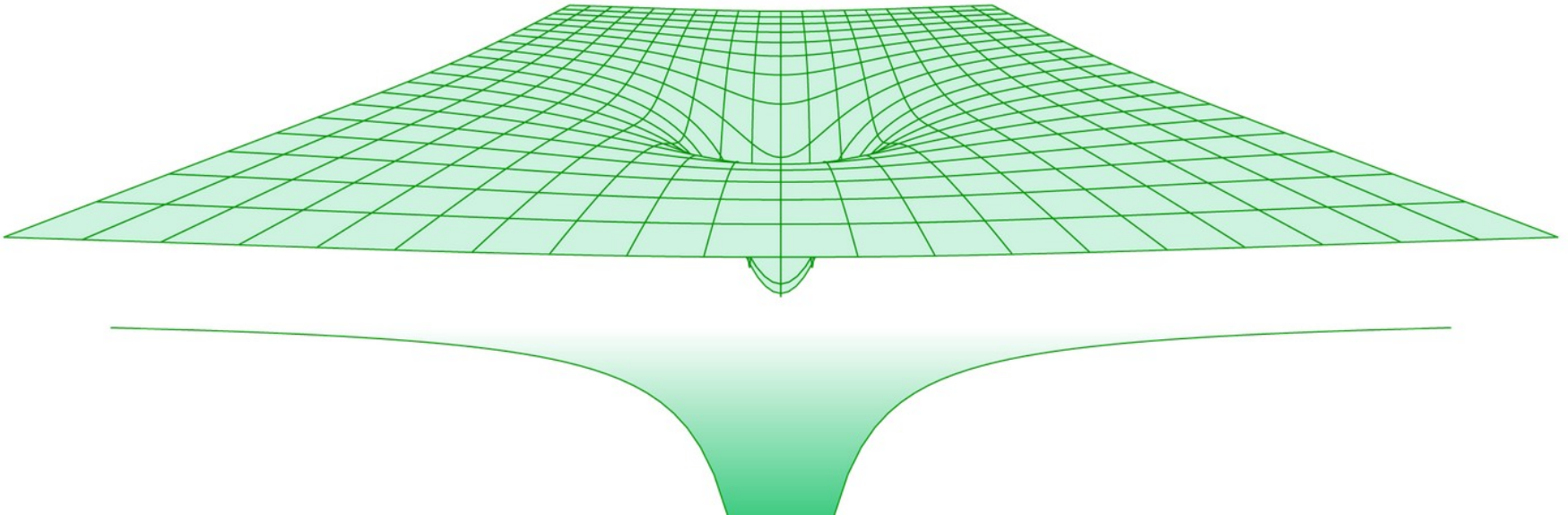
- Internet is part of the basic infrastructure of information societies
- Protocols that are being developed in the IETF influence information societies
- Part of this process is political (which includes economics), but this is not described in RFCs
- We need to take this into account if we want to understand our own decision making
- Making this explicit helps us to understand and take it into account (also if this is sometimes uncomfortable)

Consolidation

Internet Architecture Board

4 Mar 2018

One of the tasks of the Internet Architecture Board is to look at trends affecting the Internet. Recently, we've been discussing traffic flows and popular applications on the Internet, and the role of smaller vs. larger players in the Internet ecosystem.



Changes -03 & -04

- Typos

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- Typos
- Improvements on political stances based on off-list discussions

Changes -03 & -04

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  - Added position: 'All protocols are political sometimes'
    - law of unintended consequences

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- Improved examples in the field of competition

Changes -03 & -04

- Typos
- Improvements on political stances based on off-list discussions
  - Added position: 'All protocols are political sometimes'
    - law of unintended consequences
- Improved examples in the field of competition
- Added more dynamics about Standard development in general, and IETF in specific

Quo vadis?

- Anything missing?
- RG adoption?

HTTP Status Code 451

FIXING YOUR PROTOCOL FOR HUMAN RIGHTS

HTTP 451: LEGALLY WITHHELD

HRPC & PUBLIC INTEREST TECHNOLOGY GROUP

IETF101 HACKATHON, LONDON, MARCH 2018

ALP TOKER • DANIEL RAMSAY • HIROTAKA NAKAJIMA

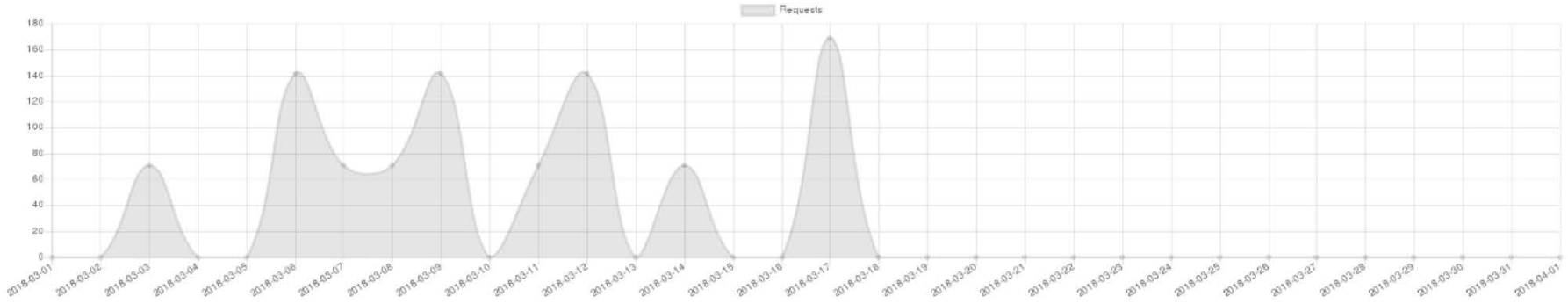
FURTHERING DIGITAL TRANSPARENCY WITH 451

- BLOCK-CRAWLER:
  - NEW CRAWLING ENGINE SUPPORTING MULTIPLE INSTANCES, STATE PERSISTENCE
- BLOCK-COLLECTOR:
  - SWITCH TO SQL BACKEND
- BLOCK-DASH:
  - TIME-SERIES DATA VISUALIZATION
- ACHIEVES BROADER VIEW OF 451 USAGE WORLDWIDE
- GLOBAL ADOPTION BY CONTENT PROVIDERS AND ISPS
- HELPS INFORM DIRECTION RFC7725 WITH VIEW TO HUMAN RIGHTS CONSIDERATIONS

451 Reports

Page 1

Date	URL	Blocked by	Report ID
2018-03-17 19:02	http://dretzq.co.uk/test451/test.php?p=1	dretzq.co.uk	951
2018-03-17 19:02	http://dretzq.co.uk/test451/test.php	dretzq.co.uk	950
2018-03-17 19:00	http://dretzq.co.uk/test451/test.php?p=5	dretzq.co.uk	949
2018-03-17 19:00	http://dretzq.co.uk/test451/test.php?p=4	dretzq.co.uk	948
2018-03-17 19:00	http://dretzq.co.uk/test451/test.php?p=3	dretzq.co.uk	947
2018-03-17 19:00	http://dretzq.co.uk/test451/test.php?p=2	dretzq.co.uk	946
2018-03-17 19:00	http://dretzq.co.uk/test451/test.php?p=1	dretzq.co.uk	945
2018-03-17 19:00	http://dretzq.co.uk/test451/test.php	dretzq.co.uk	944
2018-03-17 18:53	http://dretzq.co.uk/test451/test.php?p=1	dretzq.co.uk	943
2018-03-17 18:53	http://dretzq.co.uk/test451/test.php	dretzq.co.uk	942



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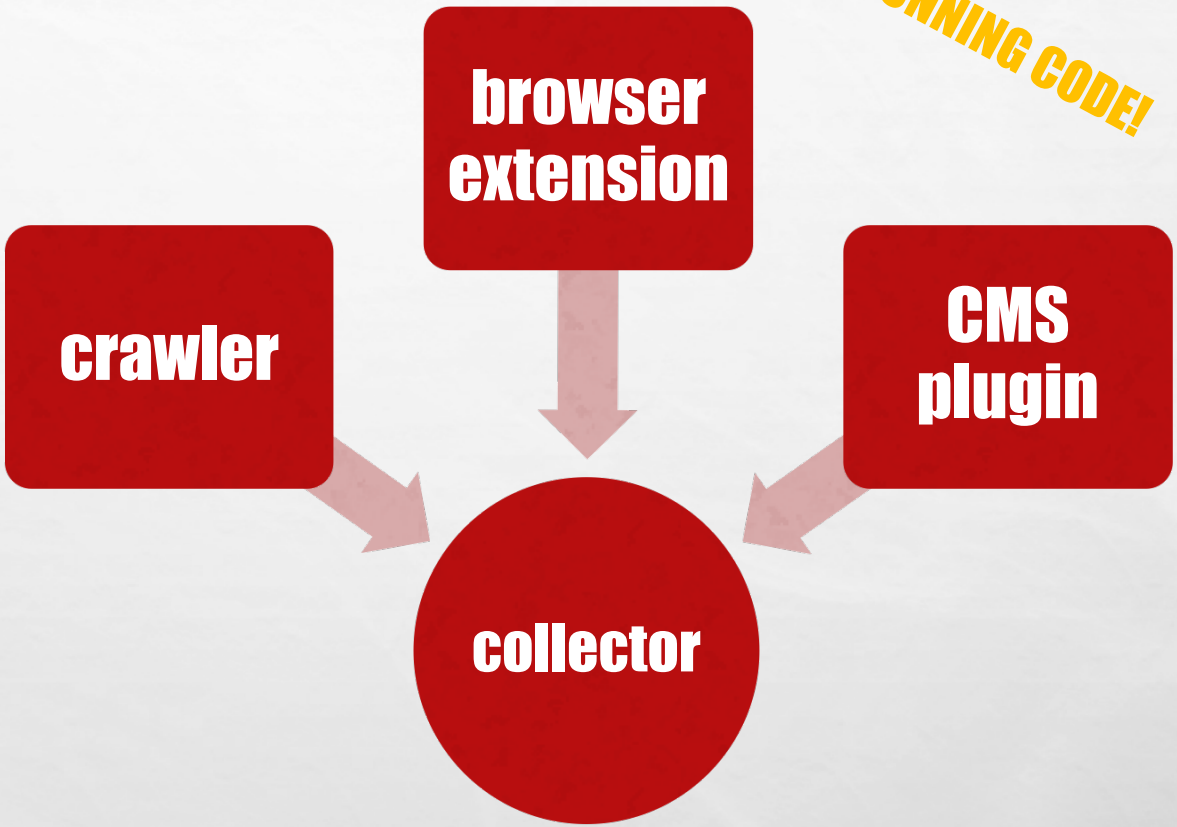
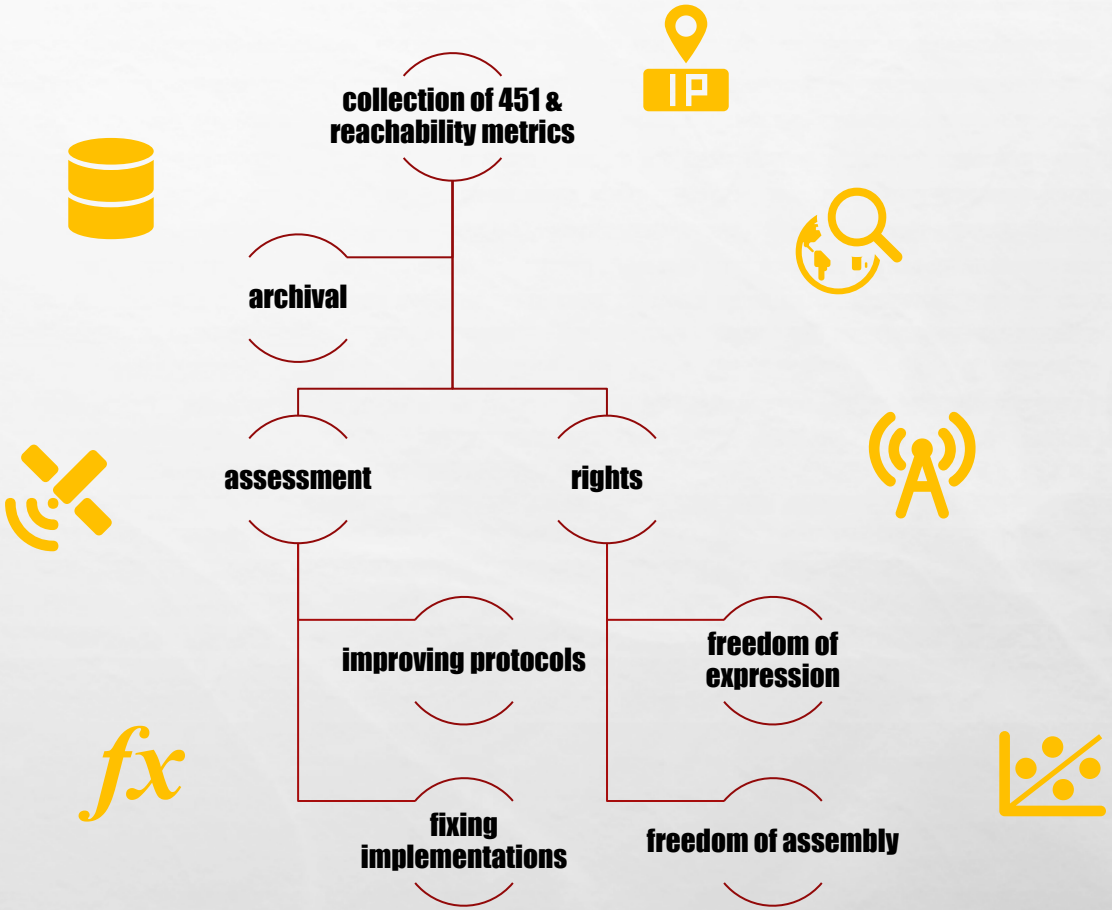
IETF99 IETF100 IETF101





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FIX YOUR PROTOCOL FOR HUMANS

- ALP TOKER
- DANIEL RAMSAY
- HIROTAKA NAKAJIMA
  - CORINNE CATH
  - DKG
  - NIELS TEN OEVER
  - SHIVAN KAUL SAHIB
  - STEPHANE BORTZMEYER

- REAL-TIME 451 TRACKER
  - HTTPS://NETBLOCKS.ORG
- RESOURCES
  - HTTPS://GITHUB.COM/NTBLK
  - HTTPS://WWW.IETF.ORG/ARCHIVE/ID/DRAFT-451-IMP-REPORT-00.TXT

Human Rights Review Team

Human Rights Review Team

Stéphane Bortzmeyer - AFNIC

IETF 101 - London

What is a review team?

What is a review team?

- A team that reviews drafts,

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- A team that reviews drafts,
- Can be very official or not official at all,

What is a review team?

- A team that reviews drafts,
- Can be very official or not official at all,
- No power of decision: they just send comments.

Current state

Current state

- Mailing list created. You may subscribe
  `https://www.irtf.org/mailman/listinfo/hr-rt`

Current state

- Mailing list created. You may subscribe `https://www.irtf.org/mailman/listinfo/hr-rt`
- No review done yet

Working methods

Working methods

- Focus on IETF-wide Last Call drafts,

Working methods

- Focus on IETF-wide Last Call drafts,
- Follow `draft-tenoever-hrpc-guidelines` (son of RFC 8280, section 6)

other drafts, papers, ideas

AOB // Open Mic

```
if write code(protocols):
    consider human rights implications
elif run internet infrastructure:
    respect human rights
elif engage in internet governance:
    build in human rights protections
else
    carry on and use FLOSS
```