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
Avri Doria

University of Amsterdam
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

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

22 March 2018
Community Networks: the Internet by the People, for the People
Official Outcome of the UN IGF Dynamic Coalition on Community Connectivity

communityconnectivity.xyz
Network Self-determination
Right to free development of network infrastructure
Instrumental condition to allow the full exercise of human rights
“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”
Internet Research Task Force (IRTF)
Request for Comments: 8280
Category: Informational
ISSN: 2070-1721

Research into Human Rights Protocol Considerations

N. ten Oever
ARTICLE 19
C. Cath
Oxford Internet Institute
October 2017
“the design and development of the Internet infrastructure have a growing impact on society” (RFC 8280)
“Internet as an enabling environment for human rights” (RFC 8280)
Network Self-determination

A concept based on Human Rights Law and on empirical 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
INTERNET PENETRATION BY REGION
REGIONAL PENETRATION FIGURES, COMPARING INTERNET USERS TO TOTAL POPULATION

GLOBAL AVERAGE: 53%

NORTHERN EUROPE: 94%
EASTERN EUROPE: 74%
NORTHERN AMERICA: 88%
CENTRAL AMERICA: 61%
THE CARIBBEAN: 48%
SOUTHERN AMERICA: 68%
CENTRAL ASIA: 50%
SOUTHERN ASIA: 36%
EASTERN ASIA: 57%
SOUTHEAST ASIA: 58%
OCEANIA: 69%
NORTHERN AFRICA: 49%
WESTERN AFRICA: 39%
MIDDLE AFRICA: 12%
SOUTHERN AFRICA: 51%
WESTERN EUROPE: 90%
THE CARIBBEAN: 48%
SOUTHERN EUROPE: 77%
WESTERN ASIA: 65%
EASTERN ASIA: 57%
SOUTHEAST ASIA: 58%
OCEANIA: 69%

JAN 2018
“The rural EU average for NGA technologies, at 39.2%, continued to be considerably lower than total NGA coverage (76.0%)” (EC 2017)
Mainstream networks are... not so mainstream
Alternative Network Deployments:
Taxonomy, Characterization, Technologies, and Architectures
“mainstream networks” (RFC 7962)

• usually **large networks** spanning wide areas
“mainstream networks” (RFC 7962)

- usually large networks spanning wide areas
- controlled in a top-down fashion by the operator
“mainstream networks” (RFC 7962)

- usually large networks spanning wide areas
- controlled in a top-down fashion by the operator
- 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)
• Usually based on **wireless** technology (IEEE 802.11 family of standards)

• 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**
Red de telecomunicaciones
abierta, libre y neutral
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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- Freedom of expression
- Education and capacity building
Positive externalities of DIY connectivity:

• Freedom of expression
• Education and capacity building
• Permissionless innovation
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• Education and capacity building
• Permissionless innovation
• More “interesting” Internet
Positive externalities of DIY connectivity:

- Freedom of expression
- Education and capacity building
- Permissionless innovation
- More “interesting” Internet
- 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 world’s most valuable resource

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**
Purpose 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
zerorating.info

Zero Rating Map

Filters:
- Is there net neutrality regulation?
- Look for apps that are zero rating
- Operators implementing zero rating offerings

Percentage of countries that have regulation for network neutrality. (Counting only the countries that we have information)

No
Yes

Want to contribute to this Map? https://ethercalc.org/9boye88svazq
Want to know more about Zero Rating? https://tinyurl.com/zerorating
Want to know more about Net Neutrality? http://www.networkneutrality.info/
Minitelization of the Internet?
Why not allowing the **people** to **build** the Internet **themselves**?
Thank you for your attention!
Community Networks: the Internet by the People, for the People
Official Outcome of the UN IGF Dynamic Coalition on Community Connectivity
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

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.

Stéphane Bortzmeyer - AFNIC
Anonymity draft
IETF 101 - London
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

Too little activity until now. Is there still interest?
Read, comment, review, PR!
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
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 architectures
   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.
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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- 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
Changes –03 & –04

• Typos
• Improvements on political stances based on off-list discussions
Changes -03 & -04

• Typos

• Improvements on political stances based on off-list discussions
  • Added position: 'All protocols are political sometimes'
    - law of unintended consequences
Changes -03 & -04

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

• 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
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

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**IETF101 - HRPC & PUBLIC INTEREST TECHNOLOGY GROUP**
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
Human Rights Review Team
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.
What is a review team?

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- A team that reviews drafts,
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- No power of decision: they just send comments.
Current state

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

No review done yet

Stéphane Bortzmeyer - AFNIC

Human Rights Review Team

IETF 101 - London
Current state

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

No review done yet
Working methods

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

Stéphane Bortzmeyer - AFNIC
Human Rights Review Team
IETF 101 - London
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