Human Rights Protocol Considerations (hrpc)

IETF 95 Tuesday April 4 2016 17:40 – 19:40

Co-Chairs:

Niels ten Oever –

Article19

Avri Doria

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APC

Administrivia

Mailinglist

- https://www.irtf.org/mailman/listinfo/hrpcGithub
- https://github.com/nllz/IRTF-HRPC
- Meetechohttp://www.meetecho.com/ietf95/hrpc
- Minutes
 - http://etherpad.tools.ietf.org:9000/p/notes-ietf-95-hrpc
- •Intro website
 - https://hrpc.io

Agenda

- Beginning (5 min) (Jabber scribe, note takers, Agenda Bashing, Notewell, Introduction)
- Status of research group (5 min)
- Context of research (5 mins)
- Discussion introduction website https://hrpc.io (5 mins)
- Presentation + Q&A Ramsey Nasser on `kalbe´ [قلب] a programming language entirely written in Arabic and the issues he came across while developing this (15 mins)
- Presentation + Q&A Geoffrey Bowker on Values in Design and difficulties surrounding engineering for social values (15 mins)
- Presentation + Q&A Nick Doty on privacy adoption in Internet and web standard setting, and how this could be applied in developing human rights guidelines (15 mins)
- Discussion of research draft, including first version of considerations (15 mins)
- Discussion of report draft (15 mins)
- Discussion of censorship draft (10 mins)
- Open discussion other drafts, papers, ideas (15 min)
- Next steps (5 min)
- AOB

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Status of proposed 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,

Context of research (i)

- Internet as tool for freedom of expression and freedom of association
 - By intention or by coincidence?
 - -The Internet aims to be the global network of networks that provides unfettered connectivity to all users at all times and for any content. (RFC1958)
- But as the scale and the industrialization of the Internet has grown greatly, the influence of such world-views started to compete with other values.
- The starting assumption of the RG is that as the Internet continues to grow, the linkage of Internet protocols to human rights needs to become explicit, structured, and intentional

Context of research (ii)

Alvestrand Best Current Practice [Page 3]

RFC 3935 IETF Mission Statement October 2004

(Another step is to choose leaders that we trust to exercise their good judgement and do the right thing. But we're already trying to do that.)

- 4. Issues with Scoping the IETF's Mission
- 4.1. The Scope of the Internet

A very difficult issue in discussing the IETF's mission has been the scope of the term "for the Internet". The Internet is used for many things, many of which the IETF community has neither interest nor competence in making standards for.

The Internet isn't value-neutral, and neither is the IETF. We want the Internet to be useful for communities that share our commitment to openness and fairness. We embrace technical concepts such as decentralized control, edge-user empowerment and sharing of resources, because those concepts resonate with the core values of the IETF community. These concepts have little to do with the technology that's possible, and much to do with the technology that we choose to create.

Context of the Research (iii)

Working on this problem in the IRTF (in context of IETF), because this is where the protocols and standards that have shaped and are shaping the Internet are being developed

This proposed RG has two major aims:

- to expose the relation between protocols and human rights, with a focus on the rights to freedom of expression and freedom of assembly, and
- to propose guidelines to protect the Internet as a human-rightsenabling environment in future protocol development, in a manner similar to the work done for Privacy Considerations in RFC 6973. This research group suggests that similar considerations may apply for other human rights such as freedom of expression or freedom of association.

Introduction website https://hrpc.io

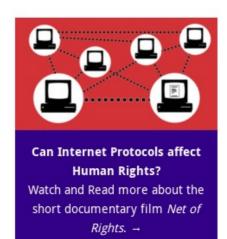


Human Rights Research Group

Research Group

Our work

The Human Rights Protocol Considerations Research Group in the IRTF > is chartered to research whether standards and protocols can enable, strengthen or threaten human rights, as defined in the Universal Declaration of Human Rights (UDHR) and the International Covenant on Civil and Political Rights (ICCPR), specifically, but not limited to the right to freedom of expression and the right to freedom of



HRPC

Ramsey Nasser

http://nas.sr/

@ra







قلب: لغة برمجة

قــلـب: لغة برمجة - مترجم ۲۰۱۳ و رمــــزي نـــاصــر ۲۰۱۲

أمثلة - النحدة - ما هذا؟

>>> (قول "مرحبا") مرحبا ==> مرحبا >>> ■

```
>>> (قــول "مرحبا")
                              مرحبا
                           ==> مرحبا
            >>> (قـــول "مرحبا")
                              مرحبا
                           ==> مرحبا
                          >>> (ق_____
ول "مرحبا")
                             مرحبا
                           ==> مرحبا
                             <<<
```

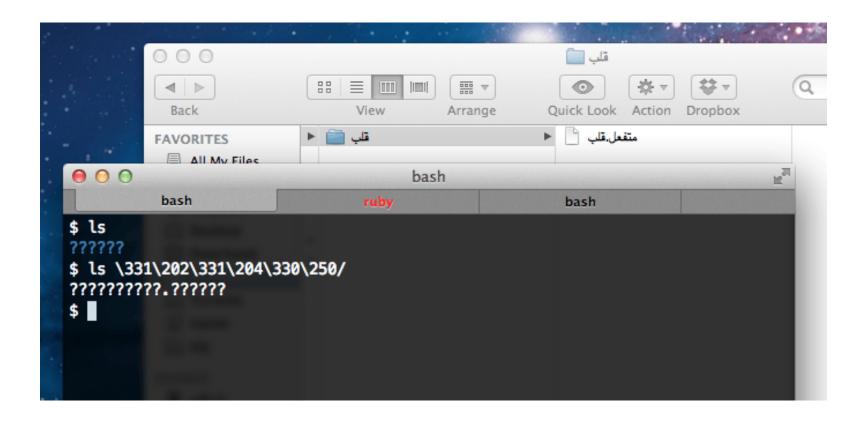
```
>>> (حدد فیبوناتشي (لامدا (ن)
... (إذا (أصغر؟ ن ٢)
... (جمع (فیبوناتشي (طرح ن ١))
... (قول (فیبوناتشي (طرح ن ٢)))))
... (قول (فیبوناتشي (۱۰))
٥٥
==> ٥٥
```

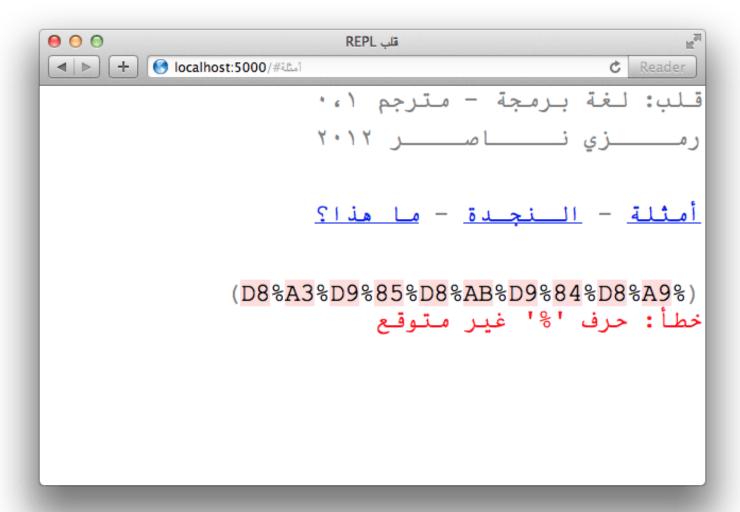
```
(حدد ارسم-بونج (لامدا ()
(خلفية ۳۲ ۳۲ ۳۲)
(احرف "بـــونـــج" (جمع (قسم (عرض-الرسم) ۲) ،) ،٤)
(احرف نتيجة-لاعب۲ (قسم (عرض-الرسم) ٤) ،٤)
(احرف نتيجة-لاعب۱ (ضرب ۳ (قسم (عرض-الرسم) ٤)) ،٤)
(خط (قسم (عرض-الرسم) ۲) ،٦ (قسم (عرض-الرسم) ۲) (طرح (طول-الرسم) ،۲))
(لا-خطوط)
(مربع (س-كرة) (ص-كرة) ،۱)
(مستطيل (س-لاعب۲) (ص-لاعب۲) ،۰ (٥)
```

```
لعبه بونج
            رمزی ناصر، ۲۰۱۶
            (ابدأ-رسم ۲۰۰ ۸۰۰)
       (طريقة-رسم-مستطيلات "وسط")
              (حدد نتيجة-لاعبا ٠)
(حدد س-لاعب۱ (طرح (عرض-الرسم) ۲۰))
(حدد م-لاعبا (قسم (طول-الرسم) ۲))
              (حدد نتيجة-لاعب٢٠)
                (רבב שו-لاعب)
(حدد ص-لاعب۲ (قسم (طول-الرسم) ۲))
 (حدد س-كرة (قسم (عرض-الرسم) ٢))
 (حدد ص-كرة (قسم (طول-الرسم) ٢))
```



```
000
                           git
+++ "b/lib/\331\205\330\252\331\201\330\271\331\204/\331\205\330\252\331\201\330
@ -12,9 +12,9 @
<D8><AD><D8><AF><D8><AF><D8><AF><D8><A9>
(<D9><82><D9><88><D9><84> 4
  <D9><82><D9><88><D9><84><U9><84><D8><A7><D9><84><D8><A7>
  (<D9><82><D9><88><D9><84> """)
  (<D9><82><D9><88><D9><84> 4<D8><AA><D9><85> <D8><AA><D8><B5><D9><85><D9><8A>
 <D9><82><D9><88><D9><84>
<B1><D9><85><D8><B2><D9><8A>
<D9><86><D8><A7>
diff --git a/repl.html b/repl.html
index 3a61662..7aeb086 100644
--- a/repl.html
+++ b/repl.html
@ -119,7 +119,8 @
           // enter
            if(evt.keyCode == 13) {
             Repl.history.unshift(cm.getValue());
             Qlb.execute(cm.getValue());
```





"Engineering Performance Art"

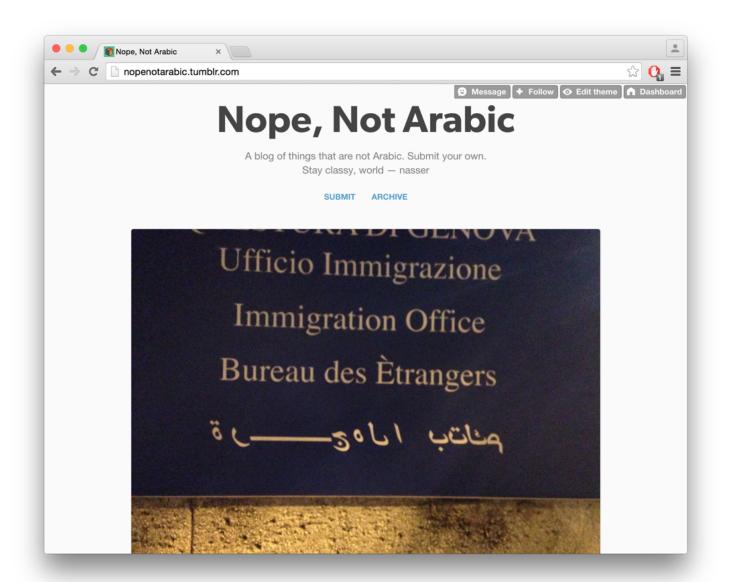
Text is hard, assumptions are everywhere

ASCII is everywhere

"plain text" = ASCII

human writing = one particular American encoding for latin characters

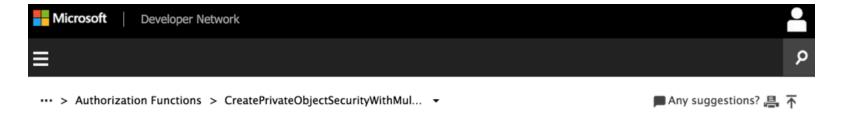




خات can't ever be practical

Nothing like قلب can ever be practical

Underlying protocols and APIs are specified in English



CreatePrivateObjectSecurityWithMultipleInheritance function

The CreatePrivateObjectSecurityWithMultipleInheritance function allocates and initializes a self-relative security descriptor for a new private

```
@.str = internal constant [14 x i8] c"hello, world\0A\00"

declare i32 @printf(i8*, ...)

define i32 @main(i32 %argc, i8** %argv) nounwind {
  entry:
    %tmp1 = getelementptr [14 x i8]* @.str, i32 0, i32 0
    %tmp2 = call i32 (i8*, ...)* @printf( i8* %tmp1 ) nounwind ret i32 0
}
```

barrier

glBeginConditionalRender

glBeginQuery

glBeginQueryIndexed

glBeginTransformFeedback

glBindAttribLocation

glBindBuffer

glBindBufferBase

glBindBufferRange

glBindBuffersBase

glBindBuffersRange

glBindFragDataLocation

glBindFragDataLocationIndexed

glBindFramebuffer

glBindImageTexture

glBindImageTextures

glBindProgramPipeline

glBindRenderbuffer

glBindSampler

glBindSamplers

glBindTexture

glBindTextures

glBindTextureUnit

glBindTransformFeedback

glBindVertexArray

glBindVertexBuffer

glBindVertexBuffers

bitCount

bitfieldExtract

bitfieldInsert

bitfieldReverse

glBlendColor

glBlendEquation

glBlendEquationi

glBlendEquationSeparate

glBlendEquationSeparatei

▼ Response Headers

accept-ranges: bytes age: 150116 backend-timing: D=71644 t=1459405013323868 cache-control: private, s-maxage=0, max-age=1 content-encoding: gzip content-language: en content-type: text/html; charset=UTF-8 date: Fri, 01 Apr 2016 23:58:48 GMT last-modified: Fri, 11 Mar 2016 20:16:29 GMT p3p: CP="This is not a P3P policy! See https 0." server: Apache status: 304 Not Modified strict-transport-security: max-age=31536000; i vary: Accept-Encoding, Cookie, Authorization version: HTTP/1.1

via: 1 1 varnich 1 1 varnich

"Human Readable" = American English

Software is about interacting with other systems

"Translations" do not work

Python In Chinese

```
# -*- coding: utf-8 -*-
# this is a sample Python program
定義 範例_1(訊息,次數):
    取 數 在 range(次數):
    印出 "哈囉, %s!" % 訊息
範例_1("世界", 百)
```

Converted Python

```
# -*- coding: utf-8 -*-

# this is a sample Python program

def p0_1(p1,p2):

    for p3 in range(p2):

        print "哈囉, %s!" % p1

p0_1("世界", 100)
```

Second-class Citizens

Accidental Long Term Performance Art

قلب

Researching privacy, security and other values in standard-setting

Nick Doty
UC Berkeley, School of Information
Center for Technology, Society & Policy

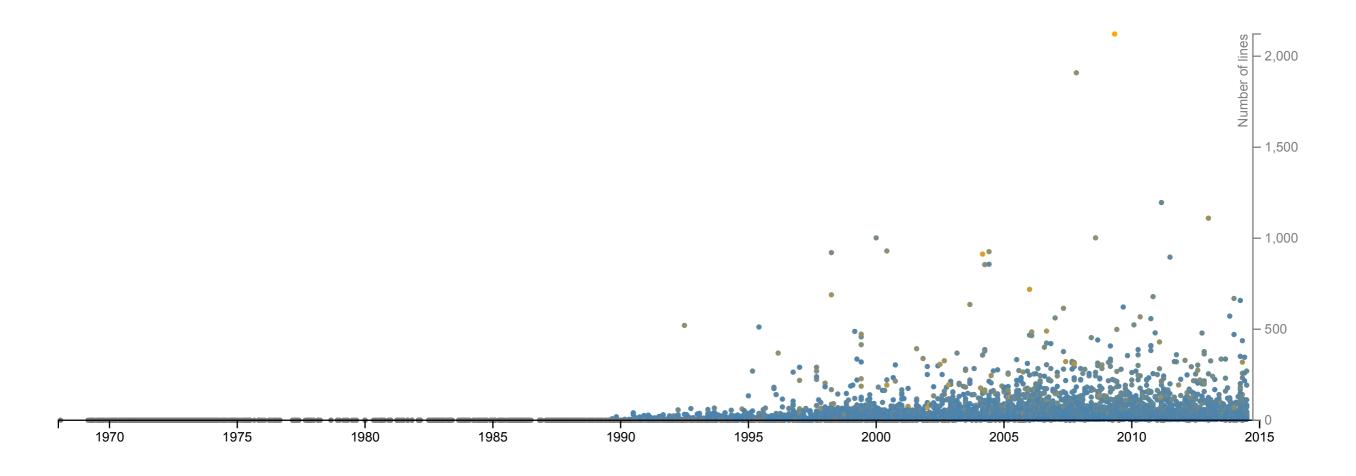
Outline

- 1. Reviewing for privacy and security
- 2. Multistakeholder process
- 3. Representation and harassment
- 4. Methods
- 5. Collaboration

Substantivity of IETF "Security Considerations"

All RFCs are required to have a Security Considerations section. Historically, such sections have been **relatively weak**.

-RFC 3552 (2003)



People, processes and tools

- IETF Security Directorate
- perpass
- IAB Privacy & Security Program
- W3C Privacy Interest Group
- Web Security Interest Group
- W3C Technical Architecture Group

- RFC 3552
- RFC 6973
- RFC 7258
- Self-Review Questionnaire:
 Security and Privacy
- Fingerprinting Guidance for Web Specification Authors

Trends in reviewing for privacy and security

- systematization
- integration
- leadership

Privacy in multistakeholder processes

- participation
- expertise
- legitimacy

INTERNET MULTISTAKEHOLDER PROCESSES AND TECHNO-POLICY STANDARDS

INITIAL REFLECTIONS ON PRIVACY AT THE WORLD WIDE WEB CONSORTIUM

NICK DOTY AND DEIRDRE K. MULLIGAN1

Boundary Organizations: Enabling Collaboration among Unexpected Allies

Siobhán O'Mahony University of California, Davis Beth A. Bechky University of California, Davis

Diversity and Representation

TECH EMOJI

Apple Pledges to Make Emoji More Ethnically Diverse

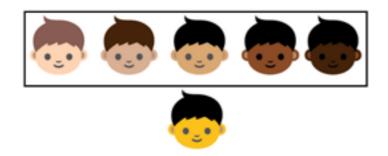
Michelle Arrouas @Michelle Arrouas March 27, 2014



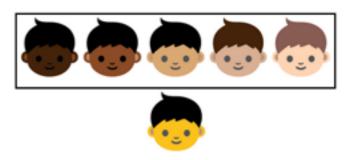




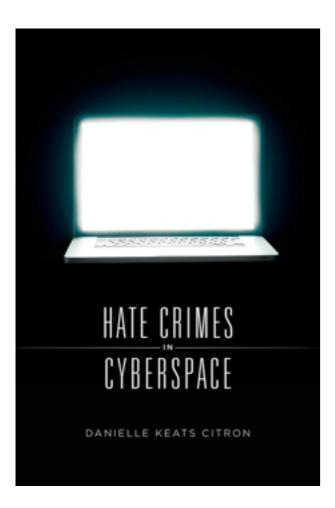
Minipalettes

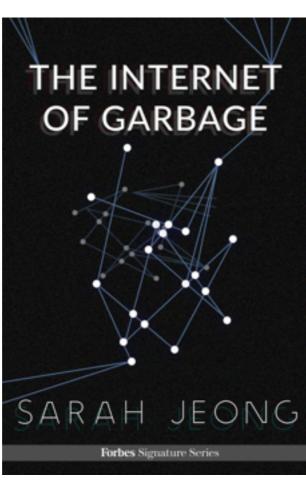


or



Harassment and Free Expression





Block Together (beta)

A web app intended to help cope with harassment and abuse on Twitter.

□ Block young accounts (< 7 days old) that mention you.
 □ Block accounts with < 15 followers that mention you.
 □ Share your block list with friends (Example block list).
 ☑ Follow @blocktogether for news and updates.
 Sign up using Twitter

<link rel="abuse" href="https://
example.com/abuse">

Methods

ethnography

qualitative and quantitative

Qualitative Methods

- semi-structured interviews
- participant observation
- discourse analysis
- self-reflection

Leadership and systematization

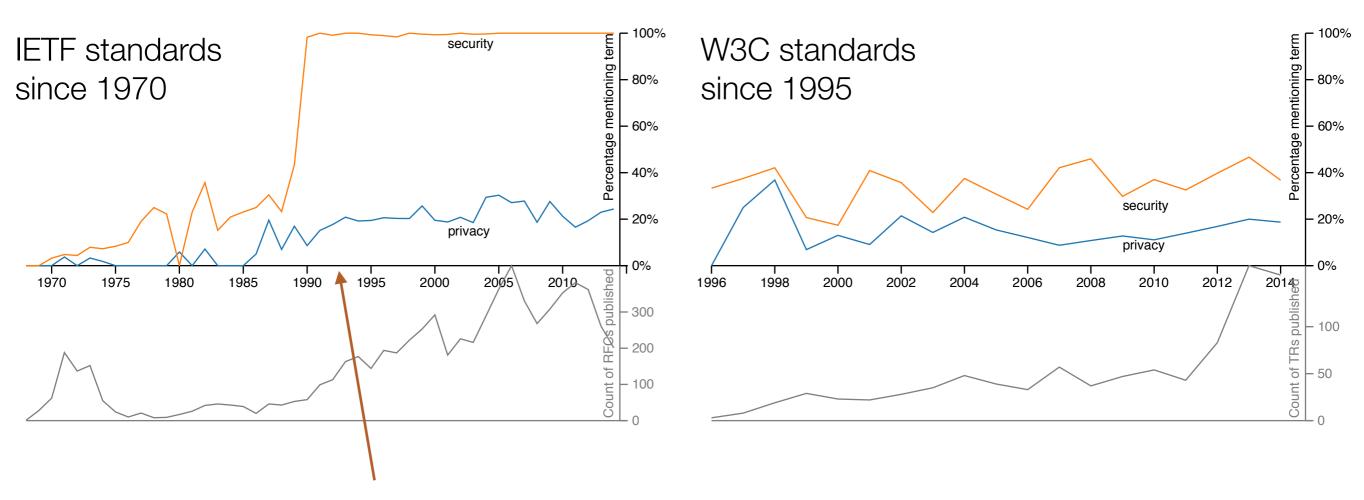
"Now everyone [thinks about security]. Not everyone does, but as soon as you don't, you get called out. [...] The security area directors are like a force to be reckoned with at this point.

Free lunches got a volunteer Security Directorate started. "Once it was institutionalized and organized, [...] there was enough momentum to keep it going."

Quantitative Methods

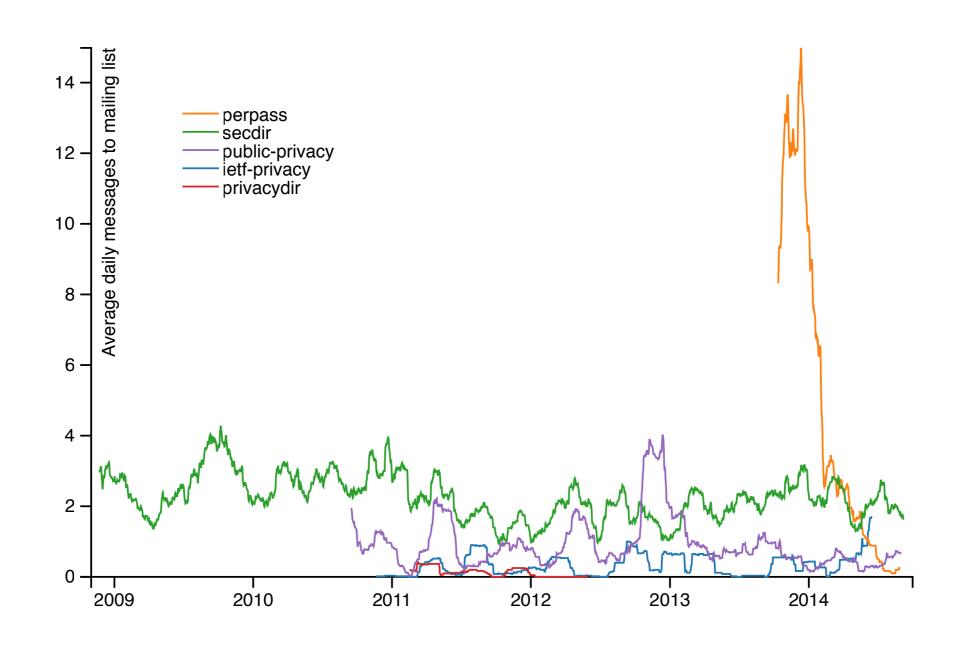
- textual analysis of:
 - mailing lists
 - documents (RFCs, etc.)
 - meeting minutes
- social network analysis

Privacy and security in standards over time

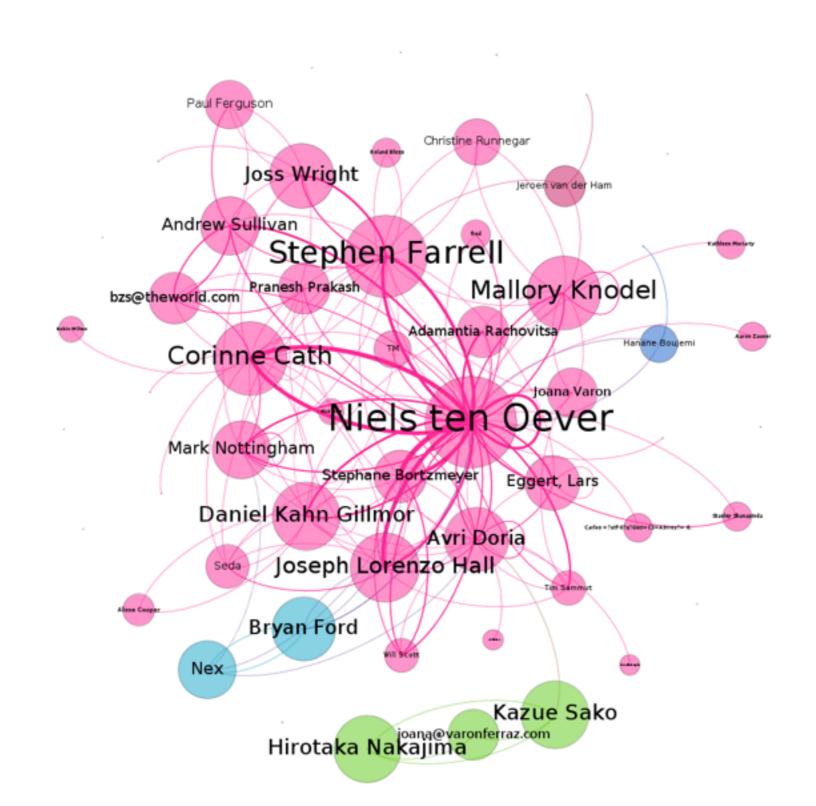


1993: "Security Considerations" section required

Snowden reactions reflected in mailing list activity



Social network analysis



Collaboration

 How do we get more academics involved in standardsetting?

- Center for Technology, Society & Policy is funding projects in *Infrastructure, Standards & Governance*
- How can standard-setting research fit into larger projects on privacy engineering, privacy-by-design and values in design?

Thanks!

Nick Doty https://npdoty.name https://ctsp.berkeley.edu

Discussion of Research Draft Ten Oever-research-hrpc-00

Including first draft of human rights protocol considerations

Corinne Cath

 δ

Niels ten Oever



What's new?

- Refactoring
- Merges
 - Methodology draft https://tools.ietf.org/html/draft-varon-hrpc-methodology-04
 - Glossary draft https://tools.ietf.org/html/draft-dkg-hrpc-glossary-01
- Methodology improvements
- Additional case studies
 - DDOS
 - HTTP Status Code 451
 - Middle boxes
- New literature and discussion section
- First draft human rights protocol considerations

Refactoring

- Research that was proposed has been done
- No need to differentiate anymore between was is planned and what has been done
- Improve readability

Merge

https://tools.ietf.org/html/draft-varon-hrpc-methodology-04

https://tools.ietf.org/html/draft-dkg-hrpc-glossary-01

- Glossary was outcome of one research step in methodology (4.5)
- Merge contributed to a (more) consolidated research document, fitting to state of research
- Glossary became 'Vocabulary Used' in new draft

Methodology improvements

 Academic style explanation of the steps followed to reach the conclusions

Additional Case Studies (I) - DDoS

Question:

Do DDoS attacks enable or threaten human rights?

Consensus on list:

- · From a technical perspective, the difference between a 'legitimate' and 'illegitimate' DDoS attack is meaningless
- · IETF needs to be consistent in the face of attacks, it cannot create protocols to enable some attacks and inhibit others
- · No one benefits from weakened infrastructure in the end

Additional Case Studies (ii) - HTTP Status Code 451

- · Useful to track cooperative, legal versions of content removal resulting from requests
- Not a solution to detect all occasions of censorship
- Positive impact on human rights (due process, transparency, possibility for redress, potentially trigger to use circumvention tech)

Additional Case Studies (iii) - Middleboxes

Tension between:

- End-to-end principle
- Network optimization
- Privacy and security concerns
- CDNs & Access
- Continue the discussion? Differentiate between different forms of middle boxes?



Further academic grounding of the research:

- 1. Clark et al [2005]
- 2. Brown et al [2010]
- 3. Broeders [2015]
- 4. Bless and Orwat [2015]

'We must find ways to continue guaranteeing the overall integrity and functionality of the public core of the Internet.'

Broeders 2015

'Pure technical solutions for enabling, enforcing or restricting rights/values are often costly, insufficient, inflexible, may have unintended consequences or create stakeholders with too much power.'

Bless and Orwat 2015

RG position:

 'Hard-coding human rights into protocols in addition to being undesirable is also impossible, because each situation is dependent on its context.'

» BUT

• 'It is important to make conscious and explicit design decisions that take into account the human rights protocol considerations guidelines.'

Guidelines for Human Rights Protocol Considerations (i)

How the technical concepts identified relate to human rights, and what questions engineers should ask themselves when developing or improving protocols.

Guidelines for human rights considerations (ii)

Aim: Comprehensive analysis

Method: Questionnaire

Expect result: Thought process & documentation

We don't recommend specific practices [!!]

Example: Accessibility

- When websites, web technologies, or web tools are badly designed, they can create barriers that exclude people from using the Web. Is your protocol designed to provide an enabling environment for people with disabilities? It might be relevant to look at the W3C Web Accessibility Initiative for examples and guidance.
- Is your protocol optimized for low bandwidth and high latency connections? Could your protocol also be developed in a stateless manner?
- Impacts:
- Right to non-discrimination
- Right to freedom of assembly and association
- Right to education
- Right to political participation

Next steps

- Guidelines are in question form, does this work?
- Too many questions, too little questions?
- Suggestion by Nick Doty:
 - Use examples and questions based on impact / practice (such as done under 'censorship resistance') similar to W3C tag security questionnaire
- After IETF95 and integrating comments > calls for adoption by RG?
- Reality check → who is working on a draft and wants to test this?

draft-doria-hrpc-report-00

IRTF HRPC-Meeting
IETF95
April 4 2016
Buenos Aires

Changes since last version

- Doc is companion to Research doc.
 - Renamed & reworked to take into account merging of Terminology and Methodology into Research doc.
- Added some descriptions of related research. Section should include all work referenced in the RG including work specifically called out in Research doc.
 - Much yet to be written.
- Included description of Internet core protocols as a Public Good
- Included issue of next research steps
- Updated emergent issues section based on list discussions:
 - DDOS as Freedom of Expression?
 - Differentiating implementation and deployment effects from protocol design.

draft-hall-censorship-tech-03

Joseph Lorenzo Hall, CDT joe@cdt.org

IRTF HRPC WG meeting IETF 95 (4 April 2016)

Context

- Draft: https://datatracker.ietf.org/doc/draft-hall-censorship-tech/
- **Goal:** provide a reference for internet protocol engineers about technical methods to accomplish censorship using protocol features.
- Relationship to RFC 7754 ("Technical Considerations for Internet Service Blocking and Filtering"):
 - RFC7754:
 - audience those that would filter or block
 - **purpose** is to assess blocking and filtering methods, impact on internet architecture, and recommends dealing with problems at endpoints
 - This draft: audience is protocol engineers, purpose is to serve as a reference

Update for -03

- Refactored text into Markdown
 - You should be able to pull from the repo and build: https://github.com/josephlhall/rfc-censorship-tech
- Structure is now: "prescription, identification, interference"
 - From "aggregation, identification, prevention"
- Attempt to deal with comments from:
 - Stéphane Bortzmeyer (github issues #2-8)
 - Not done yet!
 - Martin Nilsson (github issues #9-12)
 - Work from co-authors (Aaron (CU Boulder), Feamster & Jones (Princeton))

Open Issues

- Hoping to be ready for (potential) AD-sponsorship at SAAG in Berlin.
- Likely need one more restructuring in terms of interference:
 - Bortzmeyer: split "censorship by DNS" up for greater clarity
 - Feamster: Split up structure via layers:
 - Network Layer (IP), Transport (TCP/UDP), DNS, Application Layer (HTTP Request/Response, TLS SNI, DPI and other application identification mechanisms)
- Seamus Touhy:
 - cross-ref with CAPEC attack patterns definitions.
 https://github.com/elationfoundation/CAPEC_censorship

Open discussion other drafts, papers, ideas

Next Steps

AOB (i)

Civil society (friendly) dinner at Green Life vegetarian – vegan restaurant After this session (20h)

> Green Life Corrientes 1915 y Riobamba

AOB (ii)

NET OF RIGHTS

A short documentary film which explores the relation between Internet protocols and the promotion and protection of Human Rights.

The Computers

The remarkable story of the six young women who programmed the world's first all-electronic programmable computer, ENIAC, as part of a secret US WWII project.

Screening /+/ Q&A with the producers

Thursday, April 7



18:00 to 20:00 hs

Free admission. RSVP: lucciferri@adc.org.ar

Hosted by

ARTICLE 19

MOC

adeves,

San Martin 536, CABA
Urban Station (Microcentro)

18:00 a 20:00 hs

NET OF RIGHTS

Un documental que explora el vínculo entre los protocolos de Internet y los derechos humanos

The Computers

La extraordinaria historia de las 6 jóvenes que programaron la primer computadora programable en forma totalmente electrónica durante la 2° GM

Proyección /+/ Q&A con los productores Entrada libre. RSVF lucciferri@adc.org.a

Convocan



