Abstract

This document aims to describe how internet standards, protocols and its implementations may impact diverse groups and communities. The research on how some protocol can be enabler for specific human rights while possibly restricting others has been documented in [RFC8280]. Similar to how RFC 8280 has taken a human rights lens through which to view engineering and design choices by internet standardisation, this document addresses the opportunities and vulnerabilities embedded within internet protocols for specific, traditionally marginalised groups.

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This document aims to use a feminist framework to analyse the impacts of internet protocols on society. It is based on a document called The Feminist Principles of the Internet [FPI], a series of 17 statements with a "gender and sexual rights lens on critical
internet-related rights" for the purpose of enabling women’s rights movements to explore issues related to internet technology.

These Principles, as well as most of the experiences and learnings of the feminist movement in the digital age, have focused on envisioning a more just internet as a necessary action in building a more just society, namely one that recognizes differences across a variety of lived experience and identity.

This document must not be understood as a set of rules or recommendations, but as an articulation of key issues with feminist policies and approaches, in order to begin to investigate. That is why this document has two main goals: to identify terminology, both in technical and feminist communities, that can be shared in order to start a dialogue; and to analyze the Feminist Principles based on some of the technical discussions that have been taken into account in the development of protocols.

In what follows, this document first describes the feminist theoretical framework from which it proposes to analyze the impacts of the protocols on marginalized and discriminated communities. In the second part, describes the methodology used to connect the framework mentioned above with the Feminist Principles of the internet. In the third part, characteristics of each principle, as well as the harms on which they are based, the possible points where they connect with IETF work and related rights, are described.

This is still a work in progress so many sections are yet to be done. Coming soon will be added use cases as examples of how protocols and standards can restrict the use of the internet by certain communities and individuals.

1.1. An intersectional perspective

Imagine a highway that connects two big cities, one capable of withstanding heavy traffic at high speeds. Driving there takes experience and expertise, and just a few streets intersect it so as not to hinder traffic. Imagine this highway as a robust body of rights and those who travel along it as people who have traditionally enjoyed these rights.

If someone without enough experience is driving down a road that intersects the highway and wants to get there, that person will be at greater risk of crashing or having an accident. In addition, without a valid license the person will also run the risk of being fined by the traffic authorities. In terms of rights, those intersecting roads are not robust and the risks of accident are forms of...
discrimination experienced by those who drive on them. What if many small streets intersect at the same point on the highway?

Arised in black feminist theory, the concept of intersectionality serves to understand how multiple forms of discrimination overlap [Collins]. As first pointed by [Crenshaw] in the United States, "Black women can experience discrimination in ways that are both similar to and different from those experienced by white women and Black men", so an intersectional approach should be able to recognize this type of discrimination by transcending the one-way perspective with which the justice system, as well as feminist and anti-racist movements, had traditionally operated.

From this proposal, the concept has meant a paradigm shift both in feminist thinking [Collins] and movements [Lorde][Davis], and more recently in the design and implementation of public policies [Mason][Hankivsky]. The intersectional approach is not focused on the problem of equality but on difference; discrimination is not analyzed in terms of effective access to rights, but the conditions and capacities that people have to access those rights.

Therefore, an intersectional feminist perspective focuses on social location, the multiple layered identities people live, derived from social relations, history and structures of power through which people can experience both oppression and privilege. These oppressions can be structural and dynamic, determined by gender, race or skin color, class, sexuality, ethnicity, age, language, geographic location, abilities or health conditions, among other factors [Symington].

The concept _matrix of domination_, introduced by [Collins] as complementary to _intersectionality_, refers to the way in which the powers that produce and reproduce intersecting oppression are organized. In summary, the concept _intersectionality_ has served to recognize people’s different experiences and social locations and with this, the need of a bottom up understanding of discrimination and oppression; in addition, the concept _matrix of domination_ turns the gaze on the context of power -institutional, political, economic and symbolic- in which intersecting oppressions operate.

1.1.1. Internet as a matrix of domination

The gender and sexual rights lens on critical internet-related rights contained in the Feminist Principles of the Internet has been built bottom up by the feminist movement [FPI], which treats most prominently people who are negatively discriminated against on the basis of their gender and sexuality, but not exclusively. Because the threats to women and queer people, whose bodies and
manifestations are already under strong, albeit sometimes invisible, social, cultural and political surveillance, an intersectional feminist analysis makes it possible to recognize how multiple oppressions affect the ways people access, use and participate on the internet.

From now on, some of these experiences will be used to identify how the Internet can enable or restrict the possibility of justice and equity among its users. For this purpose, it is useful to understand the internet as a _matrix of domination_ in the sense pointed by [Collins]: as an institutional, political, symbolic and cultural context where different intersecting oppressions are shaped and reinforced.

This document addresses the opportunities and vulnerabilities incorporated into Internet protocols for specific, traditionally discriminated groups, on the assumption that these values are inherent in technological design. Through the proposed intersectional perspective, a multilevel description of the factors, processes and social structures that affect different experiences on the Internet is presented below and, based on specific cases, an analysis will be made of how the different protocols intervene in the shaping and reinforcement of intersecting oppressions faced by users on different social locations.

1.2. Brief history of feminism and the internet

The ways in which feminists have understood, used and mobilised on the internet is significant for a baseline understanding of how internet protocols and feminism intersect. Intersectional feminist action and analysis can be collected into two strategies: addressing the status quo and creating alternatives. Feminists on the early internet embodied both.

It is important to note here that there has always existed a gender gap in access to the internet, which is exacerbated by global wealth inequality.

Since the 1980s, feminist movements have used the internet to challenge power. Globalisation. Development. Cyberfeminism. Internet governance. There is a deeper connection to the internet and social justice struggles in which communication becomes the primary strategy to address inequality. Indeed, in "A History of Feminist Engagement with Development and Digital Technologies" Anita Gurumurthy writes, "the history of the right to communicate reveals the contestation between powerful status quoist forces and those who seek transformative, global change for justice and equality."
At the same time, feminists were using the internet to create feminist space.

Author Feminista Jones argues in "Reclaiming Our Space: How Black feminists Are Changing the World from the Tweets to the Streets" that the feminist alternative spaces have become mainstream and are leading analysis and critique of the status quo, a merging and strengthening of the two strategies that emerge from this particular historical framing.

Given these myriad expressions of feminism online and feminist movement building online, one thread is perhaps most instructive to this exercise, which we use as the basis for this document: Feminist Principles of the Internet. More about the nature of the complex community that created the Feminist Principles of the Internet can be found at feministinternet.org. The principles, drafted and revised by hundreds of feminists mostly in the global south, highlight historical feminist themes for the digital age in its main categories: access, movements, economy, expression and embodiment.

2. Methodology

- Research: Archive review, HRPC-RG documents, Use cases (bottom-up, participative process within feministinternet community (TODO))
- Presentation: principle, harm identified, related protocols and rights.

TODO

3. Feminist Principles

3.1. Access

Internet access is recognized as a human right [UNGA], but its effective guarantee depends on different and unequal social, cultural, economic and political conditions. In 2018, barely half of the world’s population has access to the internet and in 88% of countries, men have more access than women [ITU]. Geographical location, age, educational and income level, as well as gender, significantly determine how people access to the internet [WebFoundation].

The Feminist Principles of the Internet [FPI] explore a broad understanding of the term beyond technicalities. It seeks to connect the technical fact to gendered and socio-economic realities.
3.1.1. Internet access

Access must be to a universal, acceptable, affordable, unconditional, open, meaningful and equal internet, which guarantees rights rather than restricts them [FPI]. As some bodies have always been subject to social and cultural surveillance and violence because of their gender and sexuality, their access to internet will not be satisfied with connected devices, but with safety and useful digital environments [SmKee].

Harms: Restricted connectivity. i.e. Middleboxes (which can be Content Delivery Networks, Firewalls, NATs or other intermediary nodes that provide ‘services’ besides routing). TODO

Related protocols: The end-to-end principle is important for the robustness of the network and innovation (RFC1958); Content agnosticism: Treating network traffic identically regardless of content.

Related rights: Freedom of expression, freedom of association.

3.1.2. Access to information

Women and queer people have traditionally had restricted their reproductive and sexual rights. Today their rights are restricted in different levels and qualities in different countries and regions. It is necessary to guarantee access to relevant information related to sexual and reproductive health and rights, pleasure, safe abortion, access to justice, and LGBTIQ+ issues.

Harms: Some governments and ISPs block pages with this content or monitor online activity by sexual and gender related terminology. Therefore the considerations for anticensorship internet infrastructure technologies also consider, and can possibly alleviate, a gendered component to using the internet.

TODO. Blocked sites, Monitoring by content, identify users by IP or type of traffic.

Related protocols: Information in one’s own language is the first condition, as pointed out with the concept of ‘Localization’ [RFC8280], referred to the act of tailoring an application for a different language, script, or culture, and involves not only changing the language interaction but also other relevant changes, such as display of numbers, dates, currency, and so on.
TODO. Content agnosticism: Treating network traffic identically regardless of content (but it refers to header content). Censorship resistance.

Related rights: FoE, FoA, Right to political participation, Right to participate in cultural life, arts and science.

3.1.3. Usage of technology

Beyond content, access implies the possibility to use, which means code, design, adapt and critically and sustainably use ICTs. Even though almost 75% of connected individuals are placed in the Global South [WhoseKnowledge], technology is developed mainly in rich countries where student quotas and jobs are filled mainly by men.

However, there is still a long way to go in terms of inclusion of more diverse populations in the spaces of technology development and definition of protocols and standards for the internet infrastructure [RFC7704]. Building and engineering critical internet technology is a component of ‘usage’ [Knodel], one which challenges the cultures of sexism and discrimination.

Harms: Gender and race biased in algorithms, digital gender gap. Necessary to know the charset, gap. The presence of gendered subjects in the IETF RFCs and drafts archive demonstrates stereotyped male and feminine roles.

Related protocols: The concept of ‘Internationalization’ [RFC6365] refers to the practice of making protocols, standards, and implementations usable in different languages. This is a first step to democratize the development of technology, allowing its implementation in non-English-speaking countries.


Related rights: Right to participate in cultural life, arts and science

3.2. Networked

In contexts where women do not have their rights fully guaranteed, or where sexual and gender diversity are socially condemned, the Web has served to meet, organize and resist. With the popularization of the internet, the freedom of expression of both women and other gender identities traditionally marginalized from public life and social acceptance (whom we refer to as queer) has been greatly enhanced.
By adding content in formats like text, audio and video, these groups have been able to connect with each other, as well as open spaces for discussion and visibility of topics that previously seemed vetoed. The web has become a space for activism, reclamation and protest against injustice and gender inequality. It has allowed the construction of international networks of solidarity, support and mobilization, and with this, the strengthening of feminism and other movements that fight for equal rights and for a fair recognition of difference.

3.2.1. Resistance

The internet is a space where social norms are negotiated, performed and imposed. For users it increasingly functions as an extension of offline spaces shaped by patriarchy and heteronormativity. Disident content as well as widely accepted norms and values should have the same possibilities to be added, flow and stay on the net.

Harms: content blocking, content monitoring and identification, traffic monitoring

Related to protocols: Integrity


3.2.2. Movement building

Given the shrinking of civic space offline, the internet provides a global public space, albeit one that relies on private infrastructure. For social causes that push for equality, it is therefore critical that the internet be maintained as a space for alignment, protest, dissent and escape. In the scope of this document, this is a call to maintain and enable the creation of spaces for sustained feminist movement building. The internet provides new and novel ways for communities to come together across borders and without limits of geolocation.

Harms: However this positive aspect of internet communications is threatened by centralised systems of control and cooption, specifically surveillance and other online repression.

Related protocols: Association of system architectures is a concept that overlaps neatly with the ideals of real-world associations of organisations and communities. "The ultimate model of P2P is a completely decentralized system, which is more resistant to speech regulation, immune to single points of failure and have a higher performance and scalability." It can be discussed in terms of intersectionality and what we mentioned about 'different
dimensions of freedom’. Maybe the ‘solution’ is not only P2P because it doesn’t take into account different distances from and capacities related to this technology, maybe mixed with another feature?.

Integrity.

Related rights: Elements of freedom of association as explained in the UDHR include individual and collective rights to privacy and anonymity, as discussed in more detail below.

3.2.3. Internet governance

It is critical for groups who represent civil society interests, social change and the larger public interest to challenge processes and institutions that govern the internet. This requires the inclusion of more feminists and queers at the decision-making table, which can be achieved through democratic policy making. Greater effect will be possible through diffuse ownership of and power in global and local networks.

Harms: Gender gap

Related to protocols: While there is no agreement regarding the ability of the internet to negatively or positively impact on social behaviors, or shape desirable practices [RFC8280], more women and diverse populations’ participation in technical development and decision-making spaces will lead to greater possibilities for ICTs to reflect greater inclusiveness and enable less risky and harmful interactions [RFC7704].

Related rights: Right to participate in cultural life, arts and science

3.3. Economy

From a feminist perspective, it is necessary to achieve the promise of an internet that facilitates economic cooperation and collaboration. One internet that can challenge models of economic inequality and transcend into other forms where women and queer people are not relegated or in economic dependence.

3.3.1. Business models

Interrogating the capitalist logic that drives technology towards further privatisation, profit and corporate control implies open discussions on centralisation of services and the logic of vertical integration while holding nuance for the tensions between trust, reliability and diversity.
Alternative forms of economic power can be grounded in principles of cooperation, solidarity, commons, environmental sustainability and openness.

Harms: TODO

Related protocols: Centralisation of services is a current discussion in the IETF that should be informed by feminist critique of capitalist structures [Arkko]. End user centered; W3C, descentralization.

Related rights: TODO

3.3.2. Open source

The digital gender gap has relegated women and other marginalized groups to be internet users, adding content for the benefit of the platforms themselves but without a deep understanding of how these platforms work. This requires shared terminology upon which technology is created to enable experimentation and values exchange. Not only that, but documenting, promoting, disseminating, and sharing knowledge about technology is at the heart of the long-standing free software community’s ethos. This aligns with a feminist approach to technology.

Given the established community of "free software", it is important to note that freedom is not freedom for everyone, always. It is important to identify different dimensions of freedom and how it is expressed in different contexts.

Harms: TODO

Related protocols: Promoting transparency [RFC8280] and simplifying technical terminology is necessary to bridge this gap. Interoperability, Open standards are important as they allow for permissionless innovation. Freedom and ability to freely create and deploy new protocols on top of the communications constructs that currently exist. Open standards.

Related rights: Right to participate in cultural life, arts and science

3.4. Expression
3.4.1. Amplify

The state, the religious right and other extremist forces who monopolise discourses of morality have traditionally silence women’s voices and continue to silence feminist voices and persecute women’s human rights defenders.

Harms: Blocking and monitoring content, identifying site owners, manipulating indexed content on search engines, Trolling, coordinated attacks (DoS and DDoS).

Related protocols: Content agnosticism: Treating network traffic identically regardless of content, anti censorship.

Related rights: Freedom of expression, Freedom of association, Access to information

3.4.2. Expression

The political expression of gender has not been limited to voices, but has made use of the body and its representation. However, the use of body as a form of political expression on the internet implies a series of risks and vulnerabilities for the people involved in these movements, especially if they do not understand how internet technology works.

Harms: Surveillance, content regulations or restrictions, content blocking.

Related protocols: Confidentiality, keeping data secret from unintended listeners [BCP72]. Data protection [RFC1984]. Encryption

Related rights: Freedom of expression

3.4.3. Pornography

Women’s sexual expression online is socially condemned and punished with online gender based violence. On the other hand, queer people online sexuality is usually labeled as "harmful content". These practices evidence how overcontrolled are gendered bodies and tend to confuse the differences between sexual expression and pornography.

Users build their own public digital identities while using private communications to disseminate information, explore their sexuality in text, image and video, share their intimacy with others. Pornography online, on the other hand, has to do with agency, consent, power and labour.
Harms: In internet-connected devices, it has become much easier to mix leisure and work, which implies different risks for users.

Related protocols: [RFC3675]

Related rights: Freedom of expression

4. Embodiment

Most of the threats women and queer people face on line, occur on the user levels of application and content. Most adversaries are other users, but also include institutions, platforms and governments.

For a long time, perhaps since the internet became popular, its use ceased to be a functional matter and became emotional. The access to chat rooms to connect with people at huge distances, the possibility of having personal e-mails, the appearance of social networks to share music, photos and then video, determined not only the social use of a new tool but also the configuration of digital sensitivities, understood by some as sensory extensions of the body.

The internet connections embedded have also meant a radical transformation in the way people access the internet. Much more, considering that today most internet connections, especially in the global south, are mobile connections.

Sharing personal information, and often sensitive data, through platforms that are synchronized with email accounts and other platforms where information considered non-sensitive is published, implies losing control over such information. Much more, considering that each platform hosts the information of its users according to their own terms and conditions in the treatment of data. For women and other groups marginalized by race or gender, these risks are greater.

Just as the internet connection can be considered an extension of the body, social problems such as discrimination and exclusion have been projected into the digital environment—sometimes intensified, sometimes reconfigured. And once again, women, queers, racialized people are the most vulnerable. Most of the threats they face on line, occur in the user level. Most of their "adversaries" are other users, who also act at the user level, with technical or social skills that threaten participation and expressions. Institutions, platforms and governments who are adversarial have great advantage.

At this point, what level of autonomy do these people have as internet users?
4.1. Consent

Some elements of consent online include but are not limited to the following list of issues, which should be elaborated on:

- Data protection * Exposure of personal data
- Culture, design, policies and terms of service of internet platforms
- Agency lies in informed decisions * Real name policies
- Public versus private information * Dissemination of personal or intimate information * Exposure of intimacy * Unauthorized use of photos

Harms: TODO

Related protocols: TODO

Related rights: TODO

4.1.1. Privacy and data

While mentioned at the intersection of previous issues outlined above, this section is particularly critical for women, queers and marginalised populations who are already at greater risk of control and surveillance:

- Right to privacy
- Data protection
- Profit models
- Surveillance and patriarchy by states, individuals, private sector, etc. Those that enable surveillance, eg spouseware.

Harms: TODO

Related protocols: TODO

Related rights: TODO
4.1.2. Memory

One’s consent and control of the information that is available to them and about them online is a key aspect of being a fully empowered individual and community in the digital age. There are several considerations that deserve deeper inspection, such as:

- Right to be forgotten
- Control over personal history and memory on the internet
- Access all our personal data and information online
- Delete forever

Harms: TODO

Related protocols: TODO

Related rights: TODO

4.1.3. Anonymity

While anonymity is never just about technical issues but users protection activities, it becomes more necessary to strengthen the design and functionality of networks, by default. There are several considerations for internet infrastructure related to enabling anonymity for online users. This is particularly important for marginalised groups and can be enumerated, and expanded upon, thusly:

- Right to anonymity
- Enables other rights like freedom of expression * Censorship * Defamation, descredit * Affectations to expression channels
- Breaking social taboos and heteronormativity * Hate Speech, discriminatory expressions
- Discrimination and safety from discrimination

Harms: TODO

Related protocols: TODO

Related rights: TODO
4.1.4. Children

TODO

Harms: TODO

Related protocols: TODO

Related rights: TODO

4.2. Online violence

Where women and queer people have traditionally been marginalized, their participation in the internet is rejected through different forms of violence by other users, as well as institutions, platforms and governments. But the effects of these violences, which are nothing more than extensions of the traditional violence that these groups and individuals face in social life, increase to the extent that there is not enough technical knowledge to neutralize them, and this is the case of most people who struggle for the recognition of their gender difference.

The security considerations to counter online violence are critical. There is opportunity in a connected world for those who would perpetuate violence against women and other marginalised groups through the use of internet-enabled technologies, from the home to the prison.

Privacy is a critical component of security for populations at risk. The control of information is linked to privacy. Where some would like privacy in order to live privately, others need privacy in order to access information and circumvent censorship and surveillance. The protection of privacy is critical for those at risk to prevent victimisation through extortion, doxxing, and myriad other threats. Lack of privacy leads to risks such as stalking, monitoring and persistent harrassment.

While making public otherwise private details about a person can consitute a form of abuse, the converse is also a risk: Being erased from society or having one’s online identity controlled by another is a form of control and manipulation. Censorship, misinformation and coercion may constitute violence online. Other forms of non-consensual manipulation of online content includes platform "real name policies", sharing of intimate images and sexual abuse, spreading false accusations, flamming and other tactics.

Key to mitigating these threats is the element of consent.
5. References not yet referenced


Principles of Unity for Infraestructuras Feministas https://pad.kefir.red/p/infraestucturas-feministas Feminist


From steel to skin https://fermentos.kefir.red/english/aco-pele
Responsible Data https://responsibledata.io


Design Justice https://docs.google.com/presentation/d/1J3ZWBgxe0QFQ80mUr-QzE6Be8k_sI7XF0VWu4wfMIVM/edit#slide=id.gcad8d6cb9_0_198

Design Action Collective Points of Unity https://designaction.org/about/points-of-unity


6. Security Considerations

As this document concerns a research document, there are no security considerations.

7. IANA Considerations

This document has no actions for IANA.


8. Informative References


[Davis] Davis, ., "unknown.", n.d..


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