Beyond access: Women and gender-diverse people's participation in digital economies

Outcome report of the IGF Gender and Access Best Practice Forum 2019 v. 4, 19 December 2019

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Acknowledgements

This report is the result of many people's efforts, including the 25 respondents to the Best Practice Forum's (BPF) call for input. See Appendix B for the list. We gave respondents the option to remain anonymous so the list includes only those who provided their names. Additional input was provided during the BPF's session during the Berlin Internet Governance Forum (IGF). The drafting of the outcome report and list of resources was a collective effort and the following people all contributed - either by drafting sections of it, or by providing input, comment and resources: Aayush Rathi (India); Agustina Callegari (Argentina); Alex Argüelles (Chile); Alison Carmel Ramer (Palestine/Israel); Ambika Tandon (India); Anita Gurumurthy (India); Anri van der Spuy (South Africa); Araba Sey (Ghana); Bruna Martins dos Santos (Brazil); Chenai Chair (Zimbabwe/South Africa); Cynthia Khoury (Lebanon); Debbie Budlender (South Africa); Fatema Kothari; Florie Dumas-Kemp (Canada); Immaculate Laker; Josephine Miliza (Kenya); Kathleen Diga (Canada/South Africa); Kemly Camacho (Costa Rica); María Paz Canales (Chile); Namita Aavriti (India); Nadira Alaraj (Palestine/Israel); Nicola Bidwell (Namibia/Australia); Nicole Patterson (Jamaica); Oreoluwa Somolu Lesi (Nigeria); Sarbani Banerjee Belur (India); Smita Vanniyar (India); and Raashi Saxena (India).

Acronyms and abbreviations

A4AI	Alliance for Affordable Internet
APC	Association for Progressive Communications
BPF	Best Practice Forum
CIS	Centre for Internet and Society
DIODE	Development Implications of Digital Economies Strategic Research Network
EbD	Equality-by-Design
FIRN	Feminist Internet Research Network
ICT(s)	Information and Communication Technology/ies
ICT4D	ICTs for development
IDRC	International Development Research Center
IGF	Internet Governance Forum
ILO	International Labour Organisation
ISOC	Internet Society
ISP	Internet Service Provider
ITU	International Telecommunication Union (UN)
LGTBIQ	Lesbian Gay Transgender Bisexual Intersex and Queer
NRI	National and Regional Initiatives (IGF)
SDG(s)	Sustainable Development Goal(s)
STEM	Science Technology Engineering and Mathematics
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organization
WSIS	World Summit on the Information Society

1. Background: Five years of the IGF Gender and Access Best Practice Forum

"Online information should serve as an empowering tool, enabling us to look for work, exercise our freedom of expression, our creativity, our autonomy, our sexuality, our privacy. All that is access." Gisela Perez de Acha

Since its launch in 2015, the Best Practice Forum (BPF) on Gender and Access has explored online abuse and gender-based violence (in 2015), barriers to accessing the Internet (in 2016), identification of the needs and challenges of diverse women's groups with respect to Internet access (in 2017) and the impact of supplementary models of connectivity on women's Internet access (in 2018).

Access itself has never been the sole goal for the Gender and Access BPF. As stated in its 2016 report, "Promoting women's access is not only important in enabling women's development and participation in increasingly networked knowledge societies where critical services such as healthcare, government services, employment opportunities and education are delivered online, but also because of how women have been shown to use gained skills and other benefits to the benefit of broader communities."[1] Evidence suggests however, that achieving this benefit is not a direct consequence of being connected. In "Mapping research in gender and digital technology", a study done by the APC Women's Rights Programme for the International Development Research Center (IDRC) the authors point out that there was "consensus across the key actors interviewed that the promise of ICT4D has not been fulfilled. The spread and adoption of ICTs has not lessened the digital divide, in fact it has made existing inequalities around caste, race and possibly gender even more acute as those who do not have access to technology can still be mapped and made part of datasets, and this has implications on all other aspects of their lives such as wealth, security, employment, and so on."[2] Earlier this year, the EQUALS[3] Research Group released its inaugural report entitled "Taking stock: Data and evidence on gender equality in digital access, skills and leadership", covering EQUALS' three actions areas (access, skills and leadership).[4] In their key findings the researchers conclude that while "gender gaps are observable in most aspects of ICT access, skills and leadership, the picture is complex." Regional variations are substantial with some countries close to parity while in others gaps persist. "Individual countries can have both large and small gaps, depending on the indicator being measured. Interpreting the gaps requires careful and contextualised analysis."[5]

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1. IGF Best Practice Forum On Gender: Gender And Access (2016):Overcoming Barriers To Enable Women's Meaningful Internet Access, p. 10 - *http://www.intgovforum.org/multilingual/index.php?Q=filedepot_download/3406/437*

2. *https://www.apc.org/sites/default/files/IDRC_Mapping_0323_0.pdf*

3. The EQUALS global partnership to bridge the gender digital divide, established in 2014 by the International Telecommunications Union and UN Women, initially as an awards programme to "create a platform for advancing women's meaningful engagement with ICTs and their role as decision-makers and producers within this sector" *https://www.equals.org/history-and-governance*

4 *https://www.equals.org/research*

5. Sey, A. & Hafkin, N. (Eds). (2019). Taking stock: Data and evidence on gender equality in digital access, skills and leadership. United Nations University Institute on Computing and Society/International Telecommunications Union: Macau. p. 19 and *https://www.genderit.org/feminist-talk/gender-and-community-networks-researching-social-and-gender-impact*

It is against this backdrop that the Gender and Access BPF decided to focus its work in 2019 on the opportunities and challenges that women and gender-diverse people face once they do have some form of access to the Internet. What are their experiences in participating in - or trying to participate in - digital economies as workers, developers or entrepreneurs? Do they have access to financial support and services? How do they gain the necessary skills? And access to appropriate devices? What further cultural norms and barriers do they have to confront in gaining access and extracting value for themselves, their families or their broader societies?

To gather perspectives from different groups and institutions working on gender and inclusion, the BPF issued a call for input. Taking into consideration the responses to the BPF's call for input (refer to Appendix A for a summary) and webinars where different groups working on gender and inclusion in digital economies presented their work, we are presenting a draft outcome document which:
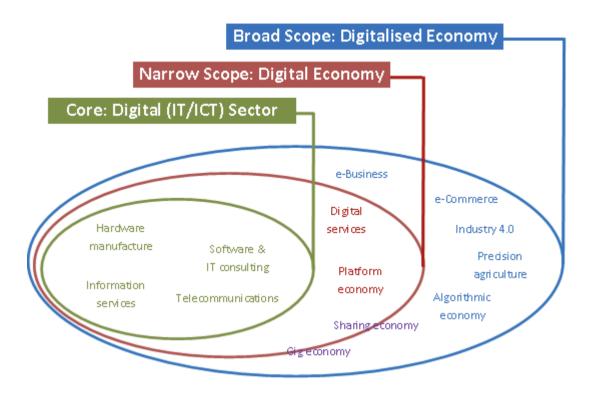
- Incorporates the perspectives of groups working to enable wider participation of women in the Internet ecosystem: as educators, developers, entrepreneurs, content creators or infrastructure administrators.

- Draws on the work of some initiatives whose missions align with the purpose of making women part of the Internet's development - in all its different layers - through capacity building that builds their autonomy and agency, and provides them with opportunities to participate in digital economies.

- Considers the practice and experience of organisations that have focused on women's economic empowerment and participation in the "offline" economy (e.g. organisations building women's skills so that they can be self-employed) as these can provide useful insights and different approaches to women's engagement with the Internet space and digital economies.

Based on the input received the BPF participants identified a number of topics which they believe need to be considered when tackling participation in digital economies through a gendered lens. Each topic is presented with a short analytical overview followed by key challenges and recommendations which we believe will be useful for the IGF community to consider. This report is accompanied by an annotated list of resources and organisations which we believe will be a valuable resource in its own right.

2. Defining "digital economy"

A working paper from the University of Manchester's Centre for Development Informatics published in 2017 identifies three scopes of definition: First the core sector of the digital economy, the digital sector, usually referred to as the IT or ICT sector (which includes ICT-related services, sub-sectors and ICT manufacturing); Second, a narrow approach to scope where "digital economy" is understood as "economic output derived solely or primarily from digital technologies with a business model based on digital goods or services". This understanding would include the digital sector as well as any "ICT-enabled business that extends the boundaries of economic activity" and would cover "new digital business models such as platform-based firms". Third, a broad approach to the scope of the term where it is used in a way that encompasses "all economic activity based on digital technologies" including the use of ICTs in existing, non-digital economic activity. This can also be referred

to as the "digitalised" economy.[6] The diagram below, produced by the University of Manchester's "Development Implications of Digital Economies" (DIODE) Strategic Research Network illustrates the relationships between the core, narrow and broad understandings of digital economies.[7]

The BPF call for input asked respondents how the BPF should approach and scope "digital economy". Most respondents felt a broad approach that can accommodate the diversity of people's experiences, and the differences in the digital divide in different parts of the world was needed, including, "All the ways in which digital technology has impacted how we work and forms of labour. It should extend beyond the information technology sector as ICTs are now used as platform and delivery in relation to various other products and services to differing degrees." Another responded added "...the bottom users of Internet, the ISPs, the platforms such as Facebook and WhatsApp which foster online commerce".

Many responses linked digital economy to labour and work. Some of these focused on opportunities for (women) entrepreneurs and innovators as well as the barriers facing them. One suggested showcasing best practices among women utilising digital economies for their livelihoods. Another questioned whether digital economies would be good or bad for producers of arts and crafts. Others seemed to relate to the workplace for employees (rather than entrepreneurs or self-employed), including lower-paid employees in tech companies. Several responses referred to financial transactions. Community networking practitioners pointed out that the informal sector (or informal economies) is linked to digital

6. Defining, Conceptualising and Measuring the Digital Economy by Richard Heeks, University of Manchester, July 2017 - *https://diode.network/2017/07/10/defining-conceptualising-and-measuring-the-digital-economy/*
7. *From Defining, Conceptualising and Measuring the Digital Economy"* by Richard Heeks - *http://www.gdi.manchester.ac.uk/research/publications/di/di-wp68/*

economies in that many women who make a living in the informal sector rely on their mobile phones even if their economic activity itself is not "digital".[8]

For the purpose of this paper the Heeks framework is a good outline of how the BPF is approaching the concept. However, for many respondents to the BPF's call for input there is not just one digital economy, but several: the global digital economy which crosses borders and sectors, a national digital economy and local digital economies which can be very different in nature depending on local contexts, and the type of economic activity involved. This document, therefore, refers mostly to "digital economies" in the plural rather than to "the digital economy".

3. Beyond access: Structural discrimination and cultural norms and barriers

3.1 Contextual analysis

Building on the 2016 Gender and Access BPF report, "Overcoming barriers to enable women's meaningful Internet access"[9] this section of the Gender BPF 2019 outcome report provides a big picture analysis of gender and inclusion in digital economies. It discusses initiatives that builds the visibility, ownership and participation of women and gender-diverse persons in ways that enhances their social and economic inclusion and thereby, their participation (or potential to participate) in digital economies. As evidenced by the substantive research done by the BPF in 2016 "a variety of factors and barriers impact women's ability to access and benefit from the Internet. Some barriers are more 'obvious' than others (e.g., affordability or a lack of available infrastructure), while others are more generic, complex, and often intertwined with cultural and normative perceptions of gender roles in a given community."[10]Social norms, as the BPF research highlighted, include "the everyday behaviour, or expected behaviour, of a specific group across countries, and also within countries, such as between rural and urban areas and across different ages and ethnic groups; influencing a woman's access to education and income in a society." This was also captured in the research done by the Web Foundation which is referred to in the 2016 Gender and Access BPF report when the authors state: "how people use the Internet, once they are connected, is also strongly influenced by offline inequalities."[11]

The power dynamics and structures represented by cultural and social norms combine and interact to define sex and sexuality, race, ethnicity, also in relation to location, disability, income and level of education. This intersectionality of factors makes gendered digital inequality a complex issue that is shaping the way we understand and assess access for women and gender-diverse persons. If gender-diverse people and women who live and work in contexts where they have to face discrimination and/or social and economic exclusion there is a strong likelihood that they will not have the financial resources to buy sufficient data to be 'always online' and that they'll encounter more barriers in order to access digital literacy or educational resources to optimise their use of the Internet for their well-being, education, online work or enterprises.

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8 Chen, M. A. (2016). Technology, informal workers and cities: insights from Ahmedabad (India), Durban (South Africa) and Lima (Peru). Environment and Urbanization, 28(2), 405-422.
9. Available at: https://www.intgovforum.org/multilingual/index.php?q=filedepot_download/3406/437
10. Ibid. p.12.
11. Ibid. p.22.

As human rights lawyer Gisela Perez de Acha[12] points out, "real and holistic access implies the ability to physically access and modify technologies and their infrastructure; understand them deeply; integrate them into our daily lives; read content and relevant services that are also locally created; trust in ICT. It also implies affordable prices that women can pay without neglecting other priorities, a legal framework that provides legal security and allows autonomy, and finally a safe environment in which we as women are not afraid to express ourselves. Online information should serve as an empowering tool, enabling us to look for work, exercise our freedom of expression, our creativity, our autonomy, our sexuality, our privacy. All that is access."[13] In other words, efforts to achieve digital inclusion for women and gender-diverse persons that already face social and economic exclusion should adopt an approach to making ICT tools work for them in their daily activities that includes ways to overcome the restrictions resulting from structural discrimination, culture and norms.

Digital space is a deeply political public space

The BPF is therefore not limiting the scope of this report to initiatives that promote participation in the digital economy, or that build women's technical skills. We aim to shine a light on those initiatives that seek to promote a deeper understanding of technology from a gender perspective and that provide collaborative ways to strengthen communities of women, gender-diverse people and underrepresented populations; not only via skill development, but also through narrative building and advocacy to create and claim digital environments that benefit these groups and individuals under new logics of appropriation.

One example of this in the Latin American cyberfeminism movement was highlighted at the 2017 IGF in Geneva and is included in the report of this event: Latin American in a Glimpse: Gender, Feminism and the Internet in Latin America. Here, Inés Binder researcher and communicator emphasizes that this movement is not isolated from national realities, nor from other movements and initiatives that are defending human rights in the region. "And we're not just talking about women's movements, LGTBIQ, or defending sexual and reproductive rights, for example. The cyberfeminists are accompanying activists and groups of defense of the territory, indigenous rights, popular communication, and defense of human rights in general. The levels of state surveillance and repression are alarming. The activists have great deficiencies in literacy and digital security, which cyberfeminists are trying to correct."[14]

The value of the construction of new narratives from a feminist perspective that can be shared in online spaces is recognized by many groups who embrace feminist and sexual diversity approaches. As Lulú Barrera points out "we consider that the digital space is a deeply political public space and our exercise there is to tell narratives and make visible stories of women who are working and transforming the world in multiple aspects, but who are not recognized as such."[15] One of the main goals of these movements is to create connections in the sense of community. The same activist explains: "nowadays when we talk about network, people think about Facebook, Twitter, social networks. We want to

12. Gisela Pérez de Acha is a Mexican human rights lawyer and data journalist, currently at UC Berkeley Law's Human Rights Center Lab and previously at Derechos Digitales, a non-governmental organization.
13. Perez de Acha, Gisela. What is Access? Why are Women Less Connected? (2018). Available at: https://www.derechosdigitales.org/wp-content/uploads/what-is-access-mx.pdf
14. Latin American in a Glimpse: Gender, Feminism and the Internet in Latin America, Derechos Digitales and APC, 2017. Available at: https://www.derechosdigitales.org/wp-content/uploads/GlImpse2017_eng.pdf , p.30
15. Ibid, p.22

dispute this word, because networks are much more than that, they are a connection between women, dialogues, bodies."[16]

In "Intentional infrastructures: feminist principles of the internet and community networks", the November 2019 edition of GenderIT.org, further light is shed on who the unconnected are, dispelling "the myth of the underserved as powerless and in need of saving". This "brings back power to the endless creative possibilities of communities that seek self-determination" and provides a closer look at "the beauty of what communities around the world are producing to resist the uniformity of the greedy systems that are engulfing the planet and threatening our horizons." [17]

3.2 Challenges

As argued above, efforts to achieve digital inclusion for women and gender-diverse people that already face social and economic exclusion should adopt an approach to making ICT tools work for them in their daily activities that includes ways to overcome the restrictions resulting from structural discrimination (including discrimination based on gender, class, race, or location), culture and norms. Such efforts face several challenges:

- Identifying through sex-disaggretated data the interplay between structural discrimination, culture and norms that affects the ability of women and gender diverse people to meaningfully connect to the Internet and participate of digital economy.

- Collecting evidence about the different ways in which diverse groups around the world have started grassroots efforts to claim technologies for their development, study, and participation.

- Connecting with the identified groups and set a common ground in order to understand their experiences, needs, and achievements in the processes they've consolidated in order to feed a global movement.

- Communicating the core similarities and differences each initiative provides in order to have a better understanding of the complexity in which these projects are being developed worldwide.

- Outlining the meaning behind social and economic inclusion of each initiative, and develop useful recommendations aligned with the local realities where transformation is pursued through the use of Internet for challenging structural discrimination, culture and norms barriers for meaningful participation of women and gender-diverse people in digital economies.

- Addressing accessibility barriers when networks are installed in unsafe access points, representing risk for women and targeted groups, where they can be subjected to various forms of violence and intimidation as result of structural discrimination, culture and norms.

16. Ibid, p.23
17. Intentional infrastructures: feminist principles of the internet and community networks – GenderIT.org, 12 November 2019 - *https://www.genderit.org/edition/intentional-infrastructures-feminist-principles-internet-and-community-networks* and *https://www.apc.org/sites/default/files/bottom-up-connectivity-strategies_0.pdf*

- Understanding which elements of current network deployment may be incompatible with the lives and demands of women and gender-diverse people. Specifically when the network quality may inhibit the type of content that may be accessed which directly impacts the ability of engagement with digital economies.

- Understanding that even in connected areas, gender exclusion to digital economy can be related to limited digital skills and literacy to optimally use the Internet due to structural discrimination, culture and norms.

- Collection of better data on the status of women and gender-diverse people's involvement in community networks.

- Keeping awareness on how digital insecurity can compromise the livelihood of novel users who might be subjected to scams online.

- Lack of trust of the Internet itself can be a culture and norms barrier in recently connected populations where women are perceived as diminished agents that deserve protection from external threats.

- Online violence and harassment impacts on women and gender-diverse people's experience and use of the Internet in ways that can limit, or even stop their participation online.[18]

- Understanding how English and other dominant languages can be a barrier to women and gender-diverse persons whose languages are different as it limits the options of content available for them and directly impacts their ability to engage in digital economy.

3.3 Recommendations

- Provide wider visibility and funding support to initiatives from the global south as well as other regions that are underrepresented in international technology forums that are proposing new narratives on Internet appropriation to challenge structural discrimination, culture and norms.

- Provide resources and enabling regulatory environments for community-led initiatives.

- Build public policies that embrace the diversity and complexity presented in digital economies participation from women and gender diverse people that acknowledge the diversity of initiatives to address it.

- Promote public policies that consider the context information as an essential element for the development of technological solutions and access infrastructure that enable a meaningful digital economy participation of women and gender-diverse people.

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18. *https://www.genderit.org/articles/special-edition-expert-my-own-experience-conversations-neo-musangi* and *https://s3.amazonaws.com/astraea.production/app/asset/uploads/2018/05/Astraea_DigiSec_EnglishVIEW.pdf*

- Promote public and private policies that foster incorporation of different languages as well as more inclusive forms of speech that acknowledge of women and gender-diverse people.

4. Beyond training: Skill and capacity development

4.1 Overview and analysis

The ability to make use of ICTs is no longer needed just by people who use computers at work. Some type of technology is part of everyday life for most people. The development of capacities is therefore a key point for women and gender-diverse people to actively engage in society, benefit from societal growth and achieve quality of life in their households, according to the G7 Guiding Principles for Capacity Building for Women and Girls.[19] This includes capacities in the use and development of ICTs. But as pointed out by the EQUALS Research Group: "Despite their potential to empower women, ICTs are enmeshed with existing gender inequality, hindering women's participation in the production, management, and use of technology".[20] Gender gaps exist beyond basic access, extending to differential utilisation, development and management of ICTs by gender. "More than ever, it becomes critical to ask whether men and women have different digital skills not only for accessing and using ICTs, but also for creating digital technologies, ICT services, and contents. Further, where gender gaps exist, it is important to examine whether women and girls have access to equitable education and relevant training to obtain adequate digital skills for thriving in the ICT-driven future on par with men."[21] There does seem to be a tendency for digital skill building programmes, including those targeting women and girls, to be fairly simplistic and to assume that once they have the skills they will be able to participate effectively in digital economies.

4.2 Challenges

- Lack of confidence, often exacerbated by the providers of ICT training opportunities not being aware of gender issues. This can prevent women from fully utilising and benefiting from such opportunities as well as building their skills through exploring new technologies on their own (self-learning).

- Lack of digital skills and literacy. Even where basic access to the internet is available, gender-based exclusion from participation in digital economies results from women and girls not having sufficient digital skills and literacy to be able to use the Internet in an empowered manner.

- Gender disparities and bias in education which limits the advancement of women and gender-diverse persons in the STEM field.

19. https://www.mofa.go.jp/files/000160274.pdf
20. Sey, A. & Hafkin, N. (Eds). (2019). Taking stock: Data and evidence on gender equality in digital access, skills and leadership. United Nations University Institute on Computing and Society/International Telecommunications Union: Macau. p. 47 https://www.itu.int/en/action/gender-equality/Documents/EQUALS Research Report 2019.pdf
21. Ibid p. 47

- Skills programmes often prioritise building the technical skills of younger people which can be incompatible with the age profile of women in rural areas who are often older as younger women who have more mobility move to urban areas.[22]

4.3 Recommendations

- Invest not just in digital literacy for women and girls but also in basic literacy and numeracy which are necessary for effective participation in the digital economy. In many parts of the world women still have low levels of literacy.

- Improve the effectiveness of digital training skills programmes and education by making them gender aware from the outset.

- Increase the availability of software and hardware skills classes especially for women and gender diverse persons who who wish to access the Internet for economic activity.

- Encourage, through provision of incentives and targeted opportunities and financial support for women, people with disabilities and gender-diverse people to take an active role in STEM fields.

- Involve women and gender-diverse people in the design, development and implementation of digital policies at national level of in order to ensure that such policies are consistently gender sensitive.

- Promote gender equality as a general goal and its integration in all capacity building programmes.

5. Beyond connectivity: Meaningful access

5.1 Overview and analysis

Closing the gendered digital divide often focuses on connectivity as women are generally overrepresented among the disconnected. But there are other factors contribute to digital inequality and inequity. Even when women have access to some form or connectivity, their ability to gain value from having access is often constrained by the lack of financial capacity to buy sufficient data, or to own their own devices, or by lack of skills. They are also often discouraged by lack of easy access to relevant content.

Power dynamics, sex and sexuality, cultural and social norms, race, ethnicity, location, income and level of education are all factors which make gendered digital inequality a complex issue that shapes access inequities. In considering digital inclusion for women and gender-diverse persons that face social and economic exclusion, the focus should include how to make ICT tools to work for them in their daily activities.

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22. Bottom-up connectivity strategies: community-led small-scale telecommunication infrastructure networks in the global south, research conducted byNicola J. Bidwell and Michael Jensen, APC 2019, p. 23 - https://www.apc.org/sites/default/files/bottom-up-connectivity-strategies_0.pdf

Developing solutions to address the gendered divide requires a holistic approach which takes into account the interplay between gender and ICTs as gender identities and practices may need to be modified in order to achieve beneficial inclusion. The subject of autonomous infrastructure arises in connection to this last issue, as a way to dispute current models and to appropriate spaces with new logics. As Liliana Zaragoza, from Laboratorio de Interconectividades says, "we no longer want to survive in Mexico, we want to live; live with dignity and live fully. And to achieve this trust networks are needed: no more surveillance networks; because the networks are not the platforms, but the people. We explore free and feminist technologies to nurture stronger networks of trust."[23]

5.2 Examples of good practice from Community Networks

Autonomous infrastructure and community networks

A key example of a kind of access that addresses this more complex need is found in the community networks that are emerging all over the world, but mostly in areas where telecommunications infrastructure and services are not available or accessible due to affordability and network quality. These networks are mostly community-led, and provide alternative solutions to connectivity because they are often deployed in spaces where commercial services are not present. Community networks offer individuals, groups and businesses with the possibility to access the Internet driven by an underlying organisation ground on the needs and values of the concerned community. When designed with and for the community, community networks offer women and underrepresented minorities alternatives to access the Internet and the opportunity to participate in network development by creating their own narratives and models. This enables them to challenge structural discrimination, culture and norms, while at the same time providing access to developing and participating in digital economies

Several examples of how women who connect through community networks movement are using their access to participate in digital economies were shared by respondents and participants in the Berlin session of the BPF. Many of these are documented in a research study by Nicola J. Bidwell and Michael Jensen, "Bottom-up connectivity strategies: Community-led small scale telecommunications infrastructure networks in the global South".[24] Examples from India are described in a GenderIT.org article by Sarbani Banerjee Belur and Ritu Srivastava[25]. These include:

- The innovative use of mesh networks to share content locally without having to incur data costs as there is no need for a connection to the wider Internet.

- Women in Indonesia advertise handcrafted brooches and hijab pins on social media platforms.[26]

- Women from the Gram Marg[27] community network in India upload images of their work and produce as part of their marketing strategy.

23. Ibid, p.17
24 "Bottom-up connectivity strategies: Community-led small scale telecommunications infrastructure networks in the global South" by Nicola J. Bidwell and Michael Jensen published by the Association for Progressive Communications, 2019. https://www.apc.org/sites/default/files/bottom-up-connectivity-strategies_0.pdf
25 "New age women: Women and their approach towards internet connectivity in rural India" by Sarbani Banerjee Belur and Ritu Srivastava in GenderIT.org 23 October 2019. https://www.genderit.org/articles/new-age-women-women-and-their-approach-towards-internet-connectivity-rural-india
26 https://a4ai.org/profiting-from-affordability-and-convenience-2019-affordability-report-indonesia-impact-story/

- A women from Pathardi village in India who cycles around the village going from door-to-door offering online banking and e-Governance services via mobile phone.[28]

- A woman from Janastu Halekote village in India used her mobile phone to find new designs for her baskets.[29] Similar examples can be found in community networks in Argentina (Altermundi[30]) and Uganda (Bosco) were mentioned. A lesson learned from these examples is that women need a safe space to learn technologies as well as for weaving baskets.

- In South Africa the Zenzeleni community network uses a voucher system for access to the network which women in the village resell to others as a form of income generation.

- Also from BOSCO in Uganda is an example of women who can access an e-commerce platform to market their bead work and agricultural produce. Some are older women who are passionate about using the network and who advocate for the young to be involved. Some women run a village saving and loan scheme (VSLA). If they make a profit, they give back 50% to the group and they also take 10% of the savings to support and maintain their local ICT centre. Women also take the lead in - maintaining the ICT centre. They look after the computers, and make sure there is someone available to train others, particularly young people. Many are unpaid volunteers but they can utilise the savings of the VSLA for maintenance and assistance if there is a network or computer breakdown.

- At the Tunapanda centre in Nairobi in Kenya is the "Power Women" who do tailoring and bead work and then use the Tunapanda platform to market their goods.

5.3 Challenges

- Women face barriers to accessibility when networks are installed in unsafe access points where they can be subjected to various forms of violence and intimidation.

- Another barrier to access is that what the network offers may be incompatible with women's lives and demands. Specifically, the quality of the network may inhibit the type of content that may be accessed. Secondly, there may be limited relevant content, in the languages of people who need the content, that would allow for engagement with digital economies (local economies and global economy).

- In some instances women do not have access to their own device as they may be sharing their device with men in the household. As such, their activities can be monitored and freedoms can be limited, as can their ability and opportunity to develop skills or participate in digital economies.

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27 Gram Marg is a community network established by the rural broadband project at the Department of Electrical Engineering of the Indian Institute of Technology Bombay (IIT Bombay) consisting of 25 villages in Palghar/Thane districts, Maharashtra state in India. http://grammarg.in/
28 Banerjee Belur and Srivastava in GenderIT.org 23 October 2019.
29 *ibid*
30 https://altermundi.net/

- Affordability of mobile devices, in particular smart phones and limited awareness of the Internet present challenges that will need to be addressed even where infrastructure is accessible.

- Lack of data on the status of gender-diverse people and their involvement in community networks.

- The overwhelming prevalence of English and other dominant languages online can be a barrier to women whose languages are different as it limits the options of content available and the relevance of the Internet to them

- There is limited knowledge of the economic opportunities that can be gained once one is connected. This may also be associated with a lack of trust of the Internet itself.

- Certain economic platforms do not cater to the geography of the Globe (such as restrictions enforced by banks and other transaction models) therefore even when one gains work online, they will not be able to be paid.

- Often women and marginalized groups do not have access to their own device and may be sharing their device with others in the household. As such, their activities can be monitored and freedoms can be limited.

- Tensions can arise in communities where there is a community network between woman who have access and are using it to generate income, and women who do not have the access.

5.4 Recommendations

- Community networks need to take the specificities of where and how women use their time into consideration for them to access the Internet at hours that work for them.

- Digital security trainings need to go hand in hand with digital literacy programs to ensure meaningful access to the Internet.

- As lack of affordability of devices and services remain a barrier, cutting down the cost of devices and services such as through reduction of taxes would help in addressing affordability issues.

- E-commerce platforms need to be multilingual or available at local level in local languages.

- Women need to be represented in economic policy and implementation spaces and programmes, for example in aimed at strengthening small medium and micro enterprises.

6. Gender and the digital workplace/gig economy

6.1 Overview and analysis

According to an estimate developed by Richard Heeks there are around 30 million people in the Global South working in the platform economy.[31] Freelance or short term jobs are procured through digital platforms or mobile phone-based apps, providing essential income and opportunities to many people. Currently it appears as if most platform workers are men and no data is available on the number of gender-diverse platform workers. The International Labour Organisation distinguishes between two types of platform workers: those who procure work through "digital labour *platforms* which includes both web-based *platforms*, where *work* is outsourced through an open call to a geographically dispersed crowd ("*crowdwork*"), and location-based applications (apps) which allocate *work* to individuals in a specific geographical area."[32] Research published by the International Labour Organisation (ILO) in 2018 estimates that only one in three crowdworkers are women, globally, with the number being even lower in developing countries.[33] But there are many women making use of location-based apps to procure work in the domestic and care work sectors - both sectors in which women are already exploited, working for low wages and often in difficult conditions. Whether this pattern is being replicated in the context of platform work needs to be the subject of research. Noopur Raval and Joyojeet Pal, in a paper on platform-based beauty-work in India point out that thus far, most research on gig-workers has "focused on the work-life of such workers, with a focus on individual life stories and immediate socio-economic concerns around work. Less is known about women's experiences of gig-work and the platformization of other kinds of gendered-work such as care-work and its implications for male and female workers."[34] Areas of work which are also not well understood includes sex work, telemarketing, domestic work and on-demand cleaning services.

Broadly, however, it is well documented that "due to a lack of protection in the form of employment law or collective bodies, many platform workers face low pay, precarious job security, and poor and dangerous working conditions."[35] Arianne Renan Barzilay and Anat Ben-David examined the gig economy in the United States from a gender perspective. They looked at work hours and pay and found that that women work more hours but for lower average hourly rates than men's (about two-thirds of men's rates) and that this is the case across different occupational categories and educational attainment. They conclude that women are being remade into devalued workers and sex inequality is occurring in platform-facilitated labour in new ways. They suggest that "we are beholding a third generation of sex inequality, termed "Discrimination 3.0," in which discrimination is no longer merely a function of formal barriers or even implicit biases".[36]

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31. From the University of Manchester's Centre for Development Informatics ICTDBlog, 29 January 2019
https://ict4dblog.wordpress.com/2019/01/29/how-many-platform-workers-are-there-in-the-global-south/
32. https://www.ilo.org/global/topics/non-standard-employment/crowd-work/lang--en/index.htm
33. Digital labour platforms and the future of work Towards decent work in the online world, ILO 2019. p xvi
https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_645337.pdf
34. Making a "Pro": 'professionalism' after platforms in beauty-work by NOOPUR RAVAL and JOYOJEET PAL. Proc. ACM Hum.-Comput. Interact., Vol. 3, No. CSCW, Article 175. Publication date: November 2019.
https://drive.google.com/file/d/1y7oTd4DaiBYdKQltFEvnzqhRjfms8OzI/view
35. https://www.oii.ox.ac.uk/blog/fairwork-foundations-first-annual-report-released/
36. Platform Inequality: Gender in the Gig-Economy by Arianne Renan Barzilay & Anat Ben-David, Seton Hall law review, February 2017, p 394

The Centre for Internet and Society in India pointed out that domestic work has been stratified along the lines of caste, class and gender historically. "These intersections have shaped employment relations in the sector in different ways, which range from feudal to contractual models. Digital platforms are increasingly becoming intermediaries in this space, mediating between so called 'semi-skilled' or 'low-skilled' workers from lower classes, and millions of middle and upper class employers in tier I cities."[37]

The ILO report on the digital labour platforms makes a vital point. These negative outcomes are no inherent to platform work. "Despite performing valuable work for many highly successful companies, compensation from crowdwork is often lower than minimum wages, workers must manage unpredictable income streams, and they work without the standard labour protections of an employment relationship. None of these negative outcomes is inherent to the concept of crowdwork, or to micro task work in particular. On the contrary, it would be possible to reconfigure the terms of micro work in order to improve conditions for workers."[38]

6.2 Challenges

- Lack of evidence and gender-disaggregated statistics, particularly in the developing world.

- Unequal pay between men and women in some types of online work. (It should be noted however that some platform work does not require individuals to disclose their sex.)

- Lack of protections and rights for workers and job insecurity as work is usually procured for short term periods. This in turn impacts on medical and casual leave, retirement and other benefits, irregular or long hours of work, and the opportunity and ability to join a union. One respondent pointed out that such work is often done by migrants, thus compounding their vulnerability even if it presents them with a source of income.

- Economic activities that women (and potentially gender-diverse individuals) perform in digital economies tend to replicate the distribution of employment by industry in the "traditional economy". For example, individuals from these groups often end up participating in activities that allow them to continue taking care of children and adults, and perform household chores. While this might be perceived as being convenient, it also reinforces traditional roles and patterns of exclusion. One put it very succinctly: " The Internet in my opinion works as a catalyst for society's prejudices so most of the off-line inequalities are present online as well."

- Another way in which gender and power is reflected in the gig economy is how work is described and packaged. The FIRN research on domestic workers who access work through a platform demonstrated how access to cleaning tools is reflected in a gendered way. "If sans vacuum cleaner they are women, if they have machines then they are men and its called deep cleaning and is better paid." This trend was discussed at a CIS workshop workshop with the Domestic Workers Union held in Bangalore on 16 November 2019.

37. https://cis-india.org/raw/digital-domestic-work-india-announcement
38. https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_645934.pdf

- High taxes on laptops and customs duties on imported technology and social media taxes also represent a significant challenge in some parts of the world.

6.3 Recommendations

- Equality-by-Design (EbD) for 'gig economy' platforms that actively ensures there is no gender bias involved in the design and operation of the platform.

- Policy and regulation that establishes and protects fair work conditions, benefits (e.g. maternity benefits) and other labour rights for platform workers.

- Support for efforts to organise workers employed online so that they can negotiate for their own rights.

- Develop, where needed, policy to address gender-based violence and harassment experienced by online workers in the course of their work.

7. Other areas that were mentioned as relevant to women and gender-diverse people's participation in digital economies

7.1 Tech innovation and design

How technology tools and applications are designed, and by whom matters. Lack inclusion of women and gender-diverse people in innovation and design processes will influence their outcomes.

7.2 Financial inclusion: access to finance and financial services

One respondent reported that decision-making algorithms that determine access to loans and other forms of support for digital entrepreneurs "are often made up by white men's logic."

An example of the gender gap in access to finance is Jordan which has one of the largest financial inclusion gender gaps in the world. "Women comprise over 47% of the Jordanian population, yet they remain largely underrepresented in most economic activities. Only 16.2% of the employed workforce in Jordan are women[39], one of the lowest female labour force participation figures in the MENA region. This is also the case for women's access to finance: less than one in three adult women[40] (27%) have a financial account (versus 56% for men). However, in a country where the mobile phone penetration rate is almost 150%, digital finance presents an opportunity to close the financial inclusion gender gap."[41]

IT for Change [42] conducted research on platform work and found that dominant platforms exploit "global-to-local social and marketplace hierarchies, and through their agile and adaptive techno-economic architecture, exercise granular control over relationships to

39. http://dosweb.dos.gov.jo/18-5-unemployment-rate-during-the-fourth-quarter-of-2017/
40. https://globalfindex.worldbank.org/archdownload/chapter/1
41. Dinarak Jordan: How Mobile Money Can Empower Female Agents and Clients -
https://seepnetwork.org/Event/Dinarak-Jordan-How-Mobile-Money-Can-Empower-Female-Agents-and-Clients
42 https://itforchange.net/

maximize and appropriate value" and that the way in which platforms mediates access to work exploits existing social and economic inequalities.[43]

Women 20, a group that aims to influence the decisions of the G20, in a report on gender economic equity published in 2018 emphasises the value of digital finance as a means of opening new financial channels and services for both financially excluded women and women who have some form of access to financial services, but in an "underserved" manner. "Digital channels and innovative product designs have the potential to offer new and better value propositions for women when done holistically and considering social norms (W20 Argentina, 2018). Improving and increasing the outreach of such solutions will allow women to use more convenient financial services. Fintechs and new digital financial service providers should be seen as key partners of regulators, FSP (financial service providers) and the public sector in closing the financial gender gap."[44]

7.3 Human rights, digital rights and safety online: Privacy, security, surveillance and censorship

Criminalization of sexual expression, diverse gender identities, and sex work are not Internet-specific challenges, but offline violations of human rights are replicated, and at times amplified, online. In the case of women and gender-diverse people's participation in sex work criminalisation will have a huge impact which is compounded by lack of privacy and security. A respondent mentioned the specific example of how surveillance and censorship (which could be done by state and non-state actors, including family members) of certain platforms affected the livelihoods and security of certain groups, such as sex workers, who make use of online platforms. However, as another respondent noted, the vulnerability of women and gender-diverse people was often used to justify regulation of the Internet in a manner that restricts freedoms of expression and association, which can impact on participation in digital economies.

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43 https://itforchange.net/sites/default/files/add/Report-Platform%20Planet_Development_in_the_intelligence_economy.pdf
44. Women and economic equity - Financial inclusion for women: The way forward, p.5. Women 20 2018 - http://w20argentina.com/wp-content/uploads/2018/08/Financial-Inclusion-for-Women-Final.pdf

Appendix A: Summary of responses to the open call for input

The Internet Governance Forum

Gender and Access Best Practice Forum 2019

Summary of responses to the open call for input

1 October 2019

In 2019, the Gender and Access Best Practice Forum (BPF) is focusing on gender and participation in digital economies. To assist in scoping the issue, the Forum disseminated a survey to help scope the topic. This report analyses the responses.

Response rate and characteristics of participants

There were 25 responses. However, two of the responses were from people who were clearly antagonistic to the initiative. Their responses are reproduced in an appendix to this report and not included in the main analysis in the body of the report.

Affiliations (only 19 respondents provided their affiliation) include a range of different civil society organisations, a national and regional Internet governance forum (an NRI) an organisations that are part of the technical community.

24 respondents identified their country. Geographically, Africa had the most respondents (7), followed by Latin America and the Caribbean (5). Asia Pacific was next (4) followed by Europe (3) and the Middle East (2) and North America (2).

In terms of individual countries, there were three participants from India and two each from Brazil, Germany and the United States. Argentina, Barbados, Cameroon, Colombia, Democratic Republic of the Congo, Gambia, Lebanon, Lesotho, Mali, Netherlands, Palestine, Uganda, Vanuatu and Zimbabwe each had one participant.

Responses to the questions

1. Digital economy is a broad concept. What should be the operational scope of this concept for the purpose of the Gender and Access BPF's work in 2019?

Two responses explicitly re-emphasised the broad scope of the concept of "digital economy" while some others did so implicitly. Five examples are listed below. The fact that each describes the broadness in a different way is in itself an indication of the broadness of the concept. The second example suggests avoiding duplication of the work of others within the BPF's work.

- As broad as possible, to encompass the fact that everything in the Internet – as well as the medium itself – is a monetized commodity, corporate-owned and regulated by governments. In this sense, the Internet is the same as the digital economy.

- The concept is very broad, and disadvantaged groups have different needs to fully utilize ICT for economic purposes. The digital divide differs from country to country, and the BPF should focus on strengthening community groups and networks that have a focus on gender issues so we do not duplicate work that other groups are already doing in this area.

- All the ways in which digital technology has impacted how we work and forms of labour. It should extend beyond the information technology sector as ICTs are now used as platform and delivery in relation to various other products and services to differing degrees.

- The gender struggles and vulnerabilities when doing digital economies and how policy recommendations can influence from different layers (the bottom users of Internet, the ISPs, the platforms such as Facebook and WhatsApp which foster online commerce, how the taxes and government can help reduce the barriers and stigmas).

- The impact of digital economies on the quality of life of women and gender-diverse people taking into consideration environmental impacts, Internet surveillance, shrinking spaces online.

Some responses were clearly linked to labour and work. Some of these focused on opportunities for (women) entrepreneurs and innovators as well as the barriers facing them. Of these, one suggested showcasing best practices among women utilising digital economies for their livelihoods. One questioned whether digital economies would be good or bad for producers of arts and crafts. Others seemed to relate to the workplace for employees (rather than entrepreneurs or self-employed), including lower-paid employees in tech companies.

Several responses referred to financial transactions. One noted the need for different financial infrastructure given the limited availability and cost of Paypal "for grassroots gender projects". One person simply wrote "blockchain" and did not elaborate further.

Two responses suggested the need for those benefiting from new technology to be taxed on the revenue generated.

Several responses focused on inclusion, and the need to focus on those least likely to be part of digital economies. One person noted that non-digital transactions should not be disabled. Another noted that inclusion should not be simply from a "passive consumer perspective" but that those historically excluded "must be at the centre of models for governance of platforms that are influencing our communications."

Finally, there were four responses that are not easily classifiable:

- The complementarity between men and women with regard to access to the Internet but also the chance to learn more for all.

- Tracking and consent. Is tracking the online equivalent of stalking? How can we make consent part of what it means to be digital?

- The technological tools (software and hardware) and how ownership and design affects the communities impacted by digital economy (this could include algorithm bias as well)

- Policies and best practices that will make women and transgender and gender non-conforming people more comfortable within digital economies

2. What gender issues are you aware of that relate to the digital economy? What elements we should look into in order to measure gender equality in the digital economy for the purpose of the BPF's work?

Two people noted the digital divide or digital gender gap, but without further elaboration. A third simply gave an online reference: https://ec.europa.eu/digital-single-market/en/women-ict.

Access – including safety and other aspects of wifi and other access points, "inclusion", bank accounts, and affordability – was the most common gender issue raised, with at least ten people highlighting this. Access to finance - one person noted, in particular, that decision-making algorithms that determine access to loans and other forms of support for digital business "are often made up by white men's logic." One person suggested that those who expanded outreach should be rewarded so as to increase access.

The next most common issue was participation and/or representation. This was raised by at least nine people, one of whom noted concern about transgender and gender non-conforming people in particular. Various aspects of participation and representation were cited, including ownership; use; design, creation and/or sale of goods and services online; IT positions; online/posting; and purchasing power.

Deficiencies in respect of digital skills, digital and general literacy and available training were highlighted by six people. One of these named transgender and gender non-conforming people as those especially affected in this respect.

Four people named security and/or privacy as an issue. Job security - one used the term "work security", and it is not clear if this referred to digital security or certainty that their job would continue. One of the others observed that surveillance and censorship of certain

platforms affected the livelihoods and security of certain groups, such as sex workers, who utilised the web for their transactions.

Two people referred to gender-based violence, with one highlighting the need to create and enforce mechanisms to denounce this.

Three people referred broadly to economic empowerment.

Three raised the issue of **care work**. The issue was elaborated in different ways, as follows:

- Care labour and other kinds of labour go unnoticed in the digital economy even though it relies heavily on it.

- Care-work by women that is often mediated by apps and mobile phones, or domestic workers through platforms, beauticians, Uber drivers and so on.

- Economic activities that women (and potentially the LGBTQI community) perform in the digital economy tend to replicate the distribution of employment by industry in the "traditional economy". e.g. these groups may end up participating in activities that allow them to continue taking care of children and adult people, and perform household chores, and with discrimination in the digital platforms.

Two people noted that there were other factors, alongside gender, that were important, whether social, ethnic, race, caste, geographic, or feudal. One of these people questioned whether ICT would reduce or exacerbate work-related inequalities and unfair practices associated with these factors.

On the measurement question, one person suggested that the HIV Stigma Index might be a good model to follow in measuring "gender incivility" and a hostile environment.

The remaining responses are difficult to group and are therefore listed separately. Some of the responses do not appear to relate to gender in particular:

- Those with access can become a commodity in their digital experiences, without understanding how the process of datafication impacts their experience

- Platform challenges, in particular ownership and control

- Local content including in smaller economies (such as small island developing states) as currently most content is from bigger economies with different settings

- Messaging around clothing brands and house rental types

- Gender narrows the focus in countries where the digital economy "didn't pick up yet." Nevertheless, lack of understanding of different "deceiving tricks" results in loss

- Examine complaints which not addressed by platforms, companies, etc., especially in social media and online information.

- Your social media presence, whether private or public, limits access to the economy just as your physical appearance can. So what does it mean to be your whole self in this new world with all the social controls that have become nearly invisible?

- Need to frame the different forms of digital economy (selling small crafts, food and related items to increase domestic economy, telemarketing, on-line sexual labour, factory electronics device makers are usually women, tourism in traditional communities, etc.) and how they relate to gender specificities e.g. lesser access. The Internet in my opinion works as a catalyst for society's prejudices so most of the off-line inequalities are present online as well.

- Socio-cultural reasons play an important role in explaining the digital gender divide.

- Lack of awareness of the potential benefits that the Internet may bring.

- Ability of women to use digital technologies is directly and indirectly affected by market-related factors including investment dynamics, regulations, and competition, especially in rural areas, which are often sparsely populated, and the investment and installation of infrastructures, such as broadband infrastructures and cell phone towers, is less economically profitable.

3. What are the social barriers affecting participation in the digital economy in the 'after access' context from a gendered perspective (specifically women and gender-diverse people)?

At least seven people named hate speech and other forms of violence online, at least six referred to connectivity and/or access (e.g. no smartphone, sharing a smartphone with male family members, privacy in using the Internet, holding back on the use of data shared within a family, lack of own money to buy mobile data, affordability), at least six referred to lack of education and/or skills, and at least six to stereotypes and social norms. In respect of the latter, one person noted that trans people whose documentation might differ from how they experienced and presented themselves might be viewed as less acceptable and thus many ended up in service jobs despite having higher qualifications. At least four people referred to privacy and/or security issues, and two to self-confidence.

Three people referred to issues of control. Two said that control was in the hands of men, with one adding that it was the hands of white cis-het men. Another referred to the lack of accountability and transparency but did not say to whom or what this referred. There was one response each referring to freedom **of speech** and **time**.

The remaining responses were as follows:

- Inability to support Internet uses

- Lack of relevant and language-appropriate content and services result in limited use of acquired skills

- Understand the needs and how those general rights should treated specifically for women and LGBTQI people in a way that can be intersectional and a reflection of the reality these people are living

- Cultural differences and language might lead to misunderstanding.

- There is only one way to information science: school mathematics. But in the real world you can access IT from any part of your life. That is how it should be taught.

- Digital as individual activity and not group or family activity

One person's responses to this question reflected action to be taken rather than the issues. The person highlighted building a solid organisation, awareness-raising on funding in the digital area, and legislation relating to transgender and gender non-conforming people.

3.1 What are the capacity, skill, resource or economic barriers affecting participation in the digital economy in the 'after access' context from a gendered perspective (specifically women and gender-diverse people)?

This is a single question, but a complicated one in that it asks about a range of different kinds of barriers, and then qualifies this by specifying that it is the "after access" context and the focus should be on women and gender-diverse people in particular. Some of the responses do not appear to take these qualifications into account.

In the area of capacity and skill set, responses were as follows:

- The capacity to face and respond to online means of violence, misogyny and LGBT-phobia online

- Lack of (general) education, digital skills and illiteracy, programming skills, language

- Limited educational opportunities, high cost of education and training

- Lack of technical knowledge (and resulting reliance on younger people),

- Girls' and women's lesser confidence in ICT, maths and science areas

- Skills for both suppliers and consumers of services

- Lack of knowledge of Internet rights, policies that address sexual harassment and discrimination, decision-making process

- Lack of skills in respect of advocacy and governance boards

- Lack of capacity building in "economy domain" and personalisation of content to one's own community

One person noted that many different skill sets and resources were needed, but that access can help fight against institutional barriers and inequalities.

In terms of resource or economic barriers, responses referred to:

- Women's limited available time, including because of unpaid care work

- Affordability of devices, Internet and services more generally

- Lesser earning power of women exacerbating the challenge of affordability

- Limited access to bank credit

- Socio-cultural perceptions and biases that may prevent women from obtaining senior roles in digital companies.

One person observed that "discrimination may affect the possibility of participating in certain activities and the wage/income received. Even when participants have a nickname, the gender is sometimes inferred." The person gave the example of women receiving lower payments than men in eBay for the same products.

There were several responses ("lack of support"; "economic issues"; and "specific legislation/law landed property") that seemed to fall in the resource and economic category but were not clearly specified.

Finally, there were responses that did not seem to fit neatly into skill, capacity, resource and economic barriers:

- Privacy, security, data protection, online abuse (about 4 responses)

- Lack of representation of LGBTQI issues on ISOC and IG

- HIV "because half don't get treatment"

- Gender division of labour

- Intentional leadership rather than token positions.

- Prioritization of men in tech and economic spaces

- Exclusion of those who are not online, who are mainly women

- Social media ad biases

3.2 Which of these barriers are also faced by men? And which do you feel are faced specifically by women?

Again, this question in fact consisted of two questions. Analysis of the responses has been divided into three parts to reflect this. The following barriers were said to affect both women and men, with no gender distinction noted

- Commodification of digital data and algorithmic selection of online content

- Lack of digital skills (3 responses)

- Lack of access

- High unemployment

- High study costs

The next set of barriers were said to affect both, but with a stronger, more negative, impact for women:

- Use of the Internet tool

- Financial barriers

- Digital economy barriers (worse for women due to lack of access to the right information and the right network)

- Constraints related to ethnicity, race, age, location, education, income (2 mentions).

One person said that while women and men faced the same barriers, men were "more able to publicly air the challenges."

The following factors were said to be specific to women

- Hate speech (with LGBTQI, people of colour and other minorities also often targeted)

- Gender-based harassment

- Women are not taught how to use the smartphone and feel shy to learn from men.

- Women share the smartphone with the male members of the household, do not have privacy, and men check the websites visited by women.

- Women are not allowed to move out of their house after dark, but men can move around freely and can access the wifi access point.

- Women use mobile data mostly for the welfare of the house, and their device is used by the children as well. Men use it mostly for entertainment and children do not often touch the mobile phone of their father.

- Fewer women own a laptop while men prioritise a laptop over other household expenses.

- Gender stereotypes, limited training hours, fewer opportunities to be accepted in an IT position, lower salaries, auto exclusions.

- Discrimination and unequal allocation of non-remunerated activities.

- Legislation/law [on?] landed property, bank credit, weakness of purchasing power, self-confidence, respect by spouse and/or partner

4. How does the quality and type of their Internet connection impact on the type of economic activity that women and gender-diverse people engage in? For example, if they do not have access to affordable high-speed broadband connectivity, or if their access is primarily through social networking platforms?

Several responses highlighted the benefits of having access to high-speed Internet. The benefits included being able to complete tasks quicker and thus having more time to do other activities, being more able to study online, and being able to get in bids quickly on the stock exchange or similar platforms.

Others referred to other aspects of quality. For example, lack of 24/7 access to connectivity could be seen as reflecting lesser reliability. Similarly, Internet disruptions were seen to "hamper productivity, frustrate business confidence, and sour investment" as well as limiting access to up-to-date information.

Some responses referred to the psychological impact of not having a good quality connection. One of these suggested that a poor connection could be worse than no access at all, "because frustration and the perception that one does not have the knowledge to deal with technical difficulties can lead to a rejection of future access through other means." Another noted that if a woman was prevented from earning through not having access to quality Internet, this would result in her "giving up". A third noted that poor quality would result in disinterest in using the Internet to improve productivity.

Some people wrote about the impact of poor quality access without specifying the nature of the quality defects. The impacts included restrictions in the type of economic activity done; limited ability to make the business visible, communicate with customers, and expand the customer network; restricted access to jobs where the hiring process uses digital platforms; lack of access to quality scientific information; an increased need to travel to sell or buy goods, do bank transactions, and access education (with associated increased safety risks).

In terms of social platforms, one person saw the limitation of digital access to social networks as "limiting, politically and economically dangerous, and harming to an empowered Internet use." Another equated social media and "social control". A third noted that the apps that women employed through phone apps used were designed to diminish their control and resulted in their commuting long distances. [Why?] A fourth noted that may women depended on their phones for Internet access and might find social media platforms more accessible than browsers and search engines, but did not elaborate on the implications of this.

Finally, there were several responses that provided reasons why women might not have access to quality Internet rather than focusing on the impact of the lack of access. Reasons included lack of profitability of providing Internet to remote areas, inadequate energy supplies, and women's limited buying power (for both equipment and high-speed broadband). There was one response, which gave Brazil as an example, highlighting the lack of net neutrality as a reason for women having access only through social works such as WhatsApp and Facebook.

5. What type of economic activity do you think the BPF should focus its work on for us to come up with useful policy recommendations?

Many of the responses to this question did not directly answer it. Those that did were so diverse that they are difficult to group. The only clear group related to work mediated by or taking place through digital social networks and platforms. This was named by three people. One of the three saw this as providing an opportunity for women to work at home, but noted that training on digital marketing would be necessary. The other two seemed less positive about the possibilities for economic empowerment through these platforms.

Responses from two people, one of whom referred to care work done by algorithms and robots and the other to the challenges of estimating the "value" of unpaid work, were perhaps linked if both were referring to unpaid care work. However, this was not clear from the responses.

The list below illustrates the range of further foci suggested:

- Rural livelihoods

- Home-based activities

- Women's artisanal work

- Fair trade

- Care work done by algorithms and robots

- Start-up economy entrepreneurial activities

- Agro-pastoral activities

- Urban agriculture activities

- Technology capacity building

- E-commerce

- Marketing strategies of gig companies that create competition among the workforce

Among the responses that did not strictly relate to the question, two referred to the role of the digital economy – and algorithms in particular – in determining access to social welfare. Other issues, in no particular order were:

- Social media networks violate the privacy of individuals to target them with ads

- Free access for women to the use of the Internet

- Actions to encourage women to get involved in the evolution of technology and the Internet.

- Acknowledgement that many women make volunteer contributions to online sites, small and large

- The realities of ordinary women in middle- and low-income countries and how their working capacity and income is impacted by digital technology.

- Discrimination when performing economic activities online

- Connection between decision to participate in the digital economy and type of participation (which industry/activity), and allocation of time in non-remunerated activities within the household.

- Vulnerability to risk and abuses (due to poverty, domestic violence, sexual labour, low literacy, domestic workers, indigenous, black, lgbtqi+ communities).

- Storification of data and content

- Policy-wise, the right to read, make audio video and annotate content for their communities

6. What are the specific policies and regulation that impacts on women's participation in the digital economy?

Six people suggested that the focus should be on policy related to educational and training opportunities. Four referred to policy related to employment conditions and benefits and labour rights. Of the four, one noted the difficulty of organising workers employed online to negotiate for their own rights, while a second urged that policies – such as maternity and parental leave – be provided so as to equalise the burden of unpaid care work. Three people raised policies related to gender-based violence and harassment and a further two raised the issue of pay equity.

Two responses could be read as relating to privacy. The concern of the first seemed to be that there should be adequate protection in place. In contrast, the second was concerned that the vulnerability of women and gender-diverse people was often used to justify regulation of the Internet as well as participation in the digital economy. Two other responses related to other forms of restriction. One noted that businesses sometimes did not allow particular employees access to the Internet. Another referred simply to men's role as "gatekeepers" without explaining further. Perhaps related, another response called for "balance on governance".

Two responses related to tax. One person bemoaned the high taxes on laptops and customs duties on imported technology. The other highlighted over-the-top or social media tax.

Several responses related in some way to access, namely:

- Policies that cover multi-disadvantaged groups, like rural regions, minority languages, Internet access at public libraries

- Women-only wifi hotspots in market centres, shopping malls, and public facilities

- National broadband plans and emerging fourth industrial revolution strategies, access and affordability policies

- The remaining diverse responses were as follows:

- Internet shutdowns with our prior warning

- Promotion of digital enterprises led by women

- Consolidation of networks of women entrepreneurs

- Cheap gendered labour (like call centres)

- Shrinking online spaces for freedoms (like the recent Tumblr terms of reference).

- Presentation of content in an accessible, safe and gender-sensitive manner

- Weakness of landed property.

7. Is there any work (research, writings, capacity building, video, audio, financing initiatives etc.) done by yourself or others in this field that you feel will be valuable for the work of the BPF this year? Please share relevant links.

AND

8. Are there any individuals or organisations focusing on women's participation in the digital economy that you think the BPF should reach out to?

The following work and organisations were noted by respondents:

Research:

- Research and advocacy of APC Women's Rights Programme: The EROTICS Project - https://erotics.apc.org/); https://www.apc.org/en/pubs/executive-summary-mapping-research-gender-and-digital-technology;

- Feminist Internet Research Network (FIRN). Producing relevant papers including (1) Women and access: how women utilise the connectivity for income generation 2) Women technology and beyond in community networks that the person was currently working on. These can be included in the BPF this year. - https://www.apc.org/en/project/firn-feminist-Internet-research-network

- Indian Institute of Technology Bombay. Work on the digital economy - http://www.iitb.ac.in/

- International Development Research Centre (IDRC) programmes including: Inclusive Economies https://www.idrc.ca/en/what-we-do/inclusive-economies; Employment and Growth https://www.idrc.ca/en/program/employment-and-growth. The latter is intended to find solutions that remove barriers to women's economic empowerment

- Kohl: A journal for gender and body research - https://kohljournal.press/ The summer 2019 edition is focused on alternative economies and gendered labour https://kohljournal.press/issue-5-2

- Noopur Raval working on Uber drivers, not specifically gender, but very active in relation to tech workers in India. She has also done work on beauticians through platforms.

Campaigns:

- Colnodo's Dominate Technology in Colombia campaign - https://www.dominemoslatecnologia.org/

Organisations/institutions/projects:

- Association for Progressive Communications (APC) - https://www.apc.org

- Caribbean girls hack - https://www.facebook.com/cgirlzhack/

- Center for Family Life in New York, UP & GO platform - https://www.upandgo.coop/

- Centro Latam Digital - https://centrolatam.digital/

- Centre for ICT Policy for Eastern and Southern Africa (CIPESA) - https://cipesa.org

- CLAM Latin American Center on Sexuality and Human Rights. Based at the Rio de Janeiro State University, Brazil. http://www.clam.org.br/EN/

- Coding Rights - https://www.codingrights.org - in particular their work on work on shrinking economic spaces

- Colnodo Digital Security School - https://escueladeseguridaddigital.co/

- Fair Work Foundation - https://www.oii.ox.ac.uk/research/projects/a-fairwork-foundation-towards-fair-work-in-the-platform-economy/

- FRIDA the young feminist fund - https://youngfeministfund.org

- GenderIT: Feminist Reflection on Internet Policies - https://genderit.org/ including https://www.genderit.org/gender-labour-technology

- GMSA - https://www.gsma.com/ and EU Commissioner Gabriel speaking to the GMSA on women in the digital economy - https://www.youtube.com/watch?v=E_3DGnZbYoc

- Gram Marg - http://grammarg.in

- Internet Rights and Principles Coalition - http://Internetrightsandprinciples.org

- Iruway - https://iruway.janastu.org/ (mesh radio activity in particular)

- Janastu - https://janastu.org/

- Life in Leggings, Barbados - https://www.facebook.com/officiallifeinleggings/

- LIRNEasia: a regional ICT policy and regulation think tank - https://lirneasia.net/

- NOAH, Barbados - https://noahbarbados.wordpress.com/

- Organisation for Economic Cooperation and Development (OECD) https://www.oecd.org/social/empowering-women-in-the-digital-age-brochure.pdf

- Resurj - http://resurj.org/

- Research ICT Africa (RIA) - https://researchictafrica.net/

- Sula Batsu - https://www.sulabatsu.com/

- The Engine Room - https://www.theengineroom.org/

- The Knowledge Workshop - https://alwarsha.org/

- Unbox Janastu - http://j.mp/unbox-janastu

- Unwanted Witness - https://www.unwantedwitness.org

- World Wide Web Foundation – https://webfoundation.org/. Working on meaningful connectivity.

Appendix B: Respondents to the call for input

Respondents had the option of remaining anonymous. This list includes only the names and affiliations of those who provided this information.

Name	Affiliation	Country
Bruno Zilli	Latin American Center on Sexuality and Human Rights, Rio de Janeiro State University	Brazil
Sarbani Banerjee Belur	Gram Marg, Indian Institute of Technology Bombay (IIT Bombay)	India
June Parris	Halaqah Media	Barbados
Avis Momeni	Protege QV	Cameroun
Adolf Hitler	National Socialist Party	Germany
Jackson Miake	Vanuatu IGF	Vanuatu
Nthabiseng Pule	-	Lesotho
Juan Pájaro Velásquez	RutaTrans	Argentina
CHAKO Armant	South-Kivu/Bukavu - Ensemble Pour la Difference - PamojaNet	Congo, Democratic Republic of the
MOHAMED SYLLA	Women Deliver	Mali
Nadira ALARAJ	Internet Society, APSIG, APRALO	Palestine, State of
Marcya Hernández	Colnodo	Colombia
Derrick Kiyonga	Unwanted Witness	Uganda
Namita	Association for Progressive Communications Women's Rights Programme	India
T. Egherman	-	Netherlands

Ana Martina	US Federation of Worker Cooperatives, Radicante Media, Tech Workers Coalition - Philadelphia Chapter	United States
Jele	APO-CAOCH GbR	Germany
cynthia el khoury	The Association for Progressive Communications	Lebanon
Bruna Zanolli	Vedetas	Brazil
Chenai Chair	Research ICT Africa	Zimbabwe
dinesh	janastu	India
Poncelet Ileleji	The Gambia YMCAs Computer Training Centre and Digital Studio	Gambia