WOMEN, TECHNOLOGY
AND DEMOCRACY SURVEY

NDI
NATIONAL
DEMOCRATIC
INSTITUTE

The National Democratic Institute for International Affairs (NDI) is a nonprofit, nonpartisan, nongovernmental organization that responds to the aspirations of people around the world to live in democratic societies that recognize and promote basic human rights. Since its founding in 1983, NDI and its local partners have worked to support and strengthen democratic institutions and practices by strengthening political parties, civic organizations and parliaments, safeguarding elections and promoting citizen participation, openness and accountability in government.

NDI is the leading organization working to advance women's political participation around the world. The Institute empowers women to participate, compete and lead as equal and active partners in democratic change. Mobilizing its global networks and drawing on three decades of experience in 132 countries, NDI supports women's aspirations for inclusive and responsive government. The Institute works with political parties, parliaments and governments to ensure that women can participate in politics as citizens, candidates and decision makers.

For more information about NDI, please visit www.ndi.org.

As the third largest research organization in the world, Ipsos has offices in 89 countries with a professional staff of approximately 20,000 employees and conducts overseas research projects in more than 130 countries each year. In partnership with clients from government, public, corporate and not-for-profit sectors, Ipsos conducts strategic research to understand and manage issues, advance reputations, determine and pinpoint shifts in attitude and opinion, enhance communications and evaluate policy.

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1. Formerly Women's Political Participation program

OVERVIEW

Over the past 30 years, the National Democratic Institute (NDI) has worked to increase women's participation as voters, political leaders, elected officials and activists in every region of the world. With the emergence of digital technologies in the democracy and governance space, many heralded the potential of online spaces, mobile messaging and social media to level the playing field of access to information between men and women. It was said that, for the first time, women had direct access to knowledge that could previously only be learned through traditional political networks; their online persona had more freedom of expression to question their leaders and they are connected to other likeminded elected officials and activists from their country, region and global community.

However, both empirical and anecdotal evidence has shown that there is a defined digital gender gap, which prevents all women from having equal access to technology, particularly in developing countries. A body of research has started to uncover the general challenges around women's use of online and mobile technologies, but virtually no global studies exist about the distinct opportunities and barriers for women using technology as voters, elected officials, candidates and activists in developing democracies.

To begin addressing this gap in knowledge, NDI conducted a study to better understand how women within NDI's programming interact with digital technology and the particular challenges they face with regard to access, comfort and competencies. For this study, digital technology has been defined as encompassing computers, the Internet, e-mail, standard mobile phones, smartphones, tablets and social media applications. Working in partnership with the research firm Ipsos, NDI explored how female participants in its programs are using digital technology to increase their participation in politics as office holders, candidates, advocates and voters, with the goal of improving future program design and ensuring democracy-focused technologies are better able to address women's needs and challenges.

The following report summarizes the highlights of the survey. It includes a short overview of NDI's work in this area and desk research on women's use of digital technology for political engagement. The report then shares the outcomes of the quantitative survey, which was taken by 1,160 women from 58 countries in 2014, either at an NDI program activity, in-country office or through a targeted email distributed to members of the International Knowledge Network of Women in Politics (iKNOW Politics).[2] Finally, NDI will propose recommendations for better integrating a gender perspective into technology relevant democracy and governance programming.

Through this report, NDI hopes to build awareness of the opportunities digital technology presents in the mission to empower women as political actors and seeks a better understanding of how women access and use technology to enhance their political participation.

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2. iKNOW Politics is a website run by NDI and its partners: the International Institute for Democracy and Electoral Assistance, the Inter-Parliamentary Union, the United Nations Development Program and UN Women. It is designed to support women elected officials, candidates, political party leaders and members, researchers, students and other practitioners interested in advancing women in politics.

WOMEN, TECHNOLOGY AND DEMOCRACY

NDI is a nonprofit, nonpartisan, nongovernmental organization that has supported democratic institutions and practices in every region of the world for more than three decades. Since its founding in 1983, NDI and its local partners have worked to establish and strengthen political and civic organizations, to safeguard elections and promote the participation of all citizens, and to ensure openness and accountability in government.

Former Secretary of State and NDI Board of Directors Chairman Madeleine K. Albright said: "Success without democracy is improbable; democracy without women is impossible." When women are active in politics, communities prosper. Women's political participation results in real gains for democracy, including greater responsiveness to citizen needs, increased cooperation across party and ethnic lines and more sustainable peace. Mobilizing its global networks and drawing on three decades of experience in 132 countries, NDI supports women's aspirations for inclusive and responsive government. The Institute works with political parties, parliaments and governments to ensure that women can participate in politics as citizens, candidates and decision makers. There is strong evidence that as more women are elected to office, there is also an increase in policy-making that reflects the priorities of families, women, and ethnic and racial minorities. NDI strives to ensure that women are integrated throughout its democracy assistance programs and are provided with opportunities for specialized training and outreach.

Another NDI priority is encouraging and improving the use of information and communication technologies (ICTs) to promote democratic development. In recent years, the use of the Internet, mobile phones, social media, and related digital tools has proliferated, profoundly impacting social, economic, and political institutions worldwide. Particularly in new and emerging democracies, citizens, civil society organizations, and public officials are increasingly leveraging connective technologies to enhance communication, improve access to information, and increase responsiveness and accountability. In order to adapt to a new technology-empowered world, NDI has implemented a diverse range of programs that empower partners to use practical and sustainable technologies to advance their democratic goals and ambitions.

Given the potential for technology to help women overcome historic inequities, NDI has sought to better understand the intersection of these two core areas for more than 10 years. Along with the International Institute for Democracy and Electoral Assistance, the Inter-Parliamentary Union, the United Nations Development Program and UN Women, NDI was a founding partner of iKNOW Politics, a global website designed to reduce the knowledge gap around women in politics and support and connect women elected officials, candidates, political party leaders and members, researchers, students and other practitioners. Through its gender, women and democracy programs, NDI has participated in numerous high-profile events on the topic over the past three years, including organizing a first-of-its-kind panel on women, technology and democracy as part of the Social Media Week DC in 2013. Throughout these conversations and NDI programs, there grew an increasing need for quantitative data that confirmed or questioned assumptions around women's access and use of technology within political activities.

This survey report, created with support from the NED, hopes to be the first of many that look at this critical intersection of women, technology and democracy.

THE "DIGITAL GENDER GAP"

There is a growing field of literature on the general implications of digital technology usage for political participation, activism and empowerment. Additionally, an emerging body of research has started to uncover the general challenges to achieving equal access for women to online and mobile technologies, with global reviews by the Groupe Speciale Mobile Association (GSMA)[3] and Intel dubbing this the "digital gender gap". However, virtually no multi-country or global studies exist about the distinct opportunities for and barriers to using online and mobile technologies for women as voters, elected officials, candidates and activists in developing democracies.

A review of existing research showed that digital technology can be a useful tool for political activism. Where women have access and ability to use technology, it expands opportunities to seek out information, facilitate communications among diverse groups of people and enable the organization of coalitions around particular issues. Particularly for marginalized groups, digital technology holds great potential for political and social empowerment.[4] Despite the potential for digital technology to expand and improve democratic processes, it can also exclude key populations if their needs and barriers to access are not considered in the design of programming and technology.

In low and middle-income countries, women are 21 percent less likely to own a mobile phone than men.[5] The gender gap for mobile phone usage is largest in South Asia (37 percent), followed by the Middle East and North Africa (24 percent), Sub-Saharan Africa (23 percent), East Asia and Pacific (17 percent) and Eastern Europe and Central Asia (16 percent).[6] Similarly, there is a large disparity in Internet access between women and men in developing countries; the International Telecommunication Union estimates that 16 percent fewer women than men use the Internet in the developing world, compared to only 2 percent fewer women in the developed world.[7] That number increases to 43 percent in Sub-Saharan Africa, 34 percent in the Middle East and 33 percent in South Asia. However, the Internet gender gap is most pronounced in both developing countries such as Turkey (21 percent), Morocco (19 percent) and the Palestinian Authority (9 percent), as well as developed countries like Croatia (15 percent), Japan (11 percent) and Italy (10 percent).[8]

The cost of accessing digital technology is a major obstacle for low-income women in developing countries. While these costs are often too expensive for low-income populations around the world, this problem is especially acute for women who often lack control over household finances or do not have sufficient personal income to purchase technological devices or subscriptions for themselves.[9] This may be compounded by sociocultural factors, such as ingrained cultural attitudes against women's participation in the public sphere, which may limit women's access to public technology facilities such as cybercafés or telecenters, which are often the primary locations to access technology for populations who cannot afford personal computers.[10]

3. GSMA Development Fund, "Women and Mobile: A Global Opportunity," 2013
4. Intel Women and the World Report, 2012 http://www.intel.com/content/dam/www/public/us/en/documents/pdf/women-and-the-web.pdf
5. GSMA Development Fund, "Women and Mobile: A Global Opportunity," 2013.
6. Ibid.
7. International Telecommunication Union (ITU), "ICT Facts and Figures," 2013.
8. ITU, "World Telecommunication/ICT Indicators Database," 17th edition, 2013.
9. Melhem, Samia, Morrell, Claudia and Tandon, Nidhi. "Information and Communication Technologies for Women's Socioeconomic Empowerment," World Bank Working Papers 176, 2009.
10. Ibid.

Usability is also a challenge. Because science and technology education are often considered male domains, many women have not been adequately trained to use technological devices. The lack of popular websites in local languages presents a further challenge to women without much education and might prevent them from going online. In addition, a disproportionate number of the world's illiterate population are women, further exacerbating their lack of access to common digital technologies.[11]

In recent years, there has been a greater realization among international organizations that, due to these barriers, programs that use digital technology may require gender mainstreaming initiatives. According to UN Women, gender mainstreaming is defined as "a strategy of promoting gender equality by ensuring that gender perspectives and attention to the goal of gender equality are central to all activities -- policy development, research, advocacy/dialogue, legislation, resource allocation and planning, implementation and monitoring of programs and projects."[12]

With regards to digital technology, gender mainstreaming would involve developing policy guidelines with the goal of achieving gender equality in access and use. Within technology-focused programming, gender mainstreaming would require a consideration of the needs, experiences, interests and technology access levels of women throughout all phases of the program in order to reach a gender-balanced user base.

Several international organizations have developed strategies, guidelines and best practices to shape digital technology policy in a way that takes into account the current barriers that women face in accessing technology. For example, UN Women's approach to advancing women's opportunities through digital technology is focused on mitigating direct and indirect barriers to access through building better infrastructure and developing women's technology skills.[13] The World Bank's strategy to achieve gender mainstreaming in digital technology is more policy-based, recommending overall policies and regulations to ensure that women have access to, and benefit from developments in technology.[14] The International Telecommunication Union (ITU) collects gender-disaggregated information and documentation on women's usage of digital technology in order to better identify and address barriers.[15]

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11. Ibid.
12. UN Women, "Gender Mainstreaming." Available online at http://www.unwomen.org/en/how-we-work/un-system-coordination/gender-mainstreaming.
13. UN Women, "ICTs for Women's Empowerment: The Big Picture," UN Special Briefing on Women and ICT, 2013
14. The World Bank, "ICT Projects and Policy: Gender Equality Issues in ICT Project."
15. International Telecommunication Union, "Gender Mainstreaming Activities," 2008.

RESEARCH DESIGN

The research findings of this report are based on a quantitative survey distributed to 1,160 women from 58 countries from March to July 2014. Respondents were invited to take the survey online or in person and either accessed it at an NDI event, through iKNOW Politics or a personal invitation. To ensure quality responses, NDI made efforts to distribute the survey at women-focused activities in countries with different technology profiles. The majority of survey responses came from targeted NDI countries, which included Haiti, Kosovo, Mali, Mexico, Pakistan and Yemen.

The 15-minute survey covered a number of critical areas, including participants' use of digital technology for personal and political purposes, preferences for types of digital technology and whether barriers exist to using digital technology. These topics were used in order to increase insight into the three primary research questions that were used to frame the survey: how do women use digital technology for personal purposes? How do women use digital technology for political purposes? What barriers do these women face when using digital technology and what are the solutions they believe to be most helpful? In addition, the questionnaire included demographic questions about their age, education level and location (urban, rural or suburban).

This targeted community can be described as politically engaged and politically active. We defined politically active women as those who communicate with others, share and access information, organize meetings, engage in discussions and participate in online networks about political matters. The most politically active women participate in advocacy campaigns, promote personal political campaigns and participate in political fundraising events.

Survey results are grouped into four regions: Asia, Developed Nations, Europe and Central Asia, Latin America and the Caribbean, Middle East and North Africa (MENA) and sub-Saharan Africa. The survey was translated into Albanian, Arabic, Spanish, French, Urdu, Serbian and Georgian to ensure that the women who were involved in the largest NDI programs across a range of countries and regions would be able to participate.
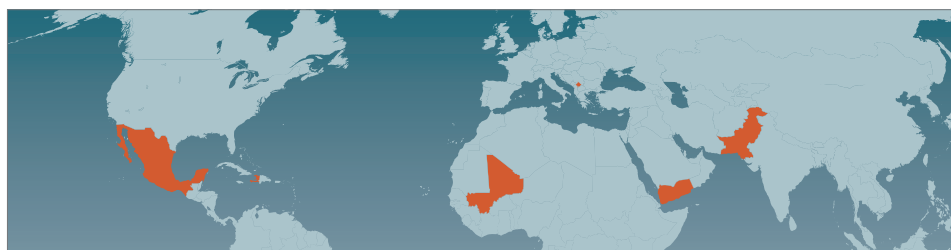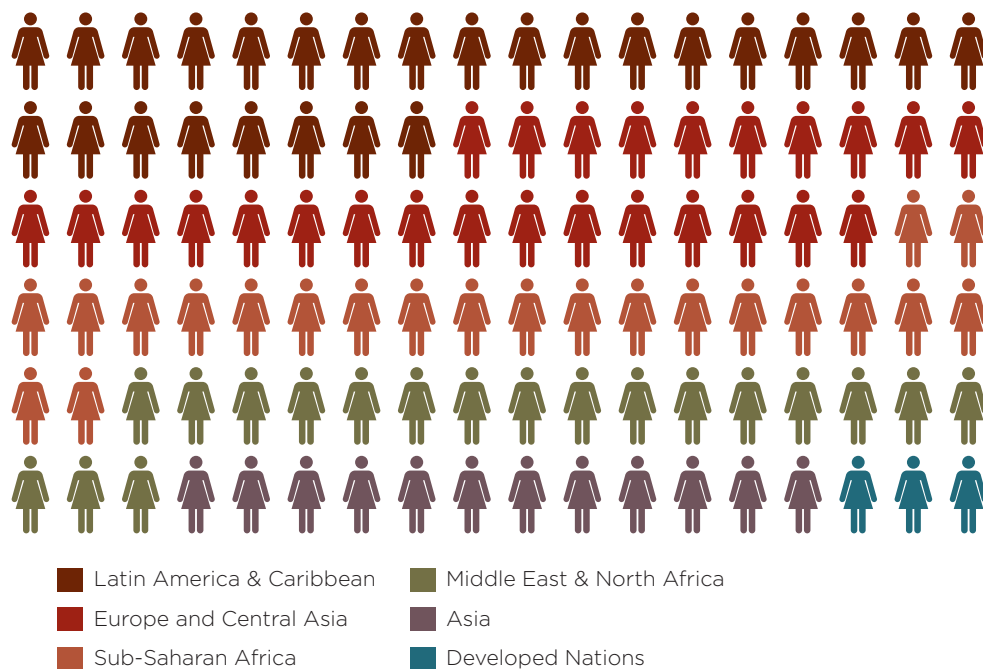

The majority of survey responses came from targeted NDI countries, which included Haiti, Kosovo, Mali, Mexico, Pakistan and Yemen.

While reading the findings, it is important to keep in mind the very specific profile of the study participants. This survey focused largely on NDI's current program participants and other politically engaged women, thus reaching a demographic which is highly educated and urban.[16] Additionally, while in almost half of the cases participants filled out the survey on paper in NDI events, the study was also completed by women who were able to do so online.
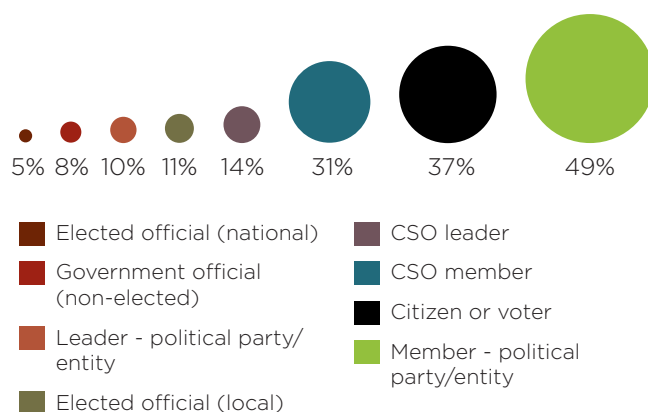
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16. Though the majority of participants in this study fit this demographic, NDI endeavors to engage women from diverse backgrounds in its programming, including rural women, indigenous women and women outside country capitals. When possible, NDI holds program activities in rural areas and works to ensure that program activities have geographically diverse participation.

1160 participants from 58 countries took the survey between March and July 2014

- **Latin America & Caribbean**
- **Europe and Central Asia**
- **Sub-Saharan Africa**
- **Middle East & North Africa**
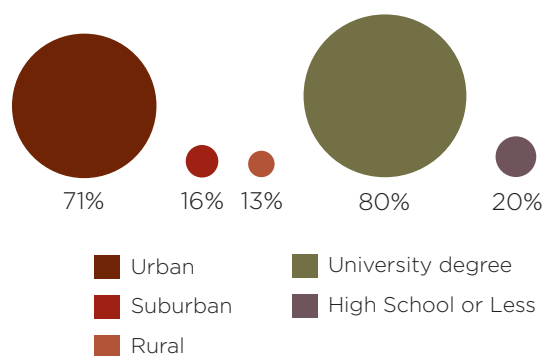- **Asia**
- **Developed Nations**

Compared to the general population in their respective countries, these women have much higher access to the digital technology types discussed in this study, as well as greater ease in using the technology. The findings of this study cannot therefore be considered representative of the general population in any of the regions or countries of focus. They are not representative of any specific income group or of politically active women in general, nor do they provide specific information on how women who are less politically engaged might use digital technology to increase their engagement. Finally, as the survey exclusively collected data from women, the findings cannot be used to compare women's access and fluency with technology with their male counterparts.

Women who participated in the study defined themselves as being politically associated with the following titles:

5% 8% 10% 11% 14% 31% 37% 49%

- **Elected official (national)**
- **Government official (non-elected)**
- **Leader - political party/ entity**
- **Elected official (local)**
- **CSO leader**
- **CSO member**
- **Citizen or voter**
- **Member - political party/entity**

Survey respondents are overwhelmingly educated and located in urban settings

71% 16% 13% 80% 20%

- **Urban**
- **Suburban**
- **Rural**
- **University degree**
- **High School or Less**
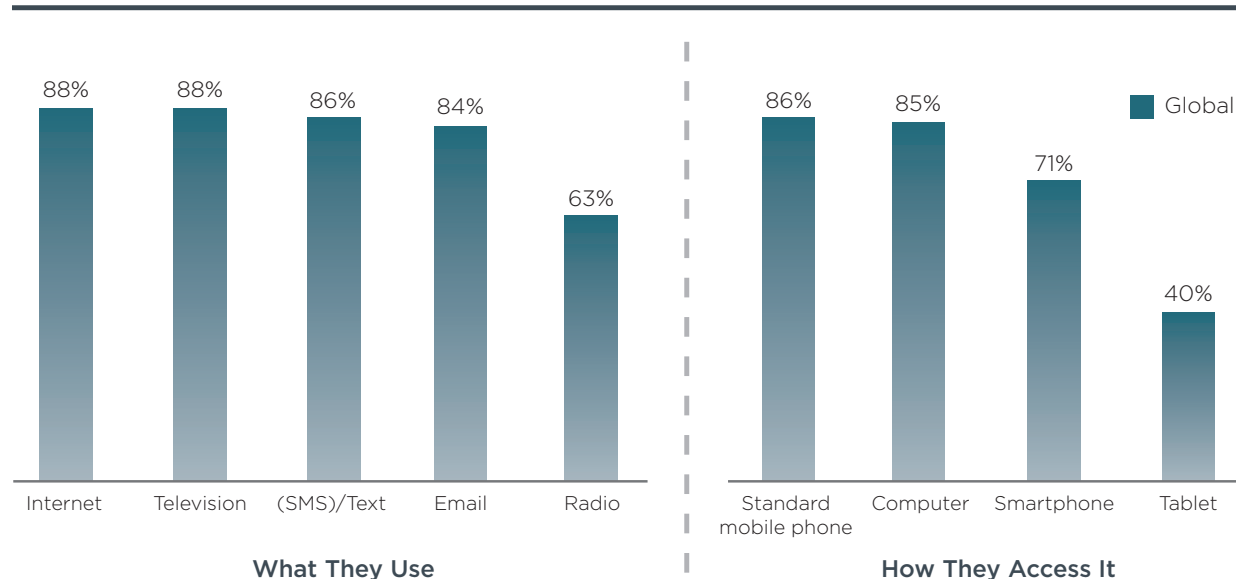
STUDY FINDINGS

RESEARCH AREA 1: WOMEN'S USE OF DIGITAL TECHNOLOGIES FOR PERSONAL PURPOSES

To better understand how female participants are already using technology in their everyday lives, the survey asked about their personal use of technology. Globally, participants of the survey use digital technology extensively for personal purposes. This was expected given the participants' educated, urban profile, as well as their participation in NDI programs, even when considering the relatively limited access to technology and social media for women in general in the survey countries.

Access to Technology

The digital technology most favored for personal purposes are the Internet[17] (88 percent), computers (85 percent) and email (84 percent). However, there are significant differences in women's digital technology usage between regions and countries within regions. Participants in Europe and Central Asia and Latin America have generally higher rates of technology usage, compared to participants in the Middle East and North Africa, sub-Saharan Africa and Asia.

For example, all the women surveyed in Europe and Central Asia stated that they use the Internet and 93 percent use the Internet in Latin America, compared with 85 percent in MENA, 78 percent in Asia and 68 percent in Sub-Saharan Africa. Women in Latin America and Europe and Central Asia are also more likely to use more advanced digital technologies, such as tablets (49 percent and 40 percent respectively, compared to 35 percent in MENA, 33 percent in Asia and 32 percent in sub-Saharan Africa).

Internet	Television	(SMS)/Text	Email	Radio
88%	88%	86%	84%	63%

What They Use

Standard mobile phone	Computer	Smartphone	Tablet
86%	85%	71%	40%

Global

How They Access It

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17. While referring to usage scores within this report, we have used the frequency of usage "daily or weekly", all scores will reflect this same measure. This frequency will also be denoted by using "regularly".

Differences can also be seen within regions, both within the NDI survey and overall usage rates. In sub-Saharan Africa, for example, there is a significant disparity in digital technology usage: 91 percent of participants in Kenya use the Internet regularly for personal purposes, whereas participants in Mali have among the lowest usage rates at 46 percent. These patterns are reflected in the general population data for those countries – Kenya's overall internet usage rate is 39 percent and Mali's is 2 percent, while Egypt has 50 percent Internet penetration and Yemen only has 15 percent penetration.[18]

Study participants in sub-Saharan Africa take the lead in frequent use of standard mobile phones for personal purposes (93 percent), though smartphones are least likely to be used (57 percent). This data aligns with population data showing prevalence of standard mobile phones in sub-Saharan Africa, which are often less expensive and more convenient than the traditional landlines. However, the number of smartphone consumers in Africa is projected to drastically increase in the next few years as the cost of smartphones and associated fees decreases.[19]

Use of Social Media

Globally, the social media most favored for personal purposes are Facebook (83 percent), YouTube (56 percent) and Twitter (36 percent).
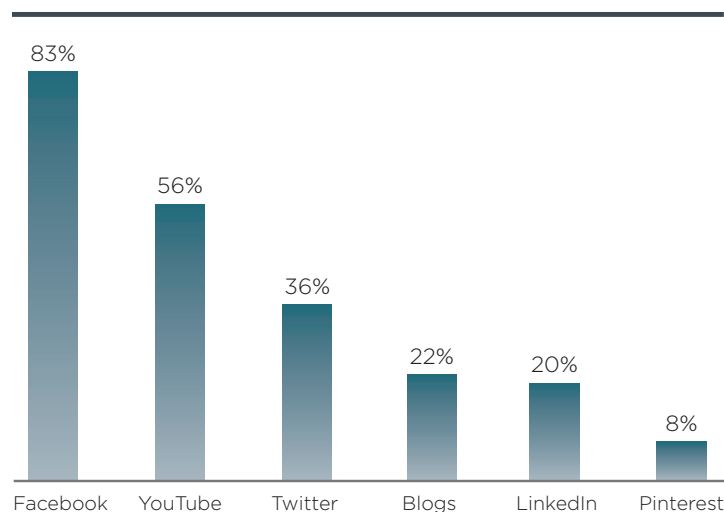
As with other technologies, there are significant differences in women's social media use between regions and countries within regions. Participants in Europe and Central Asia, Latin America and the Middle East and North Africa have higher rates of social media usage when compared to participants in Asia and sub-Saharan Africa.

Facebook is most used in in Europe and Central Asia, Latin America and the Middle East and North Africa. The numbers are lower for Asia (73 percent) and sub-Saharan Africa (63 percent). Similarly, women are more likely to access YouTube in Europe and Central Asia (86 percent), Latin America (61 percent) and in MENA (53 percent), compared with less than 30 percent in Asia and sub-Saharan Africa. Around half of women in Latin America use Twitter, compared to only about a third of women in each of the other regions.

Differences can also be seen within countries in the regions, similar to those seen for digital technology usage. Within Africa, 89 percent of participants in Kenya use Facebook regularly, compared to 39 percent of participants in Mali. Within the Middle East and North Africa, 100 percent of participants in Egypt use Facebook and 81 percent use YouTube. In Yemen, 74 percent of participants use Facebook and 34 percent of participants use YouTube.

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18. Ibid.
19. "Sub-Saharan Africa," Ericsson Mobility Report Appendix, June 2014.

While rates of digital technology usage for personal purposes provide a general understanding of overall trends, exploring the types of political activities women use these technologies for offer more relevant insights into the types of programming which can be enhanced by digital technology.

RESEARCH AREA 2: WOMEN'S USE OF DIGITAL TECHNOLOGY FOR POLITICAL PURPOSES

How are women using technology for political engagement? The data show that the digital technology used for political purposes is not significantly different to personal use, with similar variations across regions and political positions. This is not surprising, since those who use particular types of digital technology in their personal lives can easily transition those functions to their political work.

Digital Technology for Communications, Sharing Information and Accessing Information

Women in the study reported that they used the following technology for political engagement:
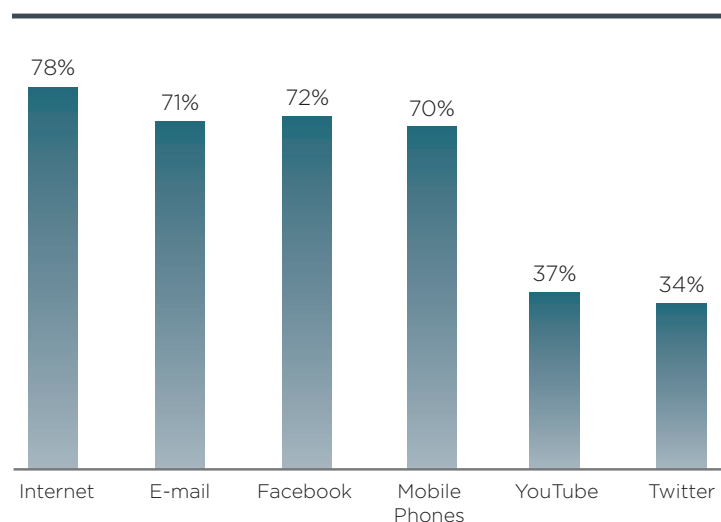
Globally, study participants are most likely to use digital technology for political purposes to:

- communicate with others: 78 percent through both technology in general and social media;

- share information: 68 percent through technology in general and 65 percent through social media; and

- access information: 66 percent through technology in general and 62 percent through social media.

This trend is easy to understand, since the types of digital technologies most commonly used for political purposes enhance the ability to communicate and access information instantaneously. This convenience is essential for political leaders and activists who must be in constant communication with colleagues, partners, donors, media and constituents and who must be able to share and discuss a wide variety of complex information on a regular basis.

Regionally, participants in Europe and Central Asia and Latin America show a significantly higher use of digital technology and social media for communicating with others. Approximately 90 percent of women in Europe and Central Asia and 85 percent in Latin America use technology and social media to communicate with others. Since communicating with others is the primary way participants use digital technology in all regions of focus in this study, the increased numbers in Europe and Central Asia and Latin America can be explained by the fact that women in those regions enjoy greater access to these technologies, as do the people with whom they would be communicating.

Civil society and community leaders are more likely than their counterparts in other political positions to use digital technology to communicate with others, share information and access information. However, a solid majority of participants across political positions held by women also use digital technology for these purposes, further underlining their overall importance to all aspects of political work.

Elected officials at the national level, civil society and community leaders and political party leaders are also more likely to have a separate political Facebook account. Regionally, participants in Latin America, the Middle East and North Africa and in Europe and Central Asia are most likely to have a separate Facebook account for political purposes than their counterparts in Asia and sub-Saharan Africa.

Digital Technology for Political Engagement

Less than half of participants use digital technology to conduct activities specific to political engagement, such as political discussions, engaging in online networks, participating in advocacy campaigns and promoting a personal political campaign. It is important to note that the aspects of digital technology that make these activities convenient are directly related to easy and instantaneous communication and information.

There are some notable regional differences with regard to use of digital technology for political engagement. Women in the Middle East and North Africa and Europe and Central Asia are the most likely to use technology in general to engage in discussions (52 percent and 49 percent, respectively). While women in Europe and Central Asia (53 percent) are significantly more likely than their counterparts in other regions to use technology in general to participate in online networks, large minorities of women in Latin America and MENA do the same (40 percent). Participants in sub-Saharan Africa and Asia are generally less likely to use digital technology for political engagement.

Civil society and community organization leaders are more likely than those in other political positions to use digital technology to engage in discussions, participate in online networks and participate in advocacy campaigns. Leaders of political parties and elected officials at both the national and local levels are more likely to use digital technology to promote their personal political campaigns. This is not surprising since women in those positions are most likely to have campaigned for their position. Interestingly, women in Asia are second only to women in Europe and Central Asia in their use of digital technology to promote their personal political campaigns, with 39 percent stating they use technology in general and 37 percent stating they use social media for campaigning.

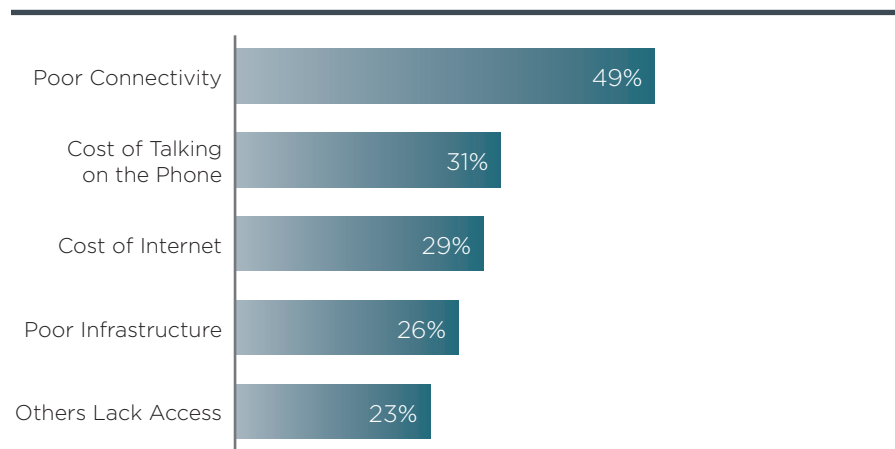## Technology for Improved Organization and Fundraising

Digital technology can help make activities more organized, efficient and convenient – all essential in fast-paced political environments. Globally, a significant minority of participants uses digital technology to organize meetings (47 percent through technology in general and 45 percent through social media), though keeping an online calendar and fundraising are the two political activities where participants are least likely to use digital technology.

Europe and Central Asia and Latin America are the only regions in which majorities of participants report using digital technology for organizing meetings or keeping an online calendar. While participants across all regions are relatively unlikely to use digital technology for fundraising, those in Asia are more likely to use general technology for that purpose (17 percent) and participants in Europe and Central Asia and MENA are most likely to use social media (14 percent). Latin American respondents are least likely to use either, with 6 percent using technology in general and 4 percent using social media.

Elected officials at the national level are more likely to use technology in general for fundraising (27 percent), while elected officials at the national level (22 percent) and civil society and community leaders (19 percent) are more likely to use social media for that purpose.

RESEARCH AREA 3: BARRIERS WOMEN FACE IN USING TECHNOLOGIES AND SOCIAL MEDIA

While the participants in this study are more educated and urban and have more access to digital technologies than the general population in their countries, they face numerous barriers, which prevent them from being able to effectively use technology in their work. These barriers are mostly related to infrastructure, such as connectivity and cost of access. However, cultural barriers such as feeling uncomfortable using digital technology in public and limits on freedom of speech, or censorship, also prevent women in a number of countries from using digital technology in their personal and political lives.

Barrier	Percentage
Poor Connectivity	49%
Cost of Talking on the Phone	31%
Cost of Internet	29%
Poor Infrastructure	26%
Others Lack Access	23%

Globally, convenience and accessibility are the main drivers of digital technology preferences. This is directly related to the barriers that women cite when thinking about using digital technology. The top barriers cited by women globally are poor connectivity (49 percent), cost of talking on the phone (31 percent), cost of the internet (29 percent), poor infrastructure (26 percent) and lack of access (23 percent).

Overall, these barriers negatively impact the usability of the Internet, mobile phones and other types of digital technology in women's personal and political lives. Poor internet connectivity can be a significant obstacle, especially considering that 78 percent of women overall reported using the Internet for their political activities.

Women in the Middle East and North Africa and Europe and Central Asia are the most likely to note poor Internet connectivity, with more than half of the women in these regions citing this as an obstacle (56 percent and 54 percent, respectively). Since women in Europe and Central Asia had the highest rate of using the Internet as a resource for both personal and political activities (100 percent and 93 percent respectively), the fact that they cited limited connectivity as an impediment indicates that even regular usage does not equal efficient or convenient usage.

The costs of both talking on the phone (31 percent) and of Internet access (29 percent) are also top barriers that women report globally. Coupled with poor connectivity, excessive costs reduce the convenience and availability of these digital technologies. Thirty-one percent of women in sub-Saharan Africa believe that cost is a primary obstacle to using technology for their work, particularly troublesome since they overwhelmingly rely on standard mobile phones for personal (93 percent) and political activities (81 percent).

The cost of Internet access was cited as one of the top barriers among women in Latin America, with 40 percent citing this as an obstacle. Approximately one-third of women in sub-Saharan Africa, Asia and the Middle East and North Africa also found high Internet costs to be a barrier. Even though they were most likely to report being hindered by poor Internet connectivity, women in Europe and Central Asia are the least likely to find the costs of Internet access to be an impediment (16 percent).

Poor general infrastructure – such as the lack of electricity – within the community and country is another common concern for women globally (26 percent). About one-third of women in sub-Saharan Africa, Asia, Latin America and the Middle East and North Africa reported infrastructural barriers. Only 16 percent of those in Europe and Central Asia found this to be an issue.

Many of the women report that other members of their communities have limited access to technology (23 percent globally), which presents a barrier to their own effective use of digital technology. Even if they have access to social media, for example, they cannot use it to mobilize others in their community who cannot receive those messages. Women both in sub-Saharan Africa and Asia stated that others within their community not having access to digital technology is one of the biggest issues affecting their work (25 percent in both regions), while those in Europe and Central Asia and the Middle East and North Africa find this issue to have a slightly lower impact (19 percent and 16 percent, respectively).

While scholars and activists consider cultural and political factors to be key obstacles to women's political participation via technology, participants in this study did not report these issues as top barriers. This is possibly because the survey distribution focused on NDI's current program participants and other politically engaged women, a demographic which is highly educated and urban. Nevertheless, around 16 percent of participants globally found that women's discomfort or inability to access technological tools in public, as well as the threat of censorship or digital surveillance, was an obstacle. Women in Asia are most likely to report discomfort with using technology in public (23 percent), while women in Europe and Central Asia and in Latin America are most likely to consider censorship/digital surveillance a barrier to using technology in their work (20 percent).

Globally, women who participated in the study believe that reduced costs of Internet access would facilitate using technology in their work (49 percent). Social media training courses (47 percent) and computer training courses (44 percent) are also highly rated as useful solutions, despite only 16 percent of women globally citing that they have difficulty in using technology. Study participants also find that reduced costs of mobile access would make it easier to use technology (44 percent).

CONCLUSION AND RECOMMENDATIONS

The women who participated in this study are highly educated, overwhelmingly urban, already part of NDI's global network and politically engaged. Given this profile, it is not surprising that they have greater access to digital technologies than the general population in their countries. Barriers to access and use are likely to be more acute for women who do not fit the connected profile of this study's participants. Even among this pool of participants, there are significant variations in access both among regions and within regions, generally reflecting the overall development of a particular region or country. It is critical to keep these variations in mind when crafting technology-heavy programs in any particular country.

Within this group, the Internet, email and computers are the digital technologies most used for both personal and political purposes, while Facebook dominates among social media tools. Mobile phones are also widely used for both personal and political purposes. The **political** purposes for which study participants are most likely to use digital technology are communicating with others, sharing information and accessing information. It is also common to use digital technology specifically for political engagement, such as participation in online discussion or networks and promoting political campaigns. Digital technology is also used to enhance efficiency in the workplace, particularly in coordinating and organizing meetings.

Study participants are most likely to cite infrastructure problems and the high costs of Internet and mobile as barriers to effectively using digital technology in their work. The fact that other members of their community have limited access to digital technology hinders some participants' use of technology, while a smaller but significant group faces sociocultural barriers such as discomfort with using digital technology in public and the threat of censorship or digital surveillance. Participants cite lower access costs, training courses on how to use specific types of digital technology and resource centers at which they can use these tools as key methods of addressing these barriers, highlighting the need for both incremental programmatic initiatives and long-term structural change.

These barriers to effectively accessing and using technology can also be viewed through NDI's new gender, women and democracy theory of change, which looks at women's participation in three areas: the individual, institutional and socio-cultural aspects of political participation.

- Individual: Do women have the access to digital technologies and the skills to use them? Are there other issues such as literacy that impact their ability to use technology?

- Institutional: Does the cost of Internet and mobile phone usage create a barrier to women's political participation? Are there free or low-cost services available? Is there a lack of attention paid to building women's technology skills?

- Socio-cultural: Are digital technology platforms in the home (phones, computers, tablets) owned or controlled by someone else? Do women face challenges to accessing technology in public spaces where they might not feel safe (Internet cafes, etc.)? Does family or government monitor usage? Do time constraints due to disproportionate domestic care responsibilities impact women's ability to seek out technology?

The checklist provided as part of this report (page 18) provides more detailed questions to guide practitioners through the creation of gender-sensitive technology programming. While thinking through the project lifecycle, however, NDI and other democracy and governance practitioners should keep these survey trends in mind:

Ensure programs are not reinforcing existing gender norms or further marginalizing women from political engagement due to use of technology selected for the program and the way it is used for program activities. The survey findings show considerable variations between countries and regions, so it is important not to assume access and usage levels but to do a thorough context analysis for a specific project. Research during program design will help to better understand how and whether women and men have access and the skills to use the desired platform. If they do not, it will be necessary to choose an approach that will be more accessible or build in considerable resources for promoting access and skills building for the higher-tech platform.

Use blended approaches to technology programs. In most cases, it will be necessary to offer multiple access points across the technology spectrum (low-tech to high-tech) for program participants in order to promote accessibility across the target group(s), particularly when seeking to reach citizens or other large groups that span socio-economic, geographic location, gender and other aspects (such as political party members).

Integrate technology skill building components into women's political participation activities.[20] Training in technology skills and social media were two of the highest survey responses for solutions to women's ICT barriers. By addressing this area over time, women will build their skills and confidence in using technology for political engagement and it will contribute to a culture of ICT among women in politics.

Include the use of technology centers (where possible) in program development to allow women to access these tools. Women participants in the survey focused on the need for convenience and accessibility when it comes to the use of these digital technologies. Ensuring that they have spaces in which they can access these technologies at low or no cost will allow them to be more comfortable with using the tools and to balance the learning of skills with practicing the skills to perfect the usage of digital technologies within their lives. These resource centers may also provide opportunities for networking and information sharing among those who use them.

> *Mali Women's Leadership Resource Center: In 2014, NDI launched the Women's Leadership Resource Center in Bamako, Mali. The resource center offers internet-connected computers allowing visitors to conduct online research communicate by email and social media and collaborate with other women around the world through NDI's iKNOW Politics online network. A library of manuals, guides and other volumes on subjects such as leadership, democratic governance, communication techniques, campaign strategies and project planning is available to provide readers with practical tools, inspirational stories and academic background. The center also provides a space for groups promoting women's leadership to meet and plan activities.*

Integrate gender into ICT-related activities. Not only should programs build women's skills to help level the playing field for women in technology, but practitioners and the technology community should consider women's participation regardless of the ICT program focus. When conversations about technology and democracy are held and as new technology platforms become available, ensure that women are part of these activities and that gender considerations are taken into account. This can also help to reinforce women as producers and not only consumers of technology.

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20. Gender and ICTs in CEE/CIS, page 32.

Kosovo Week of Women and Twitter: Kosovo NDI's annual "Week of Women" event in Kosovo brings together over 100 women for a week of panel discussions, skills-building sessions and networking and strategizing opportunities designed to promote women's advancement in politics, business and society. The Week of Women in 2014 was co-hosted by participants from Week of Women 2012 and 2013 and the Women's Caucus of the Assembly of the Republic of Kosovo. The Week of Women program is funded by the U.S. Agency for International Development. One highlight of the 2014 Week of Women was a Twitter session with Madeleine Albright, former U.S. Secretary of State and NDI chairman, who urged the participants to use technology to boost their political engagement. With technical support provided by NDI, many participants opened social media accounts at the event to start building networks and communicating their views.

Consider whether technologies can realistically further project goals. Programs should first focus on achieving their goals, and then determine the appropriate program strategies and tools. If a technology-focused component is deemed appropriate, determine the type of tools based on a thorough gender analysis of the context and access considerations.

Prioritize and build in resources for ongoing monitoring and evaluation in order to course correct as needed. Gender-sensitive monitoring and evaluation should be built in from the beginning and should be part of considerations when selecting technology tools. Questions one might ask are whether the tool has the capability of gender disaggregation of users and, if not, how the program will collect this information through proxy metrics or other avenues.

Democratic Republic of the Congo: Molongi Blogging Initiative: In the Democratic Republic of the Congo, NDI supported the creation of the Molongi Initiative, a blogging platform to help Congolese women involved in politics use technology to help them communicate, share information on issues important to them and raise their profile. "I'm happy about this initiative because NDI chose to promote us and to give us the tools to bring us up to par [with men] in terms of technology," said Therese Kongolo, one of the participants. "This initiative is unique because it stimulates us and encourages us to fully use ICT tools." The Molongi Initiative grew out of NDI's Tomikotisa Program, which, among other things, works to promote women and young people in political parties. Through the program, funded by the U.S. Agency for International Development, 30 women from political parties and civil society received training on blog creation, design and maintenance.

Mexico's 2 percent and More Women in Politics Advocacy Campaign: NDI-Mexico developed a program to help local groups advocate for increased women's participation in politics and to raise funds for the cause. The program originated as a response to a government campaign to promote a provision in the federal election code that designates 2 percent of federal political party funding for women's leadership training. Unfortunately, this provision had been ignored and instead used to earmark funds for other expenses. The "2 percent and More Women in Politics" program began by building a coalition of women from all of Mexico's political parties, academics and civil society members. This coalition developed a social media campaign with the use of Twitter and Facebook and circulated an online petition calling for reforms from Mexico's federal election commission. With the use of these tools this group was quickly able establish a campaign, expand the number of people engaged in the movement and apply direct pressure on the Electoral Council for change. As a result of the campaign, the Federal Electoral Institute unanimously approved the reforms in July 2011 and set guidelines on how parties could and could not use their training funds. With these guidelines set the 2012 elections saw historic gains for women's representation in national politics with a 5 percent increase from previous elections, with 184 of 500 seats in the national legislature going to women candidates.

WOMEN, TECHNOLOGY AND DEMOCRACY: GENERAL PROGRAM GUIDANCE

The following checklist provides basic questions democracy and governance program practitioners should consider as they design, implement and measure programming. While not exhaustive, it will support practitioners to mainstream gender considerations throughout activities.

Program Design

When exploring the context for ICT-related programs, incorporate a gender perspective to ensure that women and men's needs are taken into consideration as part of analyzing the political and the ICT context in the country. In the initial phase of designing a program, practitioners should collect gender disaggregated data on literacy, income and technology accessibility and usage to inform this process.

- ❏ Do men and women have equal access and control of technology resources (generally and specifically those that might be used in the project)?

- ❏ What are the differences in access to ICTs among women and men, especially the Internet and mobile phones?

- ❏ What are the differences in usage of ICTs among women and men (how, where, when and why are they already using ICTs)?

- ❏ What socio-cultural challenges and realities could result in further political marginalization and/or barriers to technology access and usage?

- ❏ Do women have the necessary education, training and skills required to participate in the potential ICT program components?

- ❏ What are the gender-specific ICT issues with regard to privacy, safety and security? Would using this technology put women or men in particular danger? Are there ways to mitigate personal risk?

- ❏ What financial barriers exist for women and men that might influence technology access and usage for the project?
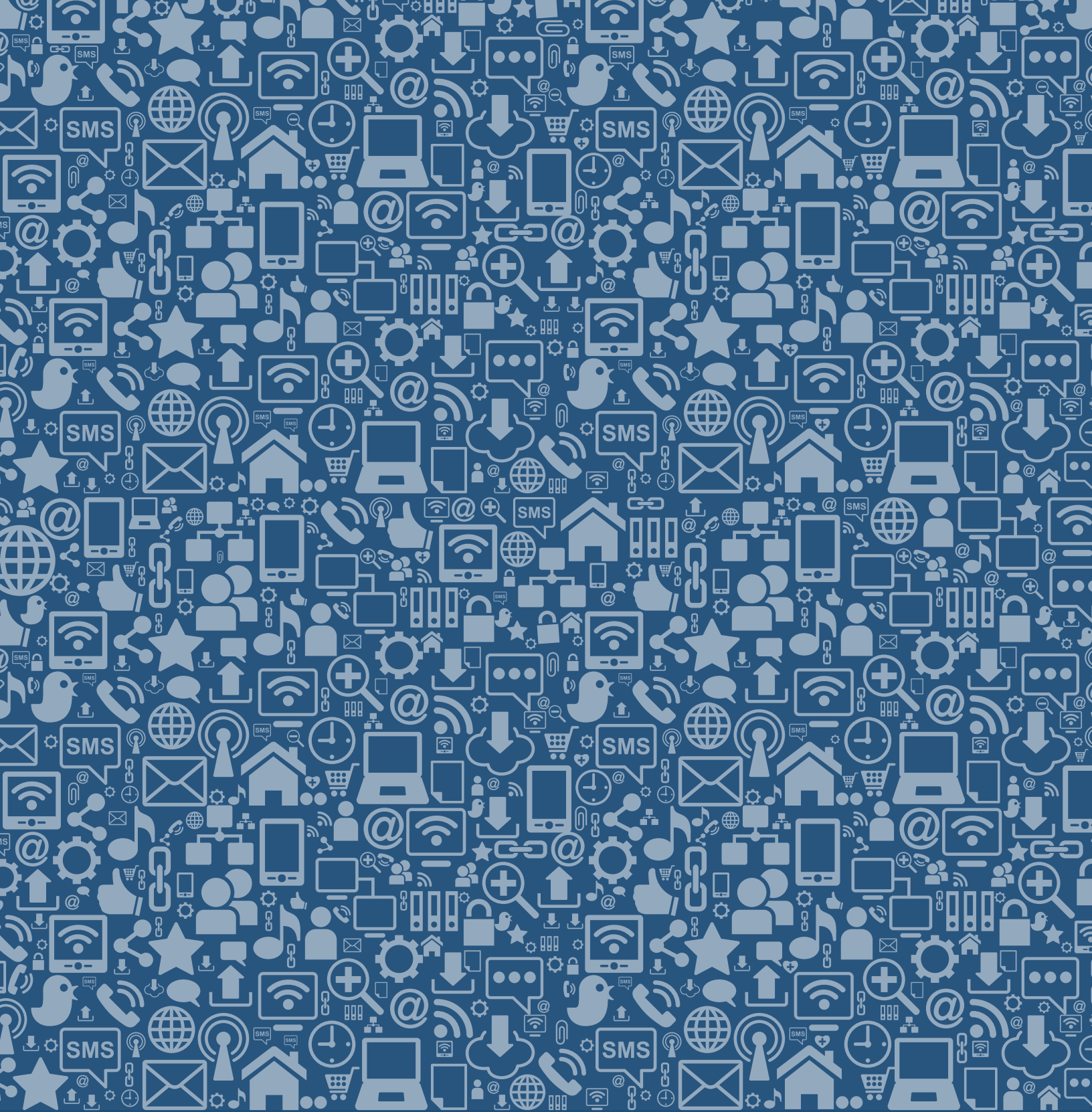
Program Implementation

Program staff should continue to consider gender during the program's implementation, even after conducting a thoughtful analysis and design of the program. The following questions and recommendations are designed to help practitioners as they conduct activities, as well as to identify gaps or obstacles related to gender during the program so that adjustments can be made as needed.

❏ How will the project foster equitable access to project ICT resources, including equipment, training and facilities for women and men? For example, are the platforms available on computers at resource or community centers, constituency services offices, or partner organizations' computers?

❏ What opportunities and needs exist to build awareness about gender and ICT issues among partners (advocacy groups, domestic election observers, etc.) that are using technology in programs?

❏ If it is likely that women would be underrepresented in project activities without targeted support, what actions are needed to recruit and retain them? Are there partnerships that could enhance outreach and improve access to/for women to the project, particularly the technology components?

❏ Following regular meetings with key partners to collect and analyze feedback and usage data from participants program, are adjustments to ICT platforms and program activities as needed?

Program Evaluation

As part of overall monitoring and evaluation efforts, programs should monitor the project tools and activities to ensure that women and men are benefiting equally and that the project is not furthering gender gaps in participation. This can be done through the use of gender-sensitive indicators (qualitative and quantitative) and gender analysis of the data collected.

❏ Collect and analyze gender-disaggregated data throughout the program for different technology mediums used, as possible, to understand access and usage patterns.

❏ Capture gender-disaggregated data when conducting pre- and post-workshop surveys or requesting other types of feedback from technology programs/platforms should also capture gender-disaggregated data when possible.

❏ Follow up with participants when the numbers show gender disparity in participation or benefits in order to better understand why this is happen and take steps to address it.

❏ Build in appropriate follow up, which will depend on the nature, scale and scope of the program, after the conclusion of the program to understand the program's long-term impact. This data should be gender disaggregated and compared to the initial information gathered in the development stage, or any baseline analysis that was available, to understand how the program promoted women and men's participation. Activities might include follow up questionnaires or surveys, tracking and analysis of online platforms or other data (text usage, etc.) as well as focus groups.

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