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Empowering Women: The Synergistic Empowerment of Women through Technology and Legal Frameworks in Achieving Gender Equality

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The paper explores the transformative role of technology and law in empowering women and advancing gender equality. It highlights the historical context of women's rights, discussing the challenges faced by women throughout history and the incremental progress made through social movements, legal changes, and technological advancements. The impact of technology on women's rights is examined, focusing on improved access to education, economic opportunities, advocacy platforms, and healthcare services. The paper also discusses the digital divide and the need for collective action to ensure technology is accessible and inclusive for all women. Legal frameworks supporting gender equality are analysed, including international conventions, national constitutions, and domestic legislation aimed at eliminating discrimination and promoting women's rights. The paper emphasises the importance of implementing and enforcing these laws effectively. The integration of technology in education and skill development is explored, highlighting how online learning platforms, digital literacy programs, and e-learning have democratized education and provided women with opportunities to acquire new skills. Finally, the role of technology in combating gender-based violence is discussed, showcasing how digital tools and platforms offer innovative solutions for support, reporting, and legal recourse. The paper concludes by emphasizing the need for collaboration among stakeholders to harness the power of technology and law in creating a more equitable and inclusive society for women.

Keywords: *feminist history, technology, gender equality, rights.*

INTRODUCTION

The real estate industry is the second largest employer in India after the agriculture industry. Technology and law have played a monumental role in enabling women, promoting great strides toward gender equality, and ensuring rights for women. Throughout history, women have faced substantial gaps in many areas such as education and training, employment opportunities and job quality, health care, political participation/representation, etc. But, the unprecedented era opened with modern technology and advancing legal reforms have made space for such unimagined opportunities. This technological shift has revolutionized the way women are informed, communicated, and integrated into the economy.¹ The internet has become an extraordinary medium for advocacy, learning, and entrepreneurship opening up a world of opportunities for women to come together like never before. The increase of new social media campaigns and online communities across the globe, brought up a large awareness about gender through supporting women's rights in general as well amplifies women's voices from around the world. Moreover, at the legal level, many countries have enacted various laws and policies to develop gender equality and advocate for women's rights. Some of these legal frameworks also covered discrimination, violence against women, the right to have health and reproduction needs met, as well as rights in the workplace. International conventions, especially the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), have established certain standards in promoting and guaranteeing women's rights that require countries to legislate appropriately at their national level.²

Further technology has helped women to have greater access to education and skills development, With the help of learning platforms and digital literacy programs, more women can access knowledge and skills today. This means opportunities are no longer confined by

¹ Ingrid Vasiliu-Feltes, *Impact of Women's Empowerment on SDGs in the Digital Era* (IGI Global 2022)

² Margaret Schuler and Sakuntala Kadirgamar-Rajasingham, *Legal Literacy: A Tool for Women's Empowerment* (OEF International 1992)

geography or social connections now! However, the trend has given women more chances to be involved in different fields such as science, technology, and engineering or mathematics (STEM) which were usually dominated by men. Legal reforms have played a major role in enabling the economic empowerment of women. And with the introduction of policies such as equal pay, maternity leave and protection against workplace harassment women have become an integral part of work culture. Other provisions through the law that have equally supported women to actively engage in economic activities and gain financial independence include their rights to credit and control over property, among other resources. Once again, technology and law make a significant contribution to countering gender-based violence. These include mobile applications and online platforms, which offer them access to resources they can use and support to report an abuse case as well as seek help. Legal action in the form of tougher punishments for offenders and protection orders for survivors has further strengthened the challenge against domestic violence and sexual harassment.³

However, there are still some issues to be addressed. The assertion is underpinned by some development challenges such as, though not limited to; the digital divide, socio-cultural impediments, and ineffective enactment of laws among others. In addition to this, the blistering speed at which technology is changing offers up both opportunities and threats alike.⁴

HISTORICAL CONTEXT OF WOMEN'S EMPOWERMENT

The historical background of women's empowerment highlights the age-old fights for gender equality and the changing dynamics between socio-political development that has marked a woman in myriad ways throughout history. The majority of human civilizations have traditionally expected women to stay at home and take care of the house, rather than seek out opportunities for political participation, economic autonomy, or education. These embedded disparities in gender relations—and eventually tore them down. Even though we did have some powerful women in ancient cultures including Mesopotamia, Egypt, and Greece within these civilizations the role of a woman was still secondary compared to men. During ancient times

³ Samia Melhem et al., *Information and Communication Technologies for Women's Socioeconomic Empowerment* (World Bank Publications 2009)

⁴ *Ibid*

women in Greece were generally excluded from politics and participation tended to be limited only to those exceptional individuals who held domestic authority. It is also the case in medieval Europe, when women's roles centred on familial and reproductive duties, with numerous such as the Salic Law explicitly precluding females from inheriting assets or administering public office. Conditions of this nature were not absolute as we saw with several exceptions where women did hold a significant amount of power and influence, like queens and strong noblewomen. These cases however were, as one might presume, the exception and not the norm.⁵

The conversation on women's rights took an interesting turn in the 17th and 18th centuries, with the bright dawn of Enlightenment. Philosophers such as Mary Wollstonecraft started to call for the education and empowerment of women, spawning what later developed into modern feminism.⁶ Wollstonecraft's most famous work, 'A Vindication of the Rights of Woman' (1792), petitioned for ladies' uniformity and stressed that instruction is one way to arrive at this objective.⁷ Also comments about women's role in social and political movements. The 19th century also saw more formal and self-assertive movements toward women's rights regardless, especially in Europe and North America. Seneca Falls Convention The first women's rights convention gave birth to the Declaration of Sentiments in 1848 at Seneca Falls, United States where it demanded equal rights for social, civil, and religious to American women. Leaders such as Elizabeth Cady Stanton and Susan B. Anthony led campaigns for women's suffrage, education, and legal rights. Their many years of work led to incredible achievements, including the passage of the 19th Amendment in 1920 which gave American women the right to vote.⁸

At the same time, Women's movements grew across the globe. In the UK, a violent extremist campaign against voting rights was led by suffragettes and so resulted in the Representation of the People Act 1918 which allowed more women to vote but only if they were aged over 30. This

⁵ Mark Kartwright, 'Women in Ancient Greece' (*World History Encyclopedia*, 27 July 2016)

<<https://www.worldhistory.org/article/927/women-in-ancient-greece/>> accessed 15 June 2024

⁶ Paul Meany, 'Freedom and Feminism: The Philosophy of Mary Wollstonecraft' (*The Austrian Austrians*, 08 March 2019) <<https://austriancenter.com/freedom-feminism-mary-wollstonecraft/>> accessed 15 June 2024

⁷ Ewa Lechman, *Technology and Women's Empowerment* (Taylor & Francis 2021)

⁸ Elaine Showalter, 'Feminism in Literature' (*E Notes*) <<https://www.enotes.com/topics/feminism/critical-essays/womens-literature-19th-century>> accessed 15 June 2024

gave rise eventually to universal suffrage for all women over the age of 21 in 1928. What set the Chilean feminist movement apart is that since its origins it was more focused on solving issues ahead of us without links to separatism like in other parts of the world in which women's movements were tightly interwoven with larger anti-colonial and nationalist dynamics. For example, Sarojini Naidu in India played a significant support role in achieving independence from British colonialism and at the same time fought for women's rights. The mid-20th century was a landmark period for women's empowerment in terms of legal and social development. An example would be the aftermath of World War II, and the change in gender roles that occurred as many women who were working during the war did not want to lose their postwar economic independence. The United Nations, formed in 1945, was recognized as an important international forum for the worldwide promotion of women's rights. The adoption of the Universal Declaration of Human Rights in 1948 established that there is equality between men and women, which became an enabling condition for future international conventions and treaties on the rights of this type.⁹

The second wave reached its peak in the 1960s and '70s. Concerned with a multitude of issues, including reproductive rights, workplace equality, domestic violence, and more improper treatment of women for their gender.¹⁰ The same era also marked the beginning of a succession of prominent legal reforms, including the Equal Pay Act of 1963 and the Civil Rights Act of 1964 in the United States on employment discrimination and education gender equity. 1979: Adopted in 1979 by the United Nations General Assembly, The Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW) is known as the Bill of Rights for Women and has been ratified by over 180 countries. These foundations have continued to develop into the late 20th and early 21st centuries with a growing emphasis on intersectionality, recognizing that many women's experiences of oppression are shaped by other factors including race and sexual orientation; as a result, it can sometimes be difficult in feminist discourse to distinguish

⁹ Sanjana Ray, 'Celebrating the legacy of Sarojini Naidu, the driving force behind women's equality in India' (*Your Story*, 13 February 2017) <<https://yourstory.com/2017/02/celebrating-legacy-sarojini-naidu-driving-force-behind-womens-equality-india>> accessed 15 June 2024

¹⁰ Irene George and Moly Kuruvilla, *Handbook of Research on New Dimensions of Gender Mainstreaming and Women Empowerment* (IGI Global 2020)

between ideas related to gender and those not.¹¹ It follows the #MeToo movement, that swept across several countries in 2017 (and even later), bringing to light the problem of sexual harassment and assault by prompting expert-driven conversations along with policy initiatives around focusing on women's space and rights, workplace, etc.

Technological advancement also marked a turning point in the history of women's empowerment. The internet and social media have empowered women to organize, exchange information, and demand their rights on a global level. Similarly, access to education and healthcare has been greatly enhanced through digital technologies, especially in places where traditional boundaries have always seemed impossible to break. 'Technology has helped women start their businesses, gain financial independence, and ultimately aid in economic growth,' said a female founder. Even though tremendous progress has been made, and helped many women across a variety of countries to improve their status.¹²

Gender-based violence is still an ongoing issue around the globe, where in various places cultural and societal values act to prevent women from fully enjoying the same rights as men. For all the challenges identified in this report, there are also many solutions: through continued efforts to ensure that existing legal protections are adequately laid down and sufficiently wide-reaching; by shifting culture over time as norms evolve for the better; and with targeted investment in technology to create more inclusive and equal societies. In the end, historical knowledge of women's empowerment shows that century after century, decade after decade, generation after generation... women and the people who support them have kept fighting for gender equality. This trifecta of social movements, legal changes, and technological advancements have all contributed to the accelerating pace at which women's rights have been achieved. As we face these and future challenges, it's so important that we look back at this long line of struggle and incremental progress to move forward together. Working towards a new day where women are empowered to fully reach their potential, participating as equals in every part of life.

¹¹ 'Civil Rights Act United States (*Britannica*, 1964) <<https://www.britannica.com/event/Civil-Rights-Act-United-States-1964>> accessed 15 June 2024

¹² *Ibid*

IMPACT OF TECHNOLOGY ON WOMEN'S RIGHTS

Technology has brought about significant and layered changes to women's rights, dramatically changing the face of gender equality and women's empowerment. With technology increasingly advancing, often at rates that seem to rocket far ahead of what we can adopt or control, it's become an important tool for shifting the foundation; creating new avenues of education and economic contribution and social contributions – as well as new channels for advocacy. While these challenges are not to be trivialized, women have historically faced systemic access barriers to receiving information and having key relationships. Digital technologies and the internet, however, have created vast new opportunities for women to break free from being isolated by various circumstances and claim their rights globally. One of the biggest ways in which technology has impacted women's rights is through education.¹³

Access to knowledge: Online learning platforms and digital resources make it easier for women and girls in the most remote and neglected regions to pursue education and skill enhancement. Massive Open Online Courses (MOOCs), e-learning platforms, and educational apps: MOOCs, online learning programs through Websites. Learning mostly includes Literacy & numeracy but also covers degree level or other vocational courses. Such accessibility has given women a weapon to acquire skills, which in turn brings up better job opportunities and opens the door for business prospects as well as personal development. Moreover, the technology enabled to introduction of virtual classrooms and online communities where women can exchange their knowledge and share ideas to help each other work on projects so that one woman or girl feels responsible for others.¹⁴

In addition, technology has had a profound impact on the economic sphere by enhancing women's ability to participate in the workforce and achieve financial independence. E-commerce platforms, digital payment systems, and online marketplaces have eliminated the barriers to entry for women entrepreneurs. Increasingly, women are starting and growing businesses with almost no capital investment, conducting business with global markets, selling products and services online, and managing businesses from home. The emergence of GIG

¹³ Melhem (n 3)

¹⁴ Caroline Sweetman, *Gender and Technology* (Oxfam 1998)

economy platforms and remote work has also influenced women's financial independence by offering flexible employment options to suit women's various needs and responsibilities.

Additionally, financial technologies have made accessing financial services easier for women. This includes digital banking, microfinance, and peer-to-peer lending, as women can easily save, invest, and access credit in a challenging way. In the same way, technology has played a central role in women's voice amplification and advocacy for their rights. Social media platforms, blogs, and online forums have become powerful tools for women to raise awareness, share personal experiences, and mobilize others to demand change. For example, the #MeToo and #TimesUp movements have used social media platforms to highlight sexual harassment and gender-based violence. Consequently, governments and companies have been compelled to pass direct policies on accountability. Digital media are also crucial in creating global neighborhood support systems. Women meet others from other corners of the world.¹⁵

Tech has also facilitated access to vital information and services about our health; this enables us to make informed decisions. Telemedicine and digital health platforms give women access to medical consultations as well as mental care and reproductive services where traditional healthcare infrastructures are missing or inadequate.¹⁶ Mobile health applications that provide information on family planning, prenatal care, and maternal health enable women to make informed decisions about their bodies and health. In addition to all these, there are modern-day technological factors as well which help individuals (including women) such as wearable health devices or maybe a health app that enables them to track their vitals and get personal advice for maintaining a good life out of those. Additionally, technological developments have informed legal and policy frameworks in that digital technologies facilitate increased transparency, accountability, and public engagement.

E-governance platforms, as well as digital public services, may assist women in receiving access to legal resources, information concerning their rights, and reporting about discrimination and abuse. Technology has also facilitated more democratic and participatory policy-making

¹⁵ Amy Ansehl and Padmini Murthy, *Technology and Global Public Health* (Springer International Publishing 2020)

¹⁶ *Women and Trade: The Role of Trade in Promoting Gender Equality* (World Bank Publications 2020)

pathways, especially when it comes to providing opportunities for women to participate in consultations, share their views, and influence decisions that impact them.¹⁷

While all of this is the good news, unfortunately, there are millions of women globally – particularly in developing countries – who still do not have access to technology and the internet. And that’s a big problem called the digital divide. These are factors that go back to affordability, digital literacy, awareness, cultural mindsets, or infrastructure gaps which all widen the gap of existing gender disparities. Solving it will involve collective action to make technology affordable and attainable for all women, in addition to investment in up-skilling digital literacy and capabilities. In addition, there are opportunities and risks to women’s rights from the fast-changing technological advances. on one hand, technology can help empower women, on the other it may continue to create or upscale existing problems and inequalities.¹⁸

Women are increasingly the subject of digital harassment and cyberbullying, with online violence as a major area of concern. Ensuring safety and security for women online is a precondition that can enable them to access everything else technology has to offer Altogether, the technology women’s rights agenda has been a game changer: transforming possibilities for education and economic participation, as well as for advocacy efforts, health interventions, and governance. ‘Oftentimes, technology allows us to break through those traditional barriers and find new solutions to challenges that have been facing the world for many years,’ she said. Because of the technological advances, women now feel as though they are more emboldened to claim equality.

LEGAL FRAMEWORKS SUPPORTING GENDER EQUALITY

The legal frameworks which ensure gender equality have played a crucial role in the protection of women’s rights and their social, economic as well as political inclusion. These consist of a system of international conventions, national constitutions, and other domestic legislation that are aimed at ending discrimination against women and achieving equality between men and

¹⁷ Mariya Brussevich et al., *Gender, Technology, and the Future of Work* (International Monetary Fund 2018)

¹⁸ Donald A. MacKenzie and Judy Wajcman, *The Social Shaping of Technology: How the Refrigerator Got Its Hum* (Open University Press 1985)

women. While enormous strides have been accomplished in the last 100 years toward achieving legal norms for the acknowledgment and expansion of women's rights, the moral imperative to realize gender equality continues and efforts must be relentlessly pursued. In terms of the international level, several important instruments have provided the foundation for gender equality. The document that re-enforces that all people are born equal is the Universal Declaration of Human Rights (UDHR) by the General Assembly in 1948. It is in this groundbreaking document that made dignity and rights recognized for all regardless of gender: It led the way to follow international treaties and conventions concerned with women's rights. The Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), which was adopted in 1979, is sometimes referred to as an international bill of rights for women. Article 2 of CEDAW¹⁹ required two state parties to eliminate discrimination against women in every field, including education, employment, health care family life, and so on, as well as the implementation of country-appropriate, means to ensure that development and advancement. Although it has been ratified by almost all states the degree of implementation and enforcement varies from state to state-energy-rich Norway is not a signatory.²⁰

Apart from this, other international agreements and declarations also strengthen the pledges made towards gender equality: To this end, the Beijing Declaration and Platform for Action adopted at the Fourth World Conference on Women in 1995 provided an ambitious roadmap to implement women's empowerment, including the required legal and institutional reforms to tackle gender disparity. Goal 5 of the Sustainable Development Goals (SDGs) – adopted by all United Nations Member States in 2015 as part²¹ of a set of targets to end poverty, protect the planet, and ensure prosperity for all – focuses on Gender Equality and aims at effectively addressing Discrimination Against Women. Above all, these international frameworks serve as an important tool for national governments and civil society organizations to lobby for women's rights. Constitution at the national level: Guaranteeing the principle of gender equality as a constitutional provision is an important role for all constitutions. Gender discrimination has

¹⁹ The Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) 1979, art 2

²⁰ *Nepal Gender Equality and Empowerment of Women Project: Gender Results Case Study* (Asian Development Bank 2016)

²¹ 'United Nations: Gender Equality and Women's Empowerment' (*United Nations Sustainable Development*, 19 October 2023) <<https://www.un.org/sustainabledevelopment/gender-equality/>> accessed 16 June 2024

been outlawed in many countries by constitutional provisions, which contain explicit stipulations that no one should be discriminated against based on gender and have equal rights for male and female citizens.²² Take, for example, the South African Constitution of 1996 which contains a strong Bill consisting of Rights that is said to be making no distinction—on stated grounds such as gender and sex and even pregnancy among others. It also requires the state to take positive measures to redress historical injustices and to promote and achieve equality. The same can be said for the Constitution of India, adopted in 1950. which guarantees equality before the law and prohibits discrimination based on sex. It further enables worthwhile discrimination or affirmative action in favour of women to make up for past injustices and guarantee real equality. Apart from the constitutional provisions, most of the countries have formulated extensive gender equality laws and programs targeted at tackling various forms of discrimination against women and implementing all measures for protecting their rights. These laws often include provisions relating to a wide spectrum of issues such as employment, education, health, political participation, and protection from violence. For example, to eliminate the gender wage gap and guarantee that women are paid equally for work of equal value as men most countries have enacted equal pay legislation. Of course, the European Union has included this principle in the Treaty of Rome as well as several directives and regulations (equal pay for equal work).

Finally, passing legislations that ensure enhanced women's political participation is a key to achieving gender equality. The simple majority, quotas, and other affirmative actions were also working in some countries to enhance the presence of women in legislatures and decision-making forums.

Take Rwanda for instance. The African nation has one of the highest percentages of women in parliament worldwide, many credit its constitution and electoral laws which have provisions forcing political parties to adhere to gender quotas among other things. Similarly, countries such as Argentina and Norway have implemented gender quotas to guarantee women a certain representation on corporate boards in the public sector. Another important aspect of judicial reform is promoting gender equality, enshrining the rights of women against all forms of

²² *Ibid*

violence based on their gender. Recognizing that domestic violence, sexual harassment, and other forms of gender-based violence represent major obstacles to women's advancement and well-being, specific laws enacted by many countries to deal with them. To provide an example, Spain's Organic Law on Integrated Protection Measures against Gender Violence of 2004 offers broad protection for the victims of domestic violence from a legal, psychological, and social point of view. One example is the Protection of Women from Domestic Violence Act 2005,²³ which provides civil remedies and protection orders for victims of domestic violence; but also an obligation to put in place support services. Another critical element of gender equality, in addition to that mentioned above, is reproductive rights and health. The legal framework protecting women's right to make decisions about their bodies and access reproductive health services is fundamental for the autonomy of women and their well-being. The legalization of abortion is a sign of great advance and examples in Ireland, Argentina, and Mexico among others show how reproductive rights are being recognized. Furthermore, in addition to the private sector ensures that laws and policies attesting to access to contraception, maternal health care, comprehensive sex education, etc are put forward to help women exercise their rights and enable informed choices about pregnancy.²⁴

There are however significant setbacks, especially in the enforcement and implementation of gender equality laws. Socio-cultural norms, minimal political will, lack of resources, or weak legal institutions may challenge the successful implementation of such laws. Furthermore, legal frameworks should always be updated to deal with new manifestations of the problems (such as digital gender-based violence, intersectional discrimination, and technology's impact on women's rights). For them to contribute to ensuring that legal reform is inclusive and responsive so that the world's women –particularly those who also face other forms of discrimination –feel the benefit, rather than exacerbating their disadvantages. Addressing these challenges requires a multi-pronged approach. Efforts to strengthen legal institutions and mechanisms, and provide access to the courthouse for women are also imperative. One of the training related to enhancement in capacity building will be towards law enforcement and judiciary etc. on gender

²³ *Handbook for Legislation on Violence against Women* (United Nations 2010)

²⁴ Sana Moid and Shailja Dixit, *Women Empowerment and Well-Being for Inclusive Economic Growth* (IGI Global 2020)

sensitivity, human rights, etc. In addition, public awareness campaigns about women's rights and what the law can do for them would encourage victims to demand justice from perpetrators.

As such, civil society organizations are crucial actors both in the advocacy and legal reform processes but also as monitoring bodies of compliance with gender equality laws and reactive assistance to women victims of discrimination and violence. To bring real and lasting change, their efforts, along with those of governments and international organizations, need to be closely coordinated to create an enabling environment that fully respects and protects women's rights. It is a step further to make the law more effective for gender equality while fostering international cooperation and the exchange of best practices. Countries could study each other's experiences in passing and enforcing gender equality laws, copying effective strategies based on the situation. International organizations as well as donor agencies also can come through with capacity-building efforts and technical assistance to reinforce national legal systems. In conclusion, legal frameworks are vital in securing gender equality and the progress of women's rights as well as helping ensure a fairer and more inclusive society. Though there has been major progress at both the international and national levels, continuous work is needed to close what gaps remain as well as any new ones that emerge. Through robust legal protections, sound implementation and enforcement, and a culture that promotes equality and respect for all people, women will no longer have to struggle against society's imagined constraints; they will be free to fully participate in every realm.²⁵

TECHNOLOGY IN EDUCATION AND SKILL DEVELOPMENT

The integration of technology in education and skills development has changed how people, especially women, learn new things and access opportunities to acquire new skills thereby participating more effectively in the global economy. Over the history of humankind, women have always had to be without education due to social and cultural norms and economic limitations. With the explosion of digital and online technologies, education democratized us into an entirely new paradigm where these traditional barriers are crumbling, giving women a fuller freedom to knowledge and skills than ever before. So, this has been a transformation that,

²⁵ *Women and Trade: The Role of Trade in Promoting Gender Equality* (World Bank Publications 2020)

of course, has empowered women and helped them expand their economic horizons as well as promoted gender equality globally. Technology has made it so that different learning styles and preferences for educational needs can be accommodated in all kinds of environments. Online learning platforms like Coursera, edX, and Khan Academy offer courses that spread across the entire spectrum from basic literacy or numeracy through to high school + university-level classes even up to doctorates. These platforms allow women to get an education on their own time, from the comfort of their homes, and usually for much lower costs than what traditional brick-and-mortar institutions charge. Such flexibility is especially advantageous for women active in other domains including but not restricted to care-giving and job opportunities.²⁶

One such tool that has taken education accessibility to newer heights, is the Massive Open Online Courses (MOOCs). MOOCs offer something called access. The ability to bring high-quality courses from the best universities and institutions across the globe into your everyday life, no matter where you live. It is this access that has truly been a game changer for women in rural, remote, and underserved areas who may not otherwise be able to avail of educational infrastructure as it exists today. Bridging the geographic divides, MOOCs allow women to receive skills and credentials from far areas to better their chances of getting employed. Bridging the learning gap: Apart from formal education, technology has successfully accustomed itself to bridging with time the very long-demonstrated need for informal and non-formal learning. There are multiple educational apps, YouTube tutorials, and online forums providing opportunities for you to teach yourself and build your skills. The bottom line is that women all over the world can use these resources to learn a new language, pick up digital skills, and just experiment in their area of interest – usually for little to no cost. It is especially critical for women who cannot make use of the formal models of academics due to economic or social circumstances intertwined with inherent gender disparities. In today's world, digital literacy has become a crucial skill and technology has provided an important platform to enhance such skills among women. Computer literacy programs, coding bootcamps, and digital training workshops to mention a few are initiatives that have provided essential skills for women heading into the

²⁶ *Ibid*

digital economy. Specific organizations focus on providing training and support to women in technology fields who want mentorship, funding, or networking opportunities.²⁷

The rise of e-learning platforms is also revolutionizing vocational training and skill development! Professional fields such as digital marketing, data science project management entrepreneurship, and many more offer professional courses on platforms like Udacity and LinkedIn Learning. Such courses which generally offer practical exercises, simulations, and real-world projects to work on help women to have hands-on experience and relevant industry skills. Furthermore, a lot of these platforms also provide certification programs that add more weight to the CV of learners and as well widen their chances with placement opportunities. The effect of technology on education is also affecting colleges and universities around the globe. Digital transformation is adopted by Universities or Colleges phenomena to revolutionize their teaching through new dimensions. Online degree initiatives, virtual school rooms, and proper mixing mastering have opened the horizons to possibilities that we never knew existed.²⁸ These online solutions offer an alternative for women who might find it harder to attend a more traditional on-campus program, allowing them access to education and opportunities in ways that would have been impossible just a generation ago. Technology has also made it easier for global learning communities of women to form and connect, providing opportunities to collaborate and learn collectively. Women can share knowledge, ask for advice, and create meaningful support systems through the use of online forums, social media groups as well and professional networks. For women or girls in male-dominated fields, communities like this can be extremely powerful as they are rubbing shoulders with peers and also have access to the role models or mentors of their dreams.

In addition, there are new dimensions of thoughtful solutions that technology has given this sector to resolve particular problems faced by women in education. For example, we have seen the creation of mobile learning platforms and educational apps to educate women living in areas

²⁷ Carolina Belalcázar, 'Mobile Phones & Literacy: Empowerment in Women's Hands - A Cross-case Analysis of Nine Experiences' (2015) 45(1) Science and Public Policy <<https://doi.org/10.1093/scipol/scx031>> accessed 15 June 2024

²⁸ *From Access to Empowerment: UNESCO Strategy for Gender Equality in and through Education 2019-2025* (UNESCO 2019)

with no/limited access to the internet. These platforms also generally have offline capabilities, where women can download the course material and they do not necessarily need an uninterrupted internet connection. This strategy, which has been pivotal in successfully reaching women from the hinterlands and semi-urban & urban slum pockets. Apart from the learning of personal concepts, technology has changed how educational materials have been delivered and learned. Interactive and multimodal formats, like videos, simulations, and gamified experiences can increase engagement levels and thus the better retention of information. These novel ways of teaching address various learning methods while allowing education to be more available and fun! For any woman, herself included, who the traditional education system in childhood ensured was poured out of them through the boredom of irrelevant material and a culture that punishes female intelligence, she says such formats can provide stages 2 and/or 3 encouragements.²⁹ The impact of technology on education and skill creation can also be seen in the increase in online mentoring and coaching platforms. Websites like MentorNet, and platforms such as LinkedIn also give women opportunities to reach out to mentors or industry experts who can guide them, support them, and mentor their careers. Such mentoring relationships are important for women and help them to develop professionally, as well as provide some backing to overcome the issues in their career thus gaining ground.³⁰

While technology education and skills development in tech has a lot to offer, however, we face many challenges as well. While the digital divide remains a significant impediment, many women do not have the technology and internet access they need. Other factors such as culture, sociocultural barriers, and gender norms could also restrict women from joining online learning and skill development programs. Meeting these challenges will call for increased effort to improve digital infrastructure, promote digital literacy, and ensure inclusive learning environments that respond to the diverse needs of women. Governments, educational institutions, and private sector organizations are all key to driving technology-enabled education and skill development for females. Policymakers should put more resources towards digital infrastructure and introduce new policies that ensure everyone has access to the technology they need for education. Digital tools and innovative modes of teaching should be

²⁹ Belalcázar (n 27)

³⁰ *Ibid*

leveraged by educational institutions to improve learning delivery as well as access. In the private sector by developing and making available affordable educational technology, linking to digital literacy programs, and offering training, and work experience opportunities for women. Stakeholders must collaborate to develop an overarching and comprehensive strategy towards technology-driven education by pooling resources, expertise, and networks through public-private partnerships, multi-stakeholder initiatives, and cooperation at the international level we can bridge the digital divide and tackle gender imbalances in education. Together, stakeholders can strive for a more inclusive and equal educational ecosystem that supports women to achieve their full potential. In conclusion, technology has profoundly influenced education and skills development overall. It is creating new opportunities for women enabling them to learn, acquire skills, and become part of the global economy. Given that technology can help bring down many more such taboos or stigmas around education making it faster to be erased! Nonetheless, to harness the power of technology for the achievement of gender equality in education, it is indispensable to narrow down the digital gap and increase digital skills while encouraging inclusive learning environments. By working together and adopting innovative strategies, we can leverage technology to build a better, more inclusive future for women and girls around the world.³¹

ROLE OF TECHNOLOGY IN COMBATING GENDER-BASED VIOLENCE

The role of technology in combating gender-based violence (GBV) has become increasingly significant as digital tools and platforms offer innovative solutions to address and prevent such violence. Gender-based violence, encompassing physical, sexual, emotional, and economic abuse, inflicts profound harm upon millions of women and girls globally, violating their fundamental human rights and impeding their full participation in society. Technology, however, has emerged as a potent ally in the fight against GBV, offering multifaceted approaches to empower survivors, raise awareness, provide support services, enhance reporting mechanisms, and facilitate legal recourse. Digital platforms such as mobile applications, online helplines, and social media networks have revolutionized the way survivors

³¹ Asher Flynn et al., *The Emerald International Handbook of Technology-Facilitated Violence and Abuse* (Emerald Publishing Limited 2021)

seek help and connect with support services. Apps like 'Circle of 6' and 'Safetipin' provide discrete ways for individuals to alert trusted contacts or authorities when in danger, often including GPS tracking to aid responders. Similarly, online counselling services, helplines, and chatbots offer immediate psychological support and guidance to survivors, especially in areas where in-person support may be scarce or inaccessible. Furthermore, virtual support groups and online forums create safe spaces for survivors to share experiences, receive emotional support, and connect with others who have faced similar situations, fostering solidarity and resilience. Beyond support services, technology plays a crucial role in raising awareness and educating the public about GBV through social media campaigns, online advocacy, and educational platforms. Hashtags like #MeToo, #TimesUp, and #NiUnaMenos have mobilized millions worldwide, bringing the issue of gender-based violence into the mainstream discourse and challenging societal norms and stigmas associated with GBV. Educational websites and e-learning platforms provide valuable resources and training on recognizing, preventing, and responding to GBV, empowering individuals, communities, and professionals to take action. Additionally, technology facilitates data collection and research on GBV, enabling a better understanding of its prevalence, patterns, and consequences. Digital tools such as mobile surveys and online questionnaires reach broader audiences and gather data anonymously, providing insights crucial for designing effective interventions and policies. Data analytics and artificial intelligence (AI) identify patterns and trends in GBV incidents, informing targeted prevention and response strategies. Moreover, technology enhances legal and justice processes related to GBV by facilitating digital evidence collection, online legal consultations, and virtual courtrooms, ensuring survivors have better access to justice and legal recourse. However, challenges such as digital violence and the digital divide must be addressed to maximize the benefits of technology in combating GBV. Collaboration among governments, NGOs, tech companies, and civil society is essential to develop, implement, and scale technological solutions while mitigating risks and ensuring inclusivity. By harnessing the power of technology and continuing to strengthen legal frameworks and social norms, we can create a safer and more

equitable world where women and girls are free from violence and can fully realize their rights and potential.³²

CONCLUSION

The amalgamation of technology and the law has proven powerful in helping women cross monumental barriers posed, and it has achieved great strides toward gender equality. Legal frameworks combined with technological development radically changed how women can have access to education, economic opportunities, healthcare, and participation in political life to assert their rights and perform at best. Today, technology has been a great enabler for women around the globe – from breaking geographical boundaries through online education platforms to giving women financial freedom and independence with digital banking services. Furthermore, those laws and reforms that have provided the necessary legal infrastructure for gender equality and protect women's rights by introducing it into their national political constitutions, adopting non-discrimination legislation, and mechanisms against gender-based violence are some of them. Technology along with law has collectively created a conducive culture of inclusivity and enablement where there is no space for gender-based stereotypes any longer. However, challenges such as the digital divide and continued social biases against women require further activities to ensure that these benefits are enjoyed by all women, irrespective of their socio-economic status or place of residence. It is only by embracing this opportunity for transformation through technology and embedding the principles of gender equality in our legal frameworks that we will be able to build a fairer society – one where every woman can live with dignity, autonomy, and independence.

³² Sweetman (n 14)