**APPLYING INFORMATION TECHNOLOGY ACHIEVEMENTS IN PLEMENTING LAW ON SOCIAL SUPPORT FOR PEOPLE WITH DISABILITIES IN VIETNAM\***

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According to a survey conducted by the General Statistics Office and UNICEF in 2019, the number of persons with disabilities (PWDs) nationwide was 6.2 million, accounting for 13% of the total national population[[1]](#footnote-1), with the highest proportions of those with mobility impairment and with mental and intellectual disabilities. The various causes of the above-mentioned disabilities include birth defects, illnesses, health consequences of war, poor medical services, and accidents[[2]](#footnote-2). It can be said that PWDs are those with one or more bodily defects or those with decreased working capacity and their disabilities cause difficulties in their work, life and study. The survey results show that households with disabled members are generally poorer and the disabled often have fewer employment opportunities than those without disabilities. Therefore, PWDs should be assisted by both the community and the society. In recent years, the Party and the State have paid special attention to and placed great emphasis on social assistance to PWDs through the implementation of policies on regular social assistance; irregular social assistance; vocational training, job creation; access to and use of public facilities and means of transport; access to and use of information technology... However, in order for social assistance activities to be effective, it is necessary that PWDs receive special support based on achievements of information technology. Information technology (IT) is the key for PWDs to open the door to knowledge, expand their horizons, exploit and promote their potential. For PWDs, IT helps them assert themselves and make contributions to the social development, so that they are no longer afraid of themselves as a “barrier” to their families and the society and free from "societal stigma and discrimination".

**1. The need to apply achievements of information technology in perfecting social assistance policies for persons with disabilities**

**1.1. In international law**

IT plays an important role and is a powerful support tool in people’s lives, including PWDs’. Their physical, mental, intellectual or sensory disabilities, in interaction with various barriers may hinder their full and effective involvement in the society on an equal basis with others[[3]](#footnote-3). Most persons with disabilities and their families have a difficult life and are in need of support. The effective support of IT applications in perfecting social assistance policies has a profound human significance. This is reflected in international documents.

Article 27 of the Universal Declaration of Human Rights affirms: “*Everyone has the****right****freely to participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits*”. To concretize the content of Article 27, Article 15 of the Convenant on Economic, Social and Cultural Rights once again affirms: “The States parties to the present Covenant recognize the right of everyone to enjoy the benefits of scientific progress and its applications.”. In addition, clause 3, Article 15 of this Convention affirms that “The States parties to the present Covenant undertake to respect the freedom indispensable for scientific research and creative activities”. In order to fully realize these rights, the member nations of the convention must implement many measures, including measures of applying IT achievements to improve and preserve cultural values.

Article 9 of the 2006 International Covention on the Rights of Persons with Disabilities stipulates that “*To enable persons with disabilities to live independently and participate fully in all aspects of life, States Parties shall take appropriate measures to ensure to persons with disabilities access, on an equal basis with others, to the physical environment, to transportation, to information and communications, including information and communications technologies and systems, and to other facilities and services open or provided to the public, both in urban and in rural areas*.” Thus, the application of IT achievements is recognized as a fundamental right of persons with disabilities, first of all from the perspective of international law. Furthermore, in the same convention, Article 21 stipulates the right to the freedom of access to information, specifically “*States Parties shall take all appropriate measures to ensure that persons with disabilities can exercise the right to freedom of expression and opinion, including the freedom to seek, receive and impart information and ideas on an equal basis with others*”.

The application of IT achievements in the implementation of social assistance policies varies among people with different types of disabilities. It is done through public services, over the Internet, or in other ways that PWDs can access and use. It is advisable to encourage the inclusion of IT in the implementation of social assistance policies for PWDs to contribute to improving PWDs’ lives. The above-mentioned regulations have proven that international law pays great attention to the IT accessibility and the application of IT achievements in perfecting social assistance policies for this group of vulnerable people.

**1.2. In national law**

To help PWDs adapt to life and integrate into the community and with the motto “no one is left behind”, the Party and the State have constantly paid attention to social assistance policies for PDWs. Visually impaired people are hardly able to read the screen and use the normal keyboard; people who are deaf or hard of hearing are unable to grasp information normally broadcast on radio or television; people with physical disabilities may not be able to use the mouse and keyboard like others. However, to be able to take advantage of IT and its benefits, PWDs need to access and enjoy the achievements that IT brings.

In response to this requirement, the current law promulgates a system of regulations aimed at removing barriers to PWDs using IT to improve their lives. Article 40 of the 2013 Constitution affirms: “*Every one has the right to carry out scientific and industrial research, engage in literary and artistic creation, and enjoy benefits from those activities.*” This regulation defines scientific and technological development as a top national policy, playing a key role in the country's socio-economic development[[4]](#footnote-4). The State encourages all organizations and individuals to efficiently apply scientific and technological achievements. PWDs are among those who have the right to scientific and technological achievements, especially IT achievements to help them ensure their minimum living conditions. To concretize these issues, Article 4 of the 2010 Law on Persons with Disabilities stipulates: “*Persons with disabilities are guaranteed to be provided with healthcare, functional rehabilitation, education, vocational training, employment, legal assistance, access to public facilities, means of transport, information technology and cultural, sports, tourist and other services suitable to their forms and degrees of disability;* ”. This shows that the Vietnamese law has attended to and ensured certain rights and interests for PWDs in many aspects, including access to IT. Also in this Law, the State encourages and gives incentives to organizations and individuals to undertake certain activities to help PWDs have access to IT, accordingly “*The State encourages agencies, organizations, enterprises and individuals operating in information technology to apply and develop information technology reserved for persons with disabilities. The State shall adopt policies on tax exemption and reduction, concessional loans and other supports for research into, manufacture or production of equipment, provision of services and supply of equipment to enable persons with disabilities to access information technology and communication: and support the collection, compilation and publication of documents printed in Braille for persons with visual disabilities, reading documents for persons with sensory and intellectual disabilities.*”[[5]](#footnote-5)

In addition to the above-mentioned law, the 2006 Law on Information Technology also emphasizes the State's preferential policies for organizations and individuals to carry out IT application and development activities for PWDs[[6]](#footnote-6); tax, credit and other preferential policies for research into and development of tools and applications aiming to raise disabled people's capability to access and use sources of information and knowledge by using computers and information infrastructure, as well as production and supply of technologies and IT equipment, services and applications, as well as digital information contents to meet specific demands of disabled people.[[7]](#footnote-7) Thus, both the 2010 Law on Persons with Disabilities and the 2006 Law on Information Technology emphatically encourage all organizations and individuals to undertake activities to assist PWDs in accessing IT. To affirm general human rights and the right to have access to IT in the implementation of social assistance policies for PWDs, Article 8 of Decree No. 43/2011/ND-CP stipulates: “*Web portals of state agencies must satisfy requirements on support for people with disabilities in access to and use of information technology and media under the Ministry of Information and Communications' regulations*.” Ensuring the right to access information and applying IT achievements in improving social assistance to PWDs are also affirmed in the Scheme for Assisting PWDs in the period of 2012 – 2020 with the goal of ensuring 50% PWDs assisted in accessing and using information and communication technology (ICT); Joint Circular No. 19/2015/TTLT-BKHCN-BLDTBXH on encouraging scientific research, transfer and application of production technology developed to assist PWDs, issued by the Ministry of Science and Technology and the Ministry of Labor, Invalids and Social Affairs; Decree No. 13/2018/ND-CP with detailed regulations and measures to implement the Law on Access to Information. The Decree clearly stipulates that information related to PWDs’ lives, daily routines, production and business activities must be promptly publicized on the mass media for the convenience of the disabled. State agencies set up their own web portals and websites which provide basic functions to assist PWDs to access and use them. Not only are the above legal documents of great significance in terms of technological products provided for PWDs, but they are also the motivation and encouragement of the whole community towards PWDs, thereby helping them get closer together for a society without disabilities.

With special attention paid by the Party and State, PWDs in Vietnam have been cared for and their lives have been improved over the years. It has resulted from the application of IT achievements in the implementation of social assistance policies so that PWDs can adapt to life; give themselves suitable job opportunities; be provided with adequate healthcare and vocational training suitable to their types of disabilities; participate confidently in traffic and access means of transport in a convenient way; access public facilities easily.

**2. Applying achievements of information technology in the implementation of social assistance policies for persons with disabilities in Vietnam**

Social assistance to PWDs is one of the activities that clearly demonstrates the rights of PWDs to be protected in the society for the sake of social security. Social assistance to PWDs is implemented through many mechanisms, policies and laws issued by the State. However, in order for social assistance to be effectively implemented, PWDs need support and assistance of those around them and economic policies, and above all, effective support and successful application of IT achievements, so that they can easily adapt to life, participate in community activities and confidently integrate into the society.

***Firstly, information technology helps persons with disabilities adapt themselves to life, ensure their living conditions and improve their lives***

PWDs are those with physical or mental impairments and their disabilities are diverse. PWDs find it hard to integrate into the community because of difficulties caused by their physical impairment and poor health. Achievements and benefits of IT are applied to assist PWDs in adapting to life and removing boundaries between groups of PWDs and the community. Specifically, IT is an effective tool to help PWDs increase their ability to get over their impairment. Computer games, which often stimulate players to think and explore actively, can help persons with intellectual disability in their rapid mental development. Today, with its great advances, IT has a strong and positive impact on PWDs’ lives and their accessibility. The first useful product that IT brings to PWDs is the voice-operated wheelchair, which increases mobility for people with severe disabilities – people with paralysis of arms and legs who cannot use a normal wheelchair with a manual control system. A number of technology-based products have been developed to assist those without arms or fingers who find it very difficult to use the keyboard and computer mouse. Examples include computers with the function of enlarging the screen or with speech recognition which help PWDs access websites with their voices only. Hearing-impaired people who cannot communicate by hearing or speaking normally are assisted by software via text messages, emails, and Internet-based text messages. It can be said that the benefits brought by IT have contributed greatly to improving the quality of life for human in general and persons with disabilities in particular.

It is necessary to promulgate regulations to encourage individuals and organizations to research and invent machines, tools and equipment suitable for various impairments of PWDs to help them adapt to life and ensure their lives. The regulations should focus on rewarding such entities or disciplining them when they infringe on the rights and interests of PWDs.

***Secondly, information technology helps persons with disabilities have more job opportunities***

Currenly only 50% of PWDs of working age have jobs and most of them work in the agricultural sector or have temporary and unstable jobs. Therefore, PWDs do not have a regular income source to cover their daily living costs, so they live in poverty and have to rely on their families, relatives and the assistance of the State and charity organizations. IT is the "hand" of persons with physical and mobility impairments; the "ear" of those who are deaf or hard of hearing; the "eye" of visually impaired persons to help them overcome their difficulties and easily participate in the job market. With benefits brought about by IT, PWDs only need to sit in one place to use machines, electronic technology, and the Internet to study, share and receive information, and IT has become an important advantage for PWDs of working age to participate in the job market.

Information Technology Knight Nguyen Cong Hung is a typical example. He has congenital polio with paralysis of all body and only his left and right fingers can move. Despite his disabilities, he can still work with a computer and is the director of the IT and foreign language training facility of Cong Hung. In addition, Hung also supports and helps more than 30,000 PWDs around the world receive vocational training and find jobs[[8]](#footnote-8). Another example is Nguyen Quoc Toan, Director of NQT Trading Co., Ltd - a company specializing in computers and office equipment. Toan can only move his left hand. He used to learn to repair computers by himself and after some time, he opened an informatics training center and provided vocational training and created jobs for PWDs like him[[9]](#footnote-9). Tran Manh Huy, a person with mobility impairment, is the director of VBPO Software Company in Da Nang, which has up to 30% of employees being PWDs[[10]](#footnote-10). People with hearing and visual impairments can work with the help of IT. For example, visually impaired people can read braille-based documents but there are very few braille-based documents available while they can send or receive materials over the Internet. Thanks to the computer programs of JAW, NDC and Via Voice, they can listen to all contents of the documents they need to read through their computers. Ms. Huynh Thi Khuyen, Vice Chairman of the Blind Association of HM, can type as quickly as a normal person in spite of her visual impairment[[11]](#footnote-11). In the Tax Sub-department of District 1, Ho Chi Minh City, there are 27 PWDs working in IT including 18 PWDs employed permanantly as tax officials[[12]](#footnote-12). With the support of specialized software, PWDs can easily find jobs in such areas as office work; document translation work; data entry work or Internet-based software operation. In addition, a number of other PWDs may be involved in software design and development, analysis technology, web design, network operation or database development.

In reality, many PWDs have changed their lives and their family members’ lives due to the development of IT and the successful application of IT achievements in life issues, including employment. That affirms that IT has been the right direction in choosing jobs and finding jobs for PWDs. However, with physical difficulties and economic conditions (poor families, disadvantaged families,…), PWDs have limited job opportunities. Therefore, they need preferential policies on vocational training as well as offering more job opportunities for them to adjust themselves, overcome difficulties in life, and confidently integrate into the community.

***Thirdly, information technology helps persons with disabilities enjoy social assistance policies on education and vocational training***

Over the past years, the Party and State have had many policies to encourage and support PWDs to access and use IT, created favorable conditions for them to participate in IT application and development activities, and develop their working capacity, which is a practical incentive for PWDs. However, without training, PWDs can hardly use IT, even with sufficient assistive devices and tools. There needs to be a system of legal documents including detailed and specific directions, so that the above-mentioned social assistance policies can easily come into play and thereby PWDs really benefit from them.

According to a survey by the Ministry of Labor - Invalids and Social Affairs, up to now, the majority of PWDs have had low education levels and received no vocational training. Most of them have been unemployed or underemployed while others have had unstable and badly-paid jobs. Nationwide, up to 35.83% of PWDs are illiterate; 12.58% can read and write; 20.74% and 24.13% have finished lower and upper secondary education respectively. It is noteworthy that only 12.1% of PWDs have received vocational training[[13]](#footnote-13). As demonstrated by the above figures, there needs to be attention to and investment in education and training for PWDs. Applying IT achievements in education and training provided for PWDs definitely brings certain benefits to learners, teachers, parents and caregivers. With IT-based education and training, PWDs are encouraged to have greater autonomy, unlock their hidden potentials, and enjoy better learning achievements in a way that they can hardly do it with traditional methods; adjust learning activities and tasks based on their practical skills and abilities. In fact, there are many forms of technological support that can be used to help PWDs in general and students with disabilities in particular, including the text-to-speech converter of Voice of Southern Vienam (VOS), the message reader of VIVAVU, Vietnamese synthetic engine of VietTalk for JAWS; independent mobility devices and tools such as wheelchairs, sliding stairs and elevators (for persons with mobility impairments); electronic devices connected to computers such as computer screen magnifiers in place of normal display screens, refreshable braille displays, enlarging devices (for visually impaired persons); hearing aids and speech-to-text converters (for persons with hearing impairments). Audio documents need to be adjusted with subtitles or sign language in parallel with visual contents which are suitable for the linguistic ability of the hearing impaired.

Besides, support for the implementation of inclusive education at all levels involves developing curriculums and materials for PWDs; providing professional training for managerial staff involved in educating children with disabilities; providing professional training for teachers who directly teach children with disabilities; compiling, producing, and supplying learning materials for students with hearing impairments, and braille books for visually impaired students; developing and disseminating a system of uniform sign language for nationwide use; producing materials of sign language for all school education levels. The promulgation of social assistance policies on education for PWDs helps PWDs exercise their rights and improves efficiency of practical support measures for PWDs to be able to access IT, thereby PWDs can improve their thinking ability and creativity, and also improve the spiritual life of their own and of other PWDs.

***Fourthly, in the implementation of policies on accessibility of public facilities for PWDs***

The Law on Construction clearly defines that construction projects must comply with construction regulations and standards issued by competent state agencies[[14]](#footnote-14), and public facilities must be designed to meet standards developed for PWDs[[15]](#footnote-15). Accordingly, public facilities must comply with the national technical regulations on construction to ensure accessibility for PWDs[[16]](#footnote-16). Currently, 8 types of public facilities that must meet technical standards include hospitals, nursing centers, educational establishments, public service works, apartment buildings, streets-sidewalks where entrances, corridors, exits, stairs, elevators, parking lots, toilets... ensure accessibility for persons with different types of disabilities. Specifically, for example, entrances must have gentle slopes, be covered with non-slippery finish material, be equipped with stair handrails, permit access to a conveniently located accessible elevator or lift with a control panel suitable for people on wheelchairs and visually impaired people[[17]](#footnote-17). The above provisions ensure that PWDs have access to public facilities on an equal basis with non-disabled persons and are in accordance with the principle of "reasonable adjustment" under the Convention on the Rights of Persons with Disabilities. It means that PWDs are guaranteed to enjoy and exercise human rights and fundamental freedom on an equal basis with non-disabled persons[[18]](#footnote-18). The 2010 Law on Persons with Disabilities, the 2014 Law on Construction and the construction standards and regulations issued by the Ministry of Construction stipulate quite fully, comprehensively and in detail the requirements for public facilities for PWDs to access on an equal basis with non-disabled persons. However, the measures to ensure the implementation mentioned in the Construction Law are just too general, so it is not easy to come to life.

***Fifthly, in the implementation of policies on accessibility of transport and participation of PWDs in traffic***

It is necessary for PWDs to travel and participate in traffic to have access to opportunities of information, employment, entertainment and relaxation, to meet their needs of community integration. Like non-disabled people, PWDs can participate in traffic with different vehicles depending on their conditions and personal circumstances as well as travel purposes. With each form and means of transport, there are quite complete regulations to ensure accessibility for PWDs. In terms of the road system, there need to be sidewalks, road sections, overpasses, tunnels and traffic arrangements for safe travel of pedestrians and PWDs which meet the road construction standards of TCXDVN 265: 2002. Accordingly, there must not be uncovered manholes or old trees and tactile ground surface indicators must be placed on sidewalks to guide pedestrians with vision impairment. Traffic signals and road signs should be included with audio signals or Braille to guide visually impaired people to cross the street. Private vehicles used by the disabled must be up to national standards and be suitable for their health. The most popular vehicle is motorbikes which are specifically designed for PWDs. Favorable conditions should be created for PWDs to do motorbike-riding tests and obtain a licence with reduced learning and test fees[[19]](#footnote-19). Public transport including buses, trains, trams, coaches, taxis and planes must be included with tools for wheelchair loading and unloading, seatbelts[[20]](#footnote-20), priority seats, facilities used to help PWDs get on and off conveniently or assist persons with various disabilities[[21]](#footnote-21).

In reality, various means of public transport do not meet the accessibility requirements of PWDs, so the Government determined that in the periods of 2012 – 2015 and 2016 - 2020, at least 50% and 80% of PWDs wishing to participate in traffic could access or use public transport services[[22]](#footnote-22). In terms of infrastructure, the laws specify specific requirements to ensure that PWDs easily access starting points, ending points, stops, and waiting stations with convenient walkways, signs and signals for easy identification and use[[23]](#footnote-23). PWDs need to be assisted and offered seats by non-disabled passengers and employees working for transport companies[[24]](#footnote-24), be given priority to buy tickets and seated, and be offered reduced fares[[25]](#footnote-25). The above legal provisions effectively assist PWDs in participating in traffic. In addition, software applications including Braille and GPS tracking have significantly assisted PWDs to participate in traffic easily. There should be certain legal measures such as fines for failure to give priority to PWDs on wheelchairs and motorbikes, and unhelpful behaviour of employees[[26]](#footnote-26).

It can be said that the legal provisions on PWDs participating in traffic and having access to public transport are relatively adequate, comprehensive, synchronous and in accordance with the Convention on the Rights of Persons with Disabilities, which helps PWDs improve their ability to integrate into the community. However, there is a shortage of detailed and specific measures to ensure implementation, significantly affecting the effectiveness of law enforcement in practice, affecting the implementation of social assistance policies for PWDs.

***Sixthly, in the implemention of assistance policies on cultural, sports and tourism activities for persons with disabilities***

According to Article 14 of the 2006 Law on Physical Training and Sports (amended in 2018) and Article 36 of the 2010 Law on Persons with Disabilities, the State has the responsibility to assist PWDs to participate in and enjoy physical training and sports activities. The State provides funding for PWDs to participate in the design and production of physical training and sports tools and equipment suitable for PWDs, their characteristics and needs. The ultimate purpose is for all PWDs, regardless of age, sex, health, or disability status, to have the right to participate in physical training and sports to improve their own health. However, PWDs can hardly participate in various types of exercise and sports or use exercise tools and equipment due to their physical or functional impairment. There are hardly exercise tools and equipment available which are suitable for characteristics and needs of PWDs. In fact, physical training and sports activities are integrated into the community cultural activities such as entertainment, aesthetics, gymnastics, t’ai chi, sports therapy... The purpose of these activities is for PWDs to participate in physical training and sports activities to improve their health.

***Eighthly, in the implementation of policies on healthcare for persons with disabilities***

Resolution 20/NQ-TW is on strengthening the protection, care and health improvement of PWDs. In the current context, with its rapid development, IT is really significant for enhancing capacity to prevent epidemics; reforming grassroots healthcare; improving the quality of medical examination and treatment; reducing overcrowding in hospitals; promoting vaccination; using technology in the management of medical records and health insurance cards; dealing with payment for health insurance; setting up a system of electronic health books for PWDs. IT is also used for health management, periodic health check-up and care, administrative reform, hospital management, health insurance assessment, electronic medical records, and remote diagnosis, testing and treatment. Applying IT can bring great benefits, reducing resource waste and ensuring effective and efficient use of resources. In terms of healthcare coverage for PWDs, IT contributes to narrowing the gap of accessibility to medical services, improving service quality and reducing costs. Nowadays, a very large number of people own and use smart phones, which is promising to test innovative solutions for healthcare coverage for PWDs. Some IT applications have potential in healthcare for PWDs including electronic health (E-health), telecommunications-based healthcare (tele-medicine), mobile-health application (healthcare application on mobile phones). In addition, in healthcare facilities for PWDs, the softwre for immunization management and software for managing medical examination and treatment for PWDs have been used. The Ministry of Health has now developed a smart healthcare system with three main pillars: smart disease prevention, smart medical examination and treatment and smart medical administration. 99.5% of healthcare facilities in 63 provinces and cities have now connected with the assessment system of Vietnam Social Insurance[[27]](#footnote-27). 100% of hospitals nationwide have deployed hospital information systems, and IT has been widely applied in medical examination and treatment and patient reception. Some hospitals have applied electronic medical records to become paperless and filmless hospitals[[28]](#footnote-28). In addition, artificial intelligence has been applied in healthcare for PWDs, robots have been used in surgery, and software connection in hospital management has formed the initial platform for connecting things.

It can be said that the application of IT in healthcare for PWDs faces challenges that the health system needs to be aware of and be ready to overcome in the process of selecting and applying technological solutions. For example, there is no national health data system; the implementation of electronic documents and mails is still slow; the legal corridor is still incomplete and asynchronous to adjust the behavior of individuals and organizations participating in the healthcare for PWDs.

**3. A number of comments, assessments and solutions to ensure the effective application of information technology in perfecting social assistance policies for persons with disabilities**

Today, one of the greatest concerns of the authorities of all levels, sectors and the whole society is about ensuring that PWDs enjoy basic rights. To ensure these rights, the Party and State are very interested in issuing a series of regimes and policies to perfect social assistance policies for PWDs, in which the application of IT achievements in the implementation of social assistance policies has greatly contributed to assisting PWDs to integrate into life and adapt to current minimum living conditions. However, the current law still has a number of shortcomings, including:

*Firstly*, the provision of the right to access and use IT is encouraged and recommended but there are hardly regulatory mechanisms or measures to assist PWDs. Currently, only a few PWDs enjoy access to websites and the number is growing slowly, not equivalent to the development of modern information technology in the society. There is a website designed for PWDs available to meet their urgent needs where they can give their opinions. However, in reality, the website traffic is very low, some PWDs find it difficult to access the website due to lack of assistive devices and tools or instructions about how to use the IT application software. In addition, the infrastructure is not good enough, the Internet is not available any time and anywhere, and there is a lack of tools to assist PWDs to access IT, especially in mountainous and rural areas and on islands. Therefore, there need to be documents guiding how to use IT and apply IT achievements, based on the local actual situation, to set up electronic information websites and web portals which PWDs can access and use at their convenience.

*Secondly*, as stated in Circular No. 28/2009 TT-BTTTT on assisting PWDs to access and use IT, just a few regulations were mandatory and most of the regulations were recommended. It means that PWDs were faced with many difficulties in accessing and using IT. However, Decree No. 13/2018/ND-CP including detailed regulations and measures to implement the Law on Access to Information has guaranteed PWDs to exercise equal rights and access IT. However, not much information about PWDs’ life, activities and access to information has been promptly published on the mass media. In addition, information providers have not ensured the appropriate forms of information provision; audiovisual equipment has not been arranged as requested by PWDs; staff working in information providers’ offices to guide and assist PWDs have difficulty in signing the request form of information provision. There are few classes to guide PWDs to access IT or these classes are arranged in cities, not in districts or communes.

*Thirdly*, the provision of online public services and ensuring convenient access to websites and web portals to support PWDs in accessing IT has not met the requirements of Circular No. 32/2017/TT-BTTTT. In fact, information websites or web portals set up to meet the requirements of providing information for PWDs are of great importance and need to be paid attention to. However, they are not designed with adequate colors or contrast, blinking words or symbols, automatically moving texts, shortcuts, data tables, titles, marking techniques to link title boxes so that PWDs can access them more easily.

*Fourthly*, persons with various disabilities access IT differently depending on their impairment. In fact, mobility impaired persons need facilities to enhance their mobility, such as orthopedic devices and prosthetic limbs suitable for their mobility, and thereby become more independent in life; hearing impaired persons need hearing aids and want the availability of many news programmes with sign language but only a few programmes are broadcast on a small number of channels and they are actually of low efficiency because of their short time, limited display of sign language and poor reception; persons with vision and hearing impairment want to have text-to-speech or speech-to-text software installed on their computers or smartphones so that they can access the news, stories, books and legal documents, and their important daily work notes. It obviously takes a long time to develop state-of-the-art software and various devices and tools to assist person with various types of disabilities and thereby there needs to be a roadmap.

*Fifthly*, the capacity of health workers is still limited, specifically they may not be good at detecting cases with mobility difficulties promtly; they have not yet understood purposes and functions of various assistive devices and tools; there have not been any assistive devices invented and made from locally available materials; they do not properly understand the process of intervention and management. Therefore, the State needs to offer more training courses to health workers, so that they will do their job of caring and improving the health of PWDs better. In addition, it is necessary to conduct seminars to discuss benefits of assistive devices and tools and IT software application in perfecting social assistance policies for PWDs.

*Sixthly*, the current legal provisions clearly define responsibilities of different stakeholders for assisting PWDs in accessing IT, but there is no penalty system available when those stakeholders do not fulfil their responsibilites, or when they fulfil their responsibilities improperly or incompletely as assigned. In fact, some people have prevented PWDs from accessing IT, living independently, integrating into the society and participating in social activities on an equal basis with others. Therefore, it is necessary to promulgate regulations to clearly define responsibilities of stakeholders and penalties when they do not fulfil their responsibilities or when they fulfil their responsibilities improperly.

It is necessary to propose measures to improve efficiency in accessing and using IT in the implementation of social assistance policies for PWDs, specifically:

*Firstly*, it is necessary to promulgate regulations on the implementation of legal and administrative measures to raise stakeholders’ awareness of their responsibilities for implementing social assistance policies for PWDs. It is also necessary to quickly issue regulations on penalties for stakeholders that commit violations or fail to properly and fully comply with compulsory obligations for PWDs. Next, measures must be taken to monitor, inspect and handle violations when stakeholders commit violations or fail to properly and fully comply with compulsory obligations for PWDs. Cases of failures to implement social assistance policies for PWDs in all aspects of social life can be investigated and people involved can be sued or prosecuted. The State can handle these cases publicly or publicise them widely on the mass media to educate people and change their perceptions, attitudes, and sense of responsibility towards PWDs.

*Secondly*, it is necessary to promulgate legal provisions on appropriate rewards for stakeholders actively promoting research and development of IT applications in the implementation of social assistance policies for PWDs. IT is the "third wave" coming which has positive impacts on almost all socio-economic fields in which PWDS are among the beneficiaries. IT changes PWDs’ thinking, lifestyle and working style. IT does not create changes for PWDs, but it is considered as a means to facilitate knowledge formation, as a means of releasing potential creativity and knowledge in each PWD. IT achievements in the implementation of social assistance policies have helped PWDs adapt to life, improve their productivity, and confidently integrate into the community.

*Thirdly*, it is necessary to soon promulgate policies for officials engaged in research and development and production of assistive devices and tools to help PWDs access IT. In order to successfully apply IT in perfecting social assistance policies for PWDs, the State needs to issue a legal corridor for officials engaged in research and development and production of technological products for PWDs. With the introduction of technological products developed for PWDs, PWDs can protect themselves, adapt to their work, adapt to cultural and sports activities, participate in traffic and access public facilities. That affirms the success of the legal policies on effective assistance to PWDs to boldly apply inventions and creations and patent scientific and technological products to apply in life for PWDs.

*Fourthly*, it is necessary to complete information websites and web portals in accordance with Circular No. 26/2020/TT-BTTTT to provide sufficient basic functions to assist PWDs in accessing and using IT products and services. In order for PWDs to access and use those websites, there must be training and instructions suitable to the accessibility of each PWD provided; there must be audiovisual equipment and assistive equipment suitable for the type and degree of disability of the person requesting information and in accordance with the actual conditions of each agency or organization, so that the approach to technology and assistive equipment are linked together, bringing the best results to PWDs. It is also necessary to promulgate regulations on ensuring interests for those who maintain, develop and upgrade web portals and websites for PWDs and introducee preferential policies on the maintenance of web portals and websites.

*Fifthly*, it is necessary to promulgate regulations on the development of training contents and career guidance in new IT-based forms of training for PWDs. Social assistance policies on education for PWDs have now been concretized and implemented. Specifically, there have been regulations on the use of uniform sign language throughout the country; sign language materials for school levels have been compiled; special education programs have been developed for PWDs; special education majors have been promoted. The education and training activities for PWDs have to be based on IT foundations, thereby helping teachers and learners perform well the functions of counseling, assistance, and professional training, contributing to improving the quality of vocational training for PWDs.

*Sixthly*, it is necessary to define the responsibilities of leaders and managers at all levels for changing and raising awareness of the importance of IT application in managing social assistance activities for PWDs. In fact, PWDs want to work and contribute to the overall development of the society. However, because of their impairment, they are not confident to integrate into the society. Recent IT achievements have partly narrowed the gap between PWDs and non-PWDs so that PWDs can easily participate in community activities. Authorities of all levels are required to change their thinking and take into account the important role of IT when dealing with social assistance policies to help PWDs be confident to work, make contributions and improve themselves.

**Conclusion**

IT achievements are of utmost importance in all areas of social life and for all people. The right to access IT and apply IT is one of the important fundamental rights of citizens. Ensuring the implementation of the right to apply IT in perfecting social assistance policies is a necessary condition to protect the legitimate rights and interests of PWDs, and to assist PWDs in all areas of life. The successful application of IT improves the quality of life of PWDs, guarantees their ability to integrate into the community and constantly improves the social life. For the successful application of IT achievements in implementing social assistance policies, PWDs need to make use of advantages and benefits of IT, take advantage of all assistance in some way to access and use IT features and utilities, which contributes to ensuring citizenship, human rights in general and the right to social security in particular.

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