

REPUBLIC OF THE PHILIPPINES
HOUSE OF REPRESENTATIVES
Quezon City

TWENTIETH CONGRESS
First Regular Session

House Bill No. 4455



Introduced by **HONORABLE RAMON JOLO B. REVILLA III,**
HONORABLE LANI MERCADO-REVILLA, and
HONORABLE BRYAN B. REVILLA

AN ACT
ESTABLISHING THE PUBLIC SCHOOLS OF THE FUTURE IN
TECHNOLOGY AND APPROPRIATING FUNDS THEREFOR

EXPLANATORY NOTE

In the recent years, the education sector in the country became more assisted, if not heavily reliant, on information and communications technology (ICT). Though the current implementation of blended learning is far yet from ideal, given the ICT landscape of the country, it presented the immense promise of utilizing technological innovations in upgrading the delivery of the public education system.

The use of technology can greatly enhance the learning experience through instructional videos, accessible e-books and interactive instructional materials. Virtual classrooms can also host a larger number of students compared to the usual face-to-face classes, which address backlog in physical infrastructure, especially in remote barrios and geographically isolated areas. Integration of electronic devices and cyberspace into the learning environment further equips

the learners with the needed training, values, and competencies for the jobs of the future.

This proposed legislation envisions a transformation in the public education system that facilitates the development of our students and readies the country's future workforce to the opportunities of the Fourth Industrial Revolution. It strives to build on the gains, with respect to optimization of ICT, achieved during the age of the New Normal, and to sustain the innovations and level of modernization that upholds the right of all citizens to quality education at all levels and making such education accessible to all.

This measure was already approved on Third and Final Reading by the House of Representatives during the 19th Congress.

In view of the foregoing, the passage of this bill is earnestly sought.



RAMON JOLO B. REVILLA III



LANI MERCADO-REVILLA



BRYAN B. REVILLA

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Be it enacted by the Senate and House of Representatives of the Philippines in Congress assembled:

Section 1. *Short Title.* – This Act shall be known as the “*Public Schools of the Future in Technology (PSOFT) Act.*”

ARTICLE I
POLICIES AND OBJECTIVES

Sec. 2. *Declaration of Policy.* – Cognizant of the necessity of adopting innovative technologies to attain development in more positive and transformative ways, the State shall:

- a. Uphold the constitutional mandate to accord the highest priority to quality education by providing appropriate mechanisms and resources to ensure the enjoyment of quality education and services by all Filipino students, regardless of social and economic status;

- b. Harness technological innovations, approaches, and instruments in the teaching and learning processes that would enhance the performance of students and teachers;
- c. Provide all learners with the opportunity to enhance individual capabilities and knowledge through information and communications technology (ICT);
- d. Create a system that shall promote and regulate the use of digital technology in public education;
- e. Enhance the learning experience of students by providing them access to digitized copies of necessary reference materials and digital and online content through the use of ICT and other related technologies for the advancement of education in the country;
- f. Provide an accessible complementary mode of learning to allow students to continue their education during national health emergencies;
- g. Encourage the wider participation of private groups, local government units (LGUs) and community-based organizations in content generation and the utilization of the broader sphere of science and technology; and
- h. Promote public and private partnership in improving access to quality education and lifelong learning.

Sec. 3. *Objectives.* – This Act shall pursue the following objectives:

- a. Establish an Inter-agency Task Force to craft and implement the road map for the PSOFT;
- b. Institutionalize a program for the integration of digital technology and innovation in public basic education through the PSOFT Road Map;
- c. Identify key components of the PSOFT Road Map; and,

- d. Provide a public-private partnership (PPP) mechanism to facilitate the attainment of the objectives of the PSOFT Road Map.

ARTICLE II

DEFINITION OF TERMS

Sec. 4. *Definition of Terms.* – As used in this Act:

- a. *Fourth Industrial Revolution* – refers to the ongoing automation of traditional manufacturing and industrial practices using modern smart technology by integrating advances in large-scale machine-to-machine communication, artificial intelligence, genetic engineering, the Internet of Things, and other technologies for increased automation, improved communication and self-monitoring, and production of smart machines that can analyze and diagnose issues without the need for human intervention;
- b. *High Touch, High Tech Framework* – refers to a policy framework supported by the United Nations Education Commission that espouses the need for educators to find a balance between the more modern electronically-delivered and digitally-supported method of teaching and the traditional face-to-face mode, the latter being teaching methods that are founded on a teacher’s capability to identify develop, and improve an individual student’s academic weakness;
- c. *Internet safety policy* – refers to an age-appropriate, research-based policy that regulates the safe, ethical and responsible use of the Internet in public education, promotes an informed and critical understanding of the Internet, and the education of children and communities about how to prevent or respond to problems or dangers related to the Internet and new media; and,

- d. *New media* – refers to emerging digital, computerized, or network information and communications technologies that often have interactive capacities, which includes e-mail, instant messaging, text messaging, web sites, interactive gaming, social media, cell phones and mobile devices.

ARTICLE III

PUBLIC SCHOOLS OF THE FUTURE IN TECHNOLOGY

Sec. 5. *Public Schools of the Future in Technology (PSOFT)*. – There is hereby instituted a PSOFT in all public elementary and secondary schools.

The PSOFT shall adopt the following principles upon administering basic education in the public school system:

- a. Broaden and maximize the use of ICT to aid learning;
- b. Establish a system of upgrading and replacing outdated technology;
- c. Provide technical support to maintain ICT and other technology;
- d. Train and support teachers and students on ICT and other technology;
- e. Develop educators to use ICT effectively in the classroom;
- f. Ensure that the balance between modern and traditional methods of teaching are equally utilized to obtain optimum learning outcomes.

Sec. 6. *Creation of the PSOFT Inter-Agency Task Force (PSOFT-IATF)*.
– There is hereby created the PSOFT-IATF.

The PSOFT-IATF shall, in consultation with concerned non-government entities, including private companies, non-profit organizations, and private educational institutions, develop the PSOFT Road Map, a consolidation of development plans, programs and projects to be implemented by various departments and agencies of the national government for the purpose of advancing digital technology and innovation in public basic education.

The PSOFT-IATF shall be composed of the Head of Agencies or their authorized representative no lower than the rank of an UnderSecretary, of the following agencies: Department of Education (DepEd) as Chairperson and the following as members: (1) Department of Information and Communications Technology (DICT); (2) Department of Science and Technology (DOST); (3) Department of Economy, Planning and Development (DEPDev); (4) Department of Budget and Management (DBM); and (5) Philippine Space Agency (PhilSA).

The PSOFT-IATF shall finalize the PSOFT Road Map within six (6) months from the effectivity of this Act, in accordance with national development goals. The PSOFT Road Map shall be incorporated in the Philippine Development Plan.

Subject to the approval of the DBM, the DepEd, DICT, and PhilSA may create positions as they deem necessary for the effective implementation of this Act, in accordance with civil service laws, rules and regulations.

The Department of Social Welfare and Development (DSWD) shall formulate a program extending assistance to marginalized and disadvantaged students to ensure that they may fully participate in the PSOFT Road Map.

Sec. 7. *PSOFT Road Map.* – The PSOFT Road Map shall serve as the basis for programs and projects aimed at improving the quality of education through the use of digital technology.

The PSOFT Road Map shall be subject to review and amendment, if necessary, every three (3) years.

Sec. 8. *Components of the Road Map.* – The PSOFT Road Map shall include the following:

- a. Physical and Technological Infrastructure
 - i. Universal Access to Internet for Public Schools

- ii. Annual Investment Program for ICT Devices, Tools and Equipment
- b. Enhanced Digital Education Program
 - i. National Human Resource Development
 - ii. Training and Development of DepEd personnel
- c. Digital Reforms in Public School Administration
 - i. Internet Safety Policy
 - ii. Strengthening the Enhanced Basic Education Information System (EBEIS)
 - iii. Digital Alternative Learning System (ALS)
- d. Development of Online Learning Portals
 - i. DepEd E-Learning Resources
 - ii. Public Online Library

ARTICLE IV

PHYSICAL AND TECHNOLOGICAL INFRASTRUCTURE

Sec. 9. *Universal Access to the Internet in Public Schools.* – All public basic education schools shall be provided access to the Internet for the purpose of reducing the disparity in computing and information technology knowledge among public school learners and raising the standards of Philippine education.

In addition to traditional means of accessing the Internet, such as commercially available connections or existing land-based initiatives of government programs to expand access to the Internet, the PSOFT Road Map shall exhaust all options in ensuring internet connectivity for all public schools.

In order to provide the remote areas with digital connectivity, the PSOFT Road Map shall provide cost-effective options of establishing a

telecommunication satellite or installing fiber optic technology infrastructure as part of the National Government Program under the DICT, DOST and PhilSA.

The necessary funding for the conduct of studies to determine the feasibility of implementing a Telecommunication Satellite Program, through building, purchase, or lease of a satellite, shall be appropriated in accordance with the PSOFT Road Map.

Sec. 10. *ICT Devices, Tools and Equipment.* – The DepEd shall provide the following equipment and services in all public elementary and secondary schools: personal computers (PCs), laptops, tablets, learning devices, digital classroom equipment and internet and hybrid intranet connectivity.

The PSOFT Road Map shall include a plan for the procurement of PCs, laptops or tablets for the educational needs of all elementary and secondary public schools. All learners will be provided with the necessary learning devices as stipulated in the PSOFT Road Map. Should budgetary constraints prevent the attainment of such target, the national government shall endeavour to meet a ratio of one (1) device for every two (2) learners from Grades 4-6 to ensure that learners can make use of productivity tools in the conduct of regular classes. The national government shall also maintain one (1) device for every fifteen (15) learners from Grades 7-12 to ensure that learners can avail of weekly classes on ICT topics that require higher computing power.

The PSOFT Road Map shall provide for the establishment of functional digital classrooms in all public schools. Digital classrooms shall be equipped with digital boards, computers, wireless router, multimedia projector, printer, and other necessary tools and devices.

The PSOFT Road Map shall likewise provide for stable and reliable internet and hybrid intranet connectivity. Educators in public schools shall make use of ICT and hybrid intranet connectivity as presentation tools to complement

traditional teaching methods. The DepEd, with the technical assistance of DICT, shall develop an administrative system in all public schools utilizing hybrid intranet connectivity in order to enhance organizational management and administration, and streamline front office procedures.

Sec. 11. *PSOFT Pilot Schools.* – The national government shall establish PSOFT pilot schools in the academic year following the effectivity of this Act. The pilot schools shall be located in Metro Manila, Luzon, Visayas and Mindanao and shall fully comply with the requirements of Article IV in this Act, as follows:

- a. The pilot school shall have full, unrestricted access to the internet and for this purpose shall be equipped with wireless technology or such other modes of connectivity that may be developed: Provided, That school administrators shall closely supervise the access of learners to content in order to protect them from inappropriate, violent, or immoral material;
- b. Teachers shall be adequately trained in all technologies that the pilot schools shall adopt for the use of learners;
- c. All pilot schools shall employ trained information technology specialists to assist faculty and learners; and,
- d. All pilot schools shall provide each teacher and learner with the appropriate ICT devices, tools and equipment to ensure optimum satisfaction in both the teaching and learning experiences.

The DepEd shall, in coordination with DEPDev, conduct an impact study of the pilot schools to determine its potential in improving the quality of education. Additional pilot schools may be established in the following years, subject to the availability of funds and through cooperative arrangements with LGUs and the public sector.

ARTICLE V

ENHANCED DIGITAL EDUCATION

Sec. 12. *National Human Resource Development.* – Students in public elementary and secondary schools must be prepared for the disruptive technologies that come with the Fourth Industrial Revolution and have a significant impact on skills requirements and on creating a range of opportunities for them in the future.

To better equip students to overcome the challenges enabled by ever-increasing technological change and to improve student engagement and achievement, they shall be provided with introductory courses on foundational technology that will enhance their future competencies. The DepEd shall determine the content and mode of delivery of such foundational technology courses and shall introduce them in the curriculum in the school year following the effectivity of this Act.

To allow students to acquire the appropriate aptitudes and competencies on these courses, the PSOFT Road Map shall provide for the establishment of innovation hubs in every school to enable students to hone their skills and techniques using a wide variety of physical and digital tools and equipment. The innovation hubs shall allow teachers and learners to carry out technology-based projects that address local problems in the community.

In addition to the standard ICT curriculum taught for basic education in the public schools, the DepEd shall endeavour to include the following subject matters in its curriculum:

- a. Respecting and protecting personal information on the Internet;
- b. Understanding computer security systems;
- c. Online gender sensitivity;

- d. Proper use of social media and social networking;
- e. Responsible and ethical use of the Internet, photographic equipment, smart phones, and other equipment of similar nature; and,
- f. Insights of Republic Act No. 10175 or the “Cybercrime Prevention Act” and other related legislation.

The DepEd shall, in coordination with the DICT, enjoin the use of the latter’s ICT Literacy Competency and Development Bureau and its relevant specialized ICT subjects to be utilized as elective courses in Grades 11-12.

Sec. 13. *Training and Development of DepEd Personnel.* – The PSOFT Road Map shall determine the training and development needs of school administrators, teachers, and personnel with respect to ICT.

To ensure that teachers are technologically knowledgeable and well-equipped with the right aptitudes and competencies, the DepEd shall establish an Education Technology Division that shall implement teaching programs and utilize technology-based instruction aids for the effective and efficient performance of teachers under the PSOFT Road Map. The DICT shall extend its support in the implementation of training for teachers on ICT, through its ICT Literacy Competency and Development Bureau.

The National Educators Academy of the Philippines shall carry out training programs for educators in public schools and integrate ICT in classroom learning and instruction to highlight the professional and educational benefits that may be derived from personally investing in ICT.

ARTICLE VI

DEVELOPMENT OF ONLINE LEARNING PORTALS

Sec. 14. *DepEd E-Learning Resources.* – The DepEd shall develop an online portal that provides access or links to Internet learning resources. The

online portal shall include the following: e-books and videos, learning materials and teachers guides, materials for senior high school subjects ranging from math, disaster readiness, and science, materials on science, agriculture, livelihood and information technology, interactive exercises on math, science, history and economics.

The DepEd shall develop its own library to ensure the quality and safety of knowledge and information made available to learners.

Sec. 15. *Public Online Library.* – The PSOFT Road Map shall include the establishment of the Public Online Library.

The DepEd, DICT, DOST, the Commission on Higher Education (CHED), and the Technical Education and Skills Development Authority (TESDA) shall, in partnership with the National Library of the Philippines (NLP), the National Book Development Board (NBDB), and other concerned government agencies, develop and main the Public Online Library, a repository of educational materials and digitized copies of books and publications suitable for Filipino students and researchers that shall enrich the learning experience by complementing the textbooks and reference materials prescribed for the elementary and secondary levels. The Public Online Library shall be directly connected to the website of the Philippine Statistics Authority (PSA). The DepEd and the NLP shall have joint custody over the digitized copies of textbooks and references in the Public Online Library which shall be jointly managed by the DepEd and the DICT. In this regard, the DICT shall ensure the security of the online repository system to guarantee its integrity.

The DepEd may solicit additional reference materials and publications from the NLP, other agencies of the government, and the private sector to augment its resources.

The authors of the digitized books and publications shall be strictly covered by the protection provided for in Republic Act No. 8293, as amended, otherwise known as the “*Intellectual Property Code of the Philippines*.” The DepEd and all concerned agencies shall ensure that the authors of the digitized books and publications shall be properly remunerated in accordance with law.

ARTICLE VII

DIGITAL REFORM IN PUBLIC SCHOOL ADMINISTRATION

Sec. 16. *Internet Safety Policy.* – To advance the objective of providing a safe and secured education program under the PSOFT Road Map, the DepEd shall, within six (6) months after the effectivity of this Act, formulate and enforce an internet safety in order to regulate students’ access to content especially against visual depictions that are obscene, pornographic and harmful to minors. In this regard, the internet safety policy shall be implemented to accomplish the following objectives:

- a. Development and implementation of Internet safety education, including safe access to educational technology, multimedia and interactive applications, and online resources;
- b. Development of online risk interventions for learners and children;
- c. Training and support to stakeholders on peer-driven Internet safety educations initiatives;
- d. Undertaking of researches on online risks to form the bases for Internet safety education syllabi and instructional material development;
- e. Development and implementation of a public education campaign to promote awareness of online risks to learners and children; and,
- f. Education of parents to augment school initiatives on safe Internet use.

Sec. 17. *Strengthening the Enhanced Basic Education Information System (EBEIS).* – The EBEIS shall be the central school database of the DepEd which shall contain pertinent personal data and school records of students. It shall be continually improved to ensure the efficient management of school records.

School administrators and personnel shall be trained on the operation and access of the EBEIS and be given access to student records and other related data in the EBEIS such as student's school attendance record, records pertaining to the character of a student, the level of the student's digital literacy and proficiency, grade level, examination scores, school performance, immunization and health records, among others, for purposes of recording student biographical data, handling admissions and discharges, and transferring to other schools.

Any person who is caught illegally altering, falsifying or misusing student information in the EBEIS shall be sanctioned in accordance with R.A. 10173, otherwise known as the "*Data Privacy Act of 2012.*"

Sec. 18. *Digital Alternative Learning System.* – The DepEd shall institute a digital format of the ALS in the PSOFT Road Map. To attain this objective, the DepEd shall provide professional training to teachers and non-teaching personnel involved in this program and formulate the necessary guidelines for its implementation.

ARTICLE VII PARTNERSHIP MECHANISM AND ROLES OF PARTNERS

Sec. 19. *Partnership Mechanism and Roles of Partners.* – In the furtherance of the PSOFT Road Map, the DepEd may coordinate and enter into an agreement or contract with other government agencies, LGUs, private and non-profit agencies, institutions or organizations duly accredited or recognized by the government, civil society, business and industrial sector, and other concerned sectors.

The PSOFT Road Map shall define and delineate the areas of responsibility of government agencies in conformity with their respective charters and mandates. For purposes of this Act, these agencies shall have the following roles:

- a. The DepEd shall be the lead government agency responsible for the proper and effective implementation of the various provisions of this Act and ensure coordination and collaboration among agencies of the government;
- b. The DICT shall provide advice on matters relating to ICT and closely coordinate and collaborate in the implementation of this Act. It shall undertake the installation, maintenance, and operation of hybrid intranet connectivity in all public basic education schools, provide an efficient and reliable broadband connection, assist in the implementation of training and development for teachers concerning ICT and ICT-assisted instructions, and coordinate and collaborate in the provision of digital connectivity in public schools;
- c. The PhilSA shall advise and collaborate with DepEd on matters concerning the use of space technology and relevant space-enabled services to implement the provisions of this Act;
- d. The DOST, CHED, TESDA, DILG, NLP, NBDB, PSA, the LGUs, and other concerned government agencies mentioned in this Act shall provide support and assistance for the attainment of the purposes of the PSOFT.

Sec. 20. *Public-Private Partnership (PPP) for PSOFT.* – The DepEd may pursue PPPs from any of the modalities under R.A. 6957, as amended by R.A. 7718, entitled, “*An Act Authorizing the Financing, Construction, and Operation and Maintenance of Infrastructure Projects by the Private Sector, and For Other Purposes.*”

To this end, the DepEd shall, in consultation with the Private Public Private Partnership Center of the Philippines.

ARTICLE IX AUTHORITY TO RECEIVE DONATIONS

Sec. 21. *Authority to Receive Donations.* – The DepEd is authorized to accept grants, contributions, donations, endowments, or bequests in cash or kind from local and foreign sources in support of the development and implementation of this Act, subject to the regular auditing guidelines and procedures: Provided, That in case of donations from foreign sources, acceptance thereof shall be subject to existing government rules and regulations. The proceeds of such grants, contributions, donations, endowments, or bequests shall be used to finance the following:

- a. Establishment of pilot schools as provided in Section 11 of this Act;
- b. Research, development and utilization of emerging digital technologies;
- c. Provisions of computer laptop units and improvement of ICT infrastructure, including hardware and Internet connectivity;
- d. Training and capacity building;
- e. Conduct of other activities necessary to carry out the objectives of this Act.

ARTICLE X THE JOINT CONGRESSIONAL OVERSIGHT COMMITTEE AND REPORTORIAL RESPONSIBILITIES

Sec. 22. *Joint Congressional Oversight.* – Upon the effectivity of this Act, a Joint Congressional Oversight Committee is hereby constituted. The Oversight Committee shall be composed of ten (10) members with the Chairpersons of the Committee on Basic Education and the Committee on Finance of the Senate, and the Committee on Basic Education and Culture, and the Committee on Appropriations of the House of Representatives as members and three (3) additional members from each House to be designated by the Senate President and the Speaker of the House of Representatives, respectively.

The members of the Committee from each House shall have at least one (1) member from the minority party or coalition.

Sec. 23. *Annual Report.* – The DepEd shall submit to both Houses of Congress, or upon the request by the Joint Congressional Oversight Committee, a report giving a detailed account of the status of the implementation of this Act.

ARTICLE XI FINAL PROVISIONS

Sec. 24. *Appropriations.* – The Secretaries of Education and Information and Communications Technology and the Director General of PhilSA shall immediately include in their respective programs the implementation of this Act, the funding of which shall be included in the annual General Appropriations Act.

The funding for the implementation of PSOFT Pilot Schools under Section 11 hereof shall be charged against the current year's appropriation of the DepEd.

Sec. 25. *Implementing Rules and Regulations.* – Within ninety (90) days from the effectivity of this Act, the DepEd and DICT shall, in coordination with other concerned agencies of the government and the private stakeholders, issue the necessary rules and regulations for the effective implementation of this Act.

Sec. 26. *Separability Clause.* – If any provision of this Act is declared unconstitutional, the remainder hereof not otherwise affected shall remain in full force and effect.

Sec. 27. *Repealing Clause.* – All laws, presidential decrees, executive orders, letter of instructions, proclamations or administrative regulations that are inconsistent with this Act are hereby repealed, amended or modified accordingly.

Sec. 28. *Effectivity.* – This Act shall take effect fifteen (15) days after its publication in the *Official Gazette* or in a newspaper of general circulation.

Approved,