



17th International Conference
December 5-7, 2024 in Osaka, Japan

TECHNOLOGICAL LEADERSHIP FOR SCHOOL ADMINISTRATORS IN DIGITAL SOCIETY

Kritsana Wanasatit

Student of Master in Educational Administration, Suan Sunandha Rajabhat University

E-mail: s66561802062@ssru.ac.th

Thada Siththada

Graduate school, Suan Sunandha Rajabhat University

E-mail: thada.si@ssru.ac.th

Abstract

This article focuses on explaining the nature and meaning of digital society which consists of portable digital devices, digital activities and lifestyle that has changed because of digital technology transformation caused by the use of digital technology in everyday life after the outbreak of the coronavirus (COVID-19). Explains the important of educational technology with technological developments in various fields that is connected and applied to modern education that has been changed in various forms: communication technology, data management technology and technology in strategic planning. Finally, to explain 5 important skills that School Administrator should have: adaptability skills, academic leadership skills, coaching skills, Effective communication skills and the most emphasized aspect is technology skills in the digital society era.

Keywords: Technological Leadership, School Administrators, Digital Society

Introduction

Digital society, although it began before the spread of the 2019 coronavirus (Covid-19), it is widely used in communication and specific user groups who are interested in technology. Because communication devices are expensive and beyond the necessity of normal life in the education system, technology is used only as a specialized subject to keep up with the world. It is widely used in entertainment media such as movies to open new perspectives. It is not yet specified as a core subject for elementary school students or is specified as a necessary skill in life. The education system mainly uses books. Researching with electronic devices is not widespread. Project presentations or meetings use personal presentation devices but do not emphasize sharing data in digital form. Various financial transactions, even though transactions have begun to be done in person via portable devices such as mobile phones or tablets via the bank's personal website, some transactions still require paper identification documents with the signature of the person making the transaction. But when the whole world has come to a halt due to the spread of the 2019 coronavirus (Covid-19) to reduce the risk of infection and reduce close physical contact, the digital society has been stimulated and has played a greater role in life. There has been a reform of new lifestyles in every activity, whether it is teaching, teleconferences worldwide, purchasing consumer goods, the form of official documents has been adjusted and technology has been increasingly used in operations. Knowledge sharing, easier access to information, and widespread use are being made so that students can interact in the classroom without physical contact during this crisis. Technological skills of administrators of both public and private educational institutions in the digital age are essential for acceptance, organizational change, awareness, and appropriate, creative, and effective use.

Digital society is a group of people who have activities related to relationships or transactions together using digital technology regardless of their occupation, age, gender,

religion, status, and place of residence. It is a modern society that is created from the use of communication technology at home, at work, in education, and in recreational activities through advanced telecommunications systems. With wireless connections, the real identity is invisible like in physical society. To exchange information, contact distant families, receive news from the other side of the world closely and timely. It is a communication that is more than just sound. You can see events or the face of the person you are contacting. Especially in digital society after the spread of the coronavirus 2019 (Covid-19) to avoid physical contact or closeness. The rapidly developing technology allows humans to communicate with each other faster and more in real time. Adjusting the way of life in every profession Stimulating online stores When there is a restriction on travel, avoiding contact but humans still need basic necessities such as food and drinking water. Children and youth must socialize to learn, practice life skills together, etc. These things are stimulating digital societies in various forms. Online stores are increasing at an exponential rate. Being able to communicate to obtain these utilities further drives the digital society to expand rapidly and pushes the use of electronic wallets more. Group discussions have occurred, online learning formats have emerged so that the education of children and youth is not disrupted for too long, and flexible learning conditions have emerged when students are unable to travel to school, by introducing technology and supporting devices as part of this new form of learning.

Piyachat Isaraphakdee (2017) explained that the important factors that drive the digital society are:

1. Digital Mobile Devices, such as mobile phones, tablets, or laptops, etc., allow students to access the online world anywhere, anytime and start everything by themselves.
2. Digital Activities, from communication via social networks to activities that connect users together, with the goal of not only connecting but also engaging in various activities.
3. Digital Natives, from the world's population to digital consumers, behaviors that have common characteristics and are consistent around the world.

The digital society is a term used to describe changes in the world brought about by the use of digital technology in our daily lives, whether for communication, education, work or even entertainment consumption. The ability to access information and communicate with people around the world without limitations of time and place allows us to create a more connected society and a large database that can be accessed worldwide.

The emergence of a digital society brings with it many challenges, such as the risk of personal data disclosure, the digital divide caused by unequal access to technology, and the mental health impact of spending too much time on the digital world. Understanding and being aware of these issues is essential to creating a sustainable digital society with good quality of life.

To build a positive digital society, society should focus on education and raising awareness about the responsible of technology use. This includes developing policies and laws to protect personal data and promote equitable access to technology. Building a strong digital society not only drives economic and social development, but also ensures everyone has equal opportunities to access and benefit from modern technology. Further consideration should be given to identifying and appropriately implementing relevant educational technologies.

Educational Technology means the application of scientific principles and tools of the teaching system to help make teaching more effective. It is the application of techniques, methods, ideas, and equipment, including new tools, to help improve the quality of teaching and learning, to solve problems and achieve goals efficiently by using resources economically and appreciatively.

Saowani (1985: 9-10) mentioned about this issue that the Commission on Instructional Technology of the United States of America concluded that educational technology is important to education in 6 ways as follows:

1. Educational technology can make teaching and learning more meaningful, help students learn more widely, learn faster, see and experience what they are learning with understanding, and also allow teachers to have more time for students.

2. Educational technology can respond to individual differences. In using educational technology in education, students will have more freedom to seek knowledge and be more responsible for themselves and society. It opens the way for students to learn according to their abilities, respond to their interests and individual needs.

3. Educational technology can make education management based on the scientific method. It is now accepted that the scientific method is one method that creates progress for every sector. Using educational technology in education will make education management more systematic, with constant research and experimentation of new and unusual methods, and be reasonable according to the changing circumstances of society, so that education management, which is the foundation of the social system, can progress continuously.

4. Educational technology helps make education management more powerful. One thing that plays an important role in teaching and education management is the teaching media, which is increasingly developed to be more valuable and convenient to use. Media is a product of technological advancement. It is well known how powerful media is. Therefore, using media in education is a confirmation that education management will be more powerful.

5. Educational technology can make learning within reach. Learning of learners is not limited to knowledge only, but also instills good skills and attitudes in learners. The use of educational technology allows learners to learn widely. Learners can see the reality of society with their own eyes. It is bringing the outside world into the classroom, reducing the gap between school and society, such as learning through television, movies, slides, etc.

6. Educational technology creates educational equality. The use of educational technology will increase everyone's opportunities to receive education, such as informal education or no rituals (Informal Education), non-formal education (Non-formal Education), making the path to education possible, special education for the disabled and others, free and wide for the advancement of each person according to their interests, needs, and abilities.

Emily Summers (2022) stated that education is constantly evolving, and with today's technology comes new teaching styles. Today's students have more access to resources than ever before. The way education is being taught has changed, in five ways:

1. Classroom Technology: In recent years, computers, tablets, and smart boards have become commonplace in classrooms around the world, and these technologies have greatly improved both learning and teacher effectiveness.

2. Online Classes: Online learning platforms allow students to access quality educational content from anywhere with an internet connection, offering a great opportunity for those who cannot attend traditional school due to geographic limitations or health issues.

3. Personalized Learning: Personalized learning is a teaching method that focuses on meeting the individual needs of each student, including tailoring instruction to student strengths and weaknesses, and providing a variety of learning activities to appeal to different types of learners. It also allows students to explore topics that interest them and develop according to their own cognitive abilities. Personalized learning also promotes students' increased self-reliance and a greater sense of responsibility for their own education.

4. Project-Based Learning: This approach encourages students to explore complex questions and real-world problems from multiple perspectives. By engaging them in practical activities, such as research projects or experiments, PBL helps build critical thinking skills by

allowing students to apply what they learn in class to solve relevant problems or challenges related to those topics. Project-based learning also promotes peer collaboration, which enhances problem-solving skills and promotes social-emotional development. Through real-world experiences, students gain a greater appreciation for the content they are learning and develop a lifelong passion for learning. 5. Increased Diversity & Inclusion Efforts to increase diversity and inclusion in schools so that all students have access to quality educational opportunities, regardless of race or gender identity. Schools must ensure that they are creating an inclusive environment where everyone feels respected and valued for who they are. All school materials demonstrate respect for diverse backgrounds and values. Many schools offer culturally relevant classes to allow students to explore their own heritage and identity.

Communication technologies which developed and used during the pandemic, such as Zoom, Google Meetings, Skype, and Microsoft Teams, enable meetings, group discussions, and online learning, where students and educational administrators can participate remotely and from different locations. Future developments in communication technologies should focus on increasing efficiency, speed, and security of use.

Creation of online lessons in the form of MOOCs as a learning medium for students and the general public, emphasizing self-learning by laying out the content as small modules, combined into chapters, so that students can study at their own time and continue studying until the end of the course. Students can study anywhere, anytime, in large numbers, without boundaries, and can use devices ranging from smartphones to PCs. This is another form of educational technology that has been developed after the pandemic.

Educational technologies such as Booklet, Headspace for Kids, Quizlet, Starfish Class, and Wakelet utilize gamification to create a fun and engaging learning experience for both teachers and students. These platforms enhance knowledge acquisition, improve focus, and provide teachers with tools for accurate record-keeping and student assessment. They also offer quick access to teaching materials and relevant resources, aligning with the needs of today's society.

Oleksandr Mykolaienko (2024) mentioned the rise of new technologies, for example, Artificial Intelligence (AI), Immersive Technology, which the advancement of virtual reality technology, whether Virtual Reality (VR) or Augmented Reality (AR), can help enhance certain experiences, such as seeing environments such as icebergs that are different from the real environment in Thailand, without wasting travel expenses, anatomical surgery that allows biology students to see the internal organs of frogs without having to kill the frogs to study them, etc.

In order to develop and apply any educational technology in an educational institution, the most important person is the school administrator, who should have the necessary technological skills to apply it appropriately.

Technological skills of educational administrators

Educational administrators are professional personnel responsible for managing individual educational institutions, both public and private. They are responsible for setting the direction of the institution's operations. They are knowledgeable and capable leaders who can oversee, manage, and execute administrative tasks within the institution to achieve planned goals and policies effectively.

Paiboon Chantharaksana (2012) stated that educational administrators, according to the National Education Act, are those who can fully perform their duties as defined by law. They must promote educational reform, prioritize the benefits of learners, and possess the ability to manage and utilize resources effectively and economically.

Suphachok Piyasarn (2011) compared educational administrators to generals who develop both children and teachers. Post-pandemic, educational administrators should possess five crucial skills:

1. **Adaptability and Trend Monitoring:** The ability to adapt policies to the school's context, demonstrate a willingness to change to keep pace with the rapidly evolving social landscape, and stay abreast of educational trends.

2. **Academic Leadership:** This crucial skill extends beyond setting strategies and visions. It involves managing learning, understanding child psychology, and enhancing teacher effectiveness within the school.

3. **Coaching Skills:** The ability to mentor and modify teachers' teaching behaviors while maintaining their job satisfaction. When new policies are implemented, administrators must prioritize classroom happenings and create an appropriate learning ecosystem.

4. **Effective Communication:** A vital attribute for senior administrators. It involves managing situations effectively, knowing the appropriate chain of command for addressing problems or needs, and communicating strategically with individuals at all levels to ensure shared understanding of goals and build organizational unity and trust.

5. **Technological Skills and Technology Leadership:** This involves utilizing technology in daily tasks and empowering others to accomplish their assignments. It includes ensuring subordinates receive proper training in necessary technologies. Crucially, administrators must motivate, foster participation, and promote effective teamwork. Appropriate technology provides flexibility in monitoring, evaluating work, saving costs, and streamlining tasks.

Educational leaders should possess strong technological skills, as technology plays a significant role in all aspects of education, from data management and communication to teaching and learning. Technology enhances teaching effectiveness and facilitates access to information and learning resources. Essential technological skills for educational leaders include proficiency in various computer programs, online platforms for managing instruction, data analysis for decision-making, and understanding data security and mitigation strategies. Furthermore, they should be able to evaluate and select new educational technologies appropriate for their institution's learning environment.

Having technological skills not only allows leaders to lead their schools to keep up with the rapid changes in the digital world, but also helps leaders to be good role models for staff and students in embracing change and lifelong learning in this modern era. Quality education therefore depends not only on the content of teaching, but also on the methods and tools used for teaching. Administrators with technological skills will be able to introduce new educational innovations and use technology to improve the efficiency of school management.

Conclusion

The above article reflects the changes in society after the outbreak of the coronavirus (COVID-19), which has affected all sectors of the world, including public health, economy, and society, causing people around the world to fully adapt to the digital society. Digital knowledge and skills are considered basic characteristics of today's society, including administrators of both public and private educational institutions. Technological skills of educational administrators are very important. These skills enable administrators to lead educational organizations to success in this era of rapid change. Important technological skills for administrators include the use of technology for communication, data management, and strategic planning of technology to support teaching and learning and organizational management. Administrators should be able to use social media, email, and online meeting platforms to effectively communicate with teachers, students, and parents. Developing technological skills is an ongoing process that requires commitment and continuous learning

so that administrators can take advantage of new technologies and lead educational institutions into the future with confidence and sustainability.

References

- Ministry of Education. (4 June 2009). *Educational Technology*. Ministry of Education. <https://www.moe.go.th/> Ministry of Education /
- Kritsupach Sarnnok, & Panita Wannapiroon. (2018). Applying Internet of Everything Technology to Create a Ubiquitous Learning Environment for Digital Native. *APHEIT JOURNALS Association Of Private Higher Education Institutions Of THAILAND*, 7(1), 120-134.
- Nattakun Chobjai, & Pornsuda Pramayayang. (2024). Educational Leadership in the Digital Disruption Era and Sustainable Development. *Journal of Academic Surindra Rajabhat*, 2(1), 89-104. <https://doi.org/10.14456/jasrru.2024.6>
- Piyachat Issaraphakdee. (2017). Marketing 3.0 to the era of “digital society”. *BRANDiNG 4.0: From Human Spirit to You Spirit* (Page 37-90). AMARIN HOW-TO
- Paiboon Chantraraksa. (14 May 2012). *Professional Educational Administrators*. gotoknow. <https://www.gotoknow.org/posts/430925>
- Wasan Sricharoen. (24 June 2012). *Meaning of educational technology*. gotoknow. <https://www.gotoknow.org/posts/103678>
- Supachoke Piyasant. (17 May 2011). *5 Skills for “Educational Administrators” in the 21st Century*. StarfishLabz. <https://www.starfishlabz.com/blog/600-5-ทักษะสำหรับ-ผ-ผ-บริหารสถานศ- กษา-ในศตวรรษที่-21>
- Sukanda Jongsermtrakoon. (2023). Contemporary Educational Technology in the Digital Disruption Era. *Narkbhutparitat Journal*, 15(3), 125-135
- Courville, Keith. (2011). *Educational Technology: Effective Leadership and Current Initiatives*. Louisiana State University. <https://eric.ed.gov/?id=ED527339>
- Emily Summers. (2022, Dec 22). *How Education Has Evolved Over the Years*. Through Education. <https://througheducation.com/how-education-evolved/>
- Gronow, Mark. (2007). *ICT Leadership in School Education*. Researchgate. https://www.researchgate.net/publication/242318569_ICT_Leadership_in_School_Education
- Oleksandr Mykolaienko. (2024, Feb 16). *7 Edtech Trends That Will Be Cultivating Passion For Knowledge In 2024*. Forbes. <https://www.forbes.com/sites/forbestechcouncil/2024/02/16/7-edtech-trends-that-will-be-cultivating-passion-for-knowledge-in-2024/?sh=3a5d73c15793>
- Pailin Muchan. (19 มกราคม 2022). *Hybrid Learning*. เทรนด์การเรียนรู้เพื่อปลดล็อกศักยภาพการศึกษาในยุควิถีใหม่. Medium. <https://medium.com/@pailinmuchan/hybrid-learning-เทรนด์การเรียนรู้เพื่อปลดล็อกศักยภาพการศึกษาในยุควิถีใหม่-9667a2081f38>
- Starfish Academy. (26 May 2022). *10 essential skills of a good school administrator*. StarfishLabz. <https://www.starfishlabz.com/blog/817-10-ทักษะสำคัญ-ของผู้บริหาร-โรงเรียนที่ดี>