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# Conceptualizing Digital Citizenship for Digital Natives in Thailand

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**บทคัดย่อ**

การตระหนักในความเป็นพลเมืองดิจิทัลมีความสำคัญอย่างมากในยุคของการเปลี่ยนผ่านทางดิจิทัล โดยเฉพาะอย่างยิ่งกับประชาชนไทยที่เป็นดิจิทัลเนทีฟ เนื่องจากเป็นกำลังสำคัญของการพัฒนาเศรษฐกิจและสังคมดิจิทัลของประเทศ การวิจัยในครั้งนี้เป็นการวิจัยเชิงคุณภาพซึ่งเก็บข้อมูลด้วยการศึกษาเอกสารและการสัมภาษณ์เชิงลึก โดยการศึกษานี้มีวัตถุประสงค์เพื่อศึกษาระบบนิเวศน์ความเป็นพลเมืองดิจิทัล และพัฒนาแนวคิดรวมถึงคุณลักษณะความเป็นพลเมืองดิจิทัลที่เหมาะสมกับดิจิทัลเนทีฟในประเทศไทย ทั้งนี้ จากการศึกษาพบว่า องค์ประกอบของระบบนิเวศน์ความเป็นพลเมืองดิจิทัลในประเทศไทย ประกอบด้วย 1) ดิจิทัลเนทีฟไทยในฐานะทุนมนุษย์ของการพัฒนาประเทศ 2) การส่งเสริมความเป็นประชาธิปไตยในประเทศไทย 3) นโยบายดิจิทัลเพื่อเศรษฐกิจและสังคม 4) พฤติกรรมการใช้สื่อของดิจิทัลเนทีฟ 5) การให้การศึกษาเกี่ยวกับการรู้เท่าทันดิจิทัล (อย่างเป็นทางการและไม่เป็นทางการ) และ 6) ความก้าวหน้าทางเทคโนโลยี เหล่านี้ล้วนมีอิทธิพลต่อการพัฒนาแนวคิดเกี่ยวกับความเป็นพลเมืองดิจิทัลในบริบทสังคมไทย ซึ่งหมายถึง แนวคิดในการปฏิบัติต่อสังคมในโลกดิจิทัลที่เชื่อมต่อไปยังโลกกายภาพ ด้วยความมีมนุษยธรรม เคารพสิทธิและความความแตกต่างหลากหลายของผู้อื่น มีจริยธรรม มีทักษะทางดิจิทัลเพื่อเป็นผู้ที่มีทักษะหลากหลายทางอาชีพ และมีความเข้าใจในอัตลักษณ์ตนเองรวมถึงใช้สื่อดิจิทัลเพื่อสื่อสารอัตลักษณ์ของตนเองได้อย่างเหมาะสมในฐานะคนไทย นอกจากนั้นควรใช้ประโยชน์จากบริบททางดิจิทัลเพื่อการเรียนรู้ตลอดชีวิตด้วยความเป็นพลเมืองที่ตื่นรู้ผู้ซึ่งสามารถอยู่ในสังคมได้อย่างมีความสุขด้วยความมีจิตสาธารณะและเป็นตัวแทนของการเปลี่ยนแปลงสังคมดิจิทัลอย่างสร้างสรรค์ อย่างไรก็ดี ในการพัฒนาความเป็นพลเมืองดิจิทัลให้เหมาะสมกับสังคมไทยนั้น ต้องอาศัยความร่วมมือจากหลายภาคส่วนได้แก่ รัฐบาล ในฐานะผู้บริหารนโยบาย สถาบันการศึกษา ในฐานะผู้อบรมบ่มเพาะความรู้ ครอบครัว ในฐานะผู้อบรมบ่มนิสัย และ สื่อ ในฐานะผู้จัดการข้อมูลข่าวสารรวมถึงเป็นพื้นที่ในการขับเคลื่อนสังคม

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Abstract

Digital transition needs stronger digital citizenship awareness, especially among Thai Digital Natives because they are the main force of digital economy and society development of the country. This is the qualitative research applying documentary analysis and in-depth interview as the approaches of the study. The objectives of the research were to investigate the ecosystem of digital citizenship in Thailand, and to conceptualize digital citizenship and key attributes for digital natives in Thailand. From the study, the elements of digital citizenship ecosystem in Thailand consist of: 1) Digital natives as human capital of the national development, 2) democratic citizenship promotion in Thailand, 3) Thailand digital economy and social policy, 4) digital natives' patterns of digital media behaviors, 5) digital literacy in education (formal and non-formal), and 6) technology advancement, all of which influence the development of digital citizenship concept. In addition, digital citizenship concept applicable in Thai society is a concept of an individual's connection to internet facilitated by digital technology to interact with others in a digital society by relating to his/her daily activity into the physical world with an awareness of a humanity concern, a respect for others' rights and differences, ethical conscience, digital competencies, entrepreneurship skills, a realization and communication of her positive self-identity as Thais as well as maximizing appropriate digital possibilities for their lifelong learning to be an active citizen with a social contribution-minded as a creative change agent in the fast-changing digital society. However, the development of digital citizenship appropriate for Thailand requires the operation of many concerned parties: government sectors as the policymakers, education institutions as a cultivation institution for providing knowledge, family institution as the principal socialization agent of children and youth, and media as the gatekeeper of the society as well as public sphere for creating social mobilization.

**Keywords** : Digital Citizenship , Digital Native

The transformation in information and communication technologies has created a much more substantial amount of the endless stream of information, ideas, and knowledge, than ever. The disruptive technologies, including digital possibilities connected by the Internet, have brought about successful challenges in the established incumbent economy (Christensen, Raynor, and McDonald, 2016) and, at the same time, opened new possibilities in activating and accelerating political, social, and educational development.

As digital possibilities, with the assist of the internet, bring the opportunities of interactivity to the users of all ages with no space and time limit, citizens gain more chances to generate their content and participate in the social activities through their digital devices, Thailand is now moving forward into the path of Digital Society and Economy implementation, media, information. Since one of the main focus contributing to Thailand Digital Society and Economy is human capital, to equip Thai people with digital citizenship, especially Digital Natives who live much of their lives

online without distinguishing between the online and the offline, is essential (Palfrey and Gasser, 2008).

The rapid growth of digital natives, young Thai people who were born in 1989 – 1998 and have actively been online for at least five years (ITU, 2013), has come on its way with the alarms of their online activities. Remarkably, the risks concerning young adults are not those of adults' anxiety. Moreover, according to Livingstone and Helsper (2010), it appears that the more online opportunities young people gain, the more risks they may accidentally or deliberately face. Therefore, it is significant to urge digital natives' internet use as digital citizens with confidence and flexibility for lifelong learning.

Such ubiquitous and easy access to varying choices of information and entertainment calls for people's new knowledge and skills towards smart and responsible decisions. Therefore, the abovementioned skills towards digital citizenship are not just what digital natives should have or should be, but they are requisite skills to ensure the achievement of personal, professional, and social benefits in this digital era (Hobbs, 2010). While Media and Digital Literacy has been activating under the surveillance of parents, teachers, and policy makers in Thailand, the support for Digital Citizenship is still slow. Therefore, it is not enough to have only a set of rules for young people to follow at home or school because they can access through their smart phones. Consequently, they need to comprehend the reasons behind the rules and be able to make critical judgments for dealing with these inappropriate and irresponsible online conducts. To make Thai digital natives realize their rights and responsibilities, recognize benefits and risks, and understand the personal and ethical consequences of their actions are vital issues to survive in this digital world.

Since new digital technologies and digital society policies are rapidly emerging in Thailand, any rules or principles can quickly become incomplete and outdated. Instead of attempting to set standards related to technologies only, it is better to identify these underlying issues to guide users concerning this dynamic digital landscape. Hence, it is crucial for digital citizens to equip themselves at an early age with knowledge, skills, and attitude towards safe and responsible use of digital possibilities. In dealing with these challenges, a core competency of digital citizenship should pinpoint how to use these technologies in an ethical, safe and responsible way without constraining them from fully participating in and contributing to a digital society. It is crucial for building a deeper understanding of the youth's safety in a digital context in Thailand. Furthermore, Thai digital natives need to have a grounded knowledge of technologies and its appropriate use so that they will become a productive and responsible Digital Citizen.

### Research objectives

    1) To investigate digital citizenship ecosystem in Thailand

    2) To conceptualize digital citizenship and attributes for digital natives in Thailand

## Expected Benefits

This study will contribute the concepts and guidelines for cultivating media and digital literacy and digital citizenship for Thai digital natives as digital citizens since Thai digital natives are prospective drivers towards the development of Thailand's ICT. Moreover, the findings from this study can be useful for education sectors to apply them for digital citizenship curriculum design and can enhance the roles of education development in the digital era where the rapid flow of information and leaping technological growth is inevitably encountered. Besides, the results of the study hopefully can suggest the monitoring and control mechanisms and practices of new media. Moreover, the study may lead to effective digital policies in Thailand, or in other countries with similar contexts to Thailand, including helping to highlight the needs towards the government's appropriate strategic plans to deal with dynamic technological changes so that Thai citizens can live in a peaceful society with equity, fairness, and resilience.

## Operational Definitions

Digital Citizenship concept:  A concept of practices of a Thai citizen, by connecting it to internet facilitated by digital technology, relating digital society with his/her daily life activity in the physical world with citizenship consciousness (responsible citizen, participating citizen and justice-oriented citizen), respecting others' right and diversity, being responsible for his/her action with ethical awareness, being equipped with digital literacy competencies and entrepreneurship skills, comprehending and communicating his/her positive self-identity of Thainess, maximizing appropriate digital possibilities for their lifelong learning in order to be an active citizen who is able to retain his/her resilience and to live happily with a concern on social contribution as a positive change agent amidst dynamic changes of a digital society.

Digital Citizenship attributes A set of features regarded as characteristics  of a digital citizen, classified in order by the relationship between the level of digital citizenship and the level of digital behaviors in relations to digital media use as a citizen as follow: 1) digital literacy,  2)  digital communication, 3)  digital commerce, 4) digital etiquette, 5) digital access,  6) digital laws and ethics, 7) digital rights & responsibilities, 8) digital security, and 9) digital health & wellness.

Thai Digital Native Young Thai people, born in 1989 – 1998, who have been active online users for at least five years and are expected to play an important role in the country's digital economy and social development. They are vital drivers of ICT uptake, use, and impact; hence, it is necessary to groom digital citizenship consciousness to these people for interaction in their daily lives in a digital society.

Digital Possibilities Anything is digitally driven that induces Thai digital natives towards more productive and efficient lives, especially towards their social contribution and participation in an interesting issue in a multicultural context to be an active citizen that retains their digital resilience and acts as a positive social change agent of the society.

Digital Citizenship Ecosystem A series of circumstances, interrelated as an ecosystem, that forms the setting for conceptualizing digital citizenship for digital natives in Thailand as well as for influencing or fostering digital citizenship for digital natives in Thailand, which include: 1) Digital natives as human capital for the country development, 2) democratic citizenship promotion in Thailand, 3) Thailand's digital economy and society policies, 4)technological growth and advancement, 5) digital literacy in education (formal/informal), and 6) digital natives' patterns of digital media usage behavior.

**Research Methodology**

This study was conducted by qualitative method, divided into 3 partsas follow:

1) Population and Sample

The populations in this study were divided into 2 groups, classified by the objectives of the research and the data collection methods as follow:

(1) Digital Citizenship Ecosystem in Thailand

- Documentary analysis

Depth information on Digital Context relating to Digital Citizenship was obtained by data collection via online and offline resources (2004 - 2018).

(2) Guidelines of  Digital Citizenship Suitable for Thai Society

- Documentary analysis

Depth information on Digital Citizenship was obtained by data collection via online and offline resources (2004 - 2018).

- In-depth Interview

An in-depth interview was conducted with 9 experts in the field of digital society development to achieve the concept of Digital Citizenship and its attributes suitable for Thai Digital Natives with a concern of digital ethics, rights, and responsibilities.

3) Research Instrument

The research instrument for the in-depth interviews in this study was a semi-structured interview guide with open-ended questions, which responded to the objectives of the study.

4) Reliability

Triangulation process: data, theory, and methodology, with persons involved, was applied to ensure the reliability of the questions for the qualitative method of this study.

5) Data Analysis

This study used an open-coding system to analyze participants' narrative responses line-by-line, phrase-by-phrase, and word-by-word. The final analysis led to the development of finding presenting interpretation of results, limitations, generalizations, and interpretation of the study from the point of view of the interviewees and the researcher.

### Research Finding

The findings of the study were summarized and concluded as follow:

### Digital Citizenship Ecosystem

The contexts related with the digital citizenship in Thailand are state policies congruent with digital citizenship, situations related with digital citizenship in Thai society, and obstacles against the development of digital citizenship in Thailand.  Thus, the ecosystem of creating digital citizens in Thailand consists of:

(1)  Digital Natives as Human Capital for National Development

To increase the technology-competitiveness potential at a global level, Human development plays a great role. Especially the number of young laborers into the field of technology is increasing, in combination with the progress towards digital literacy.  Among human capital development, Thai digital natives are one of the significant human capital needed to be developed.  This group of digital natives is born in the technology era and use technology the most. This group can be considered as a significant force in driving information technology in Thailand.

(2) The Promotion of Democratic Citizenship in Thailand

Different ruling systems give importance to the concept of digital citizenship differently. In Thailand, the promotion of equality of people in accessing and making use of digital technology is based on the democratic ideology.  Nevertheless, digital natives have not used digital media as digital citizens and do not understand the meaning of their rights as they should.  The digital world pro-vides an opportunity for people to perform their social expression as national citizens in various ways and these digital natives have power and creative ideas in mobilizing society.  Still, they have not been cultivated or absorbed a sense of membership as they should. Consequently, to give authority for them to participate in social actions by listening to them and by adopting their ideas as citizens to be considered and applied with all mechanisms for social mobility, t thus will be a significant force in supporting the creation of digital citizens in Thailand.

(3) Digital Economy and Society Policies of Thailand

From the overall objectives of the policies in mobilizing economic and social development of the country towards stability, security, and sustainability, digital technology has been applied as the primary tool in the innovation of products and services. Hence, several supporting policies are needed. As an example, an equal opportunity to access to and use of information and services through digital media can raise the standard of people's living.  All groups of people should be prepared to have proper knowledge and skills needed for their life and their professions in the digital era, a reform of working and service provided by the state through digital technology, etc. All of these policies are parts of the required operation of the country in creating digital citizens and, likewise, the state must rely on the power of these digital citizens to help them to accomplish their determined policies.

(4) Technological Growth and Advancement

Leaping technological growth leads to the development of all digital tools and devices. Thailand has developed many innovations and technical infrastructure to support the digital economy development, up to the development of the international gateway and national broadband to transmit and receive digital information across ASEAN countries and around the world. The primary purposes are to promote the usage of technology for people's profession, commerce, education, and living facility. Since the technological development is a leap and is a significant force on people's ways of life in the society, to prepare people to be ready and to keep up with all these technological situations towards their maximal benefits as digital citizens is thus very essential.

(5) Education on Digital Literacy (both formal and non-formal)

From the empirical evidence, digital natives still are different in their selection of proper digital devices suitable for their use and needs, in their interpretation and connection of information from the digital world, and their information management for daily use. These are some gaps that can be cultivated in the digital natives towards digital citizenship. The enrichment of people's technical skills may not be sufficient for digital natives. People still have to learn more about changes in the global society and also in their society where they have to comply with its social, political, economic, and social paradigms as the national citizens and as the part of membership of the community, society, country, and the world, which includes the digital world. Both formal and non-formal education is essential for promoting digital citizenship accordingly. The situation, patterns, goals, and tools in implanting digital literacy should be educated, especially since the media literacy and digital citizenship should be promoted in parallel.

(6) Patterns of Digital Media Usage of Digital Natives

Models of digital media used by digital natives are both unstructured and highly structured. Besides, digital natives have different media exposure and access behaviors at different levels. Still, online media or social media is mostly used by digital natives for receiving information that responds to their interest. Due to the rapid diffusion via various kinds of channels, digital natives thus emerge in Thai society very rapidly. These digital natives play a part in supporting the economic mobilization of Thailand. Mainly, they cannot conduct their activities by separating their use of digital technology from their daily life. Consequently, digital technology plays a significant role for people of this group and thus the implantation of digital citizenship is vital so that these digital natives can live with digital technology effectively and beneficially for public benefits.

Thus, they are fundamental factors for developing concepts and characteristics of digital citizenship suitable for Thai digital natives. From the abovementioned factors that affect the components of the ecosystem of digital citizenship creation, such factors should be used as a foundation for developing the concept and characteristics of digital citizens suitable for digital natives by inventing some indicators for them to check and evaluate themselves.

**Digital Citizenship Concepts and Attributes for Digital Natives in Thailand**

The concept of digital citizenship appropriate for digital natives in Thailand means the idea that enables the social practices in the digital world to connect with those in the physical world. Its purpose is to create an immunity to protect oneself and to orient oneself to co-exist with others in harmony under the digital context with leaping and continuous development and changes.

In living via all digital possibilities, digital citizens should have a sense of humanity or man-hood, i.e., an awareness of one's rights and responsibilities, of being ethical, catching up with societal changes, and consideration on the scope of one's and others' rights and freedom. Digital citizens should understand their own identity and be able to use digital media to communicate their status properly with respect to diversity among people. They also can use digital media for lifelong learning to be equipped with various entrepreneurial skills. Besides, they can make use of digital technology towards social participation for public benefits. Digital citizens must be assertive to express their opinions to call for social justice to bring about positive changes in their society.

Furthermore, digital citizens should have an inspiration, be enthusiastic and creative, and know how to use available digital devices and systems towards maximal benefits with public concern. Notably, digital citizens should sacrifice and devote themselves to society as national citizens, world citizens, and digital citizens. Thai core values, i.e., the respect for the elder, the focus on the family institution, etc. should be maintained as they are graceful Thai values and are the foundation that makes people respect others, be kind and helpful. All of these can be applied in the digital world.

Accordingly, from the study, the indicators of digital citizenship characteristics are proposed as guidelines in promoting digital citizenship for digital natives in Thailand. Guidelines are proposed through several approaches. The first approach is through the ways of bringing up and cultivating digital citizenship or what should be considered to enable Thai people to be digital citizens to live in society as expected. The other approach is the installation of some self-protection mechanisms for digital citizens or what kind of arrangements or rules enable people to have a harmonious co-existence in both the physical and digital world. These two approaches can be divided into three sub-guidelines as follow:

(1) The promotion through education on digital literacy, digital communication, and digital commerce.

(2) The enhancement of the respects in relations to digital etiquette, digital access, and digital laws and ethics.

(3) The promotion of self-protection and responsibility or digital rights and responsibilities, digital security, and digital health & wellness.

The guidelines for promoting digital natives in Thailand towards digital citizenship according to expected characteristics and indicators are summarized in Table 1

Table 1 Guidelines for promoting digital natives in Thailand towards digital citizenship according to expected characteristics and indicators

| Guidelines | Digital Citizenship Attributes | Digital Citizenship Indicators |
|---|---|---|
| Educate | 1. Digital Literacy | - Knowledge of how to access correct information<br>- Ability to analyze and interpret information in the digital world to serve the benefits needed.<br>- Ability to evaluate, classify, and apply types of information properly<br>- Knowledge and ability to participate in the society in a beneficial way for themselves and for the society through digital media or devices.<br>- Knowledge and ability in creating changes or acts that are beneficial for the society through digital media or devices. |
| | 2. Digital Communication | - Knowledge and ability in using digital devices and platforms appropriate for communication objectives.<br>- Knowledge and expertise in participatory communication for public benefits.<br>- Knowledge and understanding of types of communication that are creative in changing the society towards a positive way (Communication for Change).<br>- ability in evaluating the consequences of communication in the digital world. (Communication evaluation) |
| | 3.Digital Commerce | - Basic knowledge on how to use and verify the information for e-commerce and e-banking (Digital Commerce Process)<br>- Knowledge of rules and regulations of honest and responsible commerce in the digital world.  (Digital Commerce Honesty)<br>- Skills of entrepreneurship towards maximal digital possibilities. (Digital Entrepreneurial Generation) |

| | | |
|---|---|---|
| Respect | 4. Digital Etiquette | - Knowledge of timing for communication and restraint in using digital media.<br>- The use of formal language. (Politeness)<br>- The creation of content that causes no emotional disturbance. (Positive Content) |
| | 5. Digital Access | - Being equipped with devices and systems that can access to the digital world by their rights and duties as citizens.<br>- Being supported by digital technology accessibility by the state.<br>- Knowing their needs for accessing the digital world by their rights and responsibilities as citizens. |
| | 6. Digital Law & Ethics | - Understanding of basic ethics of media producers in selecting proper information.<br>- Compliance with basic laws related to living in the digital world that is beneficial for themselves, others, and society.<br>- Accordance with ethics-related with human rights. |
| Protect | 7. Digital Rights & Responsibilities | - Knowledge of the scope of rights for free expression in the digital world.<br>- Being responsible for their expression in the digital world.<br>- The protection and respect of other's rights and privacy.<br>- Leaving no improper digital footprint that is risky for themselves and others. |
| | 8. Digital Security | - Protection of personal information. (Self- Protection)<br>- Protection against any risks caused by digital operating systems and devices. (Digital Risks)<br>- Installation of an anti-virus program (Virus Protection)<br>- Backups of Data (data protection)<br>- Installation of a security system for digital devices (surge control of digital device) |
| | 9. Digital Health & Wellness | - Selection of digital devices, programs, and data that are useful for physical and mental wellness.<br>- Avoidance of using digital media and of accessing content that affects physical and psychological health.<br>- Allocation of time and maintenance of life-balance in the physical world that is substantially driven by digital systems. |

Discussion

To discuss the findings of this study in combination with the literature review and theoretical concepts were used as the research framework, i.e., Concept of Digital Native, Concept of Citizen and Concept of Digital Citizenship. In setting any principal goal towards appropriate digital citizenship for Thai society context, it is essential to concern about political governance systems, values, and cultures as proposed by Jones and Mitchell (2015) that the primary goal of digital citizenship covers a broad variety of patterns and scopes in different contexts. Therefore, under the democratic governance with Thai ways of life and values, the creation of digital citizens who can make use of digital benefits for their survival in a society should be concerned. These digital citizens need to be capable of adapting themselves to digital diverse society condition with media literacy and be ready to have a lifelong learning so that they can become the citizens with unique cultural identity and can maintain core values of Thai society, including having social participation for public benefits and expressing themselves for justice in the nation.

Correspondingly, digital citizens should concern about their rights in accessing information driven by digital world with responsibilities in accessing, using, and producing data in social participation with a sense of being a part of both physical and digital community. Additionally, they should respect others with an awareness of their roles in the digital world. Thai citizens have to know and understand their rights and duties in their social participation or practices correctly by using their potential to comply with Thai Constitute and with the characteristics of desirable digital citizenship in the digital world. It is in congruence with the guidelines of the International Society for Technology in Education (International Society for Technology in Education (ISTE), 2016). ISTE states that complete digital citizenship for students should be the following type of persons: 1) a person who understands humanness, cultural and social issues related to technology, including ethical and legal practices, 2) a person who can use information and techniques in a fair, safe, legal, and responsible way, including being able to use them positively to facilitate all cooperation or to produce creative outcome, 3) a person who is responsible for himself or herself in lifelong learning, and 4) a person who possesses leadership as digital citizens.

The cultivation of digital citizenship is the urgent issue that should be paid high attention by all sectors concerned since technologies change very rapidly while digital natives are significant forces in helping develop the digital society of the country, which affects the national developments in all dimensions. If Thailand can develop digital facilities progressively and rapidly but lack a human-resource development to produce complete digital citizens, this will then be obstacles against the whole digital economics and society. Consequently, in developing digital citizenship, all parties: state, private, networks, and family should cooperate in cultivating digital citizenship through various ways to reach target groups in parallel to a provision of knowledge on digital citizenship in Thai society context. Jones and Mitchell (2015) further proposed that in the educational setting, digital citizenship should be taught in class. Notably, some studies found that participation

as citizens through online communication had a negative relationship with unsafe digital media usage behaviors but had a positive relationship with creative digital media usage. Accordingly, an education on digital citizenship is vital to stimulate digital use in a creative way for society.

Furthermore, this study found that in Thailand the concept of digital citizenship has not widely been implemented as national policies; however, this problem is not witnessed only in Thailand but also in many countries in Asia.  UNESCO (2015) found that countries in the Asia-Pacific region still have had no control and evaluation system for digital citizenship, including no transparent systems and procedure in promoting digital citizenship.  Hence, the government offices responsible for the implementation of such policies should pay attention to the perception of children and the youth on the proper occasion and possible risks they may encounter in using digital media and enhance their digital literacy skills in parallel to the creation of functional characteristics of digital citizenship.

In terms of the theoretical framework, although the studies abroad explain about digital citizenship characteristics that can be measured, these characteristics ought to be revised to be appropriate for Thai society.  For instance, from the findings, it was found that the attributes in digital laws and ethics, digital rights and responsibilities, digital security, and digital health and well-being had a low relationship with digital citizenship. It may be because these characteristics are universal; therefore, the criteria for indicating (indicator criteria) of these characteristics or components of digital citizenship should be revised to accord with the Thai society context.  For examples, the spiritual, ritual, or religious dimension may be added.  Another interesting indicator of this finding is the measurement of proximity and interaction of digital native networks that may enhance their citizenship through digital media.  Thus, if digital natives are intimate with the network members whose digital citizenship is active, it can open a high opportunity for those digital natives to absorb such digital citizenship from them as well.

Recommendations

The mobilization of digital citizenship, a solid support towards national policies is still an urgent agenda.  Every party should understand and see its importance of the creation of digital citizenship of the nation in combination with the enhancement of digital literacy, including implementing the policies appropriately by the scope of their work and responsibilities.  The development of digital citizenship appropriate for Thailand requires the operation of many concerned parties: government sectors as the policymakers, education institutions as a cultivation institution for providing knowledge to children and the youth, family institution as the principal socialization agent of children and youth and media as the gatekeeper of the society as well as public sphere for creating social participation and mobilization.

**Recommendations for Future Studies**

1) To test the preliminary model of digital citizenship appropriate for Thailand synthesized mainly from qualitative research and supported partly by quantitative methodology in this study, the more thorough studies by both qualitative and quantitative research should be conducted so that more complete and proper model suitable for Thai society context can be created and redesigned.

2) The relationship between digital citizenship of other ranges of ages in different areas should be investigated to find components of digital citizenship suitable for the age and region.

3) The indicators for measuring digital citizenship of other groups besides digital natives' generation should be developed.

## References

Jones, L. & Mitchell, K. (2015). "Defining and measuring youth digital citizenship." **New Media & Society.** 12,(2) PP 301

Livingstone, S. and Helsper, E. (2010). "Balancing opportunities and risks in teenagers' use of the internet: the role of online skills and internet self-efficacy." **New media & society,** 12, (2). pp. 309-329.

Palfrey, J. and Gasser, U. (2008). **Born Digital: Understanding the First Generation of Digital Natives.** New York : Basic Books.

UNESCO. (2015). "A Policy Review: Building Digital Citizenship in Asia-Pacific through Safe, Effective and Responsible Use of ICT." **United Nations Educational, Scientific and Cultural Organization 7.**


**Website**

Christensen, C. M., Raynor, M. E. & McDonald R. (2016). "What Is Disruptive Innovation?." **Harvard Business Review.** Retrieved December 22,2017 from https://hbr.org/2015/12/what-is-disruptive-innovation

Hobbs, R. (2010). **Digital and Media Literacy: A Plan of Action.** Washington DC: The Aspen Institute.

International Society for Technology in Education (ISTE). (2016). **ISTE Standards for Students.** Retrieved January 19, 2015 from http://www.iste.org/standards.unesco.org/ images/0015/001570/157020e.pdf

ITU. (2013). **Measuring the Information Society 2013.** Retrieve April 23, 2015 from http://www.itu. int/en/ITUD/Statistics/Documents/publications/mis2013/MIS2013_without_Annex_4.pdf