Digital Intelligence among Countries of the Greater Mekong Subregion

Theeradej Manakul[a], Thi Lan Nguyen[b] and Kulthida Tuamsuk[a*]

[a]*Faculty of Humanities and Social Sciences, Khon Kaen University Khon Kaen 40002, Thailand*

[b]*University of Social Sciences and Humanities, Vietnam National University Ho Chi Minh City, Vietnam*

[*]*Corresponding Author. Email: kultua@kku.ac.th*

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Abstract

The concept of digital intelligence (DQ) has been defined in numerous ways in the literature oriented towards a global understanding of our digital life. In fact, DQ has recently emerged as a key demographic factor, impacting the socio-economic activities of the Greater Mekong subregion. The current research aims to understand national policies, research areas, and educational sectors that influence and enhance DQ, as well as to provide an overview of the current DQ status in the Greater Mekong subregion. The literature review method has been used in the current study to explore the characteristics of DQ in Cambodia, Laos, Myanmar, Thailand, and Vietnam. The findings show the efforts of these countries to develop and apply information technology to boost digital competence in different fields. Furthermore, the study reveals the limitations of government policy/programs and the digital capabilities of citizens in each country which affect policymakers, organizations, and individuals involved in formulating policies, strategies, and action plans to enhance DQ competence in a global context.

Keywords: digital intelligence, digital quotient, digital literacy, Greater Mekong Subregion, Cambodia, Laos, Myanmar, Thailand, Vietnam

Introduction

Digital intelligence (DQ) is the first global standard relating to new measures of human skills relating to digital technology and as such the

IEEE Standards Board approved DQ plays an important role in a country's economy and social life, especially in the context of the rapid digital revolution around the world (Park, 2019). It has been observed that all societies experience changes from which a shift in a human's perceived worth results. Consider the structure of DQ which is composed of eight interconnected areas: 1) digital identity 2) digital use 3) digital safety 4) digital security 5) digital emotional intelligence 6) digital communication 7) digital literacy and 8) digital rights (Park, 2019). Correspondingly, Na-Nan, Roopleam and Wongsuwan (2020) have identified that DQ encompasses a comprehensive set of technical, cognitive, and socio-emotional competencies, which enable an individual to face challenges and adjust to the changing digital era.

DQ implies an all-embracing set of technical, cognitive, meta-cognitive and socio-emotional competencies grounded in universal moral values that support personalities which face the challenges of digital life and adjust to digital environments (DQ Institute, 2019). DQ is a set of inherent abilities, which can possibly be improved to some extent. For instance, consider digital competence, which is more relevant for adults and professionals who have already acquired the appropriate skills; meanwhile, the measurement of digital intelligence has a different significance for young people who have not yet developed these skills (Stiakakis, Liapis, and Vlachopoulou, 2019). The outstanding values of digital intelligence have been found to be useful in the selection, evaluation, and allocation of human resources. In fact, with Industry Evolution 4.0, there is a demand for higher levels of digital intelligence due to the continuously rising complexity and overflow of information. As such, governments, companies, or schools can easily anchor themselves with DQ to become wiser, more competent, and create completed digital citizens who successfully use, manage, and invent technology to enhance humanity and customize their own needs based on their educational aims and cultural backgrounds (DQ Institute, 2019). Correspondingly, Van Dijk and Van Deursen (2014) pointed out that different skills and preferences in particular areas of our digital society will increasingly emerge as important developments in the future. As such, the outcome of inducing a change in people's minds takes into

consideration several new innovations belonging to the digital world. The European Commission Joint Research Commission stated that at least one of the eight key competencies of DQ is essential for lifelong learning, which requires new competencies, skills, and attitudes (Google, Temasek and Bain & Company, 2019).

Notably, for more than two decades, the five countries of the Greater Mekong Subregion (GMS), including Cambodia, Laos, Myanmar, Thailand, and Vietnam (CLMTV) have been working together under an economic cooperation program to realize their vision of a prosperous, integrated, and harmonious entity. The GMS Program entails a three-pronged strategy: 1) strengthening connectivity through physical infrastructure and the development of economic corridors; 2) improving competitiveness through market integration and the facilitation of cross-border trade and travel; and 3) building a sense of community by addressing shared social and environmental concerns (HSBC, 2016).

Recently, a CLMTV Forum 2019 was held in Thailand with the main purpose of bringing together the top minds from private and government sectors, as well as thinkers and academia from around the region towards identifying, brainstorming, and sharing ideas. More importantly, the forum encouraged the attendees to join forces to spearhead the region towards becoming a valuable chain hub of trade and investment in the dynamic global economic landscape and meeting emergent new challenges. Strategically located at the heart of Asia with a fast-growing economy, state-of-the-art infrastructure, abundant natural resources, and competent human capital, CLMTV came together and identified a common agenda to develop their policies and strategies until 2020. The agenda proposed by each country constitutes seven main approaches which offer full use of information and communication technologies to promote innovation and economic progress (Bangkok Post, 2019).

It can be seen that digital skills are essential in different areas, such as administration, journalism, and collaborative information exchange. Technological progress marks a pattern of software/hardware acquisition, and an increased speed at which users consume information transmitted through various channels. However, reducing the digital

divide is not only about having the latest version of software or possessing the most modern devices. It is important to develop a well-rounded digital capacity in the 21st century. The reduction of the gap between the digital immigrant and native consists of promoting the capacity of citizens to utilize critical, as well as open methods of information (Gurstein, 2011). Thus, this paper aims to explore a general picture of the DQ situation in CLMTV to help national leaders, policymakers, administrators, and individuals understand the DQ capacity within their country's context, and issue policies, programs, and frameworks to enhance digital competence.

Methodology

Studies show that a literature review helps discover a particular topic of study, "clarify research aims, provide a rich understanding of subject knowledge, and form the theoretical framework and research design" (Pickard, 2007). In general, the objective of this article is to contribute further understanding of the DQ situation in the countries of CLMTV. The literature review has been conducted in the following four steps based on the Creswell (2009) and Snyder (2019) approaches.

Step 1: Review design

For study purposes, it is essential to formulate and evaluate the quality of documents to clearly clarify the purpose and rationale of this article. As such, certifying keywords concerning the research topic and searching for relevant information becomes pertinent to ensure a sufficient quality of documents. The author used several keywords found in the literature search (e.g., digital intelligent quotient, digital literacy, digital identity, digital use, digital rights, etc.). As such, a host of supporting documents, including national plans, action plans, strategies, policies, action programs, and valid legal documents from several resources were identified and explored.

Step 2: Review

In this step, the identified documents were analyzed thoroughly, segregated, and evaluated based on the quality of content. Some criteria for selecting the relevant research content consisted of the topic's relevance, authority, method, coverage, currency, and findings, year of publication, and the documents' language. As a result, 13 documents relating to DQ policies and 12 research papers studying the DQ situation in five countries were utilized. Notably, the key issues of this paper include both research studies and government documents. Relevant data sources from eight related domains of DQ were classified and presented in a Matrix (for clarity of representation).

Step 3: Analysis

After the review step, the selected documents were summarized and categorized into separate groups relating to the DQ situation. During this analysis, a second matrix was formulated to synthesize the documents according to the five countries of CLMTV including eight domains of DQ (e.g., (1) no evidence, (2) research studies, (3) case/ situation, (4) national policy/plan) (see Table 1).

Table 1 A data analysis example showing levels of DQ in the countries of CLMTV

Level	Definition	Cambodia	Laos	Myanmar	Thailand	Vietnam
1	**No evidence**	- Digital safety - Digital emotional intelligence & communication - Digital rights	- Digital safety - Digital emotional intelligence & communication - Digital rights	- Digital identity - Digital emotional intelligence & communication - Digital rights	- Digital rights - Digital emotional intelligence & communication	- Digital identity - Digital rights
2	**Research studies**	- Digital rights - Digital literacy	- Digital use - Digital literacy	- Digital use - Digital security - Digital literacy	- Digital literacy - Digital security - Digital safety	- Digital use - Digital safety - Digital emotional intelligence & communication - Digital literacy
3	**Case/ situation**	- Digital literacy - Digital rights	- Digital use	- Digital use - Digital security - Digital literacy	- Digital literacy - Digital use	- Digital use - Digital safety - Digital emotional intelligence & communication - Digital literacy
4	**National plan/ policy**	- Digital identity - Digital use - Digital security - Digital literacy	- Digital identity - Digital literacy - Digital use - Digital security	- Digital use - Digital safety - Digital security	- Digital use - Digital safety - Digital security	- Digital identity - Digital security -Digital literacy - Digital use

Step 4: Writing the review

This step entailed the formulation of explorative research and identifying relevant trends. Thus, based on the research objective and content of documents analyzed in Step 3, the findings from the literature review were divided into appropriate sections. These arguments are presented as follows.

Policies, Plans, and Strategies of DQ in the Countries of CLMTV

It seems possible that most policies of CLMTV center on developing and applying the ICT infrastructure in many fields and activities: enhancing literacy, usability, and security in digital environments.

Cambodia

The Cambodian government has paid attention to rapidly emerging developments in the technology sector, as well as keeping tabs on how other countries in the world adopt these technological advancements into feasible mechanisms facilitating governance. In addition, the Cambodian government encourages its citizens to participate in the world of high technology. More specifically, the government has developed a "Rectangular Strategy" which involves the National Strategic Development Plan (NSDP 2014-2018). Cambodia is now focusing on developing e-Government, which is still in its nascent stages. The government needs to learn and develop this program in order to make this program successful in the future and come up to par with the other developed countries of ASEAN (Chanpanha, 2018).

According to Kevreaksmey et al. (2015), the National ICT Policy focuses on the following five areas:

Legal and Regulation Framework: The National Information Communications Technology Development Authority has an important role to initiate the regulation of ICT services.

Human Capacity Development: The focus is on training courses for students, teachers, and government officials on the knowledge of ICT and promoting this curriculum in the educational system.

Content Development: The goal is to develop the ICT system in rural areas and work on content development to develop the ICT network, its system and application.

ICT infrastructure will be installed and upgraded throughout the country by promoting investment from the private sector.

Enterprise Development: Foreign investors are encouraged to invest in ICT enterprises through an incentivized import tax rate and 100 percent equity shareholding.

Laos

For more than a decade, the Lao People's Democratic Republic (Lao PDR) has worked on enhancing human skills towards supporting and informing the design, implementation, assessment, monitoring, and review of employment-oriented education policies. However, these endeavors continue to remain insufficient. In 2019, Lao PDR provided a "Summary of Key Findings in Digital Opportunities for a More Competitive Future" based on the conclusions of a previous workshop which highlighted the many notable success stories of digital business in the ASEAN region. The region has recently witnessed a transformation in the economy and increased facilitation of more widespread digital adoption by businesses (i.e. increasing availability, affordability, and Internet quality, as well as the adoption of digital technologies in the financial sector). The key success factors for this shift include increased frequency of online transactions, availability of digital skills, technical and broader digital literacy levels, and supportive regulations that take account of changing technologies; for example, facilitating the flow of data, while at the same time addressing risks around data privacy and cybersecurity (Dorner and Gorman, 2006; Ameen and Gorman (2009).

Notably, it is safe to say that Lao PDR still has much potential to develop advanced ICT integration with teacher education, e.g. using ICT for creating teaching and learning materials, teaching instructional design, devising a teachers' online community for easier knowledge exchange and policy borrowing, and individual use of PTs and TEs for problem-solving. Five levels of ICT integration in teacher education in Lao PDR have been identified (Sengsourinha, 2019):

1st Level: Policies and major practices at the national level;

2nd Level: Campus culture, infrastructure, and facilities, pre-service teacher curricula, and activities in which ICT is engaged with at the school level;

3rd Level: Training experience in local computer centers and secondary schools, public/private partnerships, and teachers' online groups at the community level;

4th Level: Progress at the individual level with ICT products;

5th level: The practices of global partnerships in reference to ICT integration with teacher education. The common meaning of 'ICT' in the local context refers to those ICT products defined as personal possessions (e.g., computers, mobile phones), ICT infrastructure (e.g., Internet), ICT skills for various purposes (e.g., for teaching and learning, for daily use, for work and problem solving), and ICT as an integral part of habits and hobbies.

Myanmar

Myanmar's Ministry of Transport and Communications (MoTC) published the Universal Service Strategy from 2018-2022 with the aim to enhance the use of the Internet for the capacity of the population, i.e. enable more than 90 percent of the population to use telecom services and at least 85 percent to access the Internet (Oxford Business Group, 2019), and use high-speed Internet networks at low costs (Digital Economy Development Committee, 2019).

At the same time, Myanmar's government drafted a master plan to build an e-government system and provide effective services through ICT tools, as well as focus on the development of "eight sub-sector programs, including ICT infrastructure, ICT industry, e-government, e-commerce, e-education, ICT legal frameworks, and ICT human resources development, standardization and liberalization" (Myanmar. Government, 2017). The Digital Economy Development Committee (2019) has also set up targets to develop and grow Myanmar's digital economy by the year 2025. Following that, the Ministry aims to apply and integrate digital technology into all sectors to enable digital transformation and achieve a digital government, digital trade, and digital innovation for inclusive and sustainable socio-economic development while increasing the living standards of Myanmar's citizens.

Thailand

The Thai government introduced a Digital Economy and Society Development Plan focused on providing an implementation framework in line with their digital economy and social policy guidelines (Ministry of Information and Communication Technology, 2017). The plan identified four key objectives: *Competitiveness* - increasing international competitiveness by using technology, developing innovation, building new businesses, and increasing GDP by 25 percent; *Equal opportunity* - creating equal social opportunity by providing information and services through digital media, ensuring access to broadband internet for all, placing Thailand in the top 40 of the ICT Development Index; *Human capital* - preparing people for career skills in the digital era by equipping them with skills in digital technology and increasing manpower in technology; *Government reform* - using digital technology to increase the effectiveness and transparency of government service and placing Thailand in the top 50 of the UN-eGovernment Ranking (Sakonthawat, Viseshsiri, and Siribanpitak, 2018).

In general, these increasing technological developments and transformations require individuals to garner sufficient knowledge regarding navigation, awareness, and ability to exist in digital space. In light of this, citizens must have an in-depth understanding and meet the requirements of digital competencies for daily life, fulfilling both individual and work purposes (Emejulu and McGregor, 2019). It should be noted that the strategy/plan and other government directives are indispensable tools to guide, navigate, and enhance the qualifications and competencies of organizations and personnel in each country. Therefore, it is in the interest of these countries to further set up national plans/strategies/programs to boost and enhance the digital intelligence of their citizens.

Vietnam

A national program on information technology applications in the operations of state agencies during the period 2016-2020 was issued on October 26, 2015. It aims to raise awareness, capacity, and support for individuals and businesses to effectively use online public services, strengthen skills training on information technology applications for officials and public employees and develop the use of online public services for citizens and businesses. In addition, a policy regarding education from the Vietnamese government mentions details about the management and support of teaching and research activities, raising the quality of education and training from 2016 to 2020 and continuing in this direction to 2025, as well as improving the information technology application capacity for managers, teachers and staff through training courses. Furthermore, a national strategy on transforming Vietnam into an advanced ICT country announced on September 22, 2010, provides guidelines that aim to ensure that the percentage of people using the Internet reaches more than 70 percent in 2020 (Vietnam. Prime Minister, 2010, 2015, 2017).

It is also interesting to note that an action plan of the Vietnamese government under the Resolution No.26/NQ-CP dated 15/04/2015 regarding education suggested that the Ministry of Education and Training (MOET) must direct and integrate the content of information technology applications and developments to organize the implementation of tasks related to the basic and comprehensive renovation program of education and training (Vietnam. Government, 2015).

DQ in the Countries of CLMTV

Digital use, digital safety, digital emotional intelligence and communication, digital literacy, digital rights, and digital security are six domains of DQ in CLMTV found in the literature as described below.

Digital Use

During this explorative study, resulting trends indicate that Vietnamese students are well acquainted with how to use digital devices, the Internet, and social networks. The prominent findings of the study conducted by Le, Pham and Do (2019) indicate that the majority of students learned to use computers and the Internet by themselves. Over 40 percent of students use a laptop, computer, and smartphone (over 38 percent) to access the Internet at schools. However, nearly 20 percent of students do not have the necessary instructions from family, teachers, or friends in navigating how to use the Internet safely. Besides this, the subject of computer technology in the curriculum is out-of-date and is not centered on improving the updated knowledge and skills acquired by students. Another study at the Thai Nguyen University showed that administrators, teachers, and students conducted as many as fifty-seven action plans to improve technology access and use, including digital etiquette in social media, online learning, etc. (Hoang et al., 2020). Meanwhile, Dorner and Gorman (2006) contended that outsiders must work closely with local educators and librarians in Laos to understand the local context and to incorporate indigenous knowledge into information literacy education programs to ensure their effectiveness by being contextually and culturally appropriate.

Digital Safety

Previous research reveals that the majority of students at the junior high school level in Vietnam do not perceive the potential risks of the Internet (e.g. cyberbullying, unsuitable websites, files, messages). Furthermore, the students' ability on how to protect themselves and others from harm in the digital sphere is still a constraint (Le, Pham, and Do, 2019). Reportedly, only 26.1 percent of students choose to block or report inappropriate content, 20.7 percent delete messages, and just 24.4 percent of students reported that they contacted senders of unwanted messages or content. Some reasons for this limited understanding of digital safety are listed below (Le, Pham, and Do, 2019):

- Most students are not equipped with the necessary knowledge and skills;
- There is a lack of control on Internet use from parents and teachers;

- Curricula are centered on Internet use and skills rather than prevention.

In light of this, Le, Pham and Do (2019) have suggested that Vietnamese students must be provided an in-depth digital learning environment to enhance their understanding of the risks of the digital environment, and the skills to process, solve and avoid the drawbacks of online spaces.

Digital Emotional Intelligence and Communication

Le, Pham and Do (2019) conducted a study focusing on the DQ framework of UNESCO, wherein they noted that the digital emotional intelligence capacity of Vietnamese students is quite weak. Therefore, "educational institutions must find a way to help students understand the importance of digital competence and organize school activities accordingly." In addition, students' digital communication also has a low score compared to others. Awareness of netiquette, collaboration, interaction, and sharing of data and information with others in digital environments is also quite low. As such, Vietnamese students should be further equipped with the necessary ability to interact, communicate, and exchange knowledge with others via online media.

Digital Literacy

The literature review indicates that the people of Myanmar have limited digital literacy competency. Therefore, some organizations have initiated Facebook and Google programs in Myanmar to improve digital literacy and develop "awareness of digital citizenship" (Sharma, 2019). These programs aim to educate users on several elements, including digital and online safety, the responsibilities of internet use, as well as embedding digital literacy modules into the curriculum (Disruptive Asia, 2019; Myint and Aye, 2019). Similarly, Cambodians were unable to access the Internet because of their difficulty comprehending the English language, as most websites are in English (very few are updated and available in the Khmer language). Furthermore, the ICT infrastructure has only been developed in the more metro and urban areas, attributed to lower usage demands in the countryside (Chanpanha, 2018).

Tuamsuk and Subramaniam (2017) revealed that it is essential to account for the improvement in digital literacy skills among Thai students in higher as well as other levels of education, but especially at the tertiary level, so as to produce human resources with a high working competency and ability to live in the changing environment of our digital society. This paper also clarified the top ten most important skills of students, including communication, collaboration, dissemination, accession, expression, digital citizenship, interpretation, responsibility, statement, and reflection. Meanwhile, most students in Myanmar have demonstrated a positive perception and appreciation of the importance of digital literacy for searching and evaluating the content of digital materials in and outside of English language curricula. Students said that they could improve their knowledge and develop their four English skills if they had better digital literacy and skills. These skills will enable students to garner more useful information through the Internet and help improve their learning skills. Besides this, they will also be more aware and take further responsibility for their behavior in navigating the online world (Lahpai, 2019).

At Vietnamese secondary schools, the digital literacy of students is relatively low because of the limited teaching scope accorded to the programs and allied subjects in the curriculum (Le, Pham, and Do, 2019), as well as the lack of standards set for IT skills (Dai and Marquet, 2018). The requirements of IT are technically biased and do not equip learners with the cognitive, interactive, applicative, or problem-solving capability in educational and social environments (Dai and Marquet, 2018).

Digital Rights

An increasing number of netizens – including bloggers, journalists, news outlets, non-governmental organizations, activists, and university students – have started to use the Internet, especially social media sites, as a tool to spread information and express political opinions. Since online communications have emerged as an essential tool in the realm of human rights and election monitoring, these channels have enabled rapid reactions to incidences of human rights violations. Cambodia's

government has been striving to consider and acknowledge digital rights, particularly freedom of expression online, and correspondingly, has come to the forefront in the struggle for protecting human rights. However, the technological shift towards utilizing online platforms for the expression of political dissent, combined with the Royal Government of Cambodia's new internet surveillance capacity, has brought millions of citizens under the direct scrutiny of the government. As a consequence, the capacity of the authorities to judicially harass those who oppose government interests has increased significantly. The findings of the Cambodian Center for Human Rights (2016), which monitors digital rights infringements have suggested that the Royal Government of Cambodia under Prime Minister Hun Sen is utilizing this power to heavy-handedly silence its critics. Of concern is a real danger that this development may lead to the creation of a culture of self-censorship among Cambodia's growing population of netizens.

Digital Security

In a survey pertaining to "building cyber security awareness" in Myanmar, the findings revealed that most citizens do not care about online risks. These individuals are not conversant with Internet skills, resulting in a vulnerability to potential dangers. This can further be attributed to 1) limited information literacy in protecting personal information such as passwords on cell phones, bank accounts, email, and social media; 2) lack of relevant and appropriate digital security policies and regulations; 3) limited resources available to prevent online criminal activities; 4) a general lack of privacy protection; and 5) a lack of perception relating to online security (Chang and Coppel, 2020).

Discussions and Conclusion

This discussion highlights the wide and diverse elements contained within digital intelligence domains of CLMTV, as evidenced by the preceding explorative literature review. Some prominent and relevant DQ results can be inferred: 1) The governments of CLMTV have been

making serious efforts to draft documents (e.g., policy, strategy, action plans, etc.) pertaining to the development and application of ICTs into all fields of social life; 2) Most of these countries have been deploying and conducting campaigns and training programs to educate and enhance citizens' digital skills, as well as to narrow the digital divide between urban and rural areas; 3) There is a significant increase in the number of people owning and using digital devices; 4) Students are aware of the basic skills to use the Internet and cope with simple situations within online spaces; and 5) Digital literacy courses and programs have been designed and deployed by governments both exclusively as well as in public-private partnerships.

However, based on the research findings mentioned in the literature review, it can also be inferred that:

1. The number of policy/strategy and research papers from the government and researchers still leave a wide scope for improvement. Several policies mention digital literacy, security, and digital use, though often at a very peripheral level. In general, most government programs mainly focus on enhancement, training, and education in using the Internet and the application of ICTs in various fields. There are limitations in policy, strategy, and planning in terms of the feasibility and implementation at scale for both the private and government sectors in these countries.

It is fair to say that CLMTV primarily focuses on raising internet use and safety and ensuring the security of users operating within online environments. More specifically, Cambodia, Myanmar, and Thailand's policies focus on building E-government and developing ICT infrastructure to meet the conditions necessary to boost digital technology. Meanwhile, Laos' programs mainly center on enhancing digital literacy and integrating ICT into the educational sector. It is also interesting to see that Thailand's government has drafted some policies and plans to provide a framework to boost digital competence with well-rounded targets in the digital economy.

2. The findings show that the current research identifies five domains of DQ in the educational sector, the majority of which focus

on the high school students, undergraduate students, teachers, and citizens of Vietnam, Myanmar, and Thailand. In light of this, there are some prominent findings based on the results of the data analysis: 1) the lack of appropriate digital DQ subjects in Vietnamese schools; 2) constraints in developing the digital skills and knowledge of families, teachers, and friends; 3) the limitations of Myanmar's people in ensuring a secure sharing of personal information in online environments; and 4) the lack of ICT infrastructure and Internet access because of language barriers in Cambodia.

The aforementioned inferences indicate that these limitations should be improved to boost digital ability and meet the requirements of digital citizenship. Therefore, it would be worthwhile to improve DQ competence at three levels:

Government level. It might be interesting to issue decrees that are more relevant and detail more practical implementation of the outlined aims as regards to DQ (e.g. policy, strategy, action plans, etc.). Goals should be directed towards building a digital capacity framework for citizens at different levels and fields, developing resources and identifying the responsibilities and roles of the country's stakeholders.

Organization level. The requirements of DQ should be based on common standards, as well as the world's competency framework. Therefore, every organization should: 1) formulate plans, policies, and strategies for boosting their digital capacity in line with the characteristics of the organization; 2) publishing appropriate standards of DQ for staff/learners; 3) design and integrate the domains of DQ into educational curricula; and 4) develop ICT infrastructure and organize DQ training/courses/programs.

Individual level. Attitudes, knowledge, and skills are three main dimensions that need to be improved to meet the requirements of digital citizenship.

Based on these results, DQ plays an important role in self-learning, employment, and other activities in life. However, the DQ capacity of citizens in CLMTV is limited, primarily to accessing and using the internet only. Moreover, there is an evident lack of government policy, and action plans to progressively influence the development of digital ability. Therefore, it would be worthwhile for these five countries to deploy solutions which enhance a well-rounded knowledge base, essential skills, and positive attitudes among populations living and working in the digital realm.

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