

Digital Natives around the World

Matthew N. O. Sadiku¹, Uwakwe C. Chukwu², Abayomi Ajayi-Majebi³, Sarhan M. Musa¹

¹Roy G. Perry College of Engineering, Prairie View A&M University, Prairie View, TX, USA

²Department of Engineering Technology, South Carolina State University, Orangeburg, SC, USA

³Department of Manufacturing Engineering, Central State University, Wilberforce, OH, USA

ABSTRACT

Digital technologies are changing the world in all walks of life, including the way we learn, think, and work. They have grown exponentially and their use has globalized. As technologies get cheaper, access to the Internet has become easier and affordable for people worldwide. Youths around the world are the most active users of technologies and they are transforming our world through the power of technologies. Many experts use the term “digital native” to describe these young adults now entering the workplace. It is estimated that by 2050, digital natives will make up more than half the entire adult population of the world. Digital natives are receiving increasing attention and recognition from both national and international policy-makers. This paper provides an overview of digital natives around the world.

KEYWORDS: *digital technologies, digital natives, world*

INTRODUCTION

Our society relies heavily on technology. Technology refers to the application of knowledge for human benefit. It provides us with the means to stay warm in cold weather, to communicate with a loved one a thousand miles away, to prevent or cure sickness, to care for those in need, to improve the quality of life, to increase happiness in many ways, to improve living standards, to reduce poverty, and to be connected globally [1]. The digital technologies (from email, file sharing, mobile phones, online gaming, ecommerce, Internet, GPS systems) in general and the Internet in particular are changing the way we live, work, learn, and socialize.

These days, youths are bombarded daily by endless media messages. They are expected to learn and apply skills that differ greatly from those for previous generations. Those who are born after 1980 are called digital natives. Marc Prensky coined the phrase ‘digital natives’ in 2001. Digital natives (or net generation) refers to the current generation of children raised in a digital, media-saturated world. It may also apply the young generation of students (K

through college) who are “native speakers” of the digital language of computers, videos, video games, and social media. Digital natives have grown up surrounded by electronic gadgets and information technology and they cannot do without computers, video games, mobile phones, and other hi-tech devices. They have a culture of connectivity and online presence [2,3]. Figure 1 shows some examples of digital natives [4].

The US, UK, Russia, and China currently lead the world in developing digital technologies. The widespread utilization of information networks is an indispensable aspect of globalization. The term “digital natives” has spread all over the globe. There are 363 million people in the world who can be regarded as digital natives. They are intuitively solving problems around the world. Digital natives will over time become the dominant demographic globally. Figure 2 shows top ten nations with the largest number/percentage of digital natives [5]. Figure 3 depicts digital natives as a percentage of each nation’s total population [6]. Developed nations

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have produced truly digitally native students compared to developing nations. The nations with the largest populations tend to have the largest number of digital natives. China has the largest group of Internet users (642 million), followed by US (277 million), and India (243 million). The award for the most wired youths goes to South Korea, where more than 99.6 percent of young people actively use the Internet [7]. We now consider digital natives in some selected nations.

DIGITAL NATIVES IN UNITED STATES

More than 13 percent of the United States' population are digital natives. Digital natives have grown up with Internet access, depend heavily on mobile devices, heavily consume social networking services, consider speed to be among the most important characteristics of digital products and services, and multitask across devices. A growing social acceptance of different lifestyles and sexual orientations has emerged among youths. Most youths in the US own personal computers or laptops and mobile devices and have access to the Internet. They perform better than older adults on questions about common Internet-usage conventions. They take advantage of the world of blogs, online forums, and social media to share life experiences with their peers all over the world. They are helping to create a new business culture [8]. In the USA, university students spent 11.04 hours per week playing video game.

DIGITAL NATIVES IN UNITED KINGDOM

Some Western European nations seem relatively far down the list of digital native penetration, including the UK (11.1%) and France (11%). The concept of the digital natives has gained popularity in certain areas of policy and practice in UK. A study conducted in the UK found that there was no substantial difference between digital natives (i.e. born after 1980) compared to the older generation in technology usage. It is possible for adults to become digital natives, especially in the area of learning, by acquiring skills and experience in interacting with information and communication technologies. In the UK, young people (17-19) are relatively high users of technology for a wide range of activities. They are more likely to use the Internet for entertainment, social networking, and diary functions [9]. The time youngsters spend online is preoccupied by text messaging, playing games, retrieving online content, and watching videos.

DIGITAL NATIVES IN CHINA

China leads with 75.2 million digital natives. In the past, young people were usually guided by mature adults in their family and society at large. The digital revolution has transformed all lives in China. In the

digital era, young people occupy the front seats to the digital revolution. China's digital natives grew up with mobile phones and the Internet. Digital natives in China are not necessarily digitally competent. Digital competence is not significantly affected by such factors as having a PC, having the Internet at home, and frequency Internet use. Education plays a major role in improving teenagers' digital competence. China's digital natives' intragenerational differences, intriguing relationships with Chinese authorities, ambitions, and worldview have attracted the attention of observers of this rapidly changing country [10]. Facebook has been banned in China in 2009.

DIGITAL NATIVES IN HONG KONG

Hong Kong has a well developed infrastructure for access to technologies. It is implicitly assumed that Hong Kong youths will have very high levels of use of information technologies. A study conducted in Hong Kong discovered that students are competent in gaming, entertainment, advanced web or mobile and social features such as Facebook, whereas teachers are competent at work-related technologies and simple web functions. The mobile phone is the preferred tool for students accessing the Internet. Other devices, including digital cameras, MP3 players, a web cam, and video games consoles are moderately familiar. It is popular for students in Hong Kong to use traditional technologies such as SMS and email than Web 2.0 technologies. Generally, males and females have similar access to technologies. They are skilled at using the Internet to search for information [11].

DIGITAL NATIVES IN JAPAN

Digital transformation attracts the best and brightest into Japan's digital sector. Companies in Japan are promoting digital technology. One characteristic of digital natives in Japan is that this large group is subdivided into a number of generations based on the points in their lives that they experienced changes in their digital environments. With such variances in mind, Japanese digital natives can be divided into four generations: (1) born in 1982 or before; (2) born in 1983 ~ 1987; (3) born in 1988 ~ 1990; and (4) born in 1991 or after. These four generations are formed due to the characteristics of communication and relationships with others [12].

DIGITAL NATIVES IN PAKISTAN

In Pakistan, many institutions have invested heavily on ICTs. The library plays an important role in helping students to meet information literacy skills. The Internet is mostly used by young people in Pakistan, and particularly students who are more inclined to use Internet resources for education, social

interaction, and entertainment. Digital natives are heavy users of computers and the Internet through various devices, i.e. mobile, tablet, laptop, and desktop. Youtube, Facebook, Whatsapp, and Instagram as the most accessed social media sites among digital native in Pakistan [13].

DIGITAL NATIVES IN MALAYSIA

Malaysia has embarked on improving its education system, with a national vision of becoming a developed nation by the year 2020. Malaysian education policies are driving towards digitalization by gradually incorporating information and communication technology (ICT) into teaching and learning. There is a difference between 'being' the digital natives based on their age and 'doing' the digital native in everyday practices. The fast changing information technology is rapidly changing the lifestyles and learning environments of Malaysian university students. In Malaysia, there are 20 million Internet users, which is about 67% of Malaysian population. As digital natives, pre-university students are spending approximately fifteen hours per day surfing the Internet, making phone calls, text messaging, engaging in online social network such as Facebook, playing digital games, watching TV, and listening to music. Facebook is also the most popular social media in Malaysia [14].

DIGITAL NATIVES IN EUROPE

A substantial percentage of youths in European nations lack basic ICT skills. According to the European Commission, Europe will face severe shortages of skilled citizens in the digital age, thereby hampering growth and competitiveness. A German study found out that young people are very skilled in everyday tasks as bookmarking a webpage. All citizens should be given an opportunity to develop their digital skills. If young people do not have access to digital education, they might never unlock the full potential of digital technologies as learners, employees, entrepreneurs or citizens, and would become a lost generation [15].

CONCLUSION

Technology has dramatically changed our homes and social lives. It is not only becoming omnipresent. A digital native is an individual who was born after the widespread adoption of digital technology. He is inherently an active user of technology and is technology-savvy. Digital natives have high access to the Internet and use it extensively for school work and leisure. They have personal goals, priorities, values, and roles that differ greatly from previous generations. Some pursue their personal values like politics, education, and religion. Digital natives are young, digitally-minded learners. Generally speaking,

digital natives prefer to view visuals, videos, and games. They are willing to adapt to any new technology that adds value. Gender, cultural, and economic groups adequately define digital nativeness [16].

Digital natives may be regarded as global citizens. They are assuming responsibility in their roles as innovators, creators, and solution-shapers for the digital future. They are the engines of the knowledge economy, and they will be tomorrow's business leaders. At a time when the potential of digital technologies are under the global spotlight, the digital natives are best placed to help us steer the world towards a more equitable future. A nation's future will be defined by today's young people and by technology. Nations with a high proportion of youths who are tech-savvy are positioned to lead the digital age of tomorrow. Digital natives will soon become the majority. More information about the digital natives can be found in the books [17-31].

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Figure 1 Examples of digital natives [4].

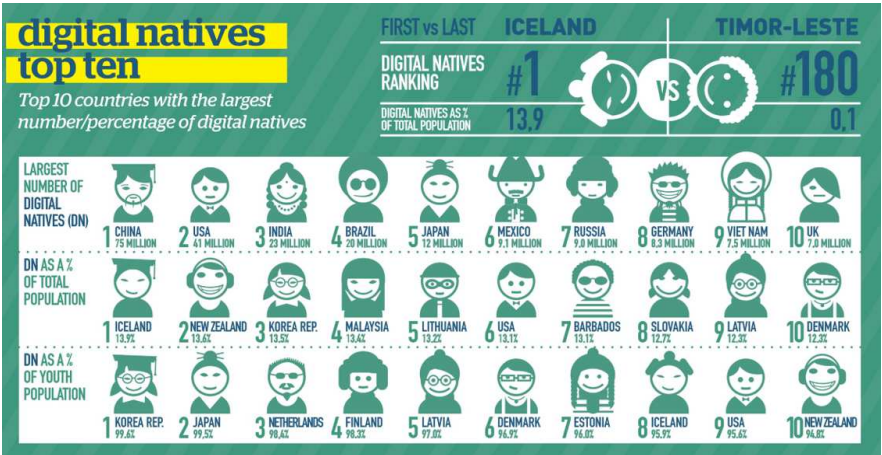


Figure 2 Top ten nations with the largest population of digital natives [5].

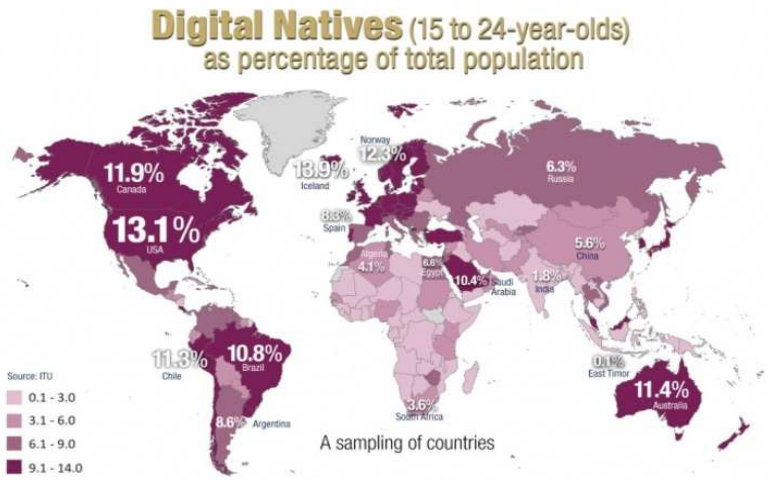


Figure 3 Digital natives as a percentage of each nation's total population [6].