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## Are you digitally literate?

# It's not just being able to code and use applications

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For The Straits Times

"I'm an illiterate" would be an awkward admission in any society. Admitting one's innumeracy, however, very much depends on the culture.

My many encounters while living in North America suggest that quite a substantial segment of the population wouldn't hesitate to say: "I'm not good at mathematics." I am inclined to believe that many people today wouldn't be embarrassed to say out loud: "I'm not good at those digital things."

But are we really clear about what digital literacy means?

In thinking about this issue, are we in a way repeating the parable of the blind men and the elephant, mistaking the part for the whole? We need to zoom out to get a broader view of digital literacy. It is not simply a matter of semantics because of the real-life implications that follow from our understanding of the concept.

With practically everything digitally connected these days, we are often bombarded with comments and advice on what it takes to survive the Fourth

Industrial Revolution.

It was with this thought in mind that I asked myself the other day: "Am I digitally literate?"

Compared with my students and younger staff, I am clumsy when it comes to using mobile devices and still feel uncomfortable with multitasking on a computer. Young people have no such problems.

But their ease with coding and gadgetry is not sufficient for them to thrive in a world that demands digital literacy.

Digital literacy, like many things in life, has several facets and different shades.

First, a positive and embracing attitude towards digital technology is a necessary first step towards digital literacy. Subjective feeling determines how we humans frame and deal with a matter. "I'm not good at maths" reflects an attitude that can by itself be an impediment to acquiring the necessary skills in that field. The same applies to digital literacy.

It does not take high intelligence to acquire basic reading and writing skills. By extension, it won't take too much effort to be in a position to appreciate and apply digital technology at the elementary level if the mental barrier can be crossed.

Most seniors today have gone from relying on snail mail to e-mail to text messaging to voice/video chats. In a way, we have already become digitally literate consumers even though some of us may still be clumsy in using electronic devices.

## CONSUMERS AND SERVICE PROVIDERS

And yet being able to read, write and speak a language does not guarantee that one can make a living as an editor, writer or stand-up comedian. Why should we then expect that mastering the use of common digital gadgets can enhance one's job prospects in this digital era?

We can be clumsy as consumers of goods and services involving digital technology but still be tolerated because our money, not skills, gives us that privilege.

On the supply side though, only value-added propositions can attract interest.

Must-have digital literacy in order to do well in the new economy is far more complex and dependent on a number of contingent factors.

For instance, a young person proficient in coding blockchains but lacking knowledge in data analytics is digitally literate but limited in the same way a monolingual person is less adaptive than one who is multilingual.

Yes, there will be a coding job waiting for this young person if blockchains remain a hot area. But bear in mind we are talking about a rapidly evolving sector.

Furthermore, a person's job prospects and the level of digital literacy required of him depend very much on which part of the value chain he intends to occupy.

A super coder will get many good job offers but one able to effectively manage a project involving digital products or services will land a better job. The ability to conceptualise successful digital products/services brings even greater rewards. Having an eye to spot a great venture early on can make you rich in this digital era even if you are not the most adept at using digital gadgets.

Digital technology evolves at a quick pace. Narrow digital skills may prove to have a short shelf life. One can be digitally literate in a narrow sense but still lack the marketable digital skills that appeal to potential employers. Continual learning is required as individuals strive to move on from being a digital technician to a manager of digital applications.

It is in a broader sense that I consider myself digitally literate even though I have never coded a blockchain algorithm. But I have read up enough to understand how blockchains work and know their potential and limitations. That has enabled me to better assess issues such as the future of digital currencies and offer advice accordingly.

#### STRUCTURAL DIGITAL KNOWLEDGE

I will go beyond the cliche "information does not equal knowledge" to say that knowledge isn't equivalent to structural knowledge.

Why so? Watching a couple of episodes of marine mammals on Discovery Channel won't turn us into trained marine biologists.

Knowledge is useful but structural knowledge makes one an expert. Real coding skills in the Python language can't, for example, be learnt by just watching a few YouTube videos. Coding skills can be developed only by learning the principles, practising often and receiving feedback/guidance in a

structured way.

Having structural knowledge also makes it easier for a person to acquire another set of connected structural knowledge. If Python falls out of favour, one can quickly learn the new language of the day to still possess the wanted digital literacy in this fast-changing world.

#### **HOPE FOR US ALL**

Technology can be a wonderful thing but may also unleash tremendously disruptive forces. The moving train of digital revolution is obviously unstoppable, and many conventional jobs will in time disappear.

A government, no matter how willing and capable, can only help ease the transitional pain of digital transformation being experienced by a significant segment of the population.

The spectrum of digital literacy is wide. Understanding the implications of digital technology on one's line of work is as important as having some level of technical proficiency in working with existing digital technology.

Not everyone can be a gifted coder or an applications visionary, but every individual of working age can and will need to enhance digital literacy skills to the best of his or her ability. With some retooling and a positive attitude, many of us will be able to find a digital niche that suits our individual circumstances; that is the key to riding the wave of whatever changes that come our way.

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