Leave no one behind in move to digital economy

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EFFORTS are under way to identify new areas of growth for Singapore amid volatility in the global economy and rapid technological change. The Committee on the Future Economy, tasked to chart a blueprint for Singapore's economic future, last month released findings from their broad public consultations. A key theme of discussion, it said, was on how Singapore can fully develop its digital economy - or how well it can use information and communications technology (ICT) to ramp up competitiveness and enhance societal well-being.

Singapore's focus on the digital economy is wise, not least because of our early adoption of ICT. Over 30 years ago, the Government established the National Computer Board that was responsible for developing Singapore into a regional centre for computer software development and services. We have a strong regulatory framework that protects intellectual property and this year, the World Economic Forum ranked us among the top seven countries which generated economic impact from investments in ICT.

But the transformation into a digital economy is not going to be easy. A fundamental challenge is to ensure that everyone is included in this transformation, with those who are economically disadvantaged offered practical ways to cope with change.

Networked, But That's Not Enough

In the last 20 years, policies such as Singapore IT2000 and the Infocomm 21 Strategy have increased Internet connectivity across Singapore. As reported in the Infocomm Development Authority's latest survey, 87 per cent of households have at least one computer and 88 per cent have broadband access at home in 2015 (up from 74 per cent and 54 per cent in 2005 respectively).

More recently, the Digital Inclusion Fund and the Silver Infocomm Initiative were set up to target low-income households and senior citizens respectively.

However, research shows that even with more or less equal access, not everyone benefits from ICT in the same way. Dr Jakob Nielsen, who studies and writes about making the Internet easier to use, says that a usability divide and an empowerment divide exist. While the former refers to inequality caused by the disparity in people's skills to utilise technology's capabilities, the latter refers to the gap that results from people's different propensities to harness ICT opportunities.

Both divides contribute to participation inequality, a phenomenon that has persisted despite technological advances which make ICT easier to use. According to Dr Nielsen, about 90 per cent of users in social networks and community systems do not contribute, and 9 per cent contribute on an irregular basis. What this means is that most contributions are made by the minority of 1 per cent of users.

The study on media and Internet use during the last General Election by the Institute of Policy Studies measured how often people engaged in different types of activities on social media platforms such as blogs, YouTube sites, discussion forums, social networking sites and Instant Messaging platform. We found that more people engaged in passive media usage across all social media platforms. More engaged in activities such as sharing a post, following other users and finding out how others feel about an issue, compared to creating content. A study conducted a few months ago during non-election time yielded similar findings.

In order to thrive in a digital economy, besides gaining access to a device and Internet connection, users must be able to leverage ICT to develop and showcase their competencies.

Being proficient in navigating technological platforms in their various formats to acquire information for learning and working will no longer be enough, one has to be an active contributor in community networks and a co-creator of solutions.

True Digital Native

While the Government is making commendable effort in its socially inclusive ICT policies, we can bolster existing initiatives in two ways. At the launch of the Info-communications and Media Development Authority (IMDA) two weeks ago, it was announced that the agency will work with three social service organisations to connect with more needy households and teach them how to use their tablets through starter kits and classes.

Besides using income as a variable to identify needy households, we could consider family type as another useful indicator of who may need help and provide targeted outreach efforts to atypical households. Here, I refer to households of single parents who are divorced, widowed or unwed, and are raising a child or more on their own. They are more likely to have less time and disposable income than married couples. Single parents from lower income brackets face a double whammy.

The Government recognises that single parents face challenges on multiple fronts and has in recent years put in place housing, healthcare and education policies to alleviate stress for this segment. Perhaps the same approach can be taken to target these households in the drive to increase digital literacy for children of this group. Some assistance will go a long way in ensuring that this group thrives in an environment with less guidance and supervision.

The second approach is aimed at helping users overcome the propensity barrier and motivating them to embrace ICT for learning, play and work. The Ministry of Education announced in February that 19 schools will offer programming as part of the new O-level subject computing that also includes algorithm and data management, starting next year. And over the next two years, seven new subjects, including robotics and electronics, will be introduced to the O- and N-level syllabuses to promote more hands-on learning. These moves signal the Government's recognition of new skill sets needed for the digital economy.

I would go one step further and propose that a subject like programming be introduced at the upper primary school levels. It should be pitched at the right level and offered as a non-examinable subject, thereby assuaging anxiety among parents and children about such a subject.

According to a Straits Times report in March, there has been a surge in demand for courses on coding and computational thinking among parents of young children. These parents are those who are willing and able to pay premium prices. Offering such courses as part of the school curriculum in primary schools will ensure that people from different backgrounds will have the opportunity to acquire an increasingly important skill at a young age, regardless of income.

Singapore has been doing well in distributing the spoils of technology and preparing citizens for the future economy.

Let us strive for more ways to bridge the ICT divide among various groups.

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