Speech by Minister Josephine Teo, Minister of Communications and Information, at the Ministry of Communications and Information Committee of Supply Debate on 28 February 2023

Introduction

1. Earlier in the debate, I outlined the lessons learnt from our Smart Nation journey as we strengthen our digital social compact.

2. MCI plays a key role in overseeing this compact: ensuring that it remains robust amidst technological disruption, and that it benefits all Singaporeans.

3. Our theme for COS this year is therefore "Empowering Singaporeans to thrive in our digital future".

4. To do so, we must sustain the two aspects of our digital social compact: the aspirational and the protective.

5. Our aspiration is for all Singaporeans to seize the opportunities created through digital developments.

6. To achieve this, we must build the foundational infrastructure to support our digital economy and society.

7. Sound infrastructure planning has been a cornerstone of Singapore's success.

    a. For example, the shape of our city for the next 50 years has been mapped in URA's Long Term Plan.

    b. The Land Transport Master Plan 2040 outlines our transport ambitions for the next two decades.

    c. Few countries think this far ahead, much less organise themselves to realise such plans.

8. To succeed in our digital future, we need an equally thoughtful and committed approach to digital infrastructure.

9. To this end, MCI will develop a Digital Connectivity Blueprint, which may be a world first, if not one of the very few.

    a. This blueprint will lay out the full scope of our long-term infrastructural ambitions, cutting across broadband, mobile, and Wi-Fi networks, as well as our undersea cables.

    b. It will lay the groundwork for us to transcend our resource constraints and create economic opportunities for all Singaporeans.

10. Given the fast-changing nature of digital, it would be unwise for Government to attempt this exercise on our own.

11. I have therefore asked Senior Minister of State Janil Puthucheary to co-chair an advisory panel comprising business and industry leaders, to bring them on board early and to make sure our blueprint incorporates their needs.

12. I expect this phase of our work to take six to nine months. SMS Janil will outline the specifics of our plan.

13. Of course, it is not just infrastructure that must be primed for the future – our people and businesses must be ready too.

    a. The importance of digitalisation is not lost on our businesses. 93% of Singapore firms have adopted at least one digital technology, and the demand for tech talent across the economy is strong.

    b. But there are still areas where businesses face hurdles, especially as the global baseline of digital adoption rises and competition heats up.

14. To strengthen support for businesses, we will develop a Digital Enterprise Blueprint.

a. This will comprehensively lay out how we are promoting and supercharging digital transformation at the national, sectoral, and firm levels.

b. Senior Minister of State Tan Kiat How will share more about our plans.

15. In pursuing our digital ambitions, we must not neglect the equally important protective dimension of our digital social compact – the dimension of trust and safety.

16. Without this, confidence in digital will erode. There are three issues of concern.

17. The first has to do with inclusion.

a. The path of digital development must be wide enough to accommodate as many as possible.

b. Those who fall off this path will find it hard to support and participate in digital developments, much less embrace its benefits.

18. The second is about keeping digital technologies safe for Singaporeans.

a. The digital realm has created opportunities for malicious actors to manipulate, deceive, and coerce.

b. Compromise of our digital infrastructure and services could severely disrupt our economy and our lives. Such occurrences breed a sense of danger and distrust.

19. The third concerns how we keep our society united and resilient.

a. We recognise the risk of digital technologies being exploited to undermine social cohesion through misinformation.

b. Left unaddressed, this can deepen fault lines, polarise societies, and fuel intolerance and hatred.

20. Today, I will explain what MCI is doing to address these issues.

Unleashing the Potential of Digital for all Singaporeans

21. First, on inclusion, which Ms Tin Pei Ling, and Mr Sharael Taha have asked about.

22. In terms of connectivity, 92% of our households have access to a computer, and 98% have broadband. This is far more than many countries can say.

23. However, MCI believes we can reach a higher bar in terms of access and inclusion.

24. One group we remain concerned about are lower-income households.

    a. For most households, digital connectivity has become as essential as water and electricity. But for some, connectivity can still feel costly.

    b. Since 2020, we have helped over 46,000 households stay connected through the NEU PC Plus and Home Access schemes.

    c. We will streamline these schemes into one, ease the application process, and provide more affordable digital access for those who need it most.

25. To that end, we will introduce a new DigitalAccess@Home scheme from April this year.

    a. It will provide subsidised broadband and digital devices to eligible low-income Singaporean households.

    b. The Government has set aside about $80 million over the next four years to fund this scheme, which will be able to support 60,000 households.

26. Under this scheme, the cost of broadband will be reduced to as low as $5 per month for eligible households living in HDB rental flats under the Public Rental scheme. Those living in 1 to 3-room flats will pay $10, while those in 4-room or larger flats will pay $15 monthly. For another $5 monthly, they can double their bandwidth from 500 Mbps to 1 Gbps.

27. In addition, households which include ComCare Assistance beneficiaries will automatically qualify for the highest level of subsidy and pay the least. Households with students on MOE's Financial Assistance Schemes may also enjoy the highest level of subsidy depending on income.

   a. We will work with these agencies to auto-qualify these schemes' beneficiaries.

28. To achieve digital inclusion, broadband access must be accompanied by device access. This is often a bigger barrier as the costs are higher and harder to spread out.

29. Under the DigitalAccess@Home scheme, beneficiaries can enjoy subsidies of between 25% and 75%. This will reduce out-of-pocket costs for the devices.

   a. Depending on the level of support, beneficiaries will pay between $75 and $250 for a tablet, and between $220 and $710 for a laptop.

30. For larger households with school-going children, we are partnering the people sector, through organisations like Engineering Good and SGBono, to provide up to 1,000 refurbished laptops per year to support them. From the demand seen in existing programmes, this number should be sufficient to meet current needs.

31. Mr Chairman, allow me to describe the gist of our updated policy in Mandarin, and how we should think about our seniors in our digital future. I will also outline what it means to be "digital first, but not digital only", which Mr Baey Yam Keng and Ms Janet Ang have asked about.

32. 主席先生，在新加坡，绝大多数的家庭都能享受数码科技带来的便利，这一点令许多国家羡慕不已。但政府深信，我们还能做得更多。为此，政府将在未来 4 年拨款约 8000 万元，推出新的"住家数码共享计划"，为低收入家庭提供可负担得起的宽频服务和电脑。

33. 但，有了电脑和网络服务并不意味，我们就能在网络世界畅行无阻。我们身边还有许多年长者，即使有了一台最新的手机，还是不会使用它的多项功能。

34. 因此，政府现在提倡的是"数码为先，而不是 数码唯一"。这也就是说，在<u>必要服务</u>方面，我们还是会继续提供<u>非数码</u>选择。不少人告诉我，这番话缓解了他们的焦虑，让他们感到更安心。但也有人 问我， 这是不是说， 我们的年长者从此不需要掌握新的数码技能？

35. 实际上，最新的调查显示，年长者的数码能力过去两年有所提升：60 多岁的年长者中，具有基本或更高的数码能力的人从 28%增加至 44% -- 增加了 16 个百分点。更多 70 岁或以上的年长者也开始在这两年达到起步的水平，从 7%增加至 29%，--增加了 22 个百分点 。

36. 由此可见，我们的年长者很清楚自己必须顺应改变， 也有能力做到。毕竟，他们过去经历了各种风雨，也成功地适应了每一次的发展和变化。

37. 这些数据加上各种公民咨询也显示：我们不能操之过急，或希望一步登天。学习过程应该考虑到年长者的吸收能力，并善用学习伙伴。学习内容应该符合年长者的生活所需，如进行电子付款。数码科技的设计也应该融合年长者的观点，方便他们使用。

38. 换句话说，我们没有必要低估年长者的学习精神或能力。 但，也应该认识到他们需要更多的时间和机会，更多的包容和鼓励。

39. 因此，不论是政府、企业或是社区团体，让我们一起帮助年长者掌握 新科技。在这条数码道路上，一步一脚印，陪伴他们继续前进。

40. Mr Chairman, let me emphasise this. While some seniors need help with digital skills, we should not dismiss their ability to be part of our digital future. What they need are time, opportunity, and empathy.

41. Take Mr Richard Yip, a 72-year-old grandfather of three who discovered NLB's MakeIT programme through NLB's app.

   a. Members may recall that the MakeIT programme allows residents to experiment with fabrication technologies at libraries around Singapore.

   b. Mr Yip was intrigued by the 3D printing technology on offer at Jurong Regional Library. He started using it to print small solid pieces, such as insects and dinosaurs, which his grandchildren loved, and which made him incredibly popular with them.

   c. Over time, Mr Yip progressed to using coding and robotic microcontrollers to create moveable toys for his grandchildren, making him even more popular.

   d. He is now an advocate for 3D printing, describing it as a "dream come true" for seniors like him.

42. To questions by Ms Hany Soh, Mr Chris de Souza, Mr Seah Kian Peng, and Mr Yip Hon Weng, IMDA's SG Digital Office (SDO) was established at the start of the pandemic to provide digital training to seniors in areas like digital services, e-payment, and cybersecurity.

   a. Much of this involves one-on-one coaching or small group learning, in community spaces where seniors are comfortable.

   b. To date, SDO's Digital Ambassadors have trained more than 210,000 seniors to use smartphones for basic tasks and daily needs.

   c. By now, many seniors in the heartlands recognise our Digital Ambassadors as "the friendly people in purple shirts".

43. Since this January, SDO has also worked with the PA's Active Aging Council to create Digital Support Groups promoting peer learning among our seniors. To Mr Gerald Giam's question, the Government will be planning for more ServiceSG

touch points in tandem with demand. In the meantime, the SDOs, our CCs, as well as libraries do provide basic support.

44. Mr Yip's example also shows how our libraries are equipping Singaporeans with digital skills.

   a. Under NLB's Libraries and Archives Blueprint 2025 (LAB25), libraries will work more closely with leading tech companies to do so.

   b. At the inaugural ExperienceIT showcase at the full opening of Punggol Regional Library later this year, Amazon Web Services will help put together an experiential exhibit introducing visitors to machine learning and artificial intelligence.

45. This collaborative approach is a consistent thread in our efforts to uplift digital skills. For example, since 2020, MOE and IMDA have made Code For Fun, an enrichment programme on Computational Thinking (CT), available to all upper primary school students. This is an important social leveller that reached 50,000 students in 2022.

46. Ms Jessica Tan and Ms Rahayu Mahzam have asked how we are enhancing the Digital for Life movement (DfL).

   a. Since the movement was launched in 2021 to mobilise ground-up efforts, more than 130 partners have pledged support and kickstarted around 140 initiatives.

   b. More than 270,000 have benefited from these initiatives.

47. There is now growing momentum amongst DfL partners to introduce new programmes. For example, Microsoft will offer classes to expose children from low-income families to topics such as Internet of Things and Mixed Reality.

48. As the DfL movement gathers pace, MCI is conducting a series of Forward SG engagements with people, private and public (3P) sector partners to target specific areas of need. In the next phase of engagements, we will focus on topics such as

a. parenting in a digital age; and

b. enhancing user experience in digital government services.

Ensuring Safe and Secure Digital Spaces

49. Mr Chairman, let me now turn to safety and security.

50. According to Microsoft's 2023 Global Online Safety Survey, 77% of Singaporeans have experienced at least one online risk in the past year. At the COS debate for MHA, I shared plans to introduce an Online Criminal Harms Act.

51. This builds on the Online Safety Bill which was passed in Parliament last November and came into force recently.

    a. At last year's debate, I explained that the change in law was to enable the introduction of a Code of Practice for social media services.

    b. IMDA has been engaging industry partners to finalise this Code, and expects it to be implemented it in the second half of this year.

52. In debating the Bill, I also indicated that we would look beyond social media services to other widely-used online communications services.

53. To Ms Tin Pei Ling's and Ms Janet Ang's questions: We will take another step to strengthen online safety through a new Code of Practice for App Stores.

    a. App stores may carry apps with harmful content, especially for children. This could include content depicting explicit sexual activities or inciting violence.

    b. As with social media services, app stores should be expected to have systems and processes in place to deal with harmful content.

    c. The new Code will take time to be developed and involve industry engagement. We will work out the details and update members in due course.

54. In the debate on the Bill, there was also strong interest from members for MCI to look into online games.

    a. When the new Code for App Stores is introduced, the risks of exposure to harmful content through games on these stores will be curtailed. Apps with egregious content may also become unavailable for download. But games may still be accessed through platforms other than app stores. We will have to study how to deal with this.

    b. A possible measure is to introduce a classification scheme for online games, much as we already do for video games. This will clarify the age-appropriateness of games, and help parents exercise better supervision over their children's online gaming.

55. We will work towards these moves over the next 12 to 18 months.

56. We have also started a detailed landscape survey on online gaming, to assess if more can be done, for example, to reduce the risk of cyber addiction which Ms Hany Soh was very concerned about.

    a. This survey is necessary because there is no international consensus on the nature of the problem or the effectiveness of measures.

    b. The concerns in Singapore are also not fully understood.

57. A survey covering both parents and children will allow us to better understand the issues and shape our responses. This may include working with the people sector to support the vulnerable groups which Mr Baey Yam Keng had identified.

    a. The survey will examine exposure of children to unwanted interactions and inappropriate content on gaming platforms.

    b. It will also examine the social and psychological impacts of gaming, extending beyond the problematic content.

    c. This requires extensive work, and we will do our best to be timely.

58. Next, I will briefly discuss cybersecurity.

59. Cybersecurity has become a crucial aspect of national security, especially for a country as digitally connected as Singapore.

60. During last year's debate, I announced that the Cyber Security Agency of Singapore (CSA) was reviewing the Cybersecurity Act which only came into effect in 2018.

    a. Since then, CSA has held discussions with its stakeholders, including owners of Critical Information Infrastructure (CII). We have also engaged trade associations and key industry players. We have made good progress and will start formal industry consultations next month.

    b. One area under review is how we will adapt our regulatory framework to allow the safe and secure use of virtualised systems, beyond the CII.

    c. Specifically, <u>CSA has identified cloud services and data centres as foundational digital infrastructure we need to better protect</u>. As this is a new area, our discussions with the industry will be important in ensuring that our regulations remain effective.

61. With increasing industry digitalisation, demand for cybersecurity services has been growing domestically and overseas. CSA is hence examining how we can develop our *entire* cybersecurity ecosystem, ranging from nurturing talent to promoting innovation and capability development.

62. We will provide updates on this, as well as the Cybersecurity Act Review, later this year.

63. Let me briefly discuss our approach to emerging technologies, which Ms Tin had asked about.

64. By now, members are all aware of seminal developments in AI, including tools like ChatGPT.

   a. While AI brings many benefits, it also brings risks we must mitigate.

   b. This is important because AI is increasingly commonplace.

65. Members will recall that in 2019, Singapore launched a Model AI Governance Framework. Last year, we also launched AI Verify, the world's first AI Governance Testing Framework and Toolkit.

66. We will build on these initiatives to strengthen the guardrails that ensure responsible AI development and deployment.

67. Let me mention two Advisory Guidelines that will be published by the Personal Data Protection Commission (PDPC) later this year.

   a. The first is on the Use of Personal Data in AI Systems. This will encourage AI users to abide by standards of transparency and explainability, so that customers will know when and how AI is being used to process their personal data. It will also contain best practices on how industry can use personal data to train, test and monitor AI systems.

   b. The second is on Children's Personal Data. This will set out clear, actionable standards for social media services and companies whose products interface with children. For instance, they must obtain parental consent before collecting data from children under the age of 13 and implement protective defaults such as making sure that children's profiles are not made public.

68. There are many more questions about AI that deserve our attention.

a. Members will recall that Open Government Products (OGP) has integrated ChatGPT into Microsoft Word and plans to trial its use among some civil servants. As more use-cases are developed, we will monitor developments to support AI innovation whilst protecting our people.

b. Emergent technologies that are immersive, decentralised, and anonymous, including the metaverse and Web 3.0, could also introduce new types of online risks. We will continue to review our measures to keep in step with technological trends.

Building a Resilient Society

69. I will now turn to the third theme of my speech – promoting trust to build social resilience.

70. To withstand online misinformation, Singaporeans must have trusted and easily accessible sources of information. In their absence, we cannot assume that our society will hold together. A citizenry that is informed and information-literate helps to strengthen social resilience. This is a key reason for supporting our public service media.

71. To Ms Jessica Tan's question, our local media's digital capabilities have strengthened considerably in the last few years. To grow online reach, especially to the young, they have used digital technologies to tell stories in innovative ways. For example,

a. Mediacorp has used augmented reality in its coverage of the Russia-Ukraine war.

b. The Straits Times has used interactive graphics to report on how our HDB flats have changed over the decades, and the impact of rising sea levels on our shoreline.

c. Some of these efforts have won international acclaim.

72. Our vernacular media are also making efforts to go where audiences are. For example,

   a. Mediacorp has launched a digital-first Chinese-language debate program, "Frontline Connects"《前线开讲》, that caters primarily to audiences online.

   b. Berita Harian has produced podcasts discussing social and geopolitical issues, and Tamil Murasu is on track to launch its mobile app this year.

73. These efforts have paid off, especially with younger viewers. An MCI survey showed that 82% of 15 to 24-year-olds regularly consumed local mainstream news via online platforms in 2021, a jump of around 30 percentage points since 2018.

74. That said, our media has lots more to do.

   a. As Singaporeans' news consumption habits evolve, both SPH Media Trust and Mediacorp will have to continue demonstrating progress.

   b. True transformation will not just come through new technologies, but from mindset changes. Journalists will need to develop new skills and have the support of management in this process.

   c. The road ahead is long and difficult, and we should not underestimate the effort required.

75. When it comes to promoting information literacy, NLB plays a critical role. To questions by Ms Tin Pei Ling,

   a. Since 2013, NLB's flagship information literacy programme, SURE, has been helping citizens navigate our dense information landscape.

   b. Complementing these efforts, NLB launched the "Read to be SURE" campaign in November 2021 to further promote critical thinking.

    i. The campaign helps Singaporeans hear from different voices on topical issues, such as cryptocurrency, or gender equality.

    ii. Since inception, it has garnered over 220,000 engagements.

Conclusion

76. Mr Chairman, let me conclude by touching on the international significance of our efforts in digital.

77. Today, Singapore is considered one of the leading countries in digital developments, at the frontier of digital infrastructure and regulation. This has brought real economic payoffs.

78. In addition, by positioning ourselves as a thought leader, we are better able to partner like-minded countries and shape new international norms in digital. Promising developments include:

    a. our chairmanship of the United Nations Open-Ended Working Group on ICT Security;

    b. the Digital Economy Agreements with Australia, the UK, and South Korea, or the US-Singapore Partnership for Growth and Innovation;

    c. the Smart City Initiative with Shenzhen;

    d. the ASEAN Data Management Framework which we initiated; and

    e. the "Digital Forum of Small States" ("Digital FOSS") which we championed.

79. These initiatives are opportunities for our voice to be heard and our economic space to expand.

80. There are no guarantees that we will succeed in every project. Nor can we be sure that global developments will always be favourable. But our foundations are strong, and our investments will bear fruit.

81. Working with our partners at home and abroad, I am confident we can Empower Singaporeans to thrive in our Digital Future! Thank you!

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