

Editorial

Expanding the Digital Economy

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Abstract: This editorial comes in two parts: some remarks on barriers to the further expansion of the digital economy; and a brief introduction to the papers in this issue.

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Expanding the Digital Economy

When the founders of TelSoc re-established this journal, after the demise of the *Telecommunication Journal of Australia*, they wisely included “Digital Economy” in the title. Indeed, the “Digital Economy” section of the *Journal* has become one of its busiest, with a steady stream of submissions. In this issue, we publish three papers in that section describing careful studies on the progress and reception of the digital economy in different countries. While experience varies widely, it is no surprise that perceived benefits and ease of use figure highly in motivations to adopt digital-economy applications.

For a long time now, workers in the telecommunications industry have been aware that there is a much larger industry – Information Technology (IT) – surrounding their own. Still, it is startling to discover that one IT company, Apple Inc., is now approaching a valuation of 3,000 billion (3×10^{12}) US dollars on the stock market ([Reuters, 2021](https://www.reuters.com/article/technology-apple-valuation)), a value larger than the Gross Domestic Product of most countries. It is just one indicator of the importance of the digital economy to the economy and society in general.

With great influence should come great responsibility. Now that governments and many businesses have moved to make online access to their services the easiest, the most practical, or the only approach, it becomes even more important that the telecommunications and IT industries strive to make their products accessible by everyone. One barrier to access – affordability – is described in a summary provided in this issue of a forum organized by TelSoc’s Broadband Futures Group. It is pointed out that the telecommunications and IT

industries can do more to make their products accessible to the least well off; it is not just an issue for governments.

The rapid growth of the digital economy is set to continue. The COVID-induced step change to online applications has demonstrated the resilience of most current networks to surges in demand, but it has exposed many weaknesses in current services. There is a clear need for better and more consistent support for online education and telehealth consultations, for example, as well as improved human factors for less error-prone interactions with mobile phones and other IT devices. The current situation in which users must continually “learn” new interfaces and systems in order to participate in the digital economy and society will likely become a barrier to participation – and hence to further growth.

The IT industry should recognize that “innovation” is not always beneficial for users. Why, for example, should it be that answering a voice call requires the user to “swipe right” on some devices or in some applications, while it requires a “swipe up” on others, or clicking on a button on yet others? This is a barrier to usage for unskilled users – which, necessarily, is most of them. Competition often leads to beneficial advances, but useless “innovation” can just be a nuisance.

There is a role for government too. The EU regulations on data privacy, for example, have led to more uniform and improved data handling across much of the world. Government intervention will become more likely if barriers to usage are seen to affect significant numbers of citizens. The Australian ([Wilding, 2021](#)) and Indonesian ([Hidayat & Mahardiko, 2020](#)) governments have intervened in social media content, for example.

The expansion of the digital economy and digital society to include everyone is not a given. Full inclusion should be a goal, however, for all major participants. It will require co-operation between business (especially application developers), standards bodies and governments to bring it about.

In This Issue

As always, our latest issue contains a wide variety of content – from public policy, through the digital economy and telecommunications, to a historical reprint.

Continuing our series of outputs from TelSoc’s Broadband Futures Group, we publish a Special Interest Paper, *Assessing Australia’s Progress towards a National Broadband Strategy at December 2021*, on the Group’s recent assessment of progress towards a National Broadband Strategy for Australia.

In the Public Policy section, there are two papers. *State Control by Stealth in the Big Data Era – From WeChat to the Social Credit System in China* describes the rise of the social credit

system and the role of WeChat. This is an important account that deserves to be widely read. The other paper, *The Broadband Futures Forum: Affordability of Broadband Services*, summarizes the recent forum on affordability and inclusion.

In the Digital Economy section, we publish three papers from widely different countries. *The Evolution of Digital Capital in Organizations: A Quantitative Assessment* describes the evolution of the digital economy in Russian business. *Determinants Affecting the Adoption of E-commerce and Its Impact on Organisational Performance of SMEs in Sri Lanka* is a study of the take-up of e-commerce and the factors driving it. *Factors Determining the Use and Acceptance of Mobile Banking in Colombia* studies the take-up of mobile banking.

In the Telecommunications section, we publish two papers. *Iterative Interference Cancellation for Multi-Carrier Modulation in MIMO-DWT Downlink Transmission* considers transmission enhancement in a cellular wireless channel. *Predictions from an Empirical Study in the Turkish Mobile Telecommunications Market on the Determinants of Mobile Customer Churn* reports on a study of factors causing customers to change mobile providers. We also include a Technical Note, *A Predictive Algorithm for Handover Decisions between LTE and LTE-A Networks*, providing some results on cellular handover decisions.

In the History of Telecommunications section, *Revisiting the Power Co-ordination Challenges of the Original Snowy Mountains Scheme* reprints a paper from the *Telecommunication Journal of Australia* on co-ordinating power transmission and telecommunications networks in a major engineering project.

As always, we encourage you to consider submitting articles to the *Journal* and we welcome comments and suggestions on which topics or special issues would be of interest.

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