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Senate Environment and Communications References Committee  
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**RE: Inquiry into the future of Australia's video game development industry**

Honourable Members of the Committee,

As a career academic and consultant to government and industry, and as author of the decade-long *Digital Australia* series of studies on the market for digital interactive entertainment, I am grateful for the opportunity to respond to the Senate Environment References Committee's Terms of Reference (TOR) on the future of Australia's video game development industry. The TOR being:

The future of Australia's video game development industry, with particular reference to:

- a) how Australia can best set regulatory and taxation frameworks that will allow the local video game development industry to grow and fully meet its potential as a substantial employer,
- b) how Australia can attract video game companies to set up development operations in Australia and employ local staff,
- c) how export opportunities from Australia's local video game industry can be maximised, and
- d) any other related matters.

In this submission, I will comment and make recommendations only briefly in response to the first three terms of reference, deferring to industry representatives who have superior knowledge and more nuanced perspective with respect to operational matters. The bulk of my submission resides in the fourth term of reference to which I respond with arguments supporting a renewed national digital economy strategy.

Thank you for considering this submission,

Dr Jeffrey E Brahd  
Professor, Communication and Creative Media

The views expressed in this submission are those of the author and do not necessarily represent those of Bond University.

## Statement of Interest

I am a career academic in the field of communication and creative media.<sup>1</sup> I founded one of the first Australian University programs in interactive media at Bond University in 2006. I have published research on games and interactive media.<sup>2</sup>

I am also a research consultant who has been honoured to serve public clients such as the former Australian Broadcasting Authority (ABA) and its successor organisation the Australian Communications and Media Authority (ACMA), the former Office of Film and Literature Classification (OFLC). I have had the responsibility also of serving as a research consultant or grantee of Telstra, SBS and the Interactive Games and Entertainment Association (IGEA) among others.

## Relevant Research

I created the *Digital Australia* and *Digital New Zealand* series of studies in 2005 (then named *GamePlay Australia*) with the purpose of providing government, industry and public discourse with robust and reliable national data on the consumption of interactive games. I approached IGEA with the proposal to conduct this research and IGEA has funded this program.<sup>3</sup> The most recent report was published in July 2015.<sup>4</sup>

The six studies have been published in two-year intervals and each covers audience demographics, attitudes and behaviours in relation to use of video and computer games. In 2009, at the request and with the funding of IGEA, I began replicating the Australian Research in New Zealand.

The product of this program of research is a decade of trend data involving nearly 10,000 Australian households and six years of trend data involving over 3,000 New Zealand households. The research has been widely reported in academic and popular press as well as in Australian government reports. It has been published in a peer-reviewed academic journal. Relevant findings are reported below.

## Key Recommendation

I ask the Committee to consider promoting renewed and more aggressive focus on a national digital economy strategy to enable innovative Australian businesses to compete in the emerging global economy predicated on high-value experiences.

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<sup>1</sup> <https://bond.edu.au/profile/dr-jeff-brand>

<sup>2</sup> [http://works.bepress.com/jeff\\_brand/](http://works.bepress.com/jeff_brand/)

<sup>3</sup> <http://www.igea.net>

<sup>4</sup> [http://works.bepress.com/cgi/sw\\_config.cgi?context=jeff\\_brand/43](http://works.bepress.com/cgi/sw_config.cgi?context=jeff_brand/43)

## Introduction

Australia enjoys the enviable benefits of abundant natural, material and human capital at a time when these are ingredients necessary to take advantage of global trends.<sup>5</sup> The knowledge economy and its industries increasingly dominate the value of markets. Those economies that produce, attract and retain a highly skilled workforce capable of producing high-end, experience-rich products for export to a global market are rapidly becoming the engines of wealth generation. Indeed, the industries that expanded Australia's wealth in the 20<sup>th</sup> Century are unlikely to maintain or expand that wealth in the 21<sup>st</sup> Century.

The trend toward a creative knowledge economy and away from a resources and industrial economy is matched by a trend toward an experience economy and away from a material economy. The interactive games industry is one that serves the experience economy (discussed below) by creating entertainment content and content for non-entertainment purposes such as health and education. On the basis of this broad argument, I make the following points with respect to the TOR.

**TOR 1** – how Australia can best set regulatory and taxation frameworks that will allow the local video game development industry to grow and fully meet its potential as a substantial employer.

Adoption of regulatory and taxation frameworks known to prime the pump of a competitive video game development industry in other national or regional markets should not narrowly be adopted in Australia to suit entertainment video games businesses. Instead, if assumptions of a growing global experience economy are correct, then regulatory and taxation frameworks adopted in Australia should serve a wide range of enterprises that meet the needs of this emerging economy. These may be “serious games” developers, educational digital content creators, or designers of digital health solutions, among others.

**TOR 2** - how Australia can attract video game companies to set up development operations in Australia and employ local staff.

Australia should not attract only video game companies to operate and employ local staff. Australia needs to further develop a coherent, coordinated and comprehensive national strategy for attracting investment in and operation of high-skill, creative content businesses that meet growing demand for a wide range of digital products.

**TOR 3** - how export opportunities from Australia's local video game industry can be maximised.

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<sup>5</sup> For general discussions of significant global trends, the following publications are recommended:

Hajkowicz, S. (2015), *Global Megatrends: Seven Patterns of Change Shaping Our Future*. Clayton South: CSIRO Publishing.

Franklin, D. & Andrews, J. (Eds). (2012), *The Economist: Megachange-The World in 2050*. London: Profile Books Ltd.

Producing goods and services for which there are sizeable markets, particularly when the needs of the market are unfulfilled or poorly met, generates sizeable export value. Australia must invest in and develop a comprehensive national strategy to finalise its transition to a creative knowledge economy and thereby compete for rapidly emerging markets that value experiential wealth over material wealth; in such a market, hardware manufacturing (think automotive manufacturing) employs fewer people and returns lower margins than software and content manufacturing (think apps and artificial intelligence for the automotive industry). Interactive digital products are a unique combination of both goods and services that attract low export costs relative to material goods (New Zealand developers call them “weightless exports”), and high value particularly where the premium needs of a market are unmet by current products. “Middleware” products such as game development engines<sup>6</sup> or digital products that scale well by allowing consumers and businesses to develop their own innovative experiences (the virtual 3D building environment, *Minecraft*, is an example) are examples.<sup>7</sup>

#### **TOR 4** - any other related matters.

Revisiting and emboldening a comprehensive national strategy to prioritise the production of digital exports would help innovative Australian businesses to meet the market created by a shift in demand from material to experiential goods and services – what economists refer to as dematerialisation.

The Australian Government’s former Department of Broadband, Communications and the Digital Economy produced the *National Digital Economy Strategy* in 2011 and updated it with *Advancing Australia as a Digital Economy* in 2013. This comprehensive argument for promoting a digital economy focuses on infrastructure and issues that require strategic attention to realise the benefits of creating and selling to a dematerialised world. However, most of the vision and recommendations of the 2011 and 2013 reports remain unrealised.<sup>8</sup> Moreover, they could be emboldened by examining the relationship of the digital strategy to every industry in which Australian businesses operate and many of those in which it has struggled to compete (again, think automotive industry).

As CSIRO Principal Scientist Stefan Hajkowicz has written, “The experience economy isn’t new. But it hasn’t yet fully expressed itself.”<sup>9</sup> Hajkowicz identifies the experience economy as one of the “global megatrends” in his compelling book. His argument that it hasn’t fully

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<sup>6</sup> For example, see the Danish-based company Unity Technologies that produced the game engine Unity 3D which exploded as a dominant development platform in 2009:

<http://unity3d.com>

<sup>7</sup> Brand, J.E., De Byl, P., Knight, S.J., & Hooper, J. (2014). Mining Constructivism in the University, The Case of Creative Mode. In N. Garrelts (Ed.), *Understanding Minecraft: Essays on Play, Community and Possibilities*, pp. 57-75. Jefferson: McFarland & Company.

<sup>8</sup> DBCDE (2013). *Advancing Australia as a digital economy: an update to the national digital economy strategy*. Department of Broadband, Communications and the Digital Economy. Available online: <http://apo.org.au/node/34523>.

<sup>9</sup> Hajkowicz, S. (2015), *Global Megatrends: Seven Patterns of Change Shaping Our Future*. Clayton South: CSIRO Publishing, p. 123.

expressed itself invites the Committee to consider more aggressively pursuing a national digital economy policy objective.

Former IBM business coach Joseph Pine proposed Mass Customisation<sup>10</sup> in his book by that name, *Mass Customisation*. Pine argued that businesses need to treat customers as unique consumers each with a unique set of needs – something that is particularly well suited to the machine-data driven responsiveness of digital media. The thesis became the basis of Pine's widely respected work with John Gilmore first published in the *Harvard Business Review* and then in a book on the experience economy.<sup>11</sup> In their thesis, Pine and Gilmore compel an understanding of the model of progression of economic value from the least valuable resources to the most valuable – highly differentiated personalised experiential goods and services. Linking goods and services, the authors illustrate four “realms” of an experience to include entertainment, education, aesthetics and escapism; these realms are central to the success of contemporary interactive media, particularly video games and other digital interactive media.

For example, gamification and serious games are two related fields that leverage the experience economy. By applying elements of games to non-game experiences (gamification) or by making games that suit experiences that are not only entertaining, but serve some deeper purpose such as improved health or education (serious games),<sup>12</sup> the experience economy begins to look much larger than the video games development industry otherwise might suggest.

I ask the Committee to consider how wide and great this opportunity may become. The potential scope is enormous for an interactive media industry focussed broadly on the experience economy rather than narrowly on the entertainment video games development industry. The breadth of this opportunity is well represented in the recent *2015 Intergenerational Report* released in March by the Australian Government Treasury Department. The report highlights another “megatrend” explored compellingly in the report and by Hajkowicz in his book on megatrends: demographic ageing. In short, Australians are living longer and enjoying greater health. The benefits of an older experienced population to the economy can be realised as long as policies and collective behaviours seek to leverage social and economic value stored in that experience.

The *2015 Intergenerational Report* calls for increased productivity and participation of older Australians. Interactive media, including gamification and serious games, represent enormous market potential for increasing productivity and participation of the ageing population. This is just one example of how video games development and the experience

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<sup>10</sup> Pine II, J. (1993). *Mass Customization: The New Frontier in Business Competition*. Cambridge: Harvard Business School Press.

<sup>11</sup> Pine II, J. & Gilmore, J. (1998). Welcome to the Experience Economy. *Harvard Business Review*, July-August. Available Online: <https://hbr.org/1998/07/welcome-to-the-experience-economy>

<sup>12</sup> Deterding, S., Dixon, D., Khaled, R. & Nacke, L.E. (2011). Gamification: Toward a Definition. Proceedings of CHI 2011, Computer-Human Interaction Conference, Vancouver, B.C. Available online: <http://gamification-research.org/wp-content/uploads/2011/04/02-Deterding-Khaled-Nacke-Dixon.pdf>

economy are linked beyond entertainment and why fostering an aggressive global digital strategy of substantive vision backed by competitive investment may propel the Australian economy into one that becomes a leading exporter of designed experiences for a rapidly and vastly growing market. Demographic ageing, after all, is a global phenomenon and growing market. Export potential is great and competition today is relatively small. Video games are, generally speaking, not usually made with older players in mind.

However, the market is literate and ready for these interactive experiences. My Digital Australia series of studies demonstrates the growing diffusion of games among older adults and the growing game-play literacy in the Australian population in general. The most recent iteration of this research, *Digital Australia 2016*, based on 1274 households and 3,398 individuals, shows that 68% of Australians play video games and the fastest growing market is older adults; 39% of those aged 65 and over play and 49% of those aged 50 and over play. The main reason those over the age of 50 play is to keep their minds active.<sup>13</sup> In this regard, interactive media are intergenerational media with a growing global market across the ages and a wide canvas of content for every taste and need. *Digital Australia 2016* highlights Australian developers who have produced significant innovations through video games to manage dementia, to fight bullying and to connect families. They are under-resourced and their products are undercooked by global standards.

## Summary

The size of the global market requires well-developed digital products to meet global standards. According to the formidable and widely respected research on the Entertainment and Media markets by PricewaterhouseCoopers, *Entertainment and Media Outlook Report 2015-2019*,<sup>14</sup> Australian spending on this sector of the experience economy grew by 3.3 per cent in 2014. Global spending growth was at 6.2 per cent. Growth in the Asia-Pacific was 8.8 per cent. "In large part, this was due to good performances by the interactive games sector, consumer and educational books (especially from digital revenue streams) and internet access (especially mobile data)." PwC predicts the compound annual growth rate (CAGR) of interactive games leads consumer spending on media experiences at 8.8% while advertising growth for games will be second behind internet at 11.9%.

In this submission, I have argued that the TOR questions relevant to the video games development industry in Australia applies well to the wider digital economy. I have argued that the digital economy deserves more attentive strategic attention and should be pursued with vigour in order to position Australia competitively across all industry sectors. I have argued that interactive digital media are useful for both entertainment and serious applications. Finally, I have argued that the market for interactive digital media is growing quickly relative to other media and traditional manufacturing.

Ignoring the need for a renewed and more vigorous national digital strategy would be a great loss to Australia's future.

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<sup>13</sup> Brand, J. & Todhunter, S. (2015). Digital Australia 2016. Eveleigh: Interactive Games & entertainment Association. Available online:

[http://works.bepress.com/cgi/sw\\_config.cgi?context=jeff\\_brand/43](http://works.bepress.com/cgi/sw_config.cgi?context=jeff_brand/43)

<sup>14</sup> <http://www.pwc.com.au/industry/entertainment-media/publications/outlook/index.htm>