



PLAY



DA16

DIGITAL AUSTRALIA REPORT // 2016 //



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igea.net

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// Foreword //

We are witnessing breathtaking changes in the realm of digital interactive entertainment. It is hard to imagine that 15 years ago, we were debating the worth, even potential harms, of simple video games. Today attention is on the potential of this amazing medium to reinvigorate education, workplace training, consumer engagement and social and political conversation. Interactive entertainment is celebrated for its economic importance.

There have been many voices in the call to treat games as a serious medium for the knowledge age. The five IGEA-Bond University reports preceding this one have contributed to the chorus of voices. Our national studies of computer game audiences have broken down stereotypes that prevented understanding in the wider community that computer games were not only a popular medium, but a productive medium. In this report, we turn our attention to providing more finely grained observations about play behaviour and to offering a set of baseline measures of Australians' engagement with game culture and the use of games for productive and so-called "serious" purposes such as education, training and health.

If we reflect on the dominant themes of the series of reports for which the one you are reading is the sixth, we find they turn from simple general observation to increasingly focused themes including:

2005 - Video games as an emerging medium

- 3 in 4 households had a device for gameplay
- Over 3 in 10 players were female, the rest male
- The average player was 24 years old
- Gameplay was twice a week, an hour each time
- 5 in 10 homes had broadband

2007 - Video games grow as a social medium

- 8 in 10 households had a device for playing games

- 4 in 10 players were female
- The average player was 28 years old
- Gameplay was twice a week, an hour each time
- 8 in 10 homes had broadband

2009 - Video games become mainstream

- Nearly 9 in 10 households had a device for gameplay
- Nearly half of all players were female
- The average player was 30 years old
- Gameplay was almost daily, an hour at a time
- More than 8 in 10 homes had broadband

2012 - Video games stabilise and mature

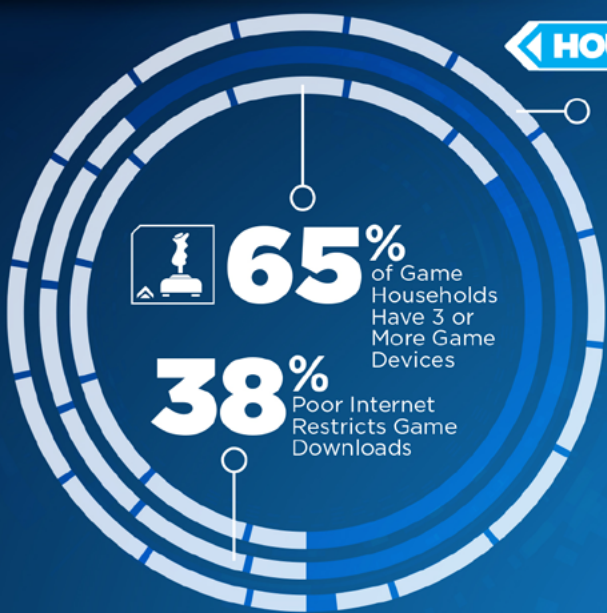
- More than 9 in 10 households had a device for gameplay
- Another 1% increase in female players
- The average player was 32 years old
- Gameplay remained almost daily, an hour at a time
- Home broadband was stable at 8 in 10

2014 - Mobile video games mainstream as play is everywhere

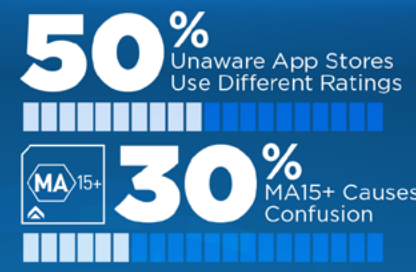
- More than 9 in 10 households had a device for gameplay
- Female players stabilised at just under half of all players
- The average player age remained at 32 years
- Gameplay was daily, for more than an hour at a time
- Broadband rose to 9 in 10 homes

2016 - Video games mature for education, health and ageing.

As lead author of this research series, I continue to marvel at the growth of video games while believing in their potential to serve a positive social, political and economic force. This report attends to the potential of games. -- Prof. Jeffrey E. Brand



HOUSEHOLDS



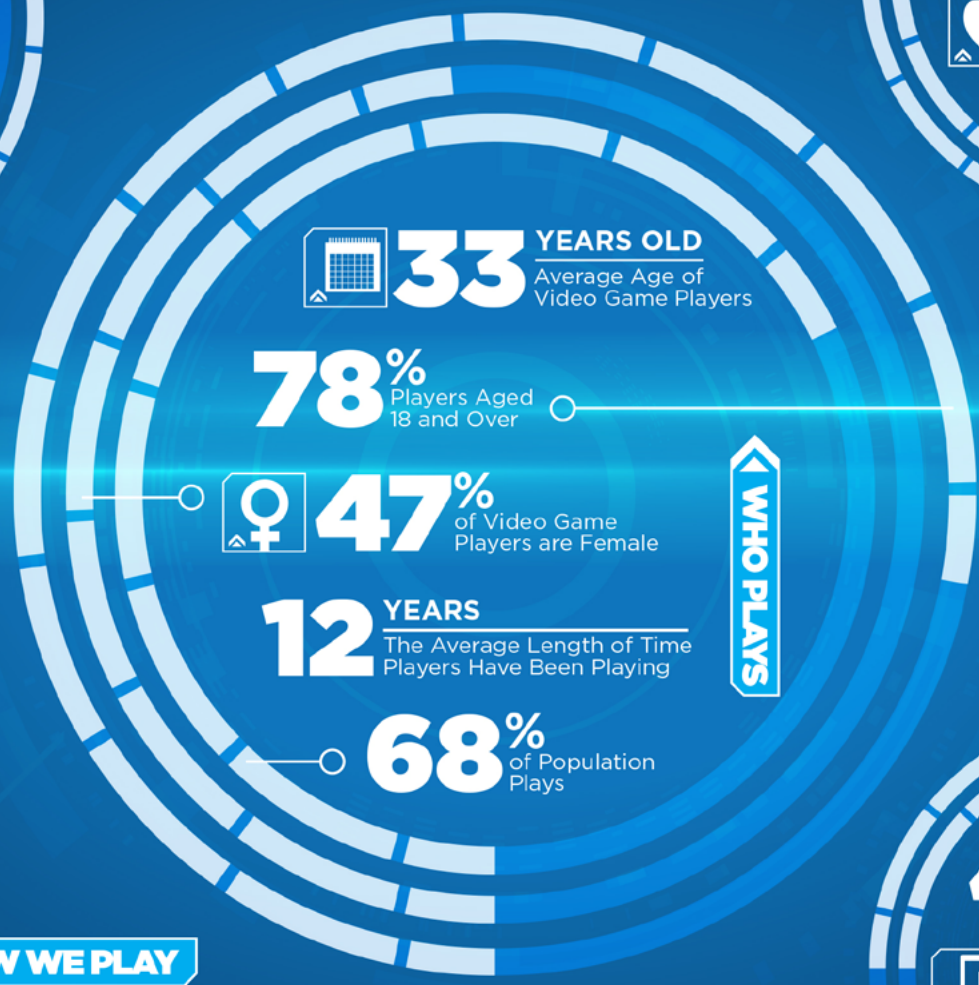
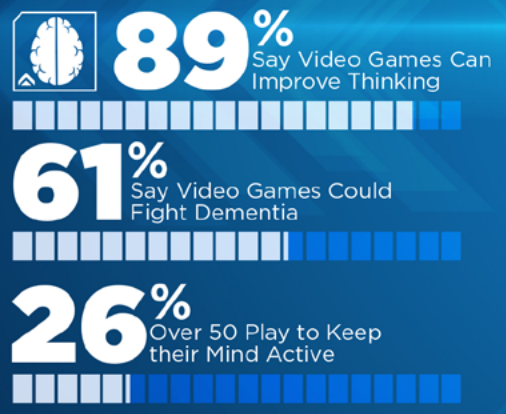
CLASSIFICATION



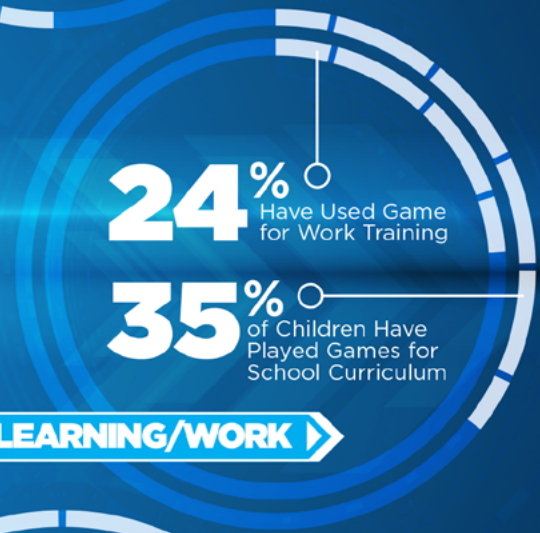
FAMILIES



POSITIVE AGEING



WHO PLAYS



LEARNING/WORK



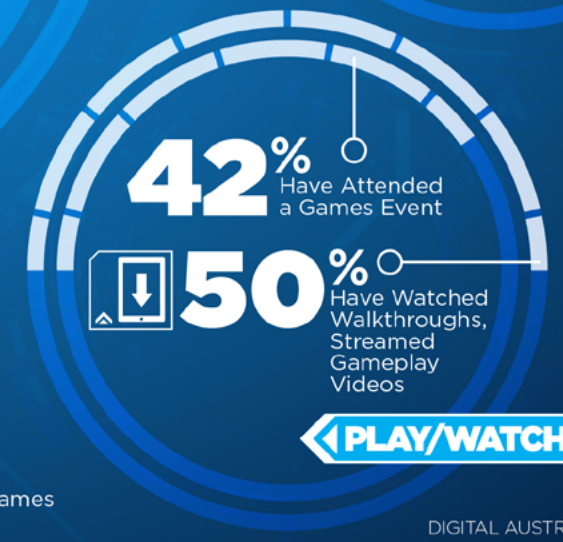
HOW WE PLAY

DAILY Typical In-depth Play Frequency



INDUSTRY

\$20% Growth of AU Games Industry in 2014



PLAY/WATCH/STREAM



// Key Findings //

Games Households

- 98% of homes with children have computer games.
- 65% of game households have three or more game devices.
- 38% choose not to download games due to data limits.

Who Plays

- 68% of Australians play video games.
- 47% of video game players are female.
- 33 years old is the average age of video game players.
- 78% of players are aged 18 years or older.
- 39% of those aged 65 and over play video games.
- 12 years is the average length of time adult players have been playing.

How We Play

- 88 minutes is the average daily total of all game play.
- 10 minutes, three times a day is typical for casual game play.
- 1 hour, daily is typical for in-depth game play.

Why We Play

- To keep the mind active is the main reason older adults play.
- To have fun is the primary reason PC and console players play.
- To pass time is the main reason mobile players play.

Families and Play

- 90% of playing parents play with their children.
- 31% play online games with partners.
- 57% of adults are "Always present" to purchase games for children.
- 66% are familiar with parental controls on game systems.

Classification and Media Concerns

- 30% indicate MA 15+ causes most confusion.
- 28% indicate M causes most confusion.
- 50% are unaware that app stores have different rating systems.
- 41% say ratings have "a lot of influence" on games purchased for children.

Game Play Culture

- 50% have watched walkthroughs or streamed gameplay videos.
- 42% have attended a games event.

Games and Benefits

- 89% say video games can improve thinking skills - health.
- 79% say video games can improve coordination and dexterity - health.
- 76% say video games increase mental stimulation - positive ageing.
- 61% say video games could fight dementia - positive ageing.

Learning and Work

- 24% have used video games at work for training.
- 35% say their children have used video games for school curriculum.

Game Business

- 20% is the amount of growth in the Australian game industry in 2014.

Methodology

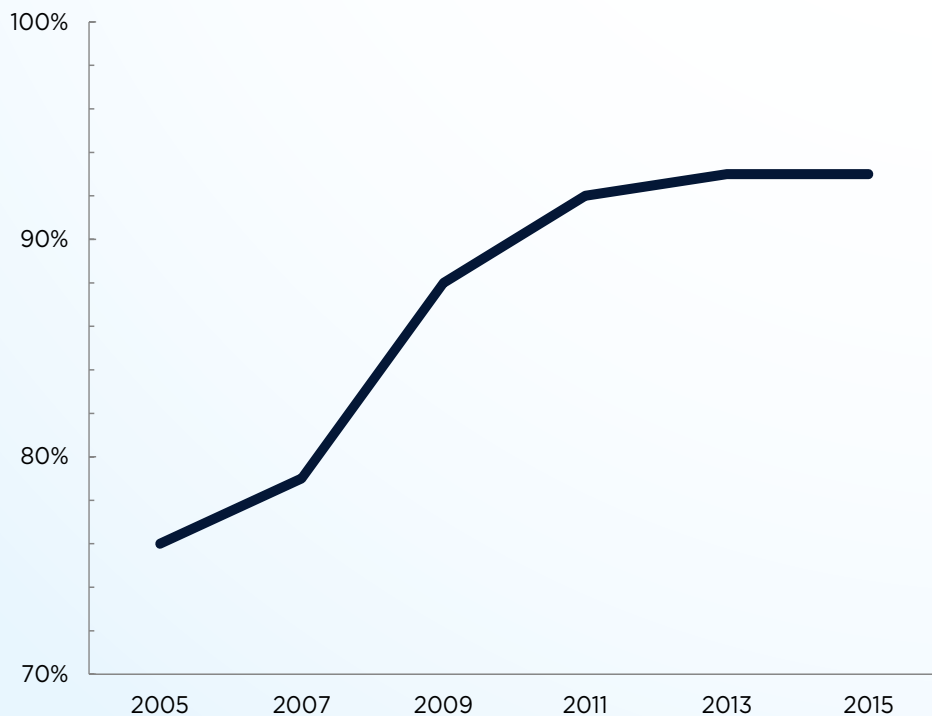
Digital Australia 2016 (DA16) is a study of 1274 Australian households and 3398 individuals of all ages in those households. Participants were drawn randomly from the Nielsen Your Voice Panel in May 2015; research was designed and conducted at Bond University. The margin of error is $\pm 2.7\%$.



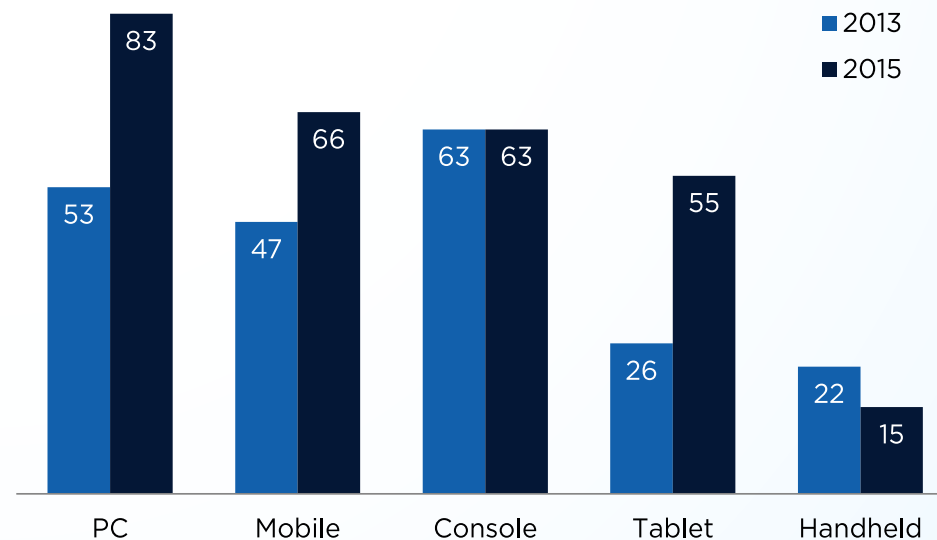
// Game Households //

98% of homes with children under the age of 18 have a device for playing computer and video games. Of all homes, however, nine in ten have game devices in use. Following a five year period of rapid growth, this proportion has remained stable for the past five years, demonstrating a mature media market.

Households with Games Over Time



Devices Used to Play Games (%)



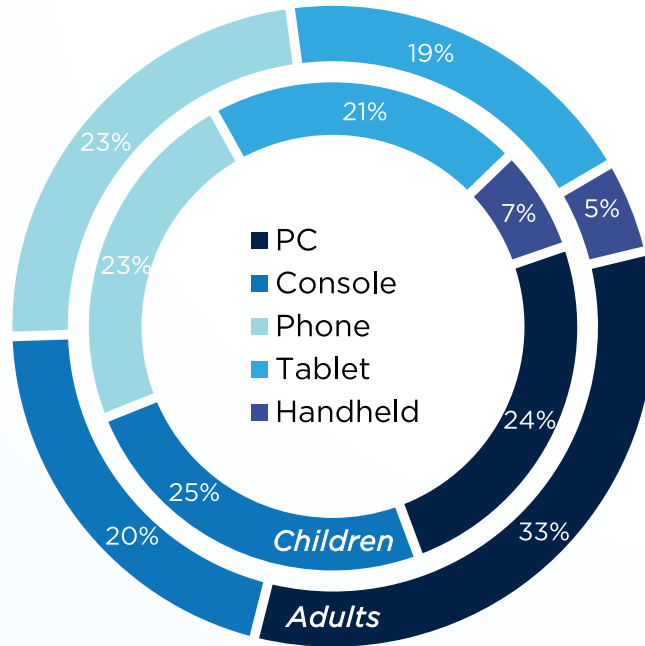
PCs have undergone a resurgence for game play over the past two years in response to the growth of new content delivered online. Nevertheless, mobile devices such as phones and tablets have increased their presence for games over the same period. Moreover, despite the competition for player attention, consoles have remained as popular as two years ago while only dedicated game handhelds have declined in use.





Game Devices in Child and No-Child Households

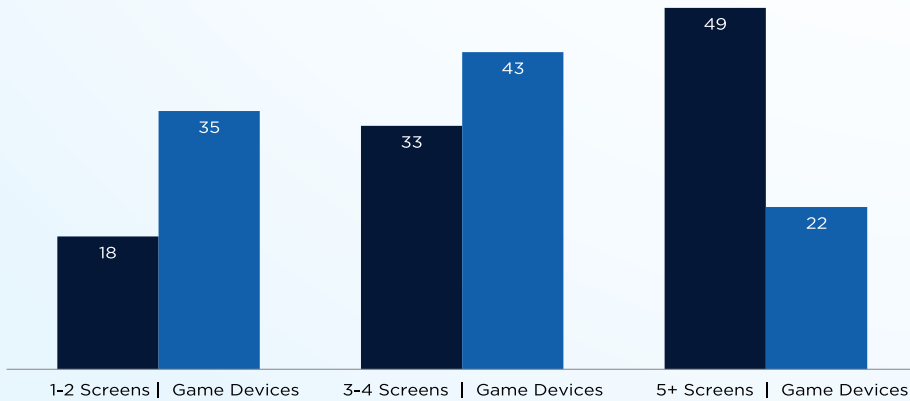
PCs account for a third of all game devices used in Australian homes where there are no children under the age of 18. In those homes, consoles, smart phones and tablets are used for playing games in similar proportions. In homes where children are present, these game devices are used in near equal proportions. Dedicated handheld devices round out the list in all homes.



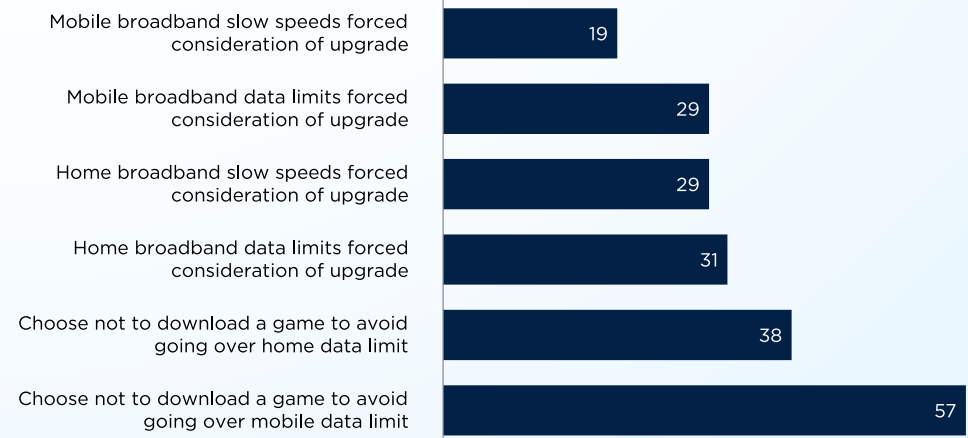
The modern multiple-screen household features smart phones, tablet computers, laptops, desktop computers, television screens and handheld game devices: 82% of households have three or more screens (33% have 3-4 and 49% have 5 or more screens) on which to enjoy media of all kinds, while 65% have three or more devices for playing games (43% have 3-4 and 22% have 5 or more). This accounts for devices with dedicated, built-in screens, such as a mobile phones, tablets or handheld game systems, as well as devices that are paired with an independent screen such as consoles, televisions, or personal computers. While hardware in Australian homes is plentiful, bottlenecks in broadband access are prevalent. Data limits cause more than a third of game players to forego game downloads at home and more than a half on mobiles. Broadband speeds have also constrained online access for many Australian consumers.

As game devices expand opportunities for play, broadband bottlenecks constrain it.

Screens and Game Devices in Game Households (%)



Constraints on Play by Broadband Services (%)

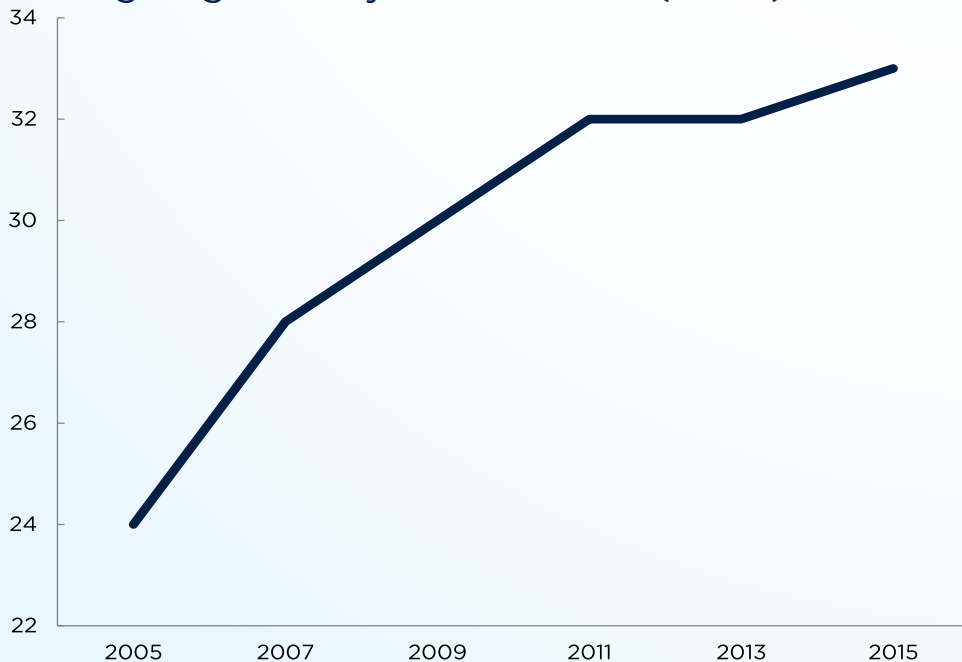




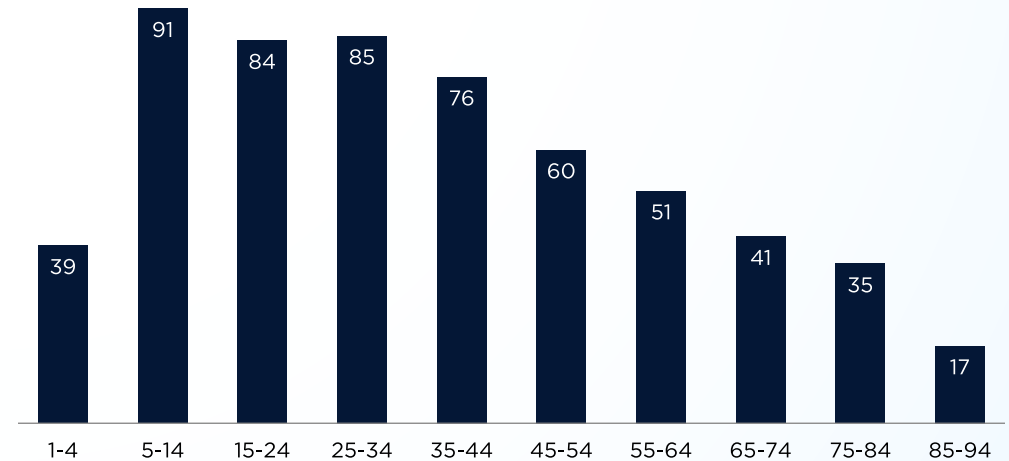
// Game Players //

33 is the average age of all video game players in Australia today. While the median age of the population remained at 37 years according to the Australian Bureau of Statistics, the average age of people who play video games has increased over the past two years. Over the past decade, the median age of the population increased by over two years while the average age of those playing video games increased by nine years. Player age growth has outpaced population age growth because ever older members of the population have access to and play games. The nature of playing games will change in coming years to accommodate the larger and older audience.

Average Age of Players Over Time (Years)



Player Proportions by Age Group (%)



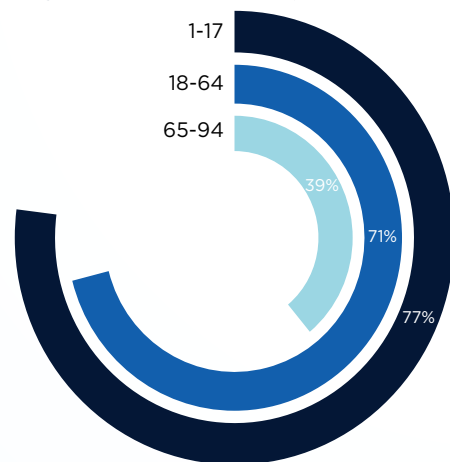
Video games are played by 68% of all Australians – up from 65% two years ago. The fastest growing segment of the population new to games is those over the age of 50, of whom 49% play. Ageing among those who began playing video games many years ago has also contributed to an uplift in player age. The average Australian adult player has been playing for more than 12 years - up by a year since our last report. Men report having played longer (15 years) than women (10 years), illustrating the growth in female engagement with video games more recently over the past decade.

12 Years - how long the typical Australian adult has been playing video games.



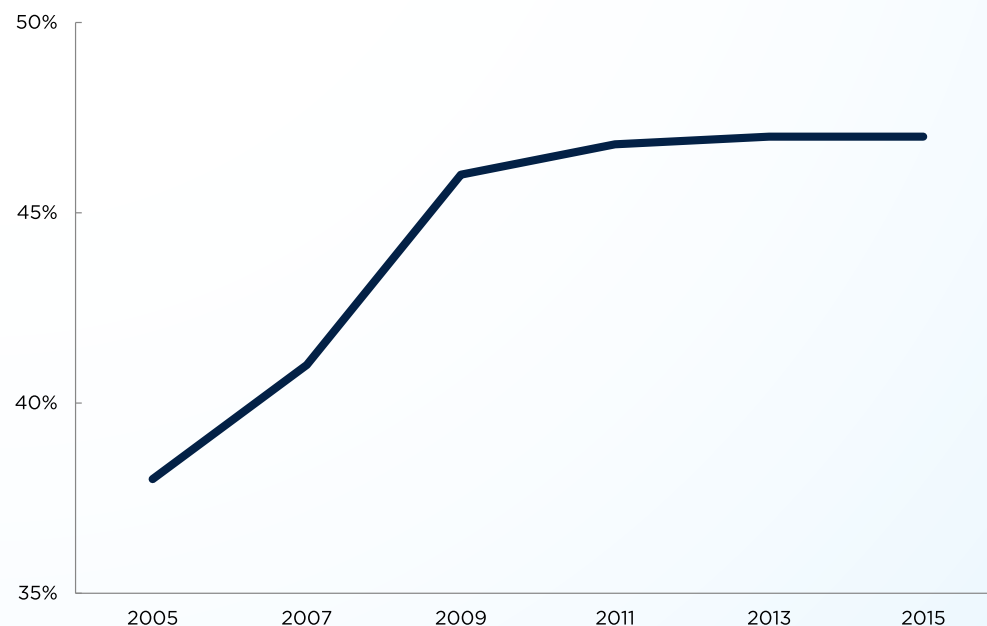
The representation of video game players within major population age bands illustrates the largest gaps between those who play and those who do not. Players include 77% of all children under the age of 18, 71% of working age adults 18 and 64 and 39% of adults aged 65 to 94, the oldest participants in the sample. As games increasingly are used for health and education (discussed later in this report), we predict the proportion of older Australians who play will grow significantly.

Players within Age Groups



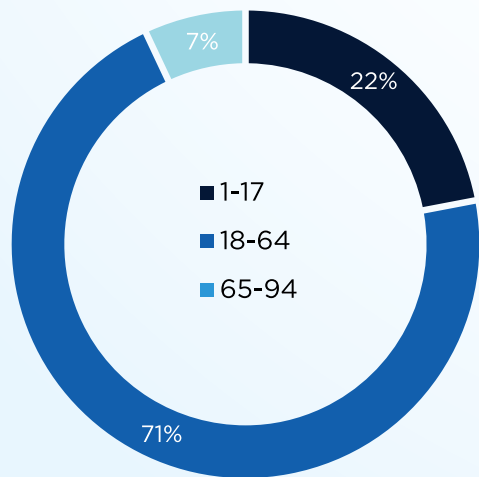
While females of all ages make up 51% of the Australian population, over the past five years we have observed that 47% of all video game players are female. 65% of the female population play video games, as opposed to 71% among all males. We expect the modest difference in male and female audience share to remain stable in coming years.

Females as a Proportion of All Players Over Time



39% of those aged 65 and over play video games.

Age Groups as a Proportion of All Players



Grouping all players in the major age bands together illustrates their contribution to the total population of players. Although children - those under the age of 18 - represent 22% of all video game players in Australia, the largest group by virtue of span of years and use of games is working age adults, comprising 71% of all players. The fastest growing segment is those adults aged 65 and over who now make up 7% of players. On the basis of 10 years of reports, we predict adults aged 75 and over will grow to represent 10% of all video game players by 2018.

"I just like playing games... it stimulates me in thinking... keeps my mind active which I need - gotta keep up with the times."



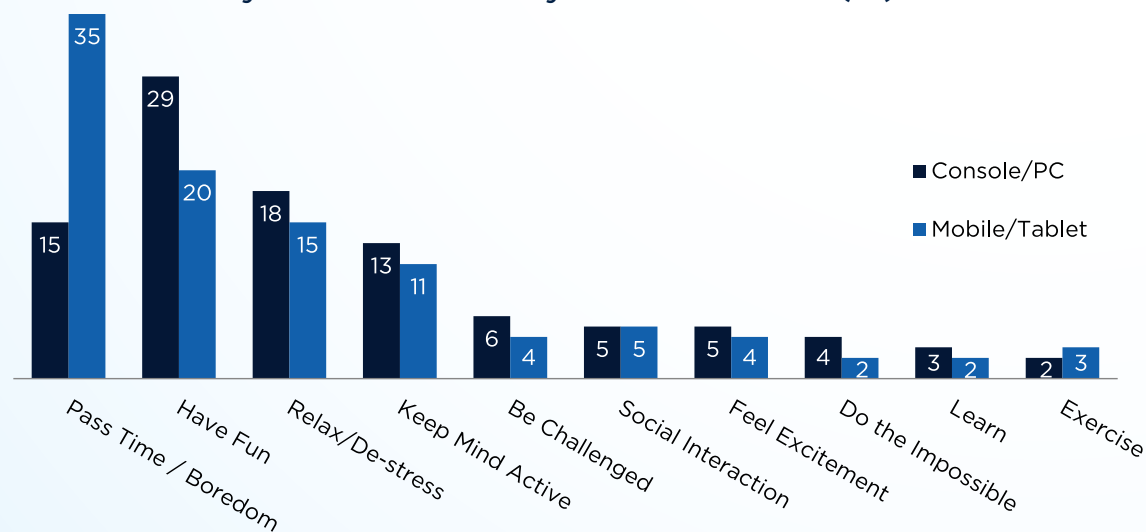
Older Players Case Study: Ellen (84)



// Why We Play //

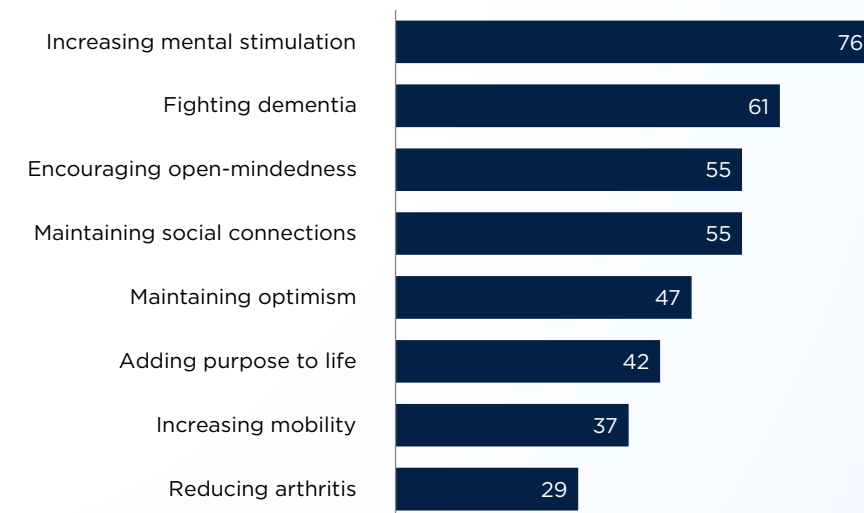
Video games are, first and foremost, a form of entertainment. The most common reasons people play are to pass time and have fun, The the least common reasons people play are for learning and exercise. However, different video game platforms are used for different purposes. Home devices such as PCs and consoles are used more for fun while mobiles and tablets provide more relief from boredom.

Reasons Why Australians Play Video Games (%)

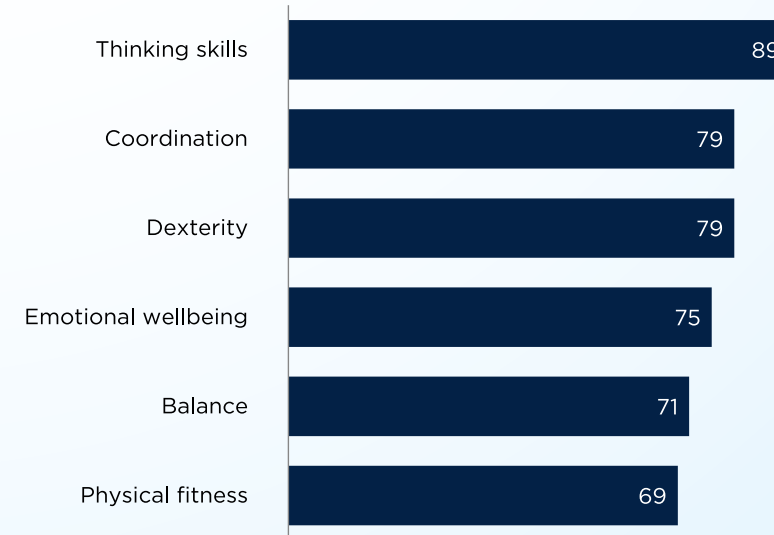


Games are increasingly identified for their ability to serve other purposes in addition to entertainment. Researchers, educators, businesses and journalists have observed the importance of serious games - games that do more than entertain. When asked about how games might be used for positive ageing, the largest proportion identified their potential for increasing mental stimulation and fighting dementia. The ability of games to increase mobility and reduce afflictions such as arthritis was nominated by the smallest proportion of participants.

Uses of Video Games for Positive Ageing (%)

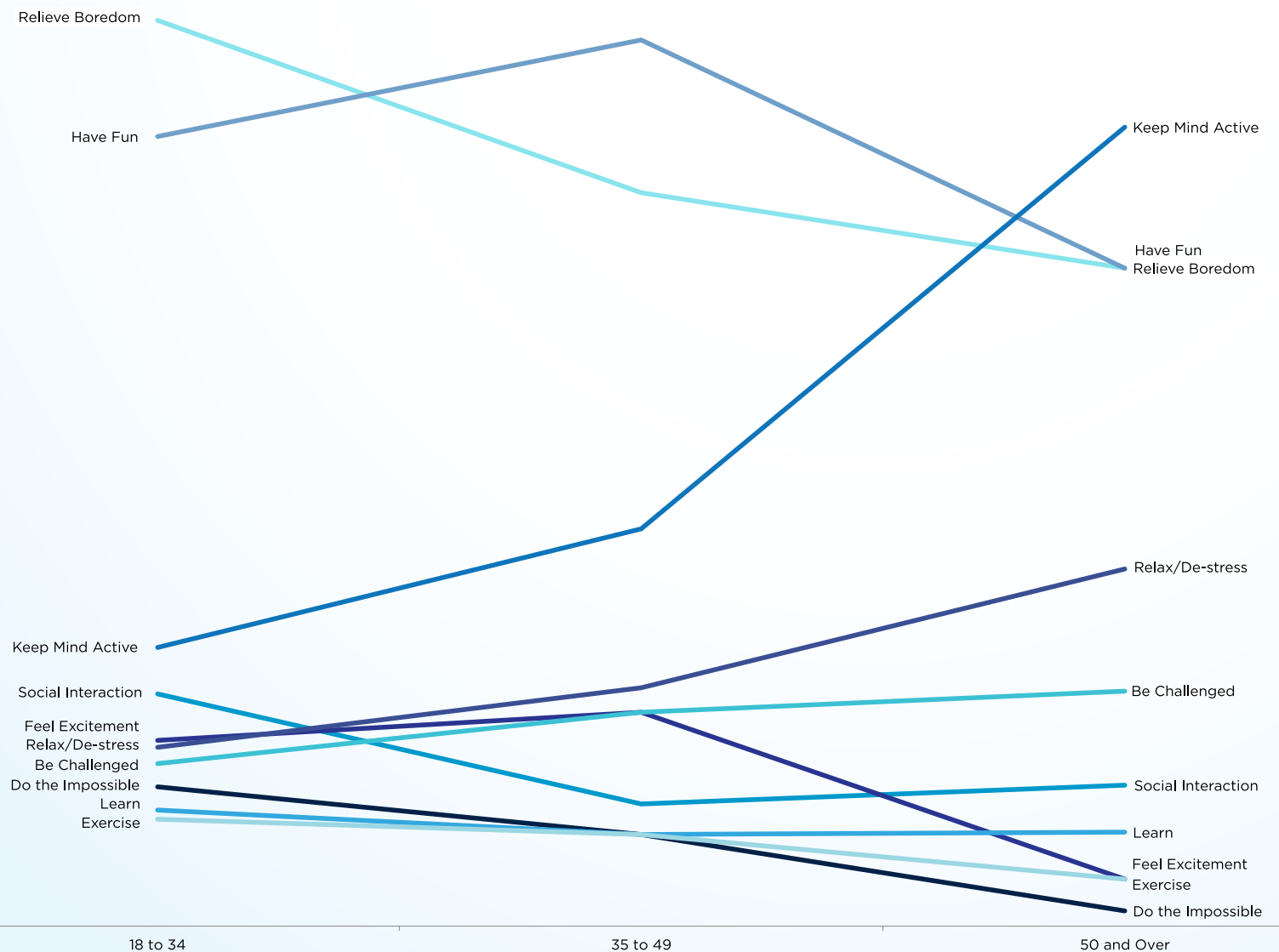


Uses of Video Games for Health (%)





Reasons To Play Video Games by Life Stage



Play Motivation: Age Matters, Gender Doesn't

Different people play for different reasons. Of the two primary demographic categories - age and gender - only age differences are prominent. Younger adults aged 18 to 34 report playing to relieve boredom and have fun. Players between the ages of 35 and 49 report the same motivations, but in reverse order. Players aged 50 and over report that keeping the mind active is their main reason for playing. Trend lines are more interesting. Playing video games to relieve boredom declines with age, playing to keep the mind active increases. Women and men play for the same reasons in equal proportion with absolute, but insignificant, differences in women seeking relaxation and relief from boredom more than men and men seeking fun and challenge more than women.

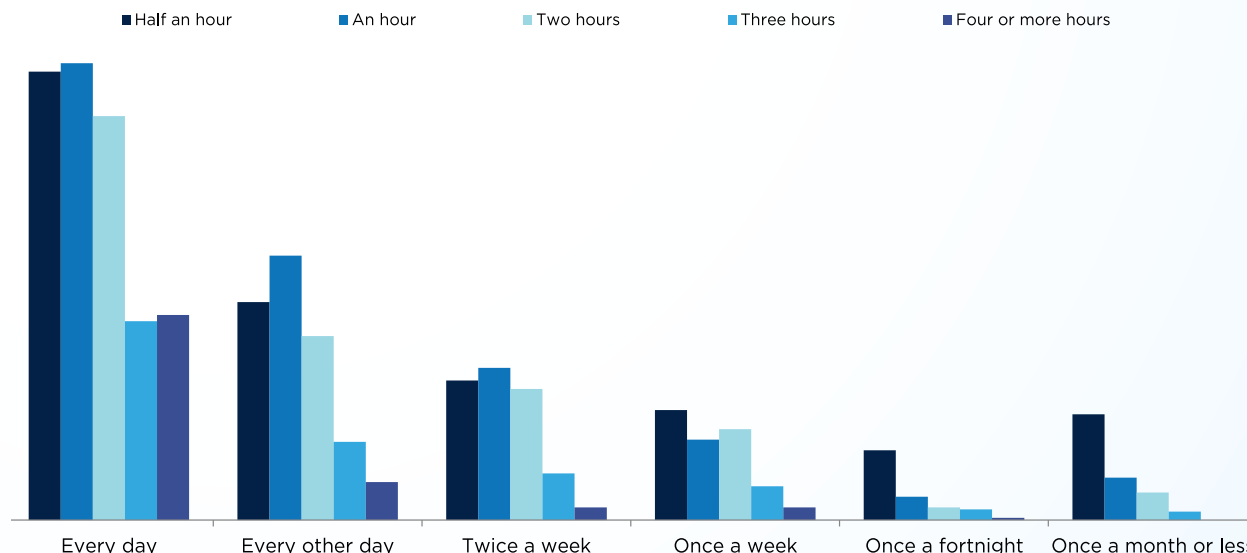


// How We Play //

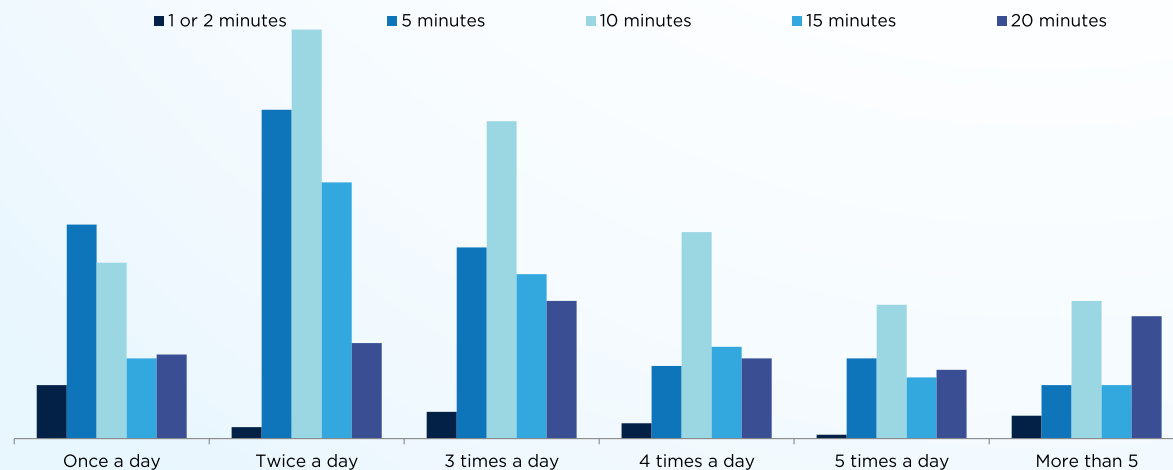
Casual and In-depth

The growth of mobile and social video games has expanded opportunities for play to be both casual and in-depth. Participants were asked to think about games they played for between one or two minutes and 20 minutes separately from games they play for half an hour or more. Casual games are played between two and three times a day, usually for ten minutes each time. In-depth games are typically played daily for between half an hour and two hours. The evidence from these results indicates that playing video games has evolved from binge-entertainment, once the cause of concern, to moderate routine daily entertainment.


In-Depth Games: Frequency and Duration



Casual Games: Frequency and Duration



"I've always been a fan of word games, but then when Mum suggested we play [online], I started playing with her and now I'm playing with dozens of people. I used to go a week or so without calling Mum and now we're playing five games a day... it's definitely helped us stay in touch."

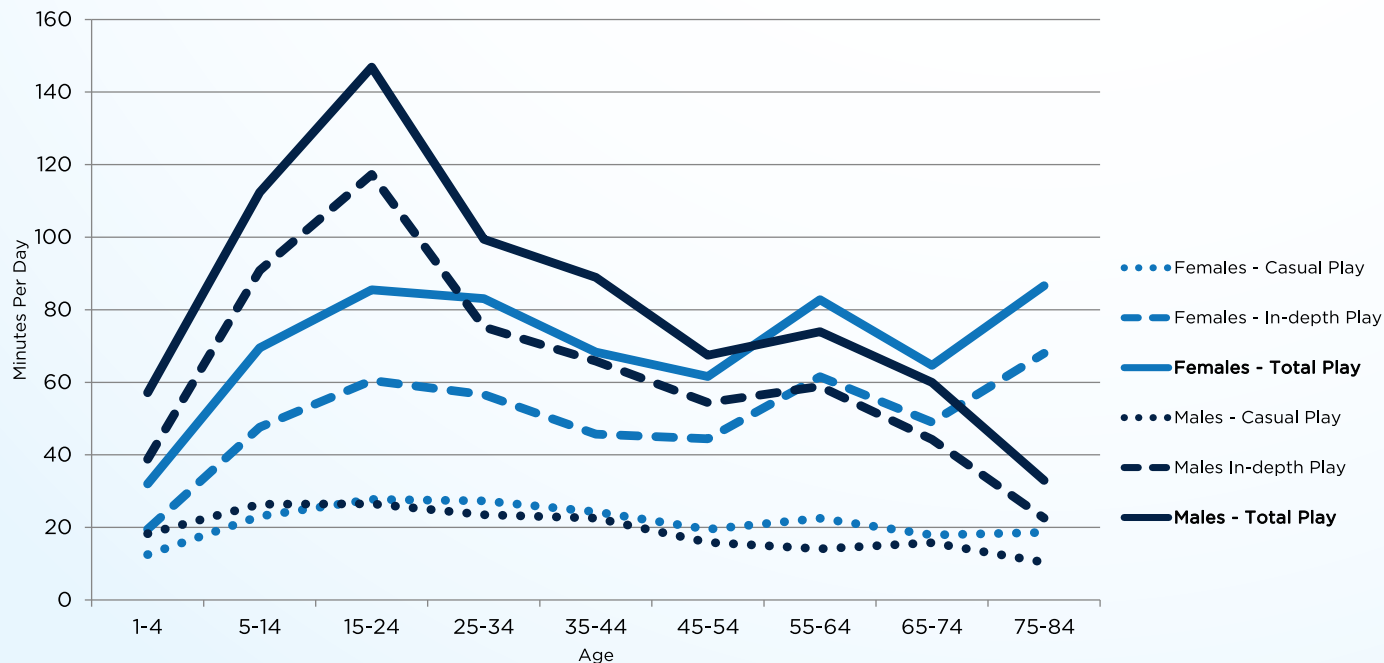
 Older Players Case Study: Graeme (61)



88 minutes

a day is the average time Australians spend playing video games including casual and in-depth play. Women and girls play for 75 minutes a day on average while men and boys play for 100 minutes on average. Casual play is nearly identical for females and males at 25 minutes a day. However males spend considerably more time on in-depth play than females, 75 minutes a day compared with 50 minutes on average. Time spent playing video games each day is similar for the youngest and oldest Australians, although older women play for much longer than older men while younger boys play longer than younger girls. Play time is most similar for men and women between the ages of 45 and 75 and the most disparate in the late teens and early years of adulthood. Most variation in play time, regardless of age occurs as a result of in-depth game play with casual games showing remarkable stability across age groups. Males show greater overall age variation than females.

Average Daily Video Game Play by Gender and Age



"I was never into games very much and I was at a club with a friend and she was playing on her phone and I said, 'what are you doing on your phone?' She was playing [a word game]. She downloaded it for me and I've become hooked." - Ellen

"I play games on the train a lot; I spend an hour or so a day on the train and it's a great way of filling in the time." -Graeme

Older Players Case Study:
Ellen (84), Graeme (61)

Are You A Gamer?

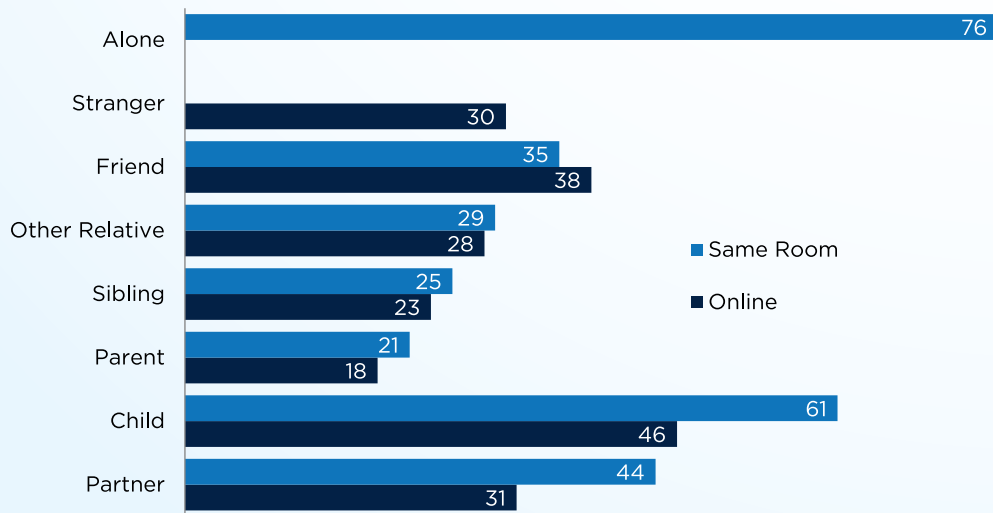
The term "gamer" means different things to different people. For 38% of those surveyed, a gamer is any person who plays any kind of game, even if casually or rarely; for 62% a gamer is someone who has been playing for many years, plays often and plays in-depth games. A quarter said the term has a negative meaning. Only 27% of the adult sample identified themselves as a gamer. It is clear the role of games in culture is something distinct from other media.



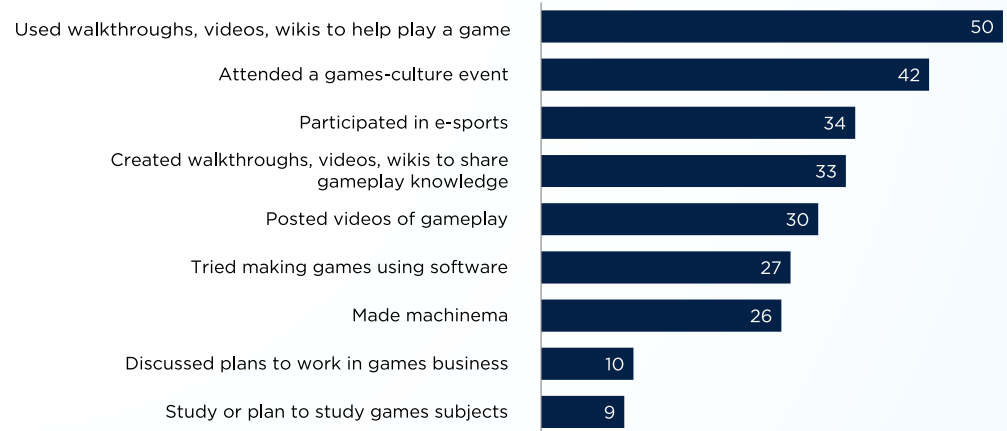
Social, Culture, Learning, Work

Video games increasingly serve social needs. Although players still find a quiet moment to play their favourite stand-alone games, evidence in this and other studies shows games are played socially online and in person. In our sample of adults, 61% say they commonly play with children and 44% with their partner in the same room. Online social play is also high with 47% playing with their children, 38% with friends, 30% with strangers. Game viewing, events, e-sports and video making are also taking off with 50% of the sample of families saying they watch gameplay videos, 42% having attended a games culture event and 33% saying they have created content to share with others. Consequently, the pervasiveness of games has produced learning and training products: 24% say they have used video games at work for training and 35% of parents say their children have used them as part of their school curriculum.

Social Playing Experiences (%)



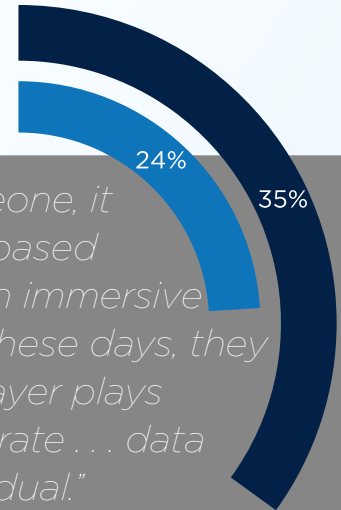
Game Culture Viewing and Production (%)



Use of Games at Work and School

Child(ren) used games in school curriculum

Used video games at work for adult learning



"When you mention test to someone, it brings up some anxieties. Game-based technologies allow us to provide an immersive experience - people expect that these days, they lead digitally rich lives. When a player plays through our game ... we can generate ... data points that tell us about that individual."

Serious Games Case Study: Salih, Product Manager, Revelian

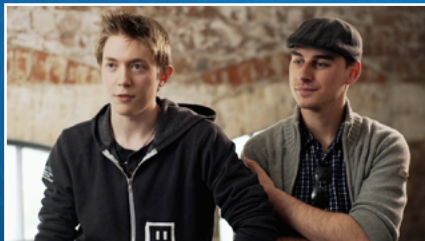
// Beyond The Fun Of Games // Video Links

◀ SERIOUS GAMES IN THE WORKFORCE

◀ GAMES BASED LEARNING AT SCHOOL



◀ CREATING GAMES



◀ GAMES IN HEALTH



◀ WATCHING AND STREAMING GAMES



// Case Studies //

REEF - Social games, families

The REEF Gaming Alliance (REEF - Representing Entire Extended Families), was formed by Matt Brook and Daniel Smyth, who met through a large international online gaming forum called 'Dads of Destiny'.

"We thought that Aussie players were a little lost in the big international forums," explains Matt, "but most of all we wanted a relaxed family-oriented environment where we could game together in peace and just have fun, while allowing members to tend to family needs. It lets us bring our kids into the same safe environment so that they can play without hassle. Gaming has a bit of a stigma in some quarters - we are working to change that."



Co-founder Daniel Smyth agrees. "We can game from the comfort of our own homes while still being involved as parents and spouses. We see REEF as a kind of online community. Most of us have forged long-lasting, real world friendships. REEF is a safe haven for like-minded people to play video games together, but it also facilitates mental stimulation and social interaction they might not have otherwise."

The average age of REEF members is 36, with ages ranging from 22 to over 50. Members come from many professions - doctors, managers, IT consultants, builders, police officers, real estate agents, architects and more.

Matt says most of them have joined for the "fun, relaxing and social aspects that the community offers, which is especially good when you have limited amounts of spare time due to family commitments.

"Gaming offers us the opportunity to wind down after a long day, with the family and after the kids have gone to bed for the night. It's a real community."



STEM – Video Game Challenge

The annual Australian STEM Video Game Challenge is challenging students to develop new games while learning broader skills in science, technology, engineering and mathematics (STEM).

Spokesperson for the competition is Chad Habel, a lecturer at the University of Adelaide and a director of Game Truck Australia. “The Challenge aims to give students an early opportunity to learn skills in game design and game development,” Chad explains. “It not only encourages skills development in game design, but also develops computational thinking, which is a way of solving problems, designing systems and understanding human behaviour.”



According to Chad, Australia tends to focus on sports and celebrities, often to the detriment of science, technology and the arts. “The Challenge leverages the massive interest and engagement that many students have in video games to engage them in a more constructive and explicit learning process. Students take concept knowledge,

AUSTRALIAN STEM



VIDEO GAME CHALLENGE

something they’ve learnt in science class for example, and then create a game that elaborates on that concept. The Challenge also encourages freedom and creativity, and that can be a liberating experience for many students. It also offers goals and rewards which drive commitment to developing a game.”

Chad says designing games builds creativity. “Students need to develop concept art, design environments, figures and characters. Music and sounds are also important in a game, and need to be edited and built into the technology. Building a game also requires communication and interpersonal skills.

“There’s a psychological term called ‘flow’, where people become completely absorbed in an activity and lose all sense of time, space and themselves. This is how people end up playing a video game until 4am!

“Wouldn’t it be incredible if students could become that engaged and engrossed in learning? Through initiatives such as the ACER Foundation’s Australian STEM Video Game Challenge, we can make a lifelong difference to STEM and its applications.”



Games-based Technology Helps Understand Dementia

Over 330,000 Australians living with dementia, most of them suffer from Alzheimer's disease. With an ageing population, the number is expected to reach a million by 2050.

There is no cure for most forms of dementia – it needs to be managed. With the disease becoming more common, it's crucial for health care workers to be trained in working with people suffering from dementia.

Dementia researchers at Alzheimer's Australia Victoria in collaboration with technology and design company, Opaque Multimedia, have built a world-first dementia simulator, the Virtual Dementia Experience™ (VDE™), to help carers better understand what residents are experiencing so they can provide better care.

Program lead Dr Tanya Petrovich describes how it works. "The VDE™ uses multi-sensory stimulation and technology derived from computer games to immerse users in the effects of aging and dementia," she says.

"The system uses a large video screen, interactive coloured lighting and a surround sound system to deliver an immersive



experience that simulates what it may be like to live with dementia.

"It is the first use of games technology in dementia care training anywhere in the world," explains Dr Petrovich. "The content was created from the stories and perspectives

of people living with dementia, their families and carers. The experience is designed to provide participants with insights into what it is like to have dementia, so they can improve dementia care and design."

Dr Petrovich says games-based technologies, is increasingly being used for educational purposes. "The empathy and understanding this engenders is much more effective than what can be achieved in a normal training environment," she says.

The Virtual Dementia Experience™ has been experienced by over a thousand people. As a world first, it has generated a global Twitter conversation in the health and aged care sectors and among video game developers, and has been presented at many international conferences.

"The VDE™ is making a huge difference in the attitude people have toward dementia, significantly improving the lives of many people living with dementia," says Dr Petrovich.



Noosa - Creating video games

Husband and wife team Jason and Nicole Stark started Disparity Games in 2011, based at Noosa Heads on the Sunshine Coast north of Brisbane. "I studied film and TV production at university," says Nicole, "Luckily by the time I finished university, 3D games had been invented and against all odds I found I had an employable skillset."



She says she fell in love with video games the first time she played one, 15 years ago. "But I didn't realise that making them was a career option until after I applied for and got my first job making games."

Jason followed a similar path. "I initially studied film and television, got distracted by the emerging field of 3D animation and ended up getting a job in the games industry because it was the only one available. There was never a moment of clear choice."

But becoming an independent developer has been tricky. "Publishers are risk averse, which means there is little variety in high budget games," says Jason. "The biggest turning points to hit the industry have been mobile and the rise of online games stores, where players can buy directly from developers."

"This led to a change in the distribution model, with many developers becoming brands with their own fan base. I see customers searching the online stores for games by certain studios, just as they look for songs by a particular artist."

Nicole says the gaming industry offers many opportunities career-wise. "There are many other roles in game development, from art to audio to project management. We need people with those interests and skillsets to be aware that game development is a career option."

Jason and Nicole started Disparity Games after years of working for other developers. Their first game reached number one on the Australian Apple app store in 2012.

Disparity's newest title, 'Ninja Pizza Girl', tackles the issue of teenage bullying. "There is a role for games in the intersection between social commentary and education," says Nicole. "Video games are an ideal medium for creating empathy."

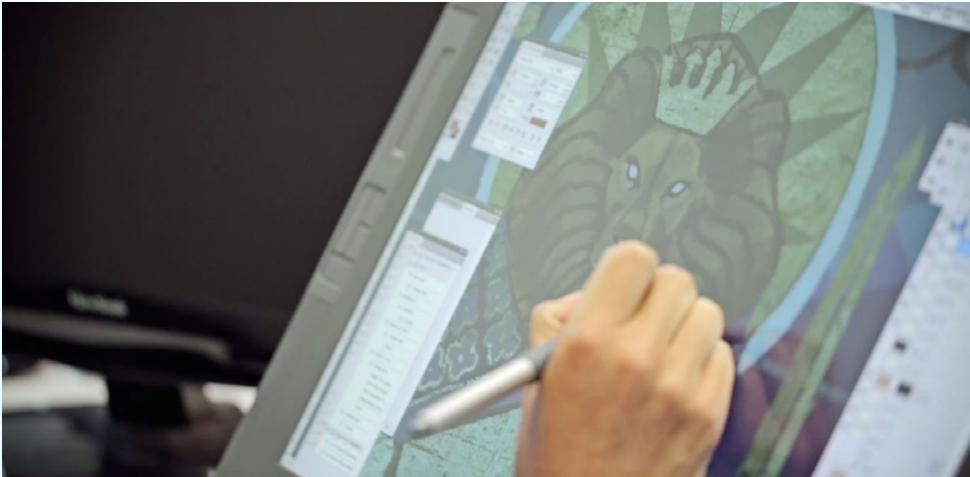




So you want to be a video game developer?

The video game industry in Australia is now worth over \$1 billion a year. Sales of video games now exceed movie box office receipts in Australia. Gaming is big business.

Developing video games requires a range of highly developed skills that are increasingly in demand. But how do you get started? Like many jobs, there is no clearly defined career path.



“When I was studying there weren’t any game development courses available,” says Blake Mizzi, co-founder of Melbourne video game developer League of Geeks. “I studied a Bachelor of Industrial Design and started doing freelance game design work before I got an entry role.”

“Gaming is the new Silicon Valley. Pioneers can strike gold – the barrier to entry is low, but to excel you need talent, hard work, experience and execution. Gaming is an exciting and creative industry. It is about telling



interesting stories, solving problems, and teaching players by engaging them, challenging them and entertaining them.”

Blake says he has seen a lot happen since he entered the industry ten years ago. “Gaming is a new age industry that’s growing quickly. Since the Global Financial Crisis, there has been the shift from building games based on movies and the like, towards pitching original ideas to publishers, and to self-publishing by smaller teams.”

“There has also been a shift to big budgets being developed overseas, as well as the rise of seriously interesting games coming from mid-tier independents, where Australia has been very successful.”

Blake believes there isn’t enough emphasis placed on game development as a career option. “There is still a stigma attached to the job. People tell you to ‘get a real job’. Developing games takes considerable ability. Games use all the tricks of cinema and introduce more into the equation. It is a highly engaging field, ripe with emerging new skills and specialities. These are in growing demand and make game developers highly sought after in other industries.”



// Family Play //

"Depending on the game, [children] can learn different bits of history, different bits of strategy, they can learn a lot about interacting with other people. It is very funny listening to them playing games because they giggle, they work together..."

Family Case Study: JV and children, Shahrzard (12) and Galileo (8)



Parents' Rules for Children's Video Game Playing (%)



91%

of parents play video games themselves, up from 82% two years ago. Those who do not have children under the age of 18 living with them are less likely to play, although a majority, 69%, do. The

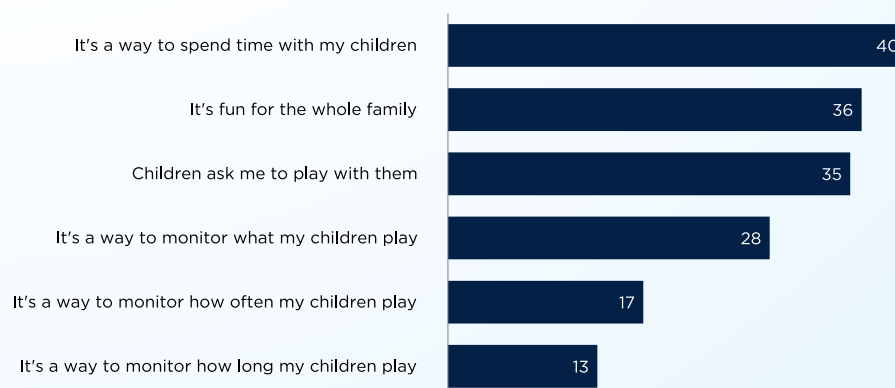
growth in parents playing is a good sign for managing and understanding children's game play and demonstrates the impact of casual, online, social and mobile game play opportunities. Parents say they have rules about the kind of games their children play and how long they play, even what devices may be used for playing.

How Parents Use Games (%)



The vast majority of parents play and discuss games with their children both to serve their parenting roles to educate, but also punish and reward children. Fewer parents than two years ago say games help them spend time with their children and that it's fun for the whole family. It seems that communication about games has become a more potent tool than play itself as parents have increased their game play literacy.

Reasons Parents Play Video Games with Children (%)





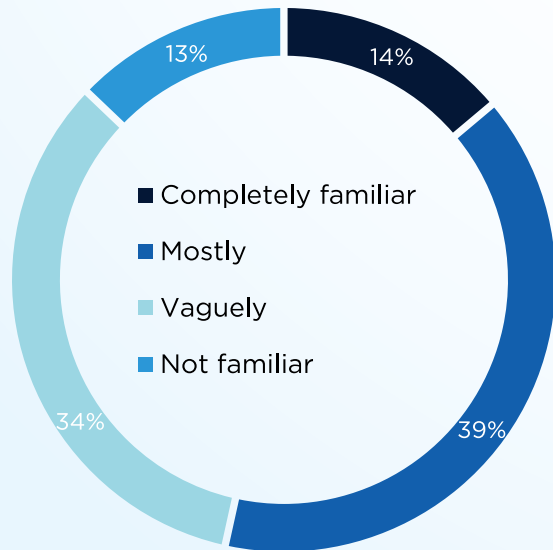
// Regulating Play //

Almost all parents play video games. They play with their children, even if rarely and nearly half play online games with their children. As parents and children share game experiences and talk about games together, it would be reasonable to expect that parents feel more competence and awareness of the technology available to help them regulate children's play and guide children's game choices at the time of purchase. While 53% parents say they are completely or mostly familiar with family controls on game devices, 47% report using them on PCs, 43% on mobile phones and tables and 36% on consoles and handhelds. Parents say an adult is either always (56%) or usually (27%) present when a game is purchased for their children to play.

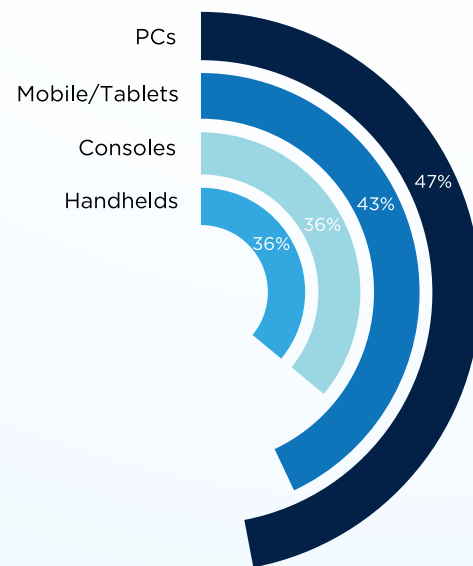
"I think all play benefits kids and computer games are part of play. They're of this generation. They are playing with a whole lot of people all over the world all at once. That's what this generation is doing, it's how they connect."

Family Case Study: JV and children, Shahrazad (12) and Galileo

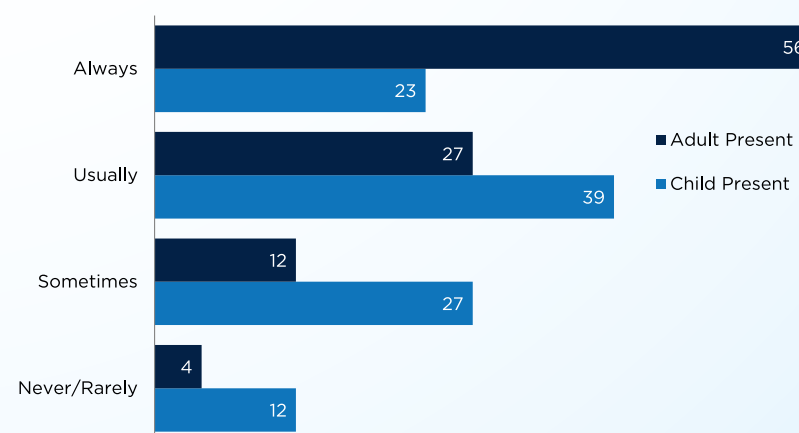
Parents' Familiarity with Family Controls



Platforms Used with Family Controls

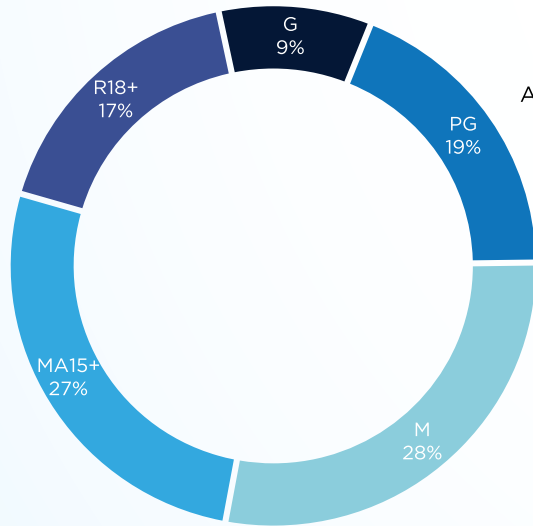


Presence of Adult or Child When Purchasing Games for Children

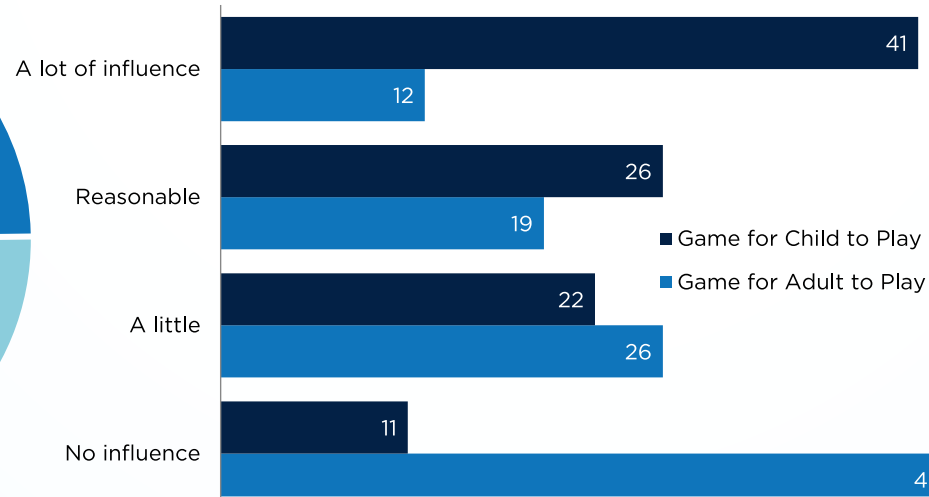




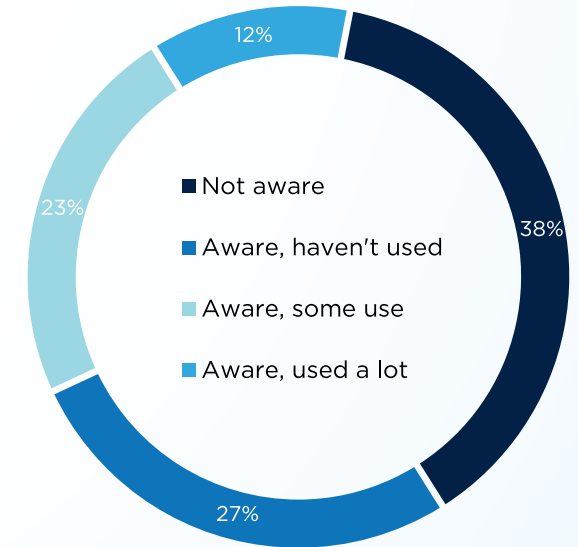
Confusion with Classification Markings, Parents



Impact of Classification on Parents' Purchases




Awareness of Different Ratings in App Stores, Parents



In addition to exercising control and discretion at home, parents have long been served by the national classification scheme. However, the scheme presents different levels of clarity with the different classification markings available to consumers: G is clear, but PG and R less so with M and MA15+ the source of most confusion. Nevertheless parents understandably use classification information more when choosing games for their children to play than when choosing games to play themselves: 67% of parents say classifications have a "Reasonable" or "A lot" of influence over their purchase decisions for children; only 11% say classification has no influence on their choices for their children's games. Different ratings are used in online app stores for mobile phones and tablet computers. Over a third of parents (38%) are unaware of this practice and another 27% are aware, but haven't used these ratings for decisions to purchase games. As the game market expands, the need for a more universal and simple system will grow.

"I set rules about [my children's] game time. It's really important that screens can be seen by everyone at all times - in a shared space, and they're not allowed to talk to anyone online that they don't know in real life. . . . I keep an eye on the type of games they play. I do pay a lot of attention to classifications . . . I make sure I'm aware separately what the game is all about."

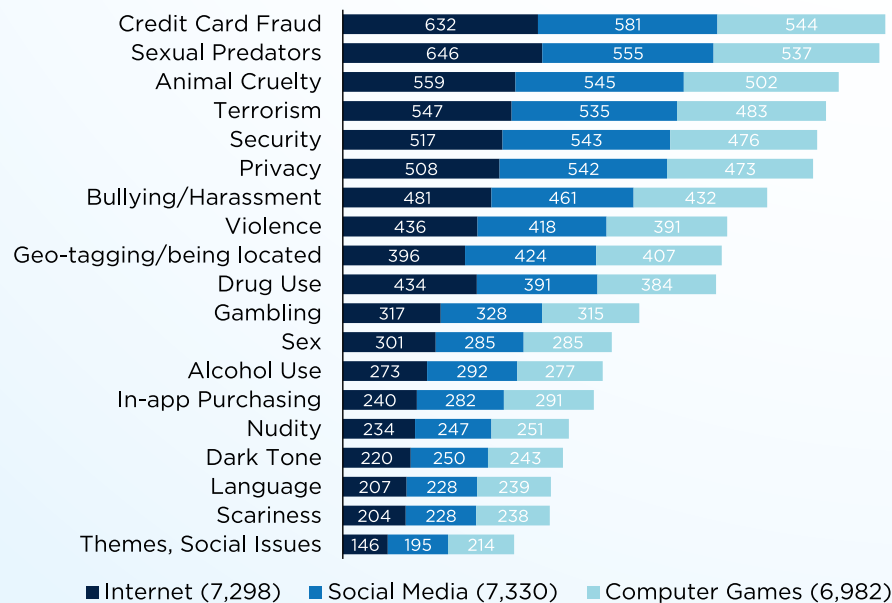
 Family Case Study: JV and children, Shahrazad (12) and Galileo



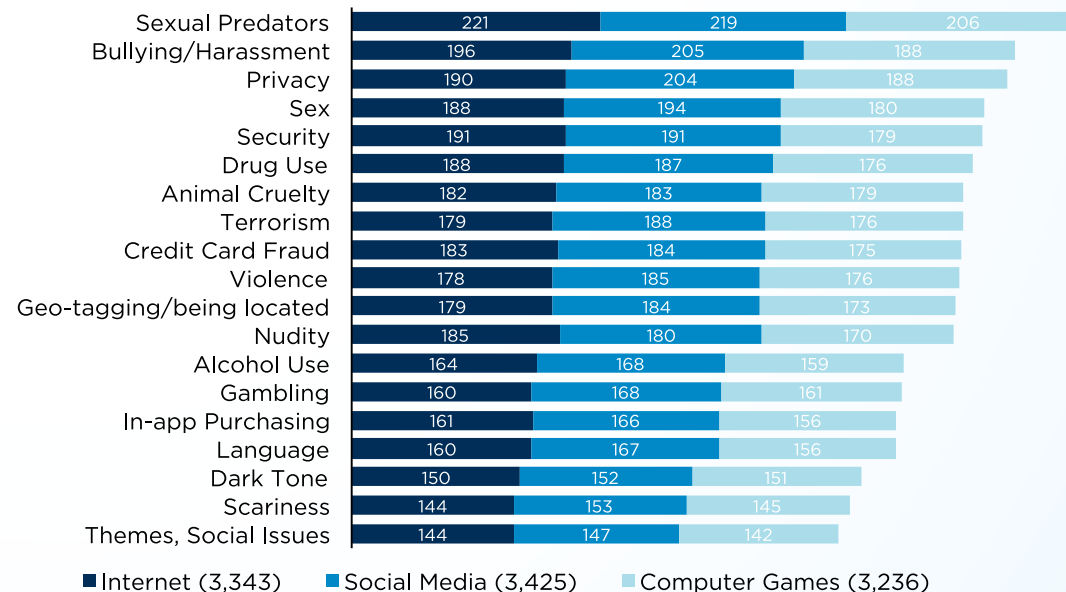
Concern About Risks

Many academics and commentators have demonstrated that concerns about risks which might result from reading, listening, watching or interacting with different media change over time. These fears are referred to as “moral panics.” Newer media are the source of greatest concern and different media appear to present different elements of risk. By asking adults to identify which risks are of concern to them for each of the three newer media - the internet in general, social media specifically, and video games specifically - we can calculate both the medium of most concern and the risks of most concern. By asking them to identify those risks for themselves and for their children, we can better understand their concerns about different media and risks in relation to different family members.

Concerning Elements in Media Used by Adults



Concerning Elements in Media Used by Children



In general, adults express a more varied level of concern in relation to different perceived risk elements related to their own media use, and a more consistent level of concern across those same perceived risk elements when it comes to their children’s media use. There is a larger gap between the top five concerning elements and the bottom five for adults than for children. However, traditional concerns held for films and television such as violence, nudity, language, scariness and themes, rank at or near the lower half of the list for both audiences. However, sexual predation is at or near the top for both. For children, bullying and harassment ranks second, followed by privacy, then sex. For adults, animal cruelty and terrorism rank third and fourth. Games are of less concern than the internet generally which is edged out by social media as the current cause for most concern.



// The Digital Games Business //





// About //

DA16 (Digital Australia 2016) is an empirical study about digital games in Australian households with a focus on demographics, behaviours and attitudes.

It is based on 1274 Australian households and 3398 individuals of all ages living in those households. Adult participants responded to questions about themselves and on behalf of all members of their households. These participants were drawn from an online national random sample using the Nielsen Your Voice Panel. The survey was conducted in May 2015.

The words computer games, video games and digital games are used interchangeably to refer to the broad class of interactive, digital entertainment. A game household was one that had in it any device for playing a computer game, including consoles, personal computers, handheld game devices, smart phones and tablet computers. A player was a person who indicated they play computer or video games, simply “yes” or “no” on any device including a PC, console, handheld, social network, mobile phone or tablet computer.

Questions in the survey were grouped according to theme including:

- Household demographics,
- Household media environment,
- Media purchasing and downloading,
- Video game play preferences and routines,
- Social game play,

- Parental engagement with video games,
- Engagement with game culture,
- Games and education, work, health and ageing,
- Classification and ratings, and
- Attitudes and issues surrounding video games.

The Nielsen Company provided Bond University with raw data from the survey for statistical analysis at the University. The data were analysed by the study author using the SPSS Version 22. The quality and size of the sample was high and no statistical weighting was applied. Statistical procedures included simple descriptive statistics such as frequencies, cross-tabulations, means, correlations, and tests of significance such as Chi-square and One-way ANOVA.

The margin of error is $\pm 2.7\%$ for the national sample comparing all households and $\pm 2.3\%$ for all players.

For the purposes of including results for all members of a given household, the Vars-to- Cases procedure was used to create individual records for all persons in a household identified by the participants in the study. Data reduction procedures included reducing the range for some questions to simplify presentation of responses. Some measures were combined into indices where obtaining a frequency or mean across a combination of measures simplified the presentation of findings. Missing values were eliminated from analysis on a per- question basis unless multiple measures were examined conjointly. For these, the case-wise deletion method was applied.



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