Conclusion

If there is one idea to be taken from this book, it is to make sure that the entire information environment is understood. This is many faceted, and difficult to do, but it is important. Each chapter within this book talked about a different factor (or factors) in the information environment in relation to video games, and each is important, and must be considered. In the end, gaming and its many different components (at least the ones talked about in this book), can be broken down into the actual differences in games, gaming, and players, the different ways that gaming impacts other areas of life, including outside activities and different parts of society, and then from understanding that landscape, determining what can be changed and improved upon in the video game information environment.

THE DIFFERENCES IN GAMING

The foundational concept that was introduced at the beginning of the book is the different types of video games that exist in the world. These games are currently organized and lumped into different genres, such as RPG, RTS, FPS, etc., but those descriptions are not adequate for the description of different kinds of video games, because video games cannot be measured and categorized in the same way as previous forms of media can. The interactive element(s) that exists within video games, the ability of the player to become part of a story, or even just interact with the game fundamentally changes the context in which the media is consumed. Books, radio, and movies are all passively consumed, but video games must be actively interacted with to consume. Because of this shift, it is not accurate to try and describe video games in terms of genre; there must be a new way to describe them.

The new way of trying to describe video games, and how players/users interact with them was mentioned many different times, and in many different contexts throughout this book, and that is the MDA Framework by Hunicke et al. (2004). The MDA framework stands for mechanics, dynamics, and aesthetics. The mechanics is what a developer or designer programs into the game, it is the actual function of the game, from a technological point of view, or from an actual game function, or game mechanics point of view. When these mechanics interact with a user and the game, they become the dynamic actions of the video game. When these dynamic actions are perceived, they become the aesthetics of the game that the player interacts with. The aesthetics are the primary point of discussion within this book.
because the book focuses mainly on how users perceive video games, or how the games are portrayed to a larger audience; this book is not about game design. Being able to describe a video game through the MDA Framework is much richer than just using a genre, but not nearly as easy. More work would need to be done to be able to categorize different types of MDA games.

Once it is understood that games themselves are highly complicated and need to have more attention brought to them, there are even more aspects of games that need to be viewed. Still in the first chapter, the idea of platform and input was brought up as another differentiator of traditional types of media and video games. Video games are played on many different platforms, and even within a singular type of platform (e.g. consoles), there is a great amount of variation because of the different hardware and software that is used, controllers being the best example. By just having different kinesthetic and aesthetic designs for a controller can completely change the way a game is played. This is a variable that should not be forgotten.

A good example that illustrates how a small detail can be change what individuals think of a game is Bateman et al. (2011), who did some basic studies on driving and how different views affect players. As they state, “Different systems provide users with different views, but little empirical work has been done to understand the effects of view on driving performance [in video games].” (p. 214) While the study that Bateman et al. (2011) conducted provides good evidence and information about view points in games, there are many issues with the study which directly relate to earlier chapters in this book. While Bateman et al. provided information on these facets, there was no control for them. There were three different studies that were done, and there were 10 participants in each. In each of the groups, the players ranged from having zero video game experience to playing over 10 hours per week. There were also questions regarding input, in regards to what type of controller could be used (keyboard, joystick, controller). These are three separate variables, and no way to know if they influenced the results. There is also passing mention of whether the participants have played racing games before, but no data collected on that. This could completely skew the results, especially if is someone in the study that has played racing games for hundreds or thousands of hours over their lifetime, while having someone in the study that has never played one before. These are very different demographics to study. The information and study that Bateman et al. have presented is good, and should not be discarded because of what has been pointed out here. It should just be noted that these issues need to be looked at and addressed to be able to accurately study a particular facet of video games. This idea can be expanded for most studies involving video games.

One of the, if not the, biggest variable when it comes to video games is the player. There are many different types of players, and the colloquial use of describing these players is currently very close to binary: casual and hardcore. The theme continues: the world of video games is much more complicated than that. Players cannot be described in just as casual or hardcore because it does not provide enough nuance, especially when research is involved. To that end, the concept of TIES was put forth. Time, Identification, Engagement, and Skill are all influencers in the motivations for why different individuals play video games. As was mentioned before, there needs to be research done to support this idea, but it will hopefully provide a foundation for describing different types of players, creating a more granular...
way to describe the different ways that individuals play games. This is extremely helpful when compared to Chapter 4, the Gaming and health chapter. Many of those studies lacked in any definition besides video game players versus non video game players, and even that is too broad of a definition. Creating a more granular approach to identifying participants in research is extremely important. TIES provides a way to help with that.

TIES is a way to describe how players game, but does not necessarily say why they game. The concept behind why people game has had more research behind it, especially in regards to the MMO genre. Richard Bartle and Nick Yee have both spent time trying to understand the motivations for the different activities that players participate in while playing different types of games. The conclusion for this is much the same as it has been for different aspects of video games: it is complicated and can differ quite a bit depending upon the individual. Especially because much of the research that has been done has only been within a single genre: MMORPGs. Finding out the motivations of how others play video games, and for what reasons, is lacking; there is a lot more research that can and should be done.

A good example of both the issue with non-definition of types of games that exist, as well as not defining well the different types of video game players there are is the paper written by Oei and Patterson (2013). Their study begins by stating that “many action video game training studies have utilized transfer tasks that mimic the demands of action video games, thus possibly maximizing transfer effects.” (p. 2) ...and then proceeds to not define what an action game is, and just to accepts the previous definitions of others. There are many other studies in the same field of study as Oei and Patterson that do the same thing, but that should not be an excuse. Not having a definition for what an action video game is can truly change the results of studies, and make the generalizability of future results almost impossible. Is the action in the brain of the player? Is the action in the game? Does the action mean fast paced? Fast paced in what way? The narrative is fast paced? Fast paced actions with the controller/by the player? Fast paced screen movements? The enemies in the game are fast? The desire to have a very general definition for video games is understood, it is difficult to be able to take the many generations of video games and compare them, and calling all of a certain type of game throughout the years “action” games can help to lump together results, but it does not help for generalizing into the future. It is a matter of defining specific tasks and which tasks in video games are the ones creating (or not creating) the results.

At the same time, there is no great explanation of the types of players that are being recruited into many video game studies. Again, Oei and Patterson are being picked on as an example of this, but they are far and away not the only culprits. Oei and Patterson even have the first steps to this issue pointed out in their paper, and address it much much better than many:

Group compositions in cross-sectional studies of action video games may also have unfairly favored experienced action video game players. Specifically, in cross-sectional studies, participants who reported casual playing of various genres of nonaction video games have been grouped together with non-gamers in a single control group when compared with experienced action video gamers. Drawing conclusions on the superiority of action video games based on such selection criteria is problematic because the effects of playing non-action games may have been masked by the inclusion of non-gamers. (p. 2)
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Spot on. This is a great way to say that there are issues with selection of participants for video game play. It does not go quite far enough and determine the extent to which there is experience in playing certain types of video games. Recruiting for a dexterity and video games test (random example) and having a control group of people who have never played video games, some that have played mobile phone games a limited amount of time, and someone who is a Starcraft II professional gamer is going to completely kill the entire study because of the extreme amount of video game dexterity the professional gamer has. The professional gamer could be in any aspect of the study and still do that. That is even true if the player is not a professional, but has played games for thousands of hours, versus the other “experienced” game players that have only played for a few hundred. The amount of time can make a huge difference.

Oei and Patterson continue to state the same issue mentioned previously about action video games:

Grouping game players of different genres within the same control group poses another problem. Since playing different genres of non-action video games may train different abilities, it is possible that the effects of different non-action games may cancel each other out. One way around this problem would be to directly compare performances between experienced players of specific game genres in a single study, although we suspect this would be operationally difficult because gamers tend not to play a single genre of game exclusively. (p. 2)

This is an interesting proposition and something that should probably be done to help secure the future of all video game testing; try to establish base lines for the different skills and abilities that different types of games can give to individuals (or groups). Having something like this, and understanding how different games can confer different skills, can help the future of research by being able to understand how different types of games, and how different amounts of play can affect individuals. There needs to be a lot of research done to just be able to establish proper controls for many studies that are currently being done.

One way that has been suggested for helping to talk about types of games is the MDA framework. This can be used to define games, but it can also be used to show why players like and play certain games, or even why they like certain aspects of games, or play games in a certain way. With the different aesthetics that the MDA framework discusses (sensation, fantasy, narrative, challenge, fellowship, discovery, expression, and submission), there is the possibility to help understand gamers much more, but doing so from the perspective of the game itself.

THE INFLUENCE OF VIDEO GAMES

With the understanding of all of the differences that can exist within video games and the individuals that play them, there is now a foundation upon which to understand how video games can begin to impact more than just the individuals that play them. This is immediately seen when players begin forming groups around video games; the formation of the subcultures that can exist around video games. This
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immediately brings the thought to the formation of an information environment around video games and the people that play them. The information environment around video games may be new and different, but some of it can be understood through previous research.

This is where the importance of library and information science to video games really begins to shine. By looking at the information environment of video games through the lens of different information theories that have already been developed, the video game environment can be understood. Thinking of theories like Chatman’s Small World and Pettigrew’s Information Grounds allows for the understanding of how groups form and how they interact with each other. This allows for the understanding of communication and information patterns within the groups themselves, but also how the groups communicate to society at large.

How video games affect society at large is evident in a number of ways, but the most substantive and well documented way is through health research. The chapter on gaming and health was the largest in the book, and could have been much longer, because of the massive amount of research now being done on how video games affect individuals or groups with different health issues. That is not to say that everything is known about how video games interact with different diseases or health issues, but the effort is being put forth. As has been mentioned, even previously in this chapter, there are many issues that have to do with the research currently being done, but the biggest issue is just the amount of research that needs to be done, and that is currently moving forward, and will only be solved by time.

To sum up much of what was talked about in the gaming and health chapter, the results of the Oei and Patterson study can be mentioned, “these findings indicated that different game genres have positive effects on different cognitive skills. This has clear practical benefits because it suggests that different video games can be selected depending on which cognitive skill one aims to improve.” (p. 15) It is then just a matter of being able to understand the health issue that an individual has, and having a game that could help with that issue. Game may even be too broad of a way to put it, it may be a matter of looking at what particular skill used in the game, or what particular mechanic or aesthetic is being used in the game that affects the individual that is producing the health outcome. Video games, in many cases, could be seen as a great alternative to many traditional therapies that require medication or physical intervention, and video games and virtual environments can also be seen as an additional tool and help to many psychological issues.

Gaming and health is just one aspect of how video games can affect society as a larger community. It is definitely the most well documented aspect of how video games affect the larger society, because of the amount of research being dedicated to it, but there are other ways that video games have begun to interact with society. The three issues that were brought up in this book were violence, addiction, and censorship. Violence is one of the more prominent issues that is thought of when video games are talked about, especially in mass media because of the many shootings by individuals said to have played video games. While there is a lot of media and anecdotal evidence to support the idea that violent video games cause violence in individuals, there is not enough information in actual research to back that idea up, or to backup the idea that video games do not cause violence. There are studies that have been done, but they contradict each other, study a wide range of different ages, study different types of games, and the studies themselves are not long enough to truly understand if playing violent video games for a long
time can make individuals violent. At the same time, there is also not enough evidence to say that violent video games do not make people violent. At the end of the day, regardless of personal belief, there is just not enough evidence and there needs to be more research done.

Addiction and video games is at the same place as violence and video games, both from a research standpoint and media standpoint. Video game addiction cannot be counted in the same space as individuals who are physically addicted to substances; so much of the research on video game addiction likens video game addiction with gambling addiction, as a psychological issue. While there is some research that shows video game addiction is similar to Internet addiction and gambling addiction, there is really no firm evidence currently stating that it exists and is a problem. This could just be because of the lack of research around the idea of video game addiction. One that that has come to light, is that many individuals who have other addictions have a tendency to begin playing video games and play them for a long time. This still does not necessarily constitute an addiction, but it is an avenue of study to be considered.

Censorship is the third major aspect of video games that was discussed in relation to society and video games. This is mainly a large societal issue in relation to libraries because of the work that libraries do to try and provide information regardless of format in which the information is presented. Because of the new format of video games, it is just a matter of taking the same arguments that have been used by many within the library community, especially the American Library Association (ALA), and applying those same arguments to video games as a new way to present information. Video games should not be banned for the same reason that books or other forms of media should not be banned. They provide an important source of information for many different people, and libraries should continue to be a part of that.

Video games have also made their mark on different governments throughout the world. The first major impact is with copyright. While video games did not make copyright necessary, there are definite additions and changes to the copyright landscape in regards to video games, especially if the topic of piracy is raised. Pirating games is just as prevalent as pirating other forms of media, but video games have been able to develop additional anti-piracy measures that are also user friendly (but not always). The changes in business models, making piracy irrelevant, as well as different anti-piracy measures that many games can program into the actual game play, make it much more user friendly for users to purchase the game(s) to actually play them. Fair use is also a large issue in regards to video games and copyright. There are many different ways to use video games rather than just playing them, which includes remixing them or creating new content with them; Machinima being one of the foremost examples of this. Many video game companies have also taken the idea of fair use and mixing games to a different level: allowing players to mod the games they are playing. The modding community for certain games can be rather large, and allows companies to do a certain amount of user testing, and also benefit from the work of players. This moves somewhat out of the realm of copyright, and more into the realm of licensing and permissions, because the companies are allowing players to modify the game, but the benefits that are gained by both parties (the player(s) and the company) are tremendous.

In addition to copyright, some governments have begun to take a more hands on approach to video games. South Korea is foremost on this list as the most advanced in relation to video game regulation, or at least relationship. There are a number of laws that have been passed to help protect children from playing too much. These laws are to make sure that parents have necessary parental controls for video
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games for their children. South Korea has also developed a very close relationship with the eSports scene that video games are producing, and it is growing rapidly. The Ministry of Culture, Sports, and Tourism in South Korea has staff dedicated solely to eSports and helping it. The United States is even moving in this direction, as it has begun to grant visas to eSports professionals just as they would athletes from any other sport.

All of these different activities matter because they show how video games can impact more than just the people that are playing the games. Sure, individuals can turn into groups and develop into subcultures that function around a specific activity, but that is a very limited view of how to think of video games and the impact that has and can have an impact upon the world. Video games should not be thought of as just the video games themselves, especially when discussing video games within the context of library and information science, and even more so in the context of research. Video games can touch every aspect of society, and all of those aspects must be taken into account and understood so that research, study, and use is as accurate as possible.

WHERE IS THERE ROOM TO GROW?

Library and information science has already taken basic steps to begin to integrate video games into its fold, but there is definitely room for growth. Libraries already do quite a bit with games, and have historically done quite a bit with gaming, it is just a matter of being able to understand the transition into a new media form. Many libraries already have board games or gamified programs (like summer reading programs), it is just a matter of advancing forward into the new technology of video games.

Literacy is one of the biggest arguments for why video games should be in libraries. Because libraries are central to literacy of all different kinds, it is important to include video games in that fold. For a detailed explanation, Nicholson (2010) explains literacy:

The next step beyond that is to consider what literacy actually is it’s about working with a set of symbols, learning how to derive meaning from the symbols, and applying a set of rules to manipulate the symbols. Reading and writing are just one case of symbolic literacy, where the symbols are letters, numbers, spaces, and punctuation. There are many types of literacies in life that are required, but each requires the underlying skill of being able to take a new set of symbols, derive meaning, and manipulate the symbols through explicit and implicit rules.

It is just a matter of understanding many of the different formats that these symbols can exist in. Video games are a new format in the digital world in which literacy is an important part. Libraries are a prime location to be able to teach digital literacy to many different patrons. This literacy compares directly with the discussions of how video games interact with society. Because of the many ways described previously, it is important to understand video games in a way that there can also be video game literacy, understanding how they fit into the larger world and being able to work with them going forward. This is important for all generations, teens and adults. Right now, many programs focus only on teens, but is important to also look at additional demographics, because it should not be limited.
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Aside from literacy, video games have the ability to be tools for education, and make sure that they are mainly used as tools. Video games can be a wonderful thing, but they are not a replacement for a teacher, a classroom, or other students. The learning environment still needs to be intact. Use the video games as a tool to create deeper and broader communities, use them as ways to motivate students, or use them as tools for learning foundational skills.

Libraries can teach literacy through video games in many different ways, and are already doing so in many cases. The first example is through collection development. For video games to be a part of the library, the video games have to actually be in the library, and that involves getting the games somehow. This requires the video games being a part of the collection development policy, and getting the games that are needed to support the users of the library, and policies, specifically mission statements, should reflect this. Because of the massive differences that video games have from other forms of information and media, it is important to plan accordingly for them through policy and administration. Do not just start a video game policy just because. Do the due diligence and make sure it is supporting the library, but more so, the library users.

On the other side of having video games is libraries is the idea of having video game programs in libraries. Similar to collection development, it is important to develop programs that support the users, rather than just having a program just because. Support the users in what they want to do, and it will help fulfill the mission of the library, and also can accomplish the goal of giving different types of literacy to the users. The programs also have the added benefit, which just plain old collection development does not, of being able to create a community within the library around video games. And these communities add to the whole of the library, it is not just an isolated community. It is not just a video game community that is insular when developed, it becomes a smaller portion of the library community, helping the library in many different ways. It is just as important now to begin looking to different demographics and types of programs that can be offered. Libraries have created some wonderful video game programs in many different kinds of libraries, but many of the video game programs have been centered on teens and children. These programs are great, but teens and children are one of the smaller demographics of video game players. Adults are the primary demographic of players, and libraries should look to building communities for them; the numbers are there, it is just a matter of finding a way to make the community work and have the library be a better place to play games than at home.

Information science, a broader topic than just libraries and library science, also has many opportunities related to video games, specifically in the areas of information seeking behavior, the information environment, user centered design, and user experience. Decades of work have gone into the study of the information environment, and studying individuals and different groups of people to determine their information seeking behavior and how they interact in the information environment. Much of this research can be applied to video games, especially in how individuals come together to form groups and share information. What needs to be done now is understand how video games create different information seeking behaviors from what the research has already said. Sure, some of the research that has already been done can be extrapolated or built upon, but it is important to look at video games through new research. The impact the video games have had on individuals, groups, and society as a whole cannot be disputed, which makes it important to understand how the information environment for video games
exists. Information professionals are in a wonderful position to do this work, steps just need to be taken to have it happen. As mentioned earlier, there is a lot of work that needs to be done to understand and determine different types of games, players, and how games are played. Many of the tasks involved here are information tasks; right up the alley of information professionals. It is time for the information professions to begin diving into the world of video games to help bring more knowledge and clarity to the information environment of video games.

One way in which information professionals can help with the information environment of video games is through user centered design and user experience. With the large body of knowledge and information that already exists about information seeking behavior and user testing throughout the information professions, it is important that information professionals begin to step forward and use this knowledge, information, and the skills associated to help in the world of video games. The video game world is going to move forward with the skills anyway, it is just a matter of the information professions helping to move it along with the foundation that has already been built, rather than waiting for the video game community to build it on their own. This is important because it allows for users to truly begin experiencing video games how they want to experience them, and how designers want them experienced. This does not just help video games and the information professionals, it also helps the users: the players. As has been established, video games can have many positive effects, and information professionals can have a pivotal role in helping to move that forward, driving the idea of video games as not just entertainment, but also as education and literacy tools.

Another way that information professionals can do this, and one way this book has put forth to try and help in this way, is through the idea of controls, and defining what or who exactly is being tested when research is occurring. The idea of TIES is a prime example of this; it is a way to hopefully help define exactly what kind of player someone is, which helps to define who should be recruited for research purposes. Controls are what research for video games needs to work much harder on, and not just with information professionals and video games. Not the controls that are held in a hand that are used to play a game, but research controls within a study or experiment. The drum that is beat over and over and over again in studies about video games (not just in relation to health), is the lack of controls. In the literature review Latham et al. (2013) performed, the phrase “lacked adequate control” was repeated often enough that the research being reviewed seemed insignificant. Latham et al. even acknowledge this fact by stating, “all these studies have lacked adequate control conditions making results particularly problematic to interpret.” (p. 8)

The issue of controls is a big deal because it can severely impact what is being done within the realm of video games. If there has been 30 years of research into the study of video games, and all of them are flawed because of inadequate controls, then there needs to be more thought and study put into the controls, so that research can be more directly addressed to the problematic areas.

The control that is hard to measure is the aptitude of individuals and whether they are naturally drawn to games that they are naturally adept at. Latham et al. (2013) mention this in relation to action video games and visuospatial attention, “It is possible, of course that children and adolescents who possess pre-existing superior visuospatial and attentional abilities are drawn to action video-games because
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these abilities result in greater success playing video games, and consequently playing games is more rewarding.” (p. 3) But it is still just a possibility, it is not known for sure. This needs to be known to more accurately be able to study these types of games and these populations.

Many of the studies related to health and video games mention the term “action video games” as an accepted definition, but it is not a definition that is readily used within the video game community, it is one that is used within the health sciences academic community only. Both sides are probably working for the same goal, but right now they are speaking different languages. If someone from the health sciences approached a game designer, or player, and asked them about action games, there would be some confusion as to what was actually being discussed. Action has a very wide ranging interpretation, especially in the realm of the many different types of games that are currently made. A more granular definition would only help to define what types of activities within video games are providing benefits or harm. Latham et al. even addresses this issue, stating:

*Although the term “action video game” is typically used in the literature to refer simply to “first person shooters,” where success is heavily reliant on the ability to make speeded responses to the visual stimuli present on the screen at any given moment, “action video games” of today in fact encompass a vast array of different game genres (e.g., first-person shooter, real-time strategy, role-playing game, multiplayer-online battle arena, etc.) each with the potential to give rise to a unique set of perceptual and cognitive enhancements.* (p. 7)

There needs to be some kind of agreement on types of video games, especially when they are being studied. If it is found that “action video games” have a generalizable result in a study, how does that transfer? Is it only for that one game being played? Does it cross genres? Is it a specific mechanic/dynamic/aesthetic within the game that is creating the result? That is why the MDA framework from Hunicke et al. (2004) is so important, because of the many granular factors that exist within a video game. Just saying “an action video game” does not help to define what is actually being tested. Understanding which aspect of the MDA framework is being tested helps to control the research and show which piece of the games *exactly* are delivering the results.

The issue with many of the studies revolving around video games is not that the studies themselves were not good, or that just the controls were lacking, it is a matter of not fundamentally understanding video games and how people interact with them. They are not just a movie that is passively consumed or something that is done and over with; there must be a change in paradigm of the thinking of researchers to go along with the change in paradigm that has occurred with video games. Video games are a type of media that is consumed in an entirely different fashion than everything that has come before it; there is an interactive element that needs to be controlled for and understood by the researchers before beginning study and this is currently lacking.

How does this get fixed? It is a matter of researchers understanding video games as a culture and as a whole form of media in a much better way. Researchers cannot just pick a game at random and expect to test and get results. The game must be understood, the type of game (i.e. MDA framework) must be understood, the type of platform, type of controller input, the visual input, audio input, etc. etc.
etc… All of these must be taken into account and understood by the researcher before even designing the experiment. Performing research from a scholarly perspective is not enough to be ready for this type of research; there must be research done from the point of view of the user and the game. The point of view of the game itself is something that has not had enough attention, especially in relation to health and video games. The most focus that has been put into the format of the game has been in relation to physical movement and games, but that is because the primary tool of study, the Wii and Kinect, are obvious examples of different input methods for video games. More focus needs to be put onto the input methods of different controller types, keyboards, mice, etc.

Beyond the idea of how games are played, the idea of how much an individual plays a game, and how skilled that person is at a game can significantly change the results of an experiment. This directly ties (hah!) into the theory postulated earlier in this book about TIES. Just playing a game is not enough to make an expert video game player; there are different scales that show different levels of game playing. Time spent playing does not confer skill, so that is something else that must be measured. Greenfield et al. (1994) tried to control for this concept of expertise by tying it to a score within a certain video game, but that is in no way generalizable or transferable to different games or genres. It is great for that siloed incident, but does nothing to advance the research as a whole forward; it is but an isolated incident.

Latham et al. (2013) suggest using the performance metrics built into games to ascertain the skill level of gamers, but only in regards to that certain game. League of Legends and Starcraft II each have ladder systems to determine skill level, which allows for measuring the expertise of players, but, again, this is not generalizable to other games or other genres. The idea of using professional game players also raises a new set of expertise guidelines, or a new population to study. It would be interesting to note for the studies done related to reaction time, attention, reflexes, etc. to see if professional gamers showed significant differences from the general population of gamers. Because of their time and skill spent on a specific game, they would be good candidates for a controlled population, but would not be generalizable to a larger audience.

The benefit to using certain in game skill ladders, like League of Legends, for study, is that the games themselves have such a large population of gamers that the sample size for recruitment is already significant. Millions of gamers play League of Legends every day, it is just a matter now of designing an experiment, and adequately recruiting from the correct skill levels, to get adequate results.

In the end, video games are a huge movement with society, but there is still so much about them that is not yet understood. For the purposes of library and information science, as well as research, there is still a lot of work that needs to be done. Primarily, video games, and the individuals and groups that play them, need to be understood at a much deeper level than they are understood now. Only with that understanding can the research into video games truly be done well, and be made generalizable.

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Conclusion

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