Lagging Behind: An Examination of Digital Inequality in Gaming and Esports

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INTRODUCTION
This paper explores manifestations of digital inequality related to digital games with a focus on the importance of esports inequality in the United States. The role and function of digital games is constantly evolving within society as games play an integral role in education, business, and many other facets of everyday life. As a result, our conceptualization of digital inequality and its relationship with digital gaming must also continuously evolve. The origins of the digital divide concept originated from the unequal access to telephone infrastructure (DiMaggio, Hargittai, Celeste, & Shafer, 2004). At this point, the "digital divide" metaphor represented a distinction between technological "haves" and "have-nots" (DiMaggio et al., 2004). However, as information and communication technologies (ICTs) use became infused with today's world, a more multifaceted and nuanced concept of digital inequality emerged (Van Deursen & Van Dijk, 2013; Van Dijk & Hacker, 2003). This paper attempts to evaluate the role of digital games in both the proliferation and amelioration of digital inequality within modern society. Further, the paper also explores how this understanding of digital inequality in games is reflected within esports. By surveying and combining the digital divide/inequality literature with critical game scholarship, this paper makes the argument that esports is in danger of becoming increasingly exclusive rather than inclusive.

DIGITAL GAME INEQUALITY
Digital gameplay may serve as a digital bridge rather than a digital divide. Gaming has been linked to improved resourcefulness, adaptability, and even communication skills (Barr, 2017, 2018). For example, general digital gameplay has been linked to increased computer self-efficacy and reduced emotional costs among young minority students (Ball, Huang, Cotten, & Rikard, 2018). Digital game-based interventions have been shown to increase minorities' technology identity and pursuit of computer science-based degrees (B. DiSalvo, Guzdial, Bruckman, & McKlin, 2014; B. J. DiSalvo, Crowley, & Norwood, 2008). Game design has even been used as a means of educating students on inequality itself (King et al., 2016). Likewise, entertainment-based uses of computers, such as playing games, had a positive impact on both general technological

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self-efficacy as well as application self-efficacy (Ball et al., 2017). Similarly, playing games increased technological self-efficacy more than other activities such as making webpages (Shank & Cotten, 2014). In general, this line of research indicates that playing digital games may give minority populations a positive, low-stress, direct experience with technology which could have positive impacts on their comfort with technology. In this sense, digital games could be viewed as a means of ameliorating digital inequality.

However, approximately 36% of US households reportedly do not contain gaming devices and those that do (64%) include a substantial amount of variability in the kinds and quality of devices used (Entertainment Software Association, 2018). For example, only 41% report playing games on a personal computer (PC). This device variability may have further ramifications considering that playing games on a computer was found to increase computer self-efficacy while console ownership did not (Ball et al., 2018). Digital gaming's predominant association with white/Asian men reflects traditional digital disparities, in which race, gender, and socioeconomic status are key factors (Lenhart et al., 2015). This is particularly relevant in relation to the lack of minorities and women working within the gaming industry (Hahn, 2018). While a great number of efforts have been made recently to address issues of inclusion and representation across the gaming industry (Prescott & McGurren, 2014), it is important to continue investigating the ways in which digital inequalities continue to influence the gaming industry and culture.

EXPLORING ESPORTS INEQUALITY

The rise of esports provides one such area of exploration. With global revenue projected to reach over $1 billion dollars in 2019, professional gaming has become a legitimate and profitable venture for designers, players, and outside investors (newzoo, 2019). The prize money for esports events is now estimated at over 150 million dollars and climbing every year (newzoo, 2019). However, esports leagues and the prize money vary substantially based on the hardware being used. Most of the more lucrative esports franchises and leagues are played primarily on pcs while console-based esports play for significantly smaller amounts. For instance, the 2019 league of legends world championship awarded a prize pool of $2,225,000 across the pc-based tournament with $834,375 awarded to the eventual champions (esports earnings, 2019b). Meanwhile, the 2019 evolution championship series, an annual event that hosts the largest fighting game tournaments in the world, held tournaments for nine different titles with a prize pool totaling $254,289 across all nine games (esports earnings, 2019a).

These differences extend down into the growing number of universities and associations bringing esports into the educational space with scholarships for high-school and college students. There are an estimated 200 colleges that now offer scholarships for esports, totaling nearly $15 million in tuition assistance (Heilweil, 2019). Video game consoles may be one of the most common ICTs in minority households (Leith & Cotten, 2014). However, esports scholarship opportunities tend to skew towards games played on PCs which are less common among minority groups (B. J. DiSalvo et al., 2008; Peterson, 2018). A lack of consistent access to a PC, or the economic and social conditions that lend themselves to professional levels of practice/play, can limit the ability of minority players to enter into the esports space and reap the benefits therein (Fletcher, 2020). For instance, the majority of the 16 scholarship eligible games listed by the Next College Student Athlete are either PC exclusive or usually played competitively on PC (NCSA, 2019). Therefore, PC-based esports teams are predominately made up of white/Asian men which means they are the most likely to receive the scholarships associated with playing these games (Peterson, 2018). Meanwhile, console-based games such as fighting games and digital-

sports (i.e., FIFA) are viewed as much more accessible and racially diverse (Peterson, 2018).

CONCLUSION

There are a multitude of perspectives that are essential to better understand the complex interrelationship between digital gaming and digital inequality both nationally and globally. Digital game related critical feminist and race scholarship will be invaluable moving forward. For example, there are complex cultural barriers that may hinder full participation in esports and other areas of digital gaming (Shaw, 2012). This exploratory paper attempts to keep pace with the rapidly evolving role that digital games play in our society by combining the digital inequality literature with critical game scholarship in order to demonstrate how esports is becoming more exclusive rather than inclusive. Digital games can offer opportunities with regards to technical literacy and esports. However, access to hardware alongside long-standing issues related to diversity within gaming culture can act as barriers for minorities and women. As esports continues to grow we will need to examine the ways it perpetuates and alleviates inequalities financially and scholastically.

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