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This study explores how, how often, and where players of the tabletop game *Dungeons & Dragons* search for information. Over 2,500 participants were surveyed about what information they sought, what resources they used, and why.

While participants' purposeful information seeking was fairly similar to habits described in other studies of everyday life information seeking, participants had strong opinions about what resources were missing from the realm of existing *D&D* resources and what was most important to them when selecting a resource for use. Among the most common concerns were ease of access, cost of access (both temporal and monetary), validity of information, consolidation of information, and the feel of the resource.

Headings:

  Information-seeking behavior

  Information services research

  Use studies of information resources

  Dungeons & Dragons (tabletop game)

  Everyday Life Information Seeking

  Serious Leisure Perspective

INFORMATION CHECK: STUDYING THE INFORMATION-SEEKING
BEHAVIORS OF *DUNGEONS & DRAGONS* PLAYERS

by
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Table of Contents

Introduction

  Dungeons & Dragons (*D&D*) is a fantasy tabletop role-playing game originally created by Gary Gygax and Dave Arneson. Since its inception in 1974, *D&D* has inspired countless hours of imagination and adventure for players around the globe. The worlds created by individuals acting as "Dungeon Masters" are immersive and complex, and, as such, both creating them and playing within them require great amounts of information and even more imagination.

  It has been over forty years since the first game of *D&D* was ever played. Much has changed in the game context since that time, though much has subsequently remained the same. Some players use hardcopies of official rulebooks, while others use officially (and unofficially) licensed websites and web applications for their information needs. This paper aims to study the information-seeking behaviors of *Dungeons & Dragons* players in order to understand resource selection and decisions both before a game session and during one.

  Through the use of surveys, this paper seeks to answer the question: What are the information-seeking behaviors of *Dungeons & Dragons* players? On top of that, this paper also covers whether the age of the player, amount of experience, and role of a player within a game has an impact on information-seeking behavior. Moreover, it takes a look at the age-old rivalry: Do players prefer physical or digital resources, why, and is there variance in what they say they prefer versus what they actually use? It approaches these broader questions by asking the specific questions:

- For what information are *D&D* players seeking?

- What resources do they use to find this information?

- Do players have a preference for digital or physical resources, and is this impacted by age?

- Does amount of experience (i.e., how long they've been playing) impact information-seeking frequency?

- Does their role (Dungeon Master, player, or both) affect their information seeking?

This paper will approach these questions from the foundation of information-seeking behavior research—more specifically, everyday life information seeking (ELIS) literature and, even more specifically, ELIS in leisure (and play) literature, through the lens of the Serious Leisure Perspective (SLP).

The goal of this research is not to determine which type of information resources or playstyle (physical versus digital) is better in the *D&D* context. Instead, the point is to determine what types of information seeking are being carried out, how often, and what information is being sought by players. As such, this research does not cover the merits of game-playing, nor does it cover the merits (or perceived merits) of physical gameplay versus digital play.

Background

Games of dice are some of the oldest to be recorded. The first record of dice games can be found in *The Histories* by Herodotus, which tells us of the Lydians and how they used dice games to pass eighteen years of famine: "The plan adopted against the famine was to engage in games one day so entirely as not to feel any craving for food, and the next day to eat and abstain from games. In this way they passed eighteen years" (Herodotus, 1880). Jane McGonigal (2012) surmises that dice games both gave the ancient Lydians new rules of engagement as well as gave them a way to "introduce and support a more sustainable way of life" (p. 350). She continues about how "we share with the ancient Lydians these three timeless truths about games: Good games can play an important role in improving our real quality of life. They support social cooperation and civic participation at very big scales" (p. 350). In these ways, we can see how leisure has a positive impact on society:

> Leisure is synonymous with—the 'very essence of' (Neulinger, 1974, p. 66)— quality of life, on both micro and macro scales. In individuals' day-to-day lives, leisure buffers their stress, improves their relations, and stimulates their senses of play; it structures their time, builds closeness, and proffers renewal, actualization, and identity, while simultaneously raising social capital. (VanScoy et al., in press, "conclusion")

To be clear, leisure, as used in this paper, refers to what occurs during free time and is an "uncoerced, contextually framed activity [that]…people want to do, and using their abilities and resources, actually do in either a satisfying or fulfilling way (or both)" (Stebbins, 2012, p. 4).

So, games can teach us about our society, but what can we learn about how and why people search for information about those games? Much like Jenna Hartel's work, this paper focuses on hobbies as serious leisure, which is worthy and deserving of more focus within the realm of library and information science (LIS) (Hartel, 2003; Hartel, 2010a). As Hartel explains, "serious leisure was first described in 1982 by sociologist Robert A. Stebbins. It is based upon the insight that leisure is not homogenous in character and that some forms are particularly intense and enduring" (2003, p. 229-230). In Stebbins' own words, *serious leisure* is "the systematic pursuit of an…activity that participants find so substantial and interesting that, in the typical case, they launch themselves on a leisure career centered on acquiring and expressing its special skills, knowledge, and experience" (qtd in Hartel, p. 230). There are three general types of serious leisure: amateurism (a high-level, minimally paying avocation), volunteering (an encompassing, altruistic endeavor), and hobbies (devoted activity realms that are rarely professionalized) (Stebbins, 2001). Playing *Dungeons & Dragons* falls into the hobbies category, which is the most popular of the three forms.

When it comes to partaking in these hobbies, as Hartel also points out, serious leisure participants "willingly make significant effort acquiring knowledge" (2003, p. 230). She also draws attention to how hobbies "exhibit social organization and, according to Stebbins, are social worlds" (2003, p. 231). A social world, as Hartel quotes from Unruh (1979), is a "constellation of actors, organizations, events and practices which have coalesced into a perceived sphere of interest and involvement for participants" (p. 231). The particularly interesting facet to this sphere is twofold: first, information plays "a critical role in hobby social worlds [because] the lack of any centralized bureaucracy

causes a dependence on…information forms" (p. 231). Second, librarians are "strangers who perform an intermediary role to resources. The information seekers and users within social worlds are the regulars and insiders" (p. 231). So, not only are hobbyists accustomed to specific, often intense research and/or information-seeking, they willingly and happily participate in it frequently. Moreover, these serious leisure realms are also "fertile crossroads of information and sociality, resembling other socially organized, information-rich domains such as the academic disciplines and professions" (2010, p. 3271). As such, they are the perfect grounds for further exploration into information-seeking behaviors, especially given the length some hobbyists will go to find specific, often niche information. As the researcher is someone who plays *Dungeons & Dragons,* she can attest that these statements are true for herself and her friends, but wanted to know how these statements might apply to others. Are information-seeking habits of *D&D* players impacted by how long someone has been playing? Their gender? Their country of residence? Their role in the game? Whether they're playing at the moment or just preparing to play?

It was Bates (1999) who divided the information and library science (ILS) field into three big questions of "information disciplines": 1) Physical: What are the features and laws of the recorded information universe? 2) Social: How do people relate to, seek, and use information? 3) Design: How can access to recorded information be made most rapid and effective? She argued that information professionals have to understand question two in order to deal with questions one or three. In her words, "we are always looking for the red thread of information in the social texture of people's lives" (p. 1048). In that same vein, one seeks a similar goal: to understand how people relate to and seek

information about *Dungeons & Dragons* in order to understand better how to enjoy it; to make resources for, about, and from it; to advocate for its inclusion in spaces where it is has been traditionally excluded (e.g., academia); and to apply the understanding of tabletop information seeking behaviors to a broader area of interest.

Hartel states it simply yet profoundly: "One of life's great joys is leisure [yet] it has received little attention across LIS" (2003, p. 229). While that—thankfully—appears to be changing, there still seems to be a lack of consideration of leisure. As everyday life information seeking continues to be an evolving sphere of study, it also increases in relevance. It is an important context for information behavior in the 21st century, a place where more people have access to the internet and thus more information than ever before, and it should not be ignored.

Literature Review

Much of the literature surrounding video games generally pertains to stereotypes of games and gamers (Hayes, 2005; Peck et al., 2011), questions about whether games cause or lead to violence (Gee, 2007; Granic et al., 2014; Prot et al., 2012), and debates over whether games should be included in library collections (Adams, 2009; Harlan et al., 2016). While important and interesting, none of these topics are of particular pertinence to this paper, and are thus not included in this literature review. Moreover, while there is much research into information seeking behavior from both the perspectives of professionals (Bennett et al., 2004) as well as non-professionals (Mizrachi, 2010; O'Brien & Symons, 2005), there lacks a significant amount of research into the information seeking of gamers specifically.

Moreover, although *Dungeons & Dragons* is played in groups, individuals' information seeking often occurs solitarily, as discussed in the "Surveys" subsection of this paper. However, included below are some articles which cover collaborative information searching, mostly in the context of web searching. Shah (2012) points to the need to acknowledge collaborative information seeking and calls for the creation of systems that are specifically designed for such searching. Other articles, such as Kelly and Payne (2013), touch on the social factors of information sharing and seeking as well as division of labor in collaborative groups in order to minimize redundancy. This piece itself has an excellent literature summary of more specific work on division of labor in

collaborative information seeking systems and aims to promote group discussion in workplaces.

Overall, this Literature Review is divided into four sections, as follows: user-centric information seeking, everyday life information seeking, information seeking in leisure, and information seeking in gaming. The majority of pieces covered in this section are considered seminal, and are highly cited within the ILS field. Others were found through searches for recent studies related to "video games and information seeking" and "behavior of gamers" in databases such as LISA, Google Scholar, and Web of Science.

1.1   User-Centric Information Seeking

Many studies from the ILS field, while not totally focused on information-seeking behavior of gamers, are still applicable to this literature review. Since a groundswell of user-centric research interest about four decades ago, several scholars have explored and called for further research that focuses on the individual person during information seeking. Dervin (1976) strove to highlight the importance of user-centric research in terms of information needs. She combined several years of her own work through challenging ten assumptions that had dominated research on communication and information seeking up to that point. While her earlier focus was on the needs of urban residents, much of her work is applicable to a broader range of information needs for more than just urban residents. Her first—and arguably most important—"myth" is that only objective information is valuable to people as they seek it and put it to use. As Case (2008) argues, "for most tasks and decisions in life, people tend to settle for the first satisfactory solution to a problem, rather than the best solution." (p. 8). Furthermore, Case (2008) goes on to support Dervin (1976) by claiming "many types of information-

seeking behavior are worthy of study" even if that has typically not been the trend (p. 11).

For example, Kuhlthau's (1985, 1993, 2004, 2008) research on the Information Search

Process has looked at affective, cognitive, and physical/conative aspects of information

seeking and use. Kuhlthau emerged from her dissertation and PhD work in the early

1980s, right when the broader ILS field was beginning to rumble with louder calls for a

focus on users and people, not just systems. She developed a model of information

seeking that shows six (sometimes seven, depending on the version you reference) stages

of information seeking: initiation, selection, exploration, formulation, collection, and

presentation (followed perhaps by assessment, depending on the version of the model).

Kuhlthau's model includes rows for feels (affective), thoughts (cognitive), and actions

(behavioral/physical). Her focus on the user during the process of information seeking

initiated a new wave of holistic user-centric research.

Since, and more recently, Lee and Ocepek (2018) used Julien and Michels' (2004)

work on intra-individual information behavior as a basis for an empirical study that

followed one graduate student working in a wet lab. Through observation, interviews,

and surveys, they were able to identify three recurrent patterns regarding the participant's

information-seeking behavior: cross-referencing (when deciding whether to trust an

information source), information reviewing (using prior information records or memories

when searching for new information), and vision-driven information seeking (heavily

reliance on pictures and images when interacting with information). Similarly, others

have created models of information-seeking strategies, like Ellis (1989), who created a

model of eight information-seeking strategies: starting, chaining, browsing,

differentiating, monitoring, extracting, verifying, and ending. Each of these three

studies—Kuhlthau's (1993), Lee and Ocepek's (2018), and Ellis' (1989), and others like them, contributes finer-grained details about users' small-scale information activities throughout their information seeking journeys. Their findings persist and have staying power: in 2000, Byron and Young examined whether the stages of Kuhlthau's (2004) information search process model (initiation, selection, exploration, formulation, collection, presentation, assessment) also occurred in a virtual learning environment. They found that the students who participated in the study did exhibit these stages, regardless of their level of computer skill and/or literacy (Byron & Young, 2000). Computer skill is an important consideration for a virtual game or learning environment, but it also plays a role in how users find information for games like *D&D* where the game can be adapted to online play and much of the information about how to play can be found in digital as well as physical formats.

Further, in an environment like *D&D* where multiple plot lines as well as game rules and mechanics are unfolding simultaneously, task complexity can be a crucial factor in how information is sought. Byström and Järvelin (1995) found that task complexity affects information seeking and use. They found that understanding, sense-making, and problem formulation were essential to complex tasks and thus participants required more complex types of information, which was found through different channels from different types of sources. They also found that during normal information processing tasks, the workers they studied typically knew how to get hold of relevant sources. This mental legwork pays off long-term: Spink and Cole (2006) have concerned themselves with people's conceptual utilization of information, i.e., how they incorporate information into an existing knowledge base and how their knowledge structures are changed after

encountering new information. They argue for a multidisciplinary, integrated approach to studying and mapping human information behavior through the use of the evolutionary psychology perspective as it considers information need a fundamental human need.

The interest in and canon around user-centric ILS research has definitely grown since the 1970s and 1980s. Case (2008), who studied over 400 publications about information-seeking behavior, found a tendency for "recent investigations of information seeking [to] focus more on the seeker and less on the sources or channels they use, although it is not possible to ignore the latter entirely" (p. 14). Wilson, who wrote an overview of fifty years of information behavior research in 2010 points out that, while the focus may have shifted, much research remains to be done with regard to individuals and their information behaviors: "Although the nature of information may change, and the context of information use may change, I see no end to the need to explore, […] how people discover, access, use, store for future use, share and disseminate information of all kinds" (p. 32).

1.2 Everyday Life Information Seeking

The mid-1990s marked another turning point for ILS research. Savolainen (1995), who was heavily influenced by Dervin's work, called for more of a focus on people's "nonwork information seeking" (p. 259), as well as the information seeking they do outside of academic and educational contexts. Savolainen began studying "the substance of choices made in everyday life" (p. 262), and encouraged others to research information seeking in non-work/non-school settings as well, thus forming the subfield of Everyday Life Information Seeking (ELIS).

In his initial research, Savolainen (1995) found that individuals had a preference for sources that were both readily available and easily accessible when seeking information related to their day to day problems and queries, a conclusion that other researchers have since confirmed (e.g., Julien & Michels, 2004). Savolainen continued his research into everyday life information source preferences, and organized individuals' use of sources into five main groups.

The first three groups of source use—those of most importance, secondary importance, and marginal importance—were formed from participants' natural explanations, and correlated to zones that he would use in a conceptual model. As Monahan (2009) so efficiently summarizes:

> In the first two zones, human sources were the most preferred type of source because they could provide filtered, easy, and quick access to information, could interact with the person seeking information to clarify issues, and may have dealt with a similar problem before. Respondents also cited human sources as a source of ideas and described what Savolainen calls "information by proxy," in which a human source monitors other sources of information and lets the seeker know if anything is discovered. (p. 6)

In addition, Savolainen found that participants sometimes conducted research using other types of sources *before* consulting human sources for feedback and making a final decision. Participants also mentioned other groups of sources, which included networked sources (i.e., the internet), organizational sources, and "other".

Typically, participants valued printed sources because they were perceived as providing factual information and as such, they were used both for finding general, 'orienting' information and for finding specific, problem-centered information. Because of this, printed sources were placed rather evenly in all three zones. Networked sources, on the other hand, were valued for the amount of information that was available quickly due to the speed at which the information could be accessed (and updated, when

necessary). Savolainen's participants further indicated they preferred networked sources because they allowed for the comparison of different sources and viewpoints. As such, organizational sources and other sources were preferred less often. Overall, respondents most often preferred sources based most importantly on the content of information available, followed closely by the availability and accessibility of information. Moreover, respondents typically started with a human or internet source (Savolainen, 2008). On the other hand, Agosto and Hughes-Hassell (2005) studied the ELIS behavior of urban young adults, who indicated a heavy preference for people as information sources.

ELIS is not all about source preference, however. McKenzie (2003) developed an information-seeking model based on a large, qualitative, everyday life-centric study that used semi-structured interviews of nineteen Canadian women who were pregnant with twins. She found that four methods of information seeking were prominent for these women: active seeking (actively looking for an identified source), active scanning (identifying a likely source or browsing in a likely information ground), non-directed monitoring ("serendipitous" encounters with information in unexpected places), and information-seeking by proxy (being referred to a source, usually by someone else, without actively looking for it).

Other researchers since Savolainen have also found the internet to be an increasingly popular source of information, especially among certain demographics. Lee (2008) studied information seeking among undergraduate students, where twelve of the fifteen students in the study used internet sources. Interestingly, Lee noted how respondents would rely on a limited number of sources—found via Google keyword searches—and were thus unaware of other, potentially more useful ones that were not as

easily or quickly accessed. While the study focused on academic needs, convenience was

one of if not the biggest factor in participants' decision-making, which is applicable to

this research given how many resources are available to *D&D* players.

In contrast, however, Greyson's (2018) work a decade later, exploring the

information seeking behaviors of young parents over the course of sixteen months,

showed high sophistication in terms of judging the value of internet sources and

information. When knowledge was contested within their sphere (e.g., when users were

unsure about the "veracity" or "usability" of information), young parents:

> engaged in a variety of active practices that involved obtaining information via
> multiple sources, strategies, or perspectives to assess and make sense of
> information needed to inform an action or decision… This information
> triangulation thus emerged as an active and complex practice, which wove
> together seeking, assessment, and sense-making in an iterative manner, to inform
> actions or decisions. (p. 872)

Greyson also noted how the young parents shared a general practice of classifying

sources based on their perceived level of authority, even if the parents' concept of

authority varied among person to person. Everyday life information behavior, then, is a

multi-layered topic rich for study, and far from straightforward or simple when compared

to professional or educational information behavior.

Among other researchers, the features of websites that make users more apt to

access and value them as information sources have been a focus. Early interest came

from Tombros et al. (2005), who studied twenty-four participants, given three tasks each,

in order to hear what webpage features they used when determining usefulness. Overall,

the most important category was text, which includes the features of: content, numbers,

titles/headings, query terms, and "too much". Both content and numbers were mentioned

in almost half of the total mentions, implying the importance of subject material and not

necessarily how that material was accessed, which does align with some participant

responses in the "Discussion" section of this paper. Finally, Tombros et al. also found

webpage structure to be the second most important category, although which features

were more important to users did tend to depend in part on which task they were doing. It

is important to consider features and structure in information system design. Later in this

paper, in the "Discussion" section, the features and structure that *D&D* players indicated

as important to them in a consolidated information source are noted.

Finally, ELIS is not exclusively focused on individuals' information-seeking

behavior. Prigoda & McKenzie (2007) conducted a naturalistic study of women at a

Canadian public library's semi-private knitting group. The researchers used interviews,

recorded observation sessions, and field notes to create a graphical model of the

influencing factors on information seeking and sharing in a collective ELIS setting. Since

D&D includes both individual and collaborative components, the spectrum of

information behaviors and modes is important to keep in mind.

1.3   Information Seeking in Leisure

While Stebbins (2009) and Hartel (2003, 2010a, 2010b) are credited with calling

for and merging the concepts of the SLP framework into ILS, they are not the first to

explore information seeking during leisure. Ross (1999) investigated two components of

reading for pleasure relatively early on: "(1) how readers choose books to read for

pleasure; and (2) books that have made a significant difference in readers' lives" through

the analysis of 194 interviews (Ross, 1999, p. 783). She compares some common

elements in both areas of inquiry and calls for more attention to the importance of users'

meaning-making when developing theoretical models. She also points out limitations of

mainstream (at the time) models of information seeking, which often made the assumption that users start seeking information to answer a question or solve a problem, and then immediately begin to search for information.

Jenna Hartel's scholarship—previously introduced in the "Background" section—advocates for serious leisure hobbies, and leisure in general, receiving more focus within the realm of ILS (2003; 2010a; 2010b). She argues that exploring leisure information experiences leads to a "more complete understanding of information in the human experience" (2010a, p. 3272). In her earliest work, Hartel (2003, 2010b) conducted an exploratory study into the nature of information as it pertains to the hobby of gourmet cooking. She toured the homes, kitchens, and information resources of twelve hobby cooks and found that information resources served more than just functional purposes; they represented "family legacies, important occasions, aspirations, and past experiences" (2003, p. 236). Further ILS research into hobbies and leisure would inspire students to connect with difficult conceptual material, provide new knowledge to the field, help libraries connect to their communities, and potentially improve the public image of the ILS field (2003).

Elsweiler et al. (2010) studied participants' television-viewing habits through the lens of ELIS. They analyzed the needs of thirty-eight participants through a seven-day long diary study. Participants recorded information required, current mood, how the need was addressed, how difficult the task was, and how often that particular (or similar) needs occur. They recorded just over 380 needs, around an average of ten needs per participant. Some of their findings include that information needs were frequently chained. They also found that their data tended to contradict Stebbins' claim that all casual leisure activities

are strictly hedonic (p. 30). While they found evidence of people treating television as a means to relax, their "data show that people also use television for more 'serious' information seeking activities […] possibly being necessary in order to prepare for a pleasurable future activity" (p. 30). Because *D&D* players also often face scrutiny for their interest in the hobby, although many would argue that is slowly changing, it is worth remembering the seriousness and dedication with which even casual-seeming activities can be undertaken.

1.4   Information Seeking in Games

Playing *Dungeons & Dragons* is an example of a leisure-related everyday life activity for which information is sought, used, shared, and more. Several ILS researchers have taken the concept of information seeking during leisure and focused on virtual worlds, specifically as they relate to video games. Adams (2009) explored information seeking behavior and meaning-making in virtual play spaces using the game *City of Heroes* (*CoH*). Adams focuses on every life information seeking through the lens of McKenzie's (2003) information practices, which is influenced by Savolainen's (1995) version of everyday life information seeking. The article urges for the use of gaming in the library as a way to promote effective information seeking. Adams notes that "unlike some other models of information seeking, McKenzie's is based on social, rather than strictly cognitive concepts," useful to understanding sense-making (p. 681). The most basic—though far from unimportant—finding from Adams' analysis is that information seeking and meaning-making does occur in *CoH*, and these findings can be translated to other virtual environments as well (p. 691). Adams outlines how "just as in everyday life, players in *CoH* must retrieve information in order to solve problems" (p. 688). More

specifically, players of *CoH* utilize McKenzie's (2003) four types of information-seeking behavior—active seeking, active scanning, non-directed monitoring, and info-seeking by proxy (p. 689). One of the smaller—but still fascinating—discoveries Adams concludes is that players tend to search actively in formal places (such as a game manual) as a last resort (p. 689). This particular comment began the spark that led to this paper, as the researcher wondered: what is the last-resort information source for *Dungeons & Dragons* players?

Adams is not the only one to explore information seeking behaviors of gamers. Griffiths et al. (2004) studied the behaviors of adolescent and adult online gamers through an online survey to discern whether there were any differences between the two. The study was exploratory and aimed to get a better understanding of who was playing online MMORPGs (massively multiplayer online role-playing games) through studying players of *Everquest*. They found that "adolescent gamers were significantly more likely to be male, significantly less likely to gender swap their characters, and significantly more likely to sacrifice their education or work" (p. 87). Moreover, "in general, the younger the player, the longer they spent each week playing" (p. 87). They also asked players their favorite and least favorite features of online gaming, which they broke down into age categories (adolescent and adult). Among both groups, the social features of the game were considered their favorite, while the least favorite aspects were mostly game-specific features. In general, research has shown, through samples of U.S. teens, that 99% of boys and 94% of girls have played video games (Lenhardt et al., 2008). Aside from the benefits of video games from a leisure and entertainment standpoint, other research has also proven the benefits of playing video games, such as improved problem-solving

skills, improved coordination, improved emotional maturity through unique, otherwise unobtainable experiences, improved social skills, and improved ability to multitask (Granic et al., 2014; Gee, 2007; Baranowski et al., 2008; Barlett et al., 2009; Gopher et al., 1994; Griffiths, 2002). Others still have analyzed literature relating to the research of video game experience in the "domains of social, cognitive, affective, and educational science" (Bailey et al., 2011, p. 18).

Harviainen and Savolainen (2014) identified 30 key studies on synthetic worlds and online gaming, which they analyzed to determine how researchers have characterized information as capability and capital within the context of virtual worlds. They found that ecological and emphatic information affords action in a virtual environment, although failing to recognize relevant information is likely to hinder or prevent whatever task that information is intended to help accomplish. Moreover, information can be bought and sold as a sort of "virtual currency" in online games, and as such, the acquisition of information can provide individuals with the ability to power over others or even gain some semblance of cognitive authority. They use research on guilds in the online, virtual world of *World of Warcraft* (*WoW*) as an example of how coordinating teams share tactics and training as well as information practices in order to ensure members' commitment to acquiring new information on better tactics (Rodriguez, 2012; Vesa, 2013). On top of that, Harviainen and Savolainen (2014) point out how as people continue to move online for commerce and leisure, information research needs to follow in order to adapt to these information-heavy environments. Moreover, they draw a distinction between online, synthetic worlds and other online places, such as forums and blogs. With this distinction comes a call for more research into human-computer

interaction in both realms to better understand the roots of why human behavior varies between those places and the real world. Harviainen and Hamari (2015) continued similar research wherein they discussed how video game players, particularly in MMORPGs, trade, search, and share information as a type of currency.

Some researchers have explored differences in information seeking behaviors between tabletop and computer/console players (Gough et al., 2011). This research found that "online searching was viewed as an absolute last resort" for certain groups, particularly game masters (GMs) of tabletop games, which holds true to some opinions expressed in the "Discussion" section (p. 7). They found that everyday life information seeking is viewed as an integral part of the RPG experience for both tabletop and computer RPG players. As such, they end with a call to action: "The information habits of players evolve as quickly as games and social media develop, so it is only through regular studies can we achieve a greater understanding of the role that information practices have in the culture and playing habits of gamers" (p. 9).

In order to best understand information-seeking behavior and practices, specifically in the world of gaming (both tabletop and digital), it is helpful to first understand the concept of a *paratext,* a term first coined by Genette (1991). A paratext is anything that includes elements that lend structure and/or operate as a framework for another written text. In gaming, that could be a game guide, a blog post about the game, an official rulebook, or even just the information packet insert on the inside of a game case. Consalvo (2008) relates this concept of a paratext to gaming through the exploration of what gamers consider cheating within a game and argues that paratexts enhance the gaming experience and give it meaning, while other research indicates that gamers use

paratexts to solve problems and thus enhance their experiences (Burk, 2009; Gumulak &

Webber, 2011). Burk (2009) in particular studied how players interact with paratexts

when they play, and how gaming companies enact copyright when it comes to some of

these paratexts. Sherlock (2007) studied paratexts among *WoW* players and found an

online resource (GameFAQs.com) as part of the system of paratexts that players used to

share information outside the virtual environment.

Other Master's research at UNC-Chapel Hill has delved into the world of gaming

by seeking to answer the question: "Has the ability to interact with other users within the

world impacted *World of Warcraft* users' information-seeking behavior?" (p. 2).

Researcher Monahan (2009) investigates three main questions:

> First, to what extent do users in *World of Warcraft* use resources in that world for
> information seeking? Do players use each other as information-seeking resources
> in-world, or do they still prefer to check an outside resource? Second, what kinds
> of information do users seek in-world? Do questions tend to be fairly short and
> specific, such as "Where is X located?", or do they attempt to find answers to
> more open-ended questions, "What is the best way to do X?" Finally, how do
> users seek information within *World of Warcraft*? Do players attempt to observe
> or work with others or do they primarily ask questions via chat? For questions
> they ask using chat, which channels do they prefer? Do players whisper privately
> to a particular user or throw out their question for anyone on the server to answer?
> (p. 5)

These questions all get to the heart of information-seeking and resource selection in a

virtual space.

Others have also explored information seeking in *World of Warcraft* (Whippey,

2011). The researcher notes how very little research up until that point (and still, after it)

has focused on the visual and audio elements of video games, specifically from an

informational perspective. Regardless, video games incorporate elements of images,

music, video, text and audio to create a "rich and complex environment" (p. 1). Whippey

concludes that audiovisual elements of information are crucial to players learning how to

play the game, and argues that it would be difficult, if not impossible, to play the game without visual elements. She also points out how these elements offer a "holistic, enriching experience for the player, and assists them in learning about the game" (p. 4).

And it doesn't stop at *World of Warcraft.* Greifender & Ostrander (2008) explored information seeking behavior in *Second Life,* another online, virtual world, and found them to be rich, complex, and multi-faceted. They also noted five themes of the information seeking behavior: social information seeking; use of visual, experiential mechanisms; serendipitous discovery; use of the *Second Life* search utility; play and humor. Moreover, instances of information seeking behavior were a balanced mix of users explicitly looking for information as well as stumbling upon information. Others have explored the merits of online library instruction in the health sciences environment through video games, although the small turnout of participants merits further research into self-sufficiency (Boyce, 2016).

Information seeking does not begin nor stop in virtual play environments. Fine (1983) explains tabletop RPGs in general as they were emerging in the 1980s and lays out how such games are dependent on the flow of information between players and game masters. He denotes the complexity of such games, and describes them as "a hybrid of war games, educational simulation games, and foilie a deux." (p. 6). Ewalt (2014) dives into the history of *Dungeons & Dragons* and explores a collection of anecdotes about the positive mental and social outcomes of playing. While there has been some research about transforming tabletop games to a virtual environment (Magerkurth et al., 2004), the personality of tabletop players (Carter & Lester, 1998), the benefits of playing *Dungeon & Dragons* in other environments (Blackmon, 1994), and the decision-making

and sense-making methodology behind tabletop players (Atmore, 2017; Coe, 2017), there has been little to no research about information seeking in a tabletop game environment.

1.5   Conclusion to Literature Review

In general, of the research on information seeking behavior, a small body of literature exists about leisure information behavior and, within this, less about information seeking within games and/or virtual spaces. There is also research about the benefits of playing games, especially role-playing games such as *Dungeons & Dragons*. Nonetheless, there is a significant lack of research about the information seeking habits, and especially the resource selection, of *Dungeons & Dragons* players specifically, despite this game's immense reach and popularity.

Research Methods

This research uses a combination of grounded research approaches, alongside the critical incident technique, to collect and analyze data through the lenses of information behavior, everyday life information behavior, and leisure. The first section is dedicated to outlining data collection frameworks using a grounded research approach and the critical incident technique, respectively. The remaining sections cover the sampling methods and procedures for this study.

1.6 Online Surveys

When this research project began, the researcher planned to use a combination of methods—anonymous surveys and semi-structured interviews—to gather both quantitative and qualitative data about *what* resources *D&D* players use and insight into *why* they use those particular resources. However, due to the changing environment during the global pandemic of early 2020, the interviews were transitioned to a follow-up survey (or, an email interview) with open-ended questions.

All questions that were intended to be asked during the interview were instead asked through a follow-up survey or email interview (hereafter referred to as the former). This follow-up was sent to two groups, both of whom expressed interest in being contacted further: those with five years or less playing experience and those with five years' experience or more. The questions were the same between the two groups, except

the group with more than five years' experience were asked an additional question. All questions can be found in Appendix A and B.

The survey and follow-up survey questions for this study strive to begin at a broad level before narrowing down to the more specific questions of central interest. Since the researcher initially aimed to hold interviews in addition to administering the follow-up survey, none of the initial survey questions are open-ended nor include an open-box option. This allowed for quantitative data to be collected via survey, while qualitative data was to be left for interviews. However, with the changes made to the research protocol, qualitative data was collected with the follow-up survey and coded into categories for analysis by the researcher.

While in-person semi-structured interviews would have allowed for in-situ guiding and/or follow up questions to be asked should the participant mention something the researcher had previously not considered, the follow-up survey was still thorough and allowed for elaboration from participants. Unfortunately, one of the drawbacks of holding a second anonymous survey is that the researcher is unable to line up answers between the first and second survey, so information cannot be compared directly between the two sets of responses (e.g., "people who answered they play mostly as a DM said in a follow up that..."). However, the 2,502 responses from the first survey and 458 responses from the follow-up surveys combined allow for a detailed analysis, even without the smaller-scale but more detailed interviews.

In general, survey research is useful as it allows for researchers to "estimate the distribution of characteristics in a population" based only on the responses of a fraction of that population, through sampling (Dillman, 2007, p.9). Because of this, survey research,

according to Wildemuth (2016), supports the collection of the "beliefs, opinions, attributes, and behaviors of the respondents" (Babbie, 1990; Dillman, 2007; Wildemuth, 2016, p. 272). Another advantage of surveys as a research method is that they allow researchers to understand the phenomena of interest early. Surveys allow a researcher to be able to grapple in detail with issues of foremost interest to the actual population, which combines well with the principles of grounded theory. Furthermore, data from survey research may be analyzed for both descriptive and comparative purposes, which is effective for combining benefits of qualitative and quantitative research (p. 277), as is done in this study. Moreover, the surveys used in this study make use of both open-ended and close-ended questions (often with an "Other" category, with space for an explanation), as is common and helpful in exploratory studies (p. 274). In this study, participants were sent a follow-up survey based on their initial survey responses. With this in mind, a primary aim of the initial survey was to gather information about *what* resources people use, so that the follow-up surveys could focus more on *why* people choose these resources.

In general, the researcher received much positive feedback from the surveys. Many people replied and wished the researcher luck on her thesis (which was much appreciated), and others still reached out to say they appreciated the survey because it made them think about how often they use certain resources, something they had never deliberately thought of before.

1.7 Grounded Research

Barney Glaser and Anselm Strauss introduced grounded theory development in the 1960s as a qualitative methodology that would allow researchers to create "accurate"

and "verified" theories from the data they gather (1965, p. 8). The heart of grounded theory is that the researcher "generates conceptual categories on their properties from evidence; then the evidence from which the category [was formed] is used" to illustrate it (Glaser & Strauss, 1967, p. 23). Generating conceptual categories refers to the coding and analysis of data using successive rounds of abstraction.

Since its initial explication, many researchers and methodologists have introduced alternate strands of grounded theory research; one is constructivist grounded theory (Charmaz, 2014), which holds that the interconnectedness of people to each other and their social milieus has implications for how researchers study and account for their studies, not just what they study (Thomson, 2018). Most importantly, as Thomson (2018) points out, "researchers do not discover and access a social reality via their data; rather, together with participants, they shape both data and emergent grounded theories in ways that are contingent upon their biases, privileges, and historical locations" (p. 53; Bryant & Charmaz, 2007; Mills et al., 2006). As such, constructivist grounded theories are "not authoritative, final words; they are admittedly provisional, open to extensions and modifications" (Thomson, 2018, p. 53).

This project takes inspiration from constructivist grounded theory, and also from the idea that certain tenets from grounded theory development can be meaningfully incorporated into qualitative research studies and used to approach analysis, without requiring a researcher to follow all procedures common to grounded theory development proper (e.g., theoretical sampling). In particular, the inductive and iterative nature of grounded theory development coding was used in this project.

1.8   Critical Incident Technique

In the 1950s, Flanagan (1954) developed the critical incident method to understand why U.S. Air Force pilots in World War II failed to fly. Sometimes referred to as "critical incident technique," the critical incident method is an "open-ended technique that involves analyzing specific situations to determine which communicative actions or behaviors would lead to the best possible outcome of a given situation" (Allen, 2017, p. 299). It is unique in that instead of "focusing on opinions of what is considered critical, critical incident method places the analysis on the context of the event" (p. 299). In this way, the technique may be viewed as a form of "narrative storytelling that focuses on that which is perceived to be most critical or vital" (p. 299). It involves five general steps: 1) distinguishing clear objectives of the study, 2) creating specific plans for collecting critical incidents, 3) collect data, 4) analyze data, and 5) interpret (and report) data.

One of the biggest benefits of this technique is the flexibility it offers researchers: retrospective accounts of what participants believe to be critical moments often highlight common themes in what is considered most important to them, which may uncover previously overlooked issues (Allen, 2017). At the same time, this is one of the technique's biggest flaws because participants may leave out "taken-for-granted assumptions" that are actually critical to the outcomes (e.g., not mentioning something because the participant assumes everyone already knows it) (p. 301).

During a typical study utilizing the critical incident technique, "once critical incidents have been identified by participants, researchers typically ask participants to describe what led up to the critical moment and how that specific incident influenced interaction outcome" (p. 300). In the context of this research, participants who completed

the follow-up survey were asked to think of the last time they looked up something for *Dungeons & Dragons* and to keep the resource they used in mind as they answered subsequent questions (four questions for those with under five years' experience, five questions for those with over five years' experience).

1.9   Sampling

As is common with qualitative research, the sample population in this study was a purposively formed, convenience one. Purposive sampling is "the deliberate choice of a participant due to the qualities the participant possesses" (Etikan et al., 2016, p. 2). Convenience sampling is "nonrandom sampling where members of the target population that meet certain practical criteria, such as easy accessibility, geographical proximity, availability at a given time, or the willingness to participate are included for the purpose of the study" (p. 2). In other words, participants were chosen because they a) answered the call to fill out the anonymous survey and b) play *Dungeons & Dragons.* No initial inclusion restrictions were set, nor selections made based on participants' locations or the lengths of their experience. The only restriction, or inclusion criteria, surrounding the survey was that participants must actively play *Dungeons & Dragons* or a similar variant, though the edition does not matter. Here, "actively" means having played at least once in the last year. Participants who have played other similar tabletop games and systems, such as *Pathfinder*, are also included, as nothing about this study's survey is particular to the *D&D* branch itself; rather, this survey is intended to look into information-seeking and resource use, which applies to other tabletop RPG systems as well. Further, while there was a focus on individuals and not predetermined groups within this study's

recruiting call, groups may have been included in the sample if people who play *D&D*

together each answered the survey.

1.10 Participant Pool

The call for participation for this study came exclusively through online postings

or word of mouth. A post was created on Facebook, Twitter, and Reddit, where it was

shared among the *D&D* community. At the time of this write-up, the most successful post

was the one placed on Twitter, where the original Tweet has nearly 500 retweets and 600

likes. The Facebook post has 30 likes, 28 comments, and 36 shares, and the Reddit post

has 38 upvotes (88% upvoted) and 23 comments, although around half of them are

replies by the researcher thanking respondents for their participation.

It must be acknowledged, however, that participation, and thus the data collected

and analyzed in this paper, are restricted to reflecting those who a) saw the recruiting call

for survey responses, and thus have the means to access it, and b) actually have the ability

(linguistic, temporal, etc.) to and who voluntarily chose to respond to this call. As such,

where the recruiting call was placed online may have influenced demographic

characteristics of the sample, which is a potential limitation of this study. A complete list

of locations of the where the survey was posted can be found in Appendix D, along with

a listing of all the countries from which participants responded in Appendix F. More

specific demographic information is included in the "Results" section.

1.11 Variables

Certain variables will play into the findings of this study, even if these are

influences that are not intended focuses of this research. The independent variables in this

study are: age of player, role of player, experience (in years) of player, and gender of

player. The dependent variables in this study are: information sought, frequency with

which information is sought, and types of information resource(s) sought. An extraneous

variable is availability of resource(s) as, again, one must keep in mind that certain

resources (such as physical books translated to someone's native language) may not exist

or may be hard to find in comparison to a more freely available resource, such as a forum

post. This contingency—and related ones—are explored further in the data analysis

section.

1.12 Data Analysis

The first step of the analysis process was to clean up the gathered survey data and

remove any unfinished responses. Of the 2,502 total responses to the first survey, 2,353

were kept (94%). Any survey responses that were incomplete were not considered for this

analysis given the comparative nature of the analysis. Of the 458 responses to the follow-

up survey, 87 responses were from those with over five years' playing experience and the

remaining 371 were from those with five years' or less playing experience. Of the 87

total responses from the first group, only 60 were usable after cleanup (69%), and 307 of

the original 371 from the second group were usable (83%). The total number of responses

between both follow-up surveys was 367 (80%).

Once the data was cleaned, it was time to categorize responses into groups. The

process of coding the data in this way was an iterative one inspired by grounded theory

research. First, the researcher read through the data for the responses to questions where

respondents wrote in answers when selecting the option "Other" on the main survey.

Then, the researcher coded similar responses into groups and re-read the responses to

clarify and consolidate the groups, including the responses to the follow-up survey, in order to ensure the categories would work across all results. This process continued multiple times (up to six times) until the researcher had identified two separate groups of categories: one set for questions asking about type of information sought and another set for questions asking about places and/or resources sought.

Responses were not limited to being placed in just one of the categories—that is, the categories were not mutually exclusive—given that many responses included multiple types of information sought and/or multiple places where the information was sought. As the researcher did not want to exclude responses by arbitrarily only counting the first place or type of information sought that a participant had listed, some questions have a higher total of responses separated into categories than the number of responses for the "Other" option in the corresponding question.

Results

The following section contains the results from each survey. First, main survey questions and answers are covered, then the results from the follow-up survey are covered. Several questions in each survey involved an "other" option, which has been coded into more finely grained categories here.

Again, responses are not limited to being placed in just one of the categories given that many responses included multiple types of information sought and/or multiple places where the information was sought. As the researcher did not want to exclude responses by arbitrarily only counting the first place or type of information sought, some questions will have a higher total of responses separated into categories than the number of responses for the "other" option in the corresponding question.[i]

1.13 Categories: Type of Information

If a survey question asked about type(s) of information participants sought in a given scenario, up to four categories were applied: community, inspiration, lore, and all.

- **All:** Answers were placed here if participants noted searching for all the types of information that were suggested in the question. In most cases, that included: class abilities, gameplay (rules), homebrew, items, modules, monster stats, racial abilities, and spells.

- **Community:** Answers were placed here if they referenced wanting to participate with the *D&D* community as a whole in some way. This includes seeking advice

on forums or in person, looking up the latest news on releases, looking up the
history of *D&D* and its players, watching gameplay on platforms such as Twitch
and YouTube, listening to podcasts about *D&D*, looking at fanart and/or memes,
etc.

- **Inspiration:** Answers were placed here if they referenced looking for inspiration
  for creating a setting or character. The source of the inspiration was not what
  mattered so long as the participant was seeking something in order to create
  something else. Some examples include reading fiction books, looking at real
  world histories and/or mythologies, browsing dungeon maps with the intent of
  using it (or creating a similar version) or one's own campaign, etc.

- **Lore:** Answers were placed here if they referenced looking up any *D&D*-specific
  content about finished settings. This includes, but is not limited to: monster stats,
  NPC stats, setting history/information/religions/etc., character feats, etc.
  Information about the setting includes both official and homebrew content,
  provided answers stated or implied the settings were complete and participants
  were seeking information regarding the structure of the setting(s). Information
  seeking regarding *creating* a homebrew world would fall under the "inspiration"
  category, as participants were seeking inspiration for creation of a world, not
  predefined information about a world that already exists (officially or not).

1.14 Categories: Places and/or Resources

If a survey question asked about places and/or resources participants sought in a
given scenario, up to ten categories were applied: all, app, book, community, database,
none, media, online, self, and unspecified.

- **All:** Answers were placed into this category if they specifically mentioned wanting to use all of the resources that were listed in the corresponding question *or* if they simply had no preference (and thus would not mind using any of the resources listed).

- **App:** Answers were placed into this category if they referenced wanting to use some sort of phone or mobile application, regardless of whether it was a searchable database, character sheet, etc.

- **Book:** Answers were placed here if they referenced using any of the official *D&D* books used as reference for the game (i.e., rulebooks, adventure books, etc.). Fiction books were categorized under media.

- **Community:** Answers were placed here if they referenced wanting a resource that was community-based. The researcher determined a resource was community-based if it was either a) interaction with another player (e.g., seeking advice in person, through a video, or on a forum), or b) a place designed for information-seeking, regardless of whether it is a *D&D*-specific location (e.g., a local game store, a library, etc.)

- **Database:** Answers were placed here if they referenced wanting a searchable collection, database, or source reference document.

- **None:** Answers were placed here if a person specifically stated they do not use or need any resources for the task or situation in question.

- **Media:** Answers were placed here if a person referenced using non-*D&D* media as a resource. Media includes things such as fiction books, historical textbooks, songs, fanart, memes, etc.

- **Online:** Answers were placed here if the resource mentioned was a website or is otherwise housed online or requires online connectivity to function properly.

- **Self:** Answers were placed here if they mentioned using one's notes or own sense of imagination and/or memory as the reference for the task and/or situation in question.

- **Unspecified:** Answers were placed here if a person mentioned using different resources depending on their role but without referencing what those resources were *or* if the response was otherwise unanswered.[ii]

1.15 Category Examples

Thug
Medium humanoid (any race), any non-good alignment

Armor Class 11 (leather armor)
Hit Points 32 (5d8 + 10)
Speed 30 ft.

STR	DEX	CON	INT	WIS	CHA
15 (+2)	11 (+0)	14 (+2)	10 (+0)	10 (+0)	11 (+0)

Skills Intimidation +2
Senses passive Perception 10
Languages any one language (usually Common)
Challenge 1/2 (100 XP)

Pack Tactics. The thug has advantage on an attack roll against a creature if at least one of the thug's allies is within 5 feet of the creature and the ally isn't incapacitated.

Actions
Multiattack. The thug makes two melee attacks.

Mace. *Melee Weapon Attack:* +4 to hit, reach 5 ft., one creature. *Hit:* 5 (1d6 + 2) bludgeoning damage.

Heavy Crossbow. *Ranged Weapon Attack:* +2 to hit, range 100/400 ft., one target. *Hit:* 5 (1d10) piercing damage.

Kobold
Small humanoid (kobold), lawful evil

Armor Class 12
Hit Points 5 (2d6 – 2)
Speed 30 ft.

STR	DEX	CON	INT	WIS	CHA
7 (–2)	15 (+2)	9 (–1)	8 (–1)	7 (–2)	8 (–1)

Senses darkvision 60 ft., passive Perception 8
Languages Common, Draconic
Challenge 1/8 (25 XP)

Sunlight Sensitivity. While in sunlight, the kobold has disadvantage on attack rolls, as well as on Wisdom (Perception) checks that rely on sight.

Pack Tactics. The kobold has advantage on an attack roll against a creature if at least one of the kobold's allies is within 5 feet of the creature and the ally isn't incapacitated.

Actions
Dagger. *Melee Weapon Attack:* +4 to hit, reach 5 ft., one target. *Hit:* 4 (1d4 + 2) piercing damage.

Sling. *Ranged Weapon Attack:* +4 to hit, range 30/120 ft., one target. *Hit:* 4 (1d4 + 2) bludgeoning damage.

Figure 1: Some commonly-used D&D *resources, from left to right. 1) The* Player's Handbook *for* D&D *5th edition, often abbreviated as PHB. 2) The* Monster Manual *for D&D 5th edition, often abbreviated as MM. 3) NPC stats—a chart of statistics for a nonplayer character, in this case, a thug. NPCs can be patrons, allies, enemies, hirelings, or just background characters in any adventure. 4) Monster stats—a chart of statistics for an enemy, in this case, a Kobold.*

INVISIBILITY
2nd-level illusion

Casting Time: 1 action
Range: Touch
Components: V, S, M (an eyelash encased in gum arabic)
Duration: Concentration, up to 1 hour

A creature you touch becomes invisible until the spell ends. Anything the target is wearing or carrying is invisible as long as it is on the target's person. The spell ends for a target that attacks or casts a spell.

At Higher Levels. When you cast this spell using a spell slot of 3rd level or higher, you can target one additional creature for each slot level above 2nd.

WAND OF MAGIC MISSILES
Wand, uncommon

While you hold this wand, you can use an action to expend 1 to 3 of its 7 charges to cast the *magic missile* spell without using any components. For 1 charge, you cast the spell as if you used a 1st-level spell slot, and you increase the spell slot level by one for each additional charge you spend.

The wand regains 1d6 + 1 expended charges each day at dawn. However, if you expend the wand's last charge, roll a d20. On a 1, the wand crumbles into ashes and is destroyed.

ZHENTARIM

The Zhentarim, also called the Black Network, is an organization of well-trained mercenaries, savvy rogues, and crafty warlocks who seek to expand their influence and power throughout Faerûn. Agents of the Zhentarim believe that if they play by the rules, nothing gets done. Ultimately, they want to make the rules—and, in some cases, they already have. They walk a careful line when it comes to following the letter of the law and don't shy away from the occasional shady deal or illicit activity to get what they want.

To the Zhentarim, wealth is power. Its agents know that nothing else inspires such confidence and dispels doubt so well. Zhentarim agents routinely carry the finest weapons and armor, since the faction spares no expense in their outfitting. When a merchant needs an escort for a caravan, when a noble family requires bodyguards to protect its holdings, or when a city is desperate for trained soldiers to defend its walls, the Zhentarim provides the best warriors money can buy.

THE ROGUE

Level	Proficiency Bonus	Sneak Attack	Features
1st	+2	1d6	Expertise, Sneak Attack, Thieves' Cant
2nd	+2	1d6	Cunning Action
3rd	+2	2d6	Roguish Archetype
4th	+2	2d6	Ability Score Improvement
5th	+3	3d6	Uncanny Dodge
6th	+3	3d6	Expertise
7th	+3	4d6	Evasion
8th	+3	4d6	Ability Score Improvement
9th	+4	5d6	Roguish Archetype feature
10th	+4	5d6	Ability Score Improvement
11th	+4	6d6	Reliable Talent
12th	+4	6d6	Ability Score Improvement
13th	+5	7d6	Roguish Archetype feature
14th	+5	7d6	Blindsense
15th	+5	8d6	Slippery Mind
16th	+5	8d6	Ability Score Improvement
17th	+6	9d6	Roguish Archetype feature
18th	+6	9d6	Elusive
19th	+6	10d6	Ability Score Improvement
20th	+6	10d6	Stroke of Luck

Figure 2: 5) Spell stats—details about how to cast the spell and what effects take place upon a successful cast. 6) Magic item—details about the item, how rare it is, and what effects it can have. Dungeon Masters often look up items to give out as loot to their players for completing dungeons, killing enemies, or buying (...or stealing) from a shop. 7) Lore—information about groups, history, religions, and anything else that makes up a game setting. In this case, a description of the Zhentarim from the continent of Faerûn, a primary location for the campaign setting of Forgotten Realms, *which has been around (officially) since 1987. 8) Class chart/character abilities—information about what happens when you reach a new level in a particular class, in this case, a rogue.*
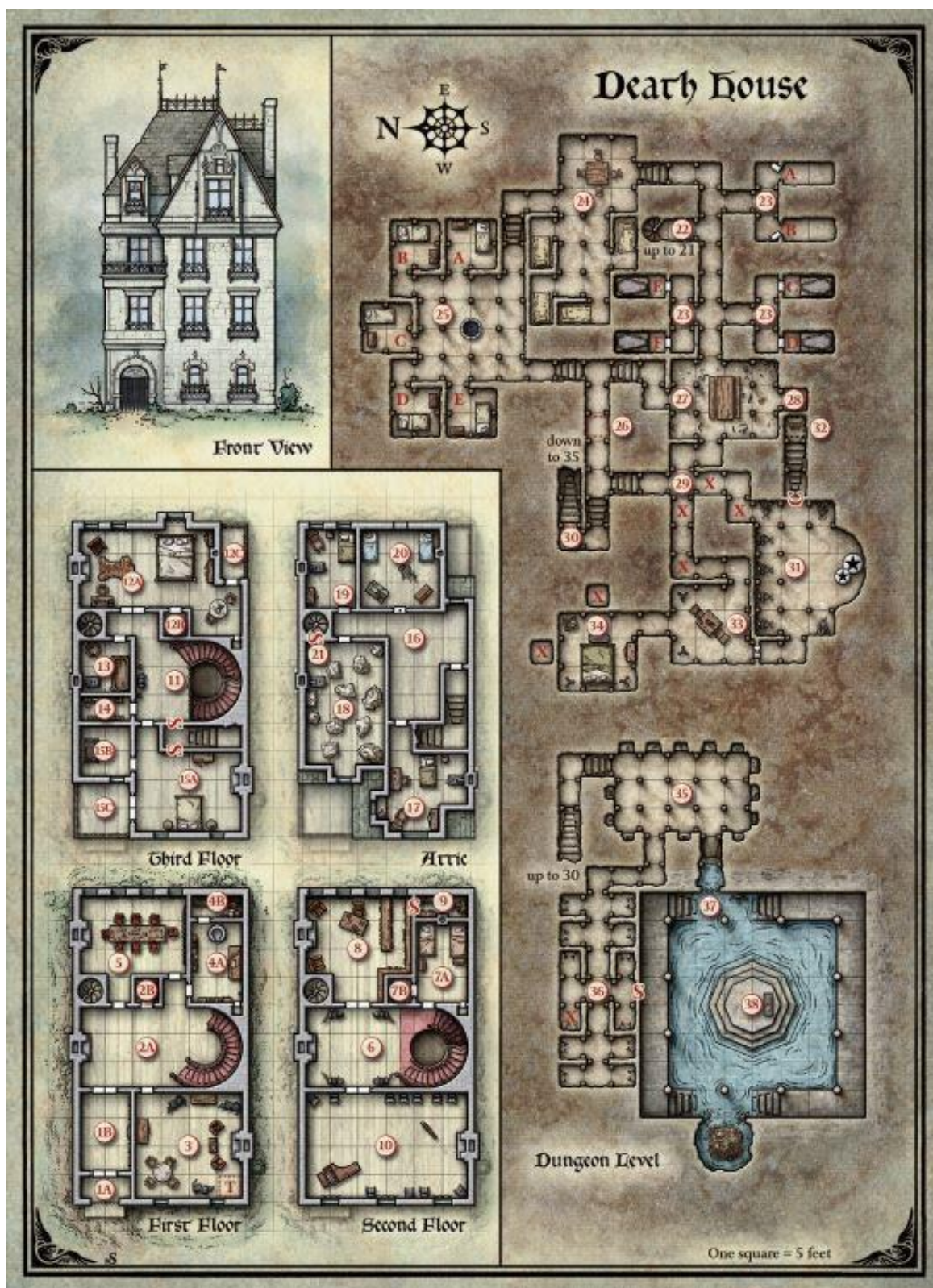
Figure 3: 9) Dungeon map—a map/layout of an area to be explored by players. This one in particular shows the layout of the "Death House" from the Curse of Strahd *module.*

1.16 First Survey Results

Q1: What age category do you fall into?

Age Category	Number of Records	Percent of Total
Silent (1928-1945)	0	0%
Boomer (1946-1964)	17	1%
Generation X (1965-1980)	299	13%
Millennial (1981-1996)	1,493	63%
Gen Z (1997-2012)	544	23%
Total	**2,353**	

Q2: What is your gender?

Gender	Number of Records	Percent of Total
Female	633	27%
Male	1,512	64%
Non-binary	208	9%
Total	**2,353**	

Q3: In which country do you currently reside?[iii]

Country	Number of Records	Percent of Total
United States	1,301	55%
United Kingdom	235	10%
Russia	180	8%
Canada	169	7%
Australia	89	4%
Germany	66	3%
Netherlands	33	1%
Spain	27	1%
Brazil	22	1%
Ireland	16	1%
Total	**2,138**	**91%**

Q4: For how many years have you been playing *Dungeons & Dragons*?

Years of Experience	Number of Records	Percent of Total
less than one year	217	9%
1-2 years	590	25%
3-5 years	698	30%
6-10 years	260	11%
10+ years	588	25%
Total	**2353**	

Q5: How often do you play *Dungeons & Dragons*? Please choose the closest answer.

How Often	Number of Records	Percent of Total
more than once a week	423	18%
once a week	1,045	44%
once a month	675	29%
one or two times a year	183	8%
less than once a year	27	1%
Total	**2,353**	

Q6: What is your primary role when you play? Please choose the closest answer.

Role	Number of Records	Percent of Total
Player	1,071	46%
Dungeon Master	640	27%
Both equally	642	27%
Total	**2,353**	

Q7: In an average week, how many times do you find yourself looking for information related to *D&D*? Please consider how many searching sessions you have, not the number of individual questions asked.

Times/Week of Play	Number of Records	Percent of Total
0 times	73	3%
1-2 times	626	27%
3-4 times	707	30%
5-6 times	320	14%
7+ times	627	27%
Total	**2,353**	

Q8: Do you ever feel intimidated with the abundance of *Dungeons & Dragons* information?

Intimidated?	Number of Records	Percent of Total
Yes	164	7%
Somewhat	842	36%
No	1,347	57%
Total	**2353**	

Q9a: What kind of information do you search for most often? Select up to three.

Information	Number of Records	Percent of Total
Class Abilities	1,050	17%
Gameplay (Rules)	1,091	18%
Homebrew	617	10%
Items	550	9%
Modules	277	4%
Monster Stats	802	13%
Other	219	4%
Racial Abilities	328	5%
Spells	1,293	21%
Total	**6,227**	

Q9b: "Other" Option[iv]

Information Type	Number of Records	Percent of Total
All	18	9%
Community	68	32%
Inspiration	50	24%
Lore	74	35%
Total	**210**	

Q10a: When preparing for a session of *D&D*, where do you go first for information?

Resource	Number of Records	Percent of Total
Digital rulebook	539	23%
Dungeon Master	200	8%
Online	837	36%
Other	51	2%
Other players	104	4%
Physical rulebook	622	26%
Total	**2,353**	

Q10b: "Other" Option

Resource	Number of Records	Percent of Total
All	0	0%
Apps	2	4%
Books	6	12%
Community	3	6%
Database	0	0%
Media	2	4%
None	2	4%
Online	10	19%
Self	26	50%
Unspecified	1	2%
Total	**52**	

Q11a: When preparing for a session of *D&D,* if you go to multiple places, where else do you go for information?

Resource	Number of Records	Percent of Total
Digital Rulebook	792	19%
Dungeon Master	677	17%
Online	1,171	29%
Other	43	1%
Other Players	662	16%
Physical Rulebook	720	18%
Total	**4,065**	

Q11b: "Other" Option

Resource	Number of Records	Percent of Total
All	1	2%
App	7	12%
Books	6	11%
Community	11	19%
Database	0	0%
Media	1	2%
None	1	2%
Online	18	32%
Self	12	21%
Unspecified	0	0%
Total	**57**	

Q12: When playing a session of *D&D*, where do you go first for information?

Resource	Number of Records	Percent of Total
Digital rulebook	371	16%
Dungeon Master	744	32%
Online	396	17%
Other	30	1%
Other players	235	10%
Physical rulebook	577	25%
Total	**2,353**	

Q12b: "Other" Option

Resource	Number of Records	Percent of Total
All	0	0%
App	7	23%
Books	1	3%
Community	4	13%
Database	0	0%
Media	0	0%
None	0	0%
Online	5	16%
Self	14	45%
Unspecified	0	0%
Total	**31**	

Q13a: When playing a session of *D&D,* if you go to multiple places, where else do you go for information?

Resource	Number of Records	Percent of Total
Digital Rulebook	680	16%
Dungeon Master	781	19%
Online	1,006	24%
Other	24	1%
Other Players	876	21%
Physical Rulebook	755	18%
Total	**4,122**	

Q13b: "Other" Option

Resource	Number of Records	Percent of Total
All	0	0%
App	7	27%
Books	1	4%
Community	1	4%
Database	0	0%
Media	1	4%
None	0	0%
Online	5	19%
Self	11	42%
Unspecified	0	0%
Total	**26**	

Q14: If you had no barriers of access, what would be your preferred resource for *Dungeons & Dragons* information?

Resource	Number of Records	Percent of Total
Another player	144	6%
Digital rulebook	636	27%
Fan website	94	4%
Forum	82	3%
Official website	448	19%
Other	62	3%
Physical rulebook	887	38%
Total	**2,353**	

Q14b: "Other" Option

Resource	Number of Records	Percent of Total
All	3	4%
App	11	15%
Books	4	5%
Community	15	21%
Database	8	11%
Media	0	0%
None	3	4%
Online	25	34%
Self	1	1%
Unspecified	3	4%
Total	**73**	

1.17 Follow-up Survey (Over 5 Years' Experience) Results[v]

Participants were asked to think of the last time they looked up something for *Dungeons & Dragons* and to keep that (critical incident) scenario and resource sought in mind while they answered the following questions.

Q1: Is this resource how you commonly find the information for which you were searching?

Commonly How Info Found?	Number of Records	Percent of Total
Yes	51	85%
Sometimes	9	15%
No	0	0%
Total	**60**	

Q2: What resource did you use and why did you use it specifically?

Resource	Number of Records	Percent of Total
Another Player	0	0%
App	1	2%
Database	0	0%
Digital Rulebook	19	31%
Dungeon Master	0	0%
None	0	0%
Online	22	36%
Physical Rulebook	19	31%
Unspecified	0	0%
Total	**61**	

Q3a: Would you have preferred to use another resource but found yourself using this one instead?

Preferred Another?	Number of Records	Percent of Total
Yes	15	25%
Sometimes	12	20%
No	27	45%
Unspecified	6	10%
Total	**60**	

Q3b: If so, what is the other resource and why would you have preferred it instead?

Other Resource	Number of Records	Percent of Total
Another Player	0	0%
App	1	2%
Digital Rulebook	6	10%
Dungeon Master	1	2%
None	27	45%
Online	5	8%
Physical Rulebook	14	23%
Unspecified	6	10%
Total	**60**	

Q4a: If you could have any kind of information about *Dungeons & Dragons* available to you, what would it be?

Info Type	Number of Records	Percent of Total
All	4	6%
Community	7	11%
Inspiration	2	3%
Lore	44	70%
None	2	3%
Unspecified	4	6%
Total	**63**	

Q4b: How would you want to access it?

Resource Access	Number of Records	Percent of Total
App	5	8%
Database	3	5%
Digital	19	30%
None	1	2%
Online	14	22%
Physical	17	27%
Unspecified	5	8%
Total	**64**	

Q5: Have you noticed players' information seeking behaviors change over the years? Maybe places people look or the resources they use? If so, how?

Changing Behavior?	Number of Records	Percent of Total
Yes	50	83%
No	10	17%
Total	**60**	

Answers to the open-ended portion of this question are explored further in the "Discussion" section.

1.18 Follow-Up Survey (Under 5 Years' Experience) Results

Participants were asked to think of the last time they looked up something for *Dungeons & Dragons* and to keep that resource in mind for the following questions.

Q1: Is this resource how you commonly find the information for which you were searching?

Commonly Found?	Number of Records	Percent of Total
Yes	249	81%
Sometimes	57	19%
No	1	0%
Total	**307**	

Q2: What resource did you use and why did you use it specifically?

Resource	Number of Records	Percent of Total
Another player	2	1%
App	11	4%
Database	0	0%
Digital Rulebook	88	28%
Dungeon Master	0	0%
None	0	0%
Online	121	39%
Physical Rulebook	86	28%
Unspecified	1	0%
Total	**309**	

Q3a: Would you have preferred to use another resource but found yourself using this one instead?

Preferred Another?	Number of Records	Percent of Total
Yes	82	27%
Sometimes	61	20%
No	142	46%
Unspecified	22	7%
Total	**307**	

Q3b: If so, what is the other resource and why would you have preferred it instead?

Resource	Number of Records	Percent of Total
Another player	6	4%
App	4	3%
Digital Rulebook	38	24%
Dungeon Master	0	0%
None	0	0%
Online	22	14%
Physical Rulebook	67	42%
Unspecified	21	13%
Total	**158**	

Q4a: If you could have any kind of information about *Dungeons & Dragons* available to you, what would it be?

Info Type	Number of Records	Percent of Total
All	33	10%
Community	23	7%
Inspiration	27	8%
Lore	175	55%
None	12	4%
Unspecified	49	15%
Total	**319**	

Q4b: How would you want to access it?

Resource Access	Number of Records	Percent of Total
App	42	11%
Database	29	7%
Digital Rulebook	80	21%
None	8	2%
Online	71	18%
Physical Rulebook	95	25%
Unspecified	62	16%
Total	**387**	

1.19 Notes

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[i] For example, Question 11a has 43 records for the "other" option; however, Question 11b has a total of 57 records among all the categories as many of the answers from the 43 participants either fit into multiple categories or the participants listed multiple resources in a single answer.

[ii] As noted in the Methodology section, only complete survey results were used for the first survey, while up to one question missing an answer was allowed for the (more open-ended) follow-up survey. As such, some portion(s) of a question may not have been addressed through the survey's use of the open-box response format (e.g., one question asks, "If you could have any information available, what would it be and how would you access it?" and a response might be, "I would want a database of information." The type of information is not specified, nor does the answer say the participant wants *all* types of information, so this answer would be categorized as an "unspecified" information type in a database format).

[iii] Only the top ten responses are shown. The full list can be found in Appendix F with a map of all countries in Appendix G.

[iv] 19 of the 219 responses that included the option "Other" for Question 9a were left blank. These 19 responses were included because all other questions in the survey were answered. Only questions where "Other" was not the only choice included in the response had blanks.

[v] Please note that, as both follow-up surveys consisted entirely of open-ended questions with no predefined options, some portions of the question were not explicitly answered. These responses are marked as "Unspecified."

Discussion

The aim of this study was to explore the information-seeking behaviors of *Dungeons & Dragons* players and how these behaviors may be impacted based on role, gender, age, and length of experience. To accomplish this, three surveys (a first, main survey and a second, follow-up survey with two variations) were created around five guiding questions:

1. For what information are *D&D* players seeking?

2. What resources do they use to find this information?

3. Do players have a preference for digital or physical resources?

    a. Is this impacted by age?

4. Does amount of experience (i.e., how long they've been playing) impact information-seeking frequency?

5. Does their role (Dungeon Master, player, or both) affect their information seeking?

With the vast number of responses, many of which are open-ended, it would not be possible to cover and probe every single response within the scope of this paper. However, the use of coding and categorizing has allowed for the responses to be organized into themes to help answer the guiding questions of this research study overall.

1.20 Years of Experience, Primary Role, and Gender

Overall, the vast majority (63%) of respondents to the first survey were millennials (24-39 years old), followed by Gen Z (18-23 years old)[v] at 23%. The cause of such high participation from relatively younger groups may be attributed to the online platform(s) where the survey was posted; however, it would be wrong to ignore the growing popularity of *D&D* in mainstream media aimed to appeal to these demographics, such as its prevalence in shows like *Stranger Things.* Popular *D&D* shows like *Critical Role* and *The Adventure Zone* bring in millions of viewers across their episodes, with *The Adventure Zone* exceeding over 150 million downloads to their podcast. Fans of *Critical Role,* called "critters," pledged $11.4 million in the spring of 2019 to fund an animated series adaption of the show, making it the most-funded film/video project in Kickstarter history. Even major department stores like Target now sell an official *D&D* starter kit in their board game section. In general, there has been what many consider a resurgence of *D&D* just a few years after the game "had been nearly left for dead" (Gilsdorf, 2019).

It is particularly interesting, then, that the range of years of experience from participants is so broad and evenly spread out. Of the 2,353 participants, 1,505 (64%) have five years' or less experience, with the remaining 848 (36%) having over five years' experience. However, when broken up into even smaller groups, the numbers are extremely similar—even identical for some—for those with 1-2, 3-5, and over 10 years' experience. This shows that *D&D* is appealing both to those who have been playing for years but also welcoming to newcomers.

And yet, even with the broad range of age groups and experience, the obvious majority for how often people play is once a week (44%), followed by once a month

(29%). Some participants even managed to get adults' schedules to line up for play more than once a week (18%), which must be some sort of magic that this researcher would love to learn. Another obvious majority was the percent of participants who were most often players (46%), although those who most often serve as a DM and those who partake in both roles rather equally were tied at 27% each. If one considers the "both equally" role to count twice (once for player, once for DM), players still have an overall majority, which makes sense given the dynamic of how *D&D* is played (i.e., one DM to several players).

However, it starts to get particularly interesting when one considers how these roles may impact other behaviors. For example, of the 2,353 respondents, 1,512 (64%) were male, 633 (27%) were female, and 208 (9%) were non-binary. If we compare gender and common roles, however, we see a slightly different story. Of the 1,071 respondents (46%) who most often are players, 536 (50%) are male, 420 (39%) are female, and 115 (11%) are non-binary. If we look instead at those who cited being a DM as their most common role (640 respondents), 521 (81%) were male, 78 (12%) were female, and 41 (6%) were non-binary. Of those who cited playing both roles equally (642 respondents), 455 (71%) were male, 135 (21%) were female, and 52 (8%) were non-binary. Given the higher number of males who responded to the survey, it is no surprise that a higher percentage in each role are male. Among the three groups, players have the most even spread of genders, but even then, it is not equal. On the other hand, it is quite obvious that the world of DMs is male-dominated. While it is not in the scope of this study to theorize why, there are studies that have explored this topic (Bryce & Rutter, 2002; Charles, 2016; Heron et al., 2014; Salter & Blodgett, 2012).
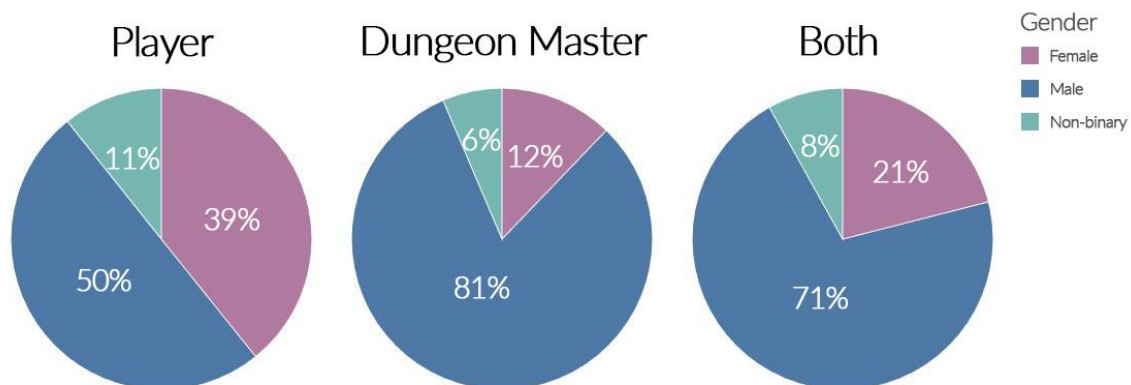
Figure 4 Pie charts displaying the gender makeup of different D&D *roles. Note that the percentages are based on percentage of total responses for that role, not percentage of total responses overall.*

1.21 Information Sought

When it comes to what kind of information sought most often, the top three by far are: spells (21%), gameplay rules (18%), and class abilities (17%). Given the sheer number of items in each of those categories, as well as the nuanced nature of many descriptions, it makes sense these categories are in the top. Interestingly, of those who chose "Other," the responses were rather evenly split between lore (35%), community (32%), and inspiration (24%). Responses were categorized to fit into each of these categories (or the "All" category) based on the purpose of the information. For example, responses that related to respondents looking for information to inspire their characters, stories, worlds, or any other aspect of *D&D* fell into the imagination category, such as this:

> Information for character development. Technically not *WoTC*[vi] material, but *D&D* related (e.g. I had an artificer, so I looked up stuff for her inventions; now I play a ranger/druid with a Russian background, so I look up Russian language and folklore).

Others cited enjoying watching or listening to gameplay on platforms such as YouTube, Discord, and Twitch. This, along with responses about looking into *D&D* culture, news, and other discussion all fell under the "Community" category. For example, someone

who cited looking up the "history and background of game content, game design evolution, and the game itself" as well as someone who looked up "game theory and blog articles" and "DMing advice" would have offered responses that all fall under the "Community" category—aspects that involve interacting with others about the hobby. It should be noted, however, that not all of these responses, especially when it came to those that fell under the "Community" category, were positive. Some participants were concerned with allegations surrounding well-known members of the *D&D* community and/or *WoTC* staff members (Thomas, 2019), as well as with "publicly available information about how *Wizards of the Coast* intends to enact solid policies around sensitivity reading and cultural competency in their setting/system design." Finally, anything related to searching for information about established settings, rules, and gameplay information was considered "lore." Some examples include "lore (for both home brew settings and official settings like forgotten realms)" and "lore (gods/orgs/histories/naming conventions/etc)."

Interestingly, while the categories from the "Other" option of Question 9 (about what kind of information they search for most often) had a rather even distribution in the first survey, in the follow-up surveys, when participants were asked what they would prefer if they could have any kind of information, a majority of the responses from both groups (those with over five years' experience and those with under five years' experience) cited wanting more lore information—70% (5+ years) and 55% (<5 years). Moreover, the eight listed options (not including the "Other" option that allowed for fill-in-the-blank) from Question 9 in the first survey all fall under the "lore" category since they all involve gameplay-specific information as well, further increasing this category as

a predominant preference. It should be noted, however, that without an option that was not lore-based (e.g., having a "watching *D&D* gameplay" option as a selectable choice in Question 9), some participants may not have thought of this option and input it, but that does not mean they do not search for it more than is represented in these results.

1.22 Information Resources and Access

Even with somewhat of a consensus on what kind of information is sought by *D&D* enthusiasts, there are varying opinions on the best way to access it. Figure 2 (below) shows this breakdown. When preparing for a session, the place most participants go first is online (36%), followed by to a physical rulebook (26%), and then to a digital rulebook (23%). However, when playing a session, most people across all roles go to their Dungeon Master first (32%), followed by using a physical rulebook (25%), and then online (17%). Given that the Dungeon Master is considered the final decision-maker when it comes to how rules are applied during a game session, it makes sense that most people go to their DM first. But where does the DM go? According to the chart below, DMs consult a physical rulebook 32% of the time, followed by a near-equal distribution of the digital rulebook (19%), online (19%), and Dungeon Master (18%), presumedly themselves. DMs also have the highest percentage of "Other" (3%) responses, where 45% of that category is self/notes and another 23% is phone apps. So, DMs most often consult a physical rulebook, then themselves (if we combine some of the "Other" responses with the "DM" responses), and then other sources.
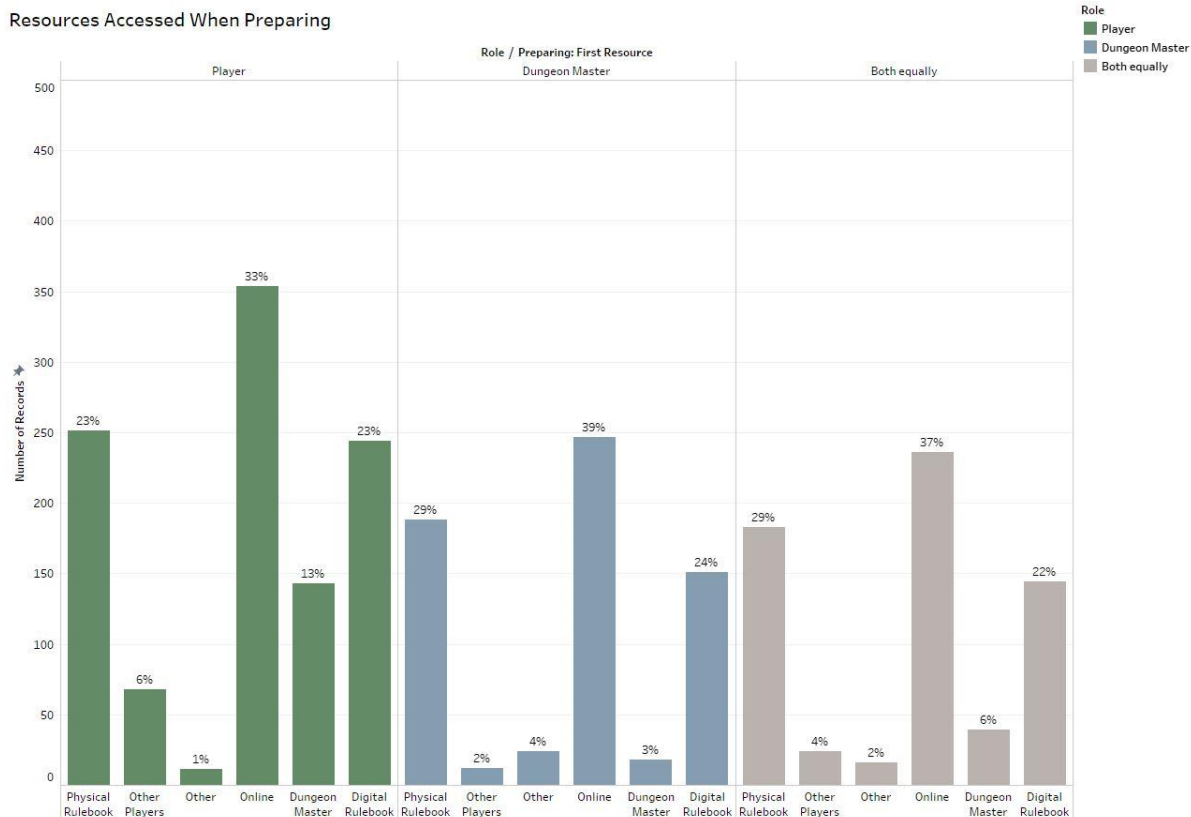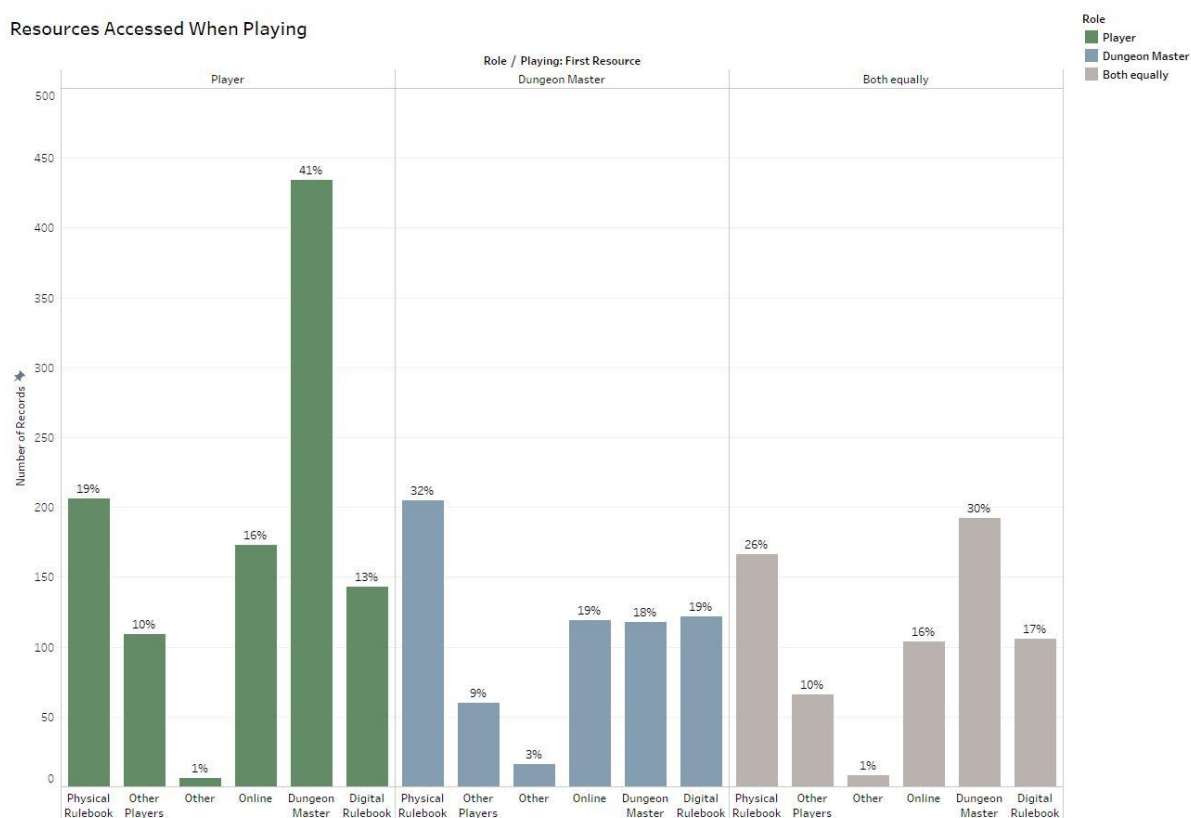
Figure 5 Chart of the resources participants first accessed when playing a game of D&D, *organized by player role. Note that players (on the left) are coded green, DMs (in the middle) are coded blue, and those who play both equally (on the right) are coded brown.*

These findings were consistent with the open-ended responses in the follow-up survey, where many commented on the changing nature (or lack thereof) of information-seeking behavior during a game of *D&D:* "Despite the prevalence of the internet, some players still stick to the physical PHB." Others comment on enjoying the use of a physical book "because it doesn't transition you out of the headspace of the game as much to reference physical materials." Others still like physical books for the other benefits they provide: "Overall, I definitely prefer print copies it is better on my eyes and the tactile feel is valuable for me as someone with autism."

But not everyone wants to stick to physical rulebooks: "I have noticed that people in my *d&d* groups moving towards also using either an app to look up spells or using their smart phones to look up information at the table, instead of relying on the rule books

like 4-5 years ago." Some feel that physical books come as a second or last resort: "Many more players now look online for information first, and only look to the books if their search online fails, or the book is more convenient for some reason." Others enjoy the portability and benefits of going digital due to their environment: "Either physical or digital works for me. Since I'm in the military, taking *D&D* digital has made it easier for us to play." As shown in the chart below, when preparing for a session of *D&D*, the majority of participants went to online resources first, regardless of role.

Figure 6 Chart of the resources participants first accessed when playing a game of D&D, *organized by player role. Note that players (on the left) are coded green, DMs (in the middle) are coded blue, and those who play both equally (on the right) are coded brown.*

Through reading the hundreds of responses, the researcher identified five main guiding reasons and/or desires behind resource selection: ease of access, cost, feel, consolidation, and validity. Each is explored, in turn, below. These five concepts truly became apparent in the follow-up survey where participants were asked to expand on

what *D&D* resource they would love to have in a perfect world where they could access

anything and why they want that resource. Participants were told to keep in mind the last

resource they used to look up information about *D&D* and asked if that was the common

resource they used to look up information, and explain why they chose it. Interestingly,

only one of the 367 participants stated the resource they used last was not what they

commonly use; the majority cited using the resource they commonly use (85% of those

with over five years' experience and 81% for those with under five years' experience).

1.22.1 Ease of Access

Ease of access was one of the most-cited reasons for why participants chose the

resource they did, and it often came coupled with cost of access. Many players, especially

those who have been playing for multiple years, already own physical copies of

rulebooks and adventure books. However, when a question arises, many find it faster to

simply open a browser tab, a mobile app, or a digital PDF and use a keyword search to

find an answer to their question: "I always just Google the rule (e.g. "shove 5e"), since

that's the fastest once I open a browser, knowing that Roll20[vii] will always come up first

in the results." But not everyone who cited ease of access as important to their decision-

making chose digital or online resources: "I used the player's handbook, print copy. I was

looking up class abilities for my current character. I used that book because it has the

information I needed, and I have a bookmark on the page so it is very quick to access."

Given that no one type of resource (physical, digital, app, online, player, or DM) had an

overwhelming majority as the resource people used, it makes sense that what is ease of

access to one person may actually be a hindrance to another. Furthermore, that also

means sometimes, ease of access is using what one is comfortable with, even if that is not

one's first choice: "I would prefer to be more online, but I am not as fluent with technology, and I have a hard enough time focusing on one topic online." This is a similar concept to the "principle of least effort" wherein someone seeking information will use the most convenient method in the *least* exacting and taxing method available (Chang, 2016).

Other times, there are limiting environmental factors: "At some point I may buy e-book versions of the *Dnd* books simply for space reasons. The [physical] books live in my car so I always[s] have them for a game & our DM has a tiny table." Sometimes, language barriers get in the way, limiting players' options: "I usually prefer asking a player or the dm directly because I am friends with most of them and I can ask them questions. Most of the time the official sources on- and offline are in [E]nglish and sometimes with translating it back into my own language the explanations lose in clarity, so I prefer to ask experienced players most of the time."

Others cite the situation lending itself to one type of resource over another: "When I prep to run a game, I make my prep notes on the computer. So I always want a digital copy of things to easily copy/paste (e.g. source material for rules notes, or module information)." In certain roles, speed and efficiency is crucial: "I am a DM more often so I need ALL information I can and I [n]eed to get to it as fast as I can to keep the speed going." Moreover, since DMs are responsible for weaving storylines, plots, and character backgrounds together, they often find themselves needing to share information in an efficient manner: "Digital is usually the easiest form to allow me quick access anywhere but also for ease of sharing needed information with those [I] am playing with who need to see them."

But preference for one resource doesn't necessarily mean a hatred or dislike of the other options: "I prefer everything to be online, I find it more easy to access and takes less time to find specific things. (I love physical resources as well, but more to just sit down and read the entirety of them, not for quick reference)." In fact, many participants cited enjoyed multiple resources, often just depending on the situation. For example, while playing, some found that "the phb is fine. I wish it was physically indexed a bit better (think scalloped edges like encyclopedias used to have) or tabs or something of the like for physical ability to switch between chapters quickly" but preferred digital, online, or app resources when playing a game in order to keep from disrupting gameplay. Others showed interest in a method of access that does not yet exist, but that would be beneficial to many: "While I love collecting physical books, I'd love access to world lore via audiobook. I absorb information much better by listening to it."

Finally, some participants noted that, in general, *D&D* 5e felt particularly accessible due to the simplified ruleset compared to previous editions (which edition is best is often a common discussion, sometimes argument, among players). This accessibility, in turn, caused feelings of apathy and/or indifference when it came to particular *D&D* resources—it was more about how accessible *D&D* was, not that it was a favorite or best choice for tabletop overall:

> I like the system because it's familiar enough that I can get my friends to try playing it with me, not because I have any affection or loyalty to the company that produces it. I would rather access *DnD* in a totally unremarkable, non-*DnD*-centered way, to have it be one of many possible games discussed and modded and offered for download on a larger web hub of RPGs in general, as opposed to having it occupy such a vast section of the tabletop cultural landscape.

While discussion of RPGs as a whole is out of scope for this paper, it is worthwhile to note just how much space *D&D* occupies in the landscape of tabletop gaming.

1.22.2 Cost of Access

Another major hurdle for many when it comes to accessing resources is not just the temporal cost, but the monetary cost. It was a common theme for participants to say things like: "I would prefer to use all the books but online resources are free" or "I would have preferred to use a physical book as I enjoy using the *dnd* books more than using online resources, they're just so expensive" or "often I use *dnd* 5e wikidot as it allows me access to most of the *dnd* classes and feats for free, I mainly use this as I cannot afford source books" or "If they were a little cheaper I would probably buy the nice spell cards that *WotC* make, just to speed up the checking of spells and abilities. I still prefer to have a physical thing than a digital resource!" Again, as many players have been around for years, there is a common desire to have digital access to resources for which they have already purchased a physical copy. Some websites, mainly *D&D Beyond*, allow users access to official *D&D* resources if the books are purchased through the *D&D Beyond* platform.[viii] However, while *D&D Beyond* is officially endorsed by *Wizards of the Coast*, they are not partners, nor are they the same company. Thus, while many express interest in having a digital download code inside a physical book upon purchase, it is not so simple. Many participants said things like "I'd love a *DnD Beyond*-like platform but that one gains access to on purchasing the hard copy book" or "I don't want to pay extra (not to mention regular[l]y) for something I've already bought."

Situations also played a role in the cost of access. Some participants cited life situations as a cause for their resource choice because of things like being in school: "as a grad student cost effectiveness is a big bonus." While others changed their resources

depending on what role they were playing, whether they were in a game, or whether the

resource cost money to access:

> When I prep to run a game, I make my prep notes on the computer. So I always
> want a digital copy of things to easily copy/paste (e.g. source material for rules
> notes, or module information). I always buy the physical books (because I love
> physical books) and [I] refuse to pay twice for the same thing. So I often use
> unofficial sources online for PDF/online copies of the books I already own. So
> essentially, I want digital access to my physical media. And for the record, I'd be
> more than happy to pay a little extra for both, just not double.

In those ways, cost of access definitely seems to play a big role in resource selection and

decision-making, but it often comes coupled with other factors.

1.22.3 Feel

How a resource feels was near-exclusively used to explain why participants chose

physical books or why they wanted to choose physical books, but chose something else

instead. For example, one participant said:

> I love owning the books and would love to use them more, if only because the
> information laid out in the books is more logically presented and often, I learn
> something I didn't know I should even search for! Like learning how to make stat
> blocks is so much easier in the book, I don't know if I could've found a simpler
> resource online. The books are so satisfying, so clear, and a great source of
> information. It also just... feels good to hold a book.

Any booklover will certainly agree that there is something special about holding a

physical book in one's hands, even if one also partakes in reading ebooks or listening to

audiobooks (Atasoy & Morewedge, 2018). Many people just enjoy the feeling of a book,

especially in a hobby like *D&D* where the roots of the hobby are pencil, paper, and dice.

For some, it's as simple as "I just like turning pages" while others want to "rest the

hardcovers, digest and understand them in my hands. Feel them. But then when I want a

quick in-game reference, I would prefer that in an easy to use, comprehensive online

database." On top of that, there is something to be said about the artwork that comes from using official source material like a physical book:

> I would have preferred to use the *Player's Handbook* because it's way cooler to look up spells in an actual, physical, hardcover book, but I can't carry it around like I do my mobile. I also like the *Player's Handbook* because it has very beautiful art.

Given the volume of people (38%) who said they would prefer to use the physical rulebook if they had no barriers of access, it is clear that the physical aspect of *D&D* is not going anywhere anytime soon. There is certainly a magic about, whether it is the feeling of flipping through the pages, the confidence of knowing the content is official, or just staying involved in the moment without using a digital device.

1.22.4 Consolidation

This category was particularly common when participants were discussing resources they could have in a perfect world with no barriers of access. However, upon reading through the responses to what participants were already using, it was clear that consolidation of information was a key factor in whether participants used a presently existing resource or not. In a way, consolidation and cost both fall under ease of access, though they were prevalent enough on their own to warrant individual categories. For example, many participants said they would enjoy having a "customized PH[B] that had only information I commonly need to look up (classes, equipment, combat, conditions) and one specifically for spells." Sometimes, the customization was extremely specific, often for resources that do not yet exist:

> I would love a huge, thick, hard textbook of every different religion and cult, and have clear, detailed explanations for rituals, prayers, and lore about deities. Complete with hierarchy of clerics and paladins, information about different sects of the religion, specific spells or roles for each deity, information about the deities

weapon of choice, their wardrobe, how to move up the ranks in a temple. How to contact and communicate with your deity, how you know they sent you a sign, properly worshipping, expected duties of worshippers. There is so much potential.

While other times it was simply wanting "a consolidation of character creation and class information in one handbook, rather than scattered across several books" or "a single consolidated app that had everything in an easy to read format and didn't only contain PHB, DMG, and Monster Manual information while leaving out many of the newer books or modules." Often, these requests came from the perspective of both players and DMs: "If I could have the *full* monster manual, spell lists, and class descriptions/skills were all in one, comprehensive PDF format or phone app, it would make things so much easier as both a player and DM." In that case, the participant's role is not as much of an impact on information and resource need, while others explained a specific instance in which they realized available resources were lacking:

> I'm currently running the official "Storm King's Thunder" campaign, and I'd love to see a database that people could contribute to where DMs list out how they ran specific encounters/roleplays from the book. For example, there is an optional sidequest where the players can hunt down a criminal named The Weevil. Right now, the only thing I can do is Google "The Weevil encounter" and read through lots of different pages. If there was one site dedicated to it, almost like a Wiki, that would be awesome. It could contain roleplay suggestions, 3D printed character models of the NPCs, maps, music, etc.

A similar situation arose from other participants, who have suggested wanting a database—not unlike Vannevar Bush's call for a Memex (1945)—for all *D&D*-specific questions:

> Perhaps similar to sageadvice.eu, *DnDBeyond* can archive the more complex/creative and nuanced questions (these are often asked on Twitter) asked to Jeremy Crawford, Mike Mearls, James Wyatt, Dan Dillon, etc about *Dungeons and Dragons* rules, mechanics and advice. I like having a single go-to place (*DnDBeyond*) so I dont have to continually fact check my sources.

Or a database of *all* official *D&D* 5e information:

> "I want a comprehensive compendium off everything considered official in 5e *D&D*. This includes the history of the in game universe, religions, deities, monster races, player races, classes, weapons. I want this in a setting like Roll20 where I can then drag and drop any information I need to my character sheet, and also to have a search function so I can look for any extraneous information I want. I am not knowledgeable about so much of the game, so having it all compiled in an accessible way would help."

Most of the responses that cited a desire for a database were calls for databases to help answer game-specific questions, but others cited a desire for a database to help better connect with the *D&D* community as a whole: "I would prefer to have a collection of articles, modules, etc. similar to the old Dragon Magazine. There are great blogs out there, but there is work and effort to find them."

1.22.5 Validity of Information

The last theme that was only expressly written about a few times, but generally implied, is the concern about information validity. Some participants cite going to multiple places with no preference, so long as they are deemed trustworthy: "From books to blogs to Twitter. The [T]witter accounts of people like Jeremy Crawford and other 'leaders' often are the go-to for rulings." Jeremy Crawford, the Lead Rules Designer for *Wizards of the Coast,* is considered an authority and therefore trusted. Just like the participant who suggested a consolidated database of answers from "leaders" in the subject matter, many participants are more concerned not with the format of the resource but of who is behind the information accessed within it. For example, one participant noted going to multiple places, depending not as much on the resource, but on the type of information required:

> I use an internet search regarding my topic in question, then generally look for results from dnd5e.wikidot.com, Roll20, or (in the case of nuance-related questions) [R]eddit. I use free online resources only, and change what type of

sites I use to answer my questions depending on if I am looking for RAW[ix] info or interpretation/flavor/playstyle tips.

Here, the participant cares mostly about monetary cost of access the most (since *only* free

resources are used) and the validity of information second, depending on the type of

information sought. More "inspiration"-based information (i.e.,

"interpretation/flavor/playstyle tips") does not have as strict of a requirement to be valid,

official content; whereas, if the participant is looking for RAW content, the resource

(type of website) changes. Other participants shared similar sentiments, choosing instead

the physical resources because of their official nature: "Dungeon master guide, mostly

because I don't need to pry the computer from one of my children and it's RAW and

helps the most."

In general, validity seems to be a more situational-based concern. That is, it

matters more on whether the person doing the information-seeking is looking for an

interpretation of RAW or inspiration based on it, or whether they are looking for RAW

on their own.

1.23 Conclusion to Discussion

The results show that most participants first choice of resources are either online,

or a physical or digital rulebook. But how did participants decide between these

resources, especially when so many are not using the first resource of their choice? As

many participants showed through their responses, "in a perfect world, it would be ideal

to be able to have *D&D* materials in both printed and digital formats: printed for easier

reading and reference, digital for making copies and sharing with players." While this

was not always the case, many found that a hybrid of multiple resources was what suited

them best, depending both on their role and on five main factors: ease of access, cost,

feel, consolidation, and validity.

Many of the factors of resource selection worked in unison. For example, one

participant had this to say about their 'perfect world' resource:

> An app would be nice, or a smaller handbook with just spells and feats in it. The biggest gripe I have is how long it takes to comb through the Player's Handbook, or how some websites won't have all of the information, or want to charge you for access to the information.

As such, it is not a simple case of physical vs. digital. Due to the complex and nuanced

nature of *D&D*, especially depending on the game rules one is playing under,

information-seeking behaviors and resource selection change based on complex

information needs.

1.24 Notes

[v] Technically Gen Z includes anyone aged 8-23 years old; however, the consent form for the survey, found in Appendix E, states that all participants agree to being over 18 years old.

[vi] WoTC is an abbreviation for *Wizards of the Coast*, the company that owns and prints the official *D&D* material/sourcebooks

[vii] Roll20 is, according to their Wikipedia page, a "website consisting of a set of tools for playing tabletop role-playing games, also referred to as a virtual tabletop, which can be used as an aid to playing in person or remotely online. The site was launched in 2012 after a successful Kickstarter campaign."

[viii] They also offer monthly subscription packages that allow people who have purchased books to share them with those who have not for a monthly fee. The implication is that DMs can purchase the books they would like to use and then share with their players so that all x number of players do not need to have purchased the books in order to play.

According to the *D&D Beyond* FAQ page, "you don't have to pay to use the website. *D&D Beyond* is committed to allowing you to use this service, including the character creator and other tools, free of charge. The only restriction within that is that you only have access to the rules freely distributed by *Wizards of the Coast*…If you want access to the expanded content on *D&D Beyond*, you will need to unlock the content through one time purchases on the Marketplace."

[ix] RAW stands for "rules as written," and is used to describe the absolute literal meaning of the words on the page with no interpretation for what they *might* mean or what the intent of them *might* be.

Conclusion

Following are the limitations and implications of this study, followed by a recap of themes and concluding remarks.

1.25 Limitations

When considering the insights presented in this paper, a few things should be kept in mind. First, pertaining to research design, since the researcher had originally planned to hold in-person interviews as a secondary, follow-up step to the first, main survey, this main survey was designed not to include any open-ended responses. However, when circumstances necessitated a follow-up survey in place of interviews, this meant that a separate survey was sent out to the original participants. Because both surveys were anonymous, it was not possible to compare answers between the two. So, for example, the researcher could not compare how age, gender, or primary role impacted all of the responses. Length of experience could somewhat be compared since the two groups were divided by this variable (those with five years' experience or under and those with over five years' experience), although it was not as detailed as the breakdown in the original survey. In the future, this could be remedied by asking respondents why they chose the response they did (e.g., after Question 10 "When preparing for a session of *D&D*, where do you go first for information?" for example). However, this may have limited

the number of original responses as it would have required more time and effort of those who completed the first survey.

Secondly, pertaining to research scope and protocols, another limitation of this study is that it only explores purposeful information seeking. McKenzie's (2003) model of information seeking within everyday life includes four seeking types or modes: active seeking, active scanning, non-directed monitoring, and information-seeking by proxy. While some responses to the follow-up survey briefly mention serendipitous discovery through what McKenzie would term "active scanning" and "non-directed monitoring," the focus of the study was on active seeking, or the purposeful pursuit of consciously "needed" information (2003). Further avenues of research could explore the remaining modes of information seeking.

Finally, while it was beyond the scope of this study to do so, one could add to this descriptive analysis by employing inferential statistics, drawing further insights about the future of *D&D* resources, given the high response rate to the surveys.

1.26 Implications

This study has some interesting implications for the field of ILS. First, in terms of service, the lack of an overall resource that dominates in all *D&D* situations (based on role, length of experience, age, and preparing vs playing) shows just how complex and dynamic resource selection can be. On top of that, it shows how *D&D* players—and other serious hobbyists—are an excellent source of study given their resource requirements and expectations. The data from this study shows several potential avenues of exploration for how ease of access, cost, feel, and consolidation play a role into resource selection in this and similar contexts. Plus, as *D&D* is an imaginative and information-based experience,

D&D players had some unique and insightful suggestions on how to improve *D&D* resources to make them more approachable, helpful, and effective, which ILS professionals might take on board when brainstorming ways to make their information centers more welcoming and inclusive for users and non-users alike.

Furthermore, this data suggested interesting implications for design as well. Take the reoccurring mention of a Memex-like database that links all *D&D*-related resources together to make them both accessible and efficient. These suggestions could be used as a basis for a *D&D* database design, even with participatory elements, that is widely available to players both veterans and novices.[x] While only a fraction of participants' implications-related suggestions could make it into the final paper, the fact that so many of them touched on concepts from the ILS field (e.g., consolidation/organization of information, regardless of format, perhaps in a bibliography made by a professional, or a digital database contributed to by an international group of enthusiasts) shows how much there is to learn and explore from hobbyist communities. Further research could also look more closely at other tabletop games, female-dominated games, or what groups are excluded from games due to resource and/or information needs (e.g., language barriers, accessibility issues, etc.). As Bates (1999) argued, information professionals must understand how people relate to, seek, and use information before they can understand the how access to recorded information can be made the most efficient.

1.27 Recap of Themes and Research Questions

This paper has sought to explore five main questions, all of which have been addressed through the responses from three online surveys of 2,353 participants overall, with nearly 3,000 responses total (as some participants took part in two surveys). First,

for what information are *D&D* players seeking? Through iterative coding, the researcher found four main categories of types of information sought: lore, community, inspiration, and "All." The most common was "Lore," which dominated both the "Other" fill-in-the-blank option and the listed options, as all listed options would be considered "Lore" by the researcher's coding. This includes searching for *D&D*-specific information about finished settings and gameplay, such as NPC stats, religion(s), character feats, spells, etc.

Second, what resources do players use to find this information? While there was no clear consensus on one main resource, there was a clear distinction between resource preference when preparing to play versus actually playing. When preparing to play, the majority of participants sought online resources first, regardless of role (player, DM, or both). However, when playing, the majority went to their DM first, then the physical rulebook, and then online. Through qualitative data from the follow-up surveys, the researcher was able to determine five main reasons that impacted resource selection: ease of access, cost, feel, consolidation, and validity.

The third guiding question addresses whether players have a preference for physical or digital resources, and whether this is impacted by age. Given the overwhelming number of responses from younger participants, there was not enough data to make an assumption about age as a factor. Moreover, resource selection was still rather divided, even with online resources having majority favor during preparation for a game session, at 36%.

The fourth question, does the amount of experience impact information-seeking frequency, turned out to be less interesting than initially anticipated and more out of scope for the paper than when the research study was launched. Early visualizations of

this data showed no correlation between length of experience and frequency, and as such, it was not explored further.

Lastly, as shown when exploring what resources players use to find information, role does affect information seeking, as per the final question. As shown in Figures 5 and 6, information seeking while playing is the most impacted by role. Players and those who are both players and DMs tend to turn to DMs first when playing a game, while those who are DMs turn first to the physical rulebook. The discrepancy between roles shows another layer of the complex system of information seeking and resource selection that occurs in the *D&D* environment.

The days of viewing role-playing games as something shameful to be done in a dingy basement are over. As the amount of data and insightful responses show, *D&D*— and leisure hobbies in general—are understudied, rich environments worthy of further research. So, break out those dice, gather a few friends, and start playing—an adventure awaits.

1.28 Notes

[x] Appendix H, while not a fully-fledged database, may serve as a beginning to such a project. The researcher compiled all resources (aside from physical books) that were suggested through the many responses and organized them for quick reference as a small "thank you" to all those who contributed to the survey (and thus the making of this paper).

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Appendix A

The follow is the full list of questions from the first, main survey.

1. What age category do you fall into?
2. What is your gender?
3. What country do you currently live in?
4. For how many years have you been playing *Dungeons & Dragons*?
5. How often do you play *Dungeons & Dragons*? Please choose the closest answer.
6. What is your primary role when you play?
7. In an average week, how many times do you find yourself looking for information related to *D&D*? Please consider how many searching sessions you have, not the number of individual questions asked.
8. Do you ever feel intimidated with the abundance *of Dungeons & Dragons* information?
9. What kind of information do you search for most often? Select up to three.
10. When preparing for a session of *D&D*, where do you go first for information?
11. When preparing for a session of *D&D*, if you go to multiple places, where else do you go for information?
12. While playing a session of *D&D*, where do you go first for information?
13. While playing a session of *D&D*, if you go to multiple places, where else do you go for information?
14. If you had no barriers of access, what would be your preferred resource?
15. Are you okay with being contacted by the researcher should they have further questions about your responses?

Appendix B

The following is the full set of questions asked in the follow up survey(s), with question 5 being asked exclusively to the group with more than five years' experience.

Think of the last time you looked up something for Dungeons & Dragons. Keep the resource you used in mind for the following questions.
1. Is this resource how you commonly find the information for which you were searching?
2. What resource did you use and why did you use it specifically?
3. Would you have preferred to use another resource but found yourself using this one instead? If so, what is the other resource and why would you have preferred it instead?
4. If you could have any kind of information about *Dungeons & Dragons* available to you, what would it be and how would you want to access it?
5. Have you noticed players' information seeking behaviors change over the years? Maybe places people look or the resources they use? If so, how?

Appendix C

The following is the image, made by the researcher, that accompanied the participant call on posts to Facebook, Twitter, and Reddit.

Appendix D

The following is the text that accompanied the participant call on Facebook, Twitter, and Reddit.

Hello, fellow D&D player(s)! 🧙‍♀️🧙

As many of you know, I'm working on my Master's thesis research about *Dungeons & Dragons* (awesome, right?!)

Have you played D&D in the past year and are over 18 years old? I'd love to hear from you!

https://bit.ly/2wyvCqs

If you could please take the time to complete the survey—and maybe even share it around—I'd truly appreciate it! It should take less than 10 minutes.

🎲 Thank you, and may all your rolls be 20! 🎲

Appendix E

The following is the consent form attached to the beginning of all online surveys.

University of North Carolina at Chapel Hill
Title of Study: Investigation Check: Studying the Information-Seeking Behaviors
of *Dungeons & Dragons* Players
IRB Study #: 20-0475
Principal Investigator: Kayla Gibson
Principal Investigator Department: School of Information and Library Science
Principal Investigator Email Address: kaylagib@live.unc.edu

What is the purpose of this study?
The purpose of this research study is to see the information seeking behaviors
of *Dungeons & Dragons* players. You are being asked to take part in a research study
because you have played *Dungeons & Dragons* in the past year.

Being in a research study is completely voluntary. You can choose not to be in this
research study. You can also say yes now and change your mind later.

How long will my part in the study take?
If you agree to take part in this research, you will be asked to explain your information
seeking habits when looking for information related to *Dungeons & Dragons*. Your
participation in this study will take less than 10 minutes. If you decide to participate in a
further interview, this will take an additional 15-20 minutes.

You can choose not to answer any question you do not wish to answer. You can also
choose to stop taking the survey at any time. You must be at least 18 years old to
participate. If you are younger than 18 years old, please stop now.

Why should you participate?
Research studies are designed to benefit society by obtaining new knowledge. This new
information may help people in the future. However, there also may be risks to being in
research studies.

The possible benefits to you for taking part in this research are:
- Improving understanding of what information about *Dungeons & Dragons* people
  search for, as well as how they search for it and how this may impact available
  and future print and digital resources.
- This research may also help prove and validate the amount of work and research
  that goes into playing *Dungeons & Dragons* to elevate it to more than just a
  hobby.

The possible risks to you in taking part in this research are:
- Having someone else find out that you were in a research study.

- Having someone else find out that you play *Dungeons & Dragons.*

It is possible that there may be uncommon or previously unknown risks. You should report any problems to the researcher.

What will happen if you take part in the study?
Survey
- You will be asked to complete an electronic survey
- Completing this survey will take less than 10 minutes
- The survey will concentrate on the information seeking behavior of *Dungeons & Dragons* players both before and during a session of *D&D,* as well as the resources used to seek this information.
- Your name will not appear in any published results of this study

How will your identity be protected?
To protect your identity as a research subject, the research data will not be stored with your name, the data will be stored behind password-protected folders on a secure network, and the researcher will not share your information with anyone. In any publication, presentation, or written reports about this research, your name or other private information will not be used.

You will be able to choose where you are located while completing the survey in order to maximize your privacy at that time.

Any further questions?
If you have any questions about this research, please contact the Investigator named at the top of this form by emailing kaylagib@live.unc.edu. If you have questions or concerns about your rights as a research subject, you may contact the UNC Institutional Review Board at 919-966-3113 or by email to IRB_subjects@unc.edu.

Participant's Agreement
I have read the information provided above. I have asked all the questions I have at this time. By clicking the arrow and continuing with the survey, I voluntarily agree to participate in this research study.

Appendix F

Country	Number of Responses
Argentina	4
Australia	89
Austria	6
Azerbaijan	1
Belarus	7
Belgium	1
Brazil	22
Canada	169
Chile	8
China	2
Colombia	2
Croatia	1
Czech Republic	3
Denmark	12
El Salvador	1
Estonia	1
Finland	9
France	10
Gambia	1
Georgia	3
Germany	66
Greece	6
Guatemala	4
Hong Kong (S.A.R.)	1
Hungary	2
Iceland	1
Indonesia	11
Ireland	16
Israel	4
Italy	9
Japan	5
Kazakhstan	3
Kuwait	1
Latvia	2
Lithuania	1
Luxembourg	1
Malaysia	4
Mexico	7

Montenegro	2
Netherlands	33
New Zealand	4
Norway	7
Paraguay	1
Philippines	5
Poland	6
Portugal	7
Republic of Korea	1
Romania	1
Russian Federation	180
Saudi Arabia	2
Singapore	3
Slovakia	1
Slovenia	1
South Africa	5
Spain	27
Sweden	6
Switzerland	8
Thailand	1
Turkey	3
Ukraine	13
United Kingdom of Great Britain and Northern Ireland	235
United States of America	1301
Uruguay	1
Uzbekistan	2
Venezuela	1

Appendix G

Responses by Country
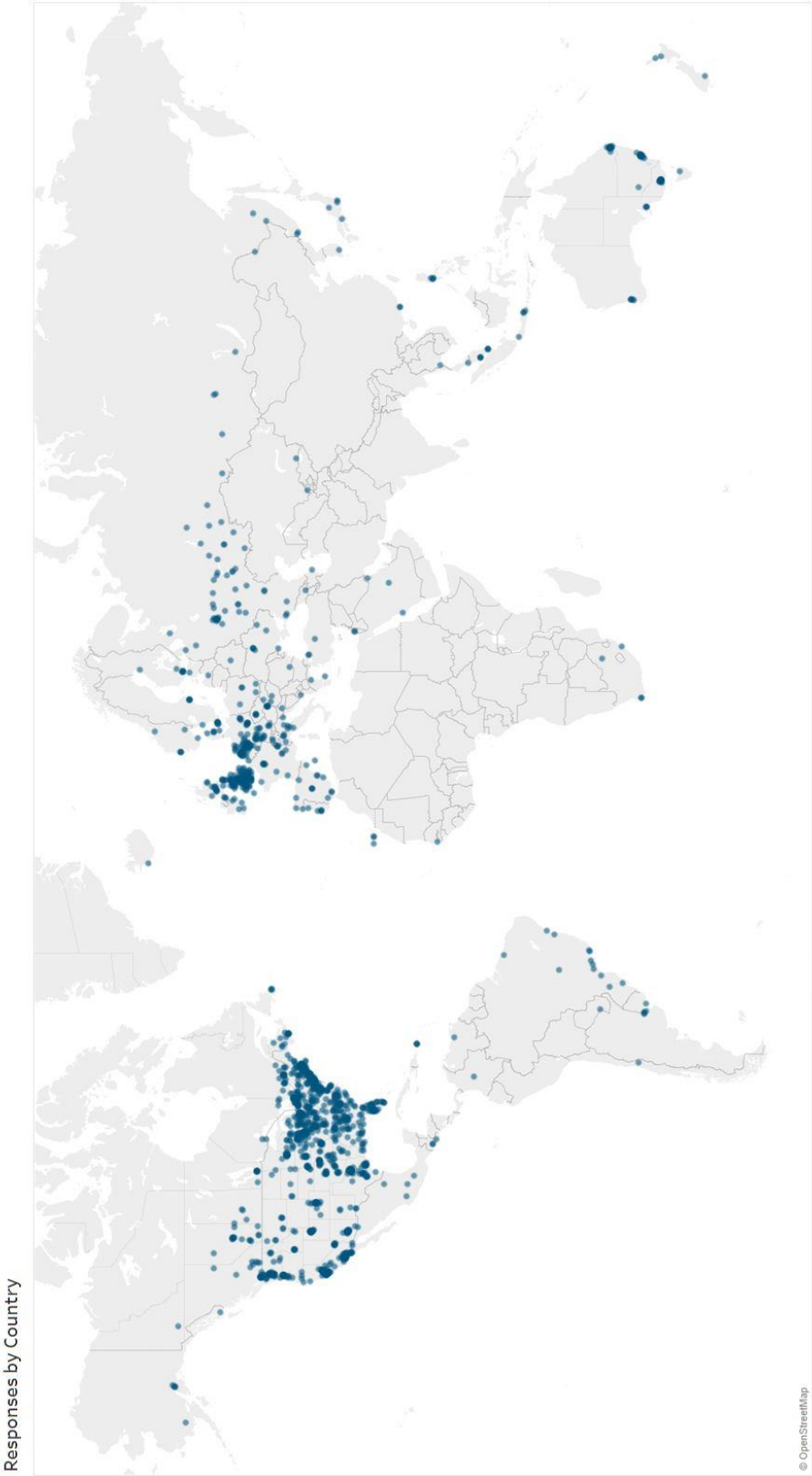
Appendix H

Digital Tools

Wizards of the Coast: D&D Official Homepage

- Downloadable Dragon+ Magazine online or as an app on a smart phone or tablet
    - o Example: Ways to play remotely

D&D Beyond: digital toolset and game companion

Roll20: virtual tabletop and tools

Fantasy Grounds: virtual tabletop

donjon: RPG Tools

Kobold Club: Combat Encounter Builder

5etools: A suite of digital tools for 5th Edition *D&D*

Blogs/Forums

Giant in the Playground: RPG Forum

Bryce Lynch's RPG adventures blog: RPG adventure reviews

Sageadvice.eu: Questions on *Dungeons & Dragons* answered by designers

RPG Stack Exchange: RPG questions answered

Reddit

- r/DnD
- r/BehindTheScreen
- r/DungeonMasters
- r/DMAcademy
- r/DnDNext

Wikis/Databases/Archives

DnD 5e wikidot: Community wiki

5e SRD: *D&D* 5e Source Reference document

The Trove: Biggest open directory of RPG PDFs

Annarchive: Collection of game media

- Example: Dungeon Magazine

Fandom Pages for specific settings

- Example: Forgotten Realms

D&D Wiki: User-generated, homebrew wiki

DMs Guild: Online marketplace with digital, downloadable *D&D* homebrew content both free and premium

D&D Content in Russian:

- Dungeonsanddragons.ru
- https://dungeon.su/

Apps
Fight Club 5e (iOS) (Android): Includes character sheet, spellbook, dice roller, and compendium

Worldbuilding [Bonus Content]:
World Anvil: Worldbuilding tools and & RPG campaign manager
Inkarnate: Online map maker
DUNGEONFOG: Online map maker
Azgaar's Fantasy Map Generator: Online map maker
Watabou Medieval Fantasy City Generator: Fantasy city generator
Wonderdraft: Fantasy map generator
Reroll: Create and customize your characters in pixel art
Hero Forge: Custom *D&D* miniatures