

Information Milieu and Play in Lockdown: The Cute, the Ugly, and the...

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Abstract

This study is an investigation of young children's information needs and their seeking and discovery behaviors in the context of playing the popular Nintendo Switch life simulation game, Animal Crossing: New Horizons (AC:NH). The children in this study perceived AC:NH as an ideal escape from the challenges of the COVID-19 lockdown, and effectively utilized the affordances of AC:NH and other related platforms to play, interact, and learn. The appealing AC:NH kawaii design, coupled with the anthropomorphized behaviors, minds, and emotions of the animal characters, encouraged the children to interweave perceptions and expectations, which led them to play out scenarios relevant to their own experiences and lives.

Keywords: children information needs and behaviors children video gaming, Animal Crossing: New Horizon, children collaborative play.

1. Introduction

This study is an investigation of young children's information needs and their seeking and discovery behaviors in the context of playing the popular Nintendo Switch life simulation game, Animal Crossing New Horizons (AC:NH). Animal Crossing New Horizons, the second most popular Nintendo Switch game, had worldwide sales up to \$38.64 million, as of March 2022 (Statista.com, 2022). The primary goal of this multiplayer game is to build a dream island by accomplishing various tasks, including catching and collecting island fish and bugs, digging up fossils, and planting bell trees to harvest bells, the island currency (Animal Crossing: New Horizons, n.d.). As a product of Japanese Kawaii culture, the interwoven concepts of cuteness and vulnerability, as in a child-mother dyad, provide a socially valued emotional template for an individual's connections with others as well as with objects (Yano, 2013), which draws in users and establishes positive relationships (Cheok, 2010). Katsuya Eguchi, the AC:NH designer, intended to create a shared space for players to connect with family and friends, has resonated with millions of

individuals during the pandemic lockdown (Nintendolife, 2011). In this period of social isolation, Nintendo's AC:NH became a happy place in which many parents interacted with their children, friends and family and found relief from the challenges of lockdown as they struggled to manage work and home responsibilities as well as assist their children with remote learning (Pearce et al., 2021a).

This study is also an examination of the interwoven nature of human and material agencies, providing insights into the socio-technical changes prompted by COVID-19 restrictions and their influence on young children's lives and interactions in the context of playing the AC:NH video game. In particular, children's information landscape, the relationships between human and material agencies, and the embodied practices that emerge from playing AC:NH are examined.

2. Literature Review

Studies of children's video-gaming behaviors addresses such issues as the positive effects of video-gaming on interaction, cooperation, learning and social support (Cole et al., 2020; Furuya-Kanamori & Doi, 2016; Halbrook et al., 2021; Prescott et al. 2018) as well as its negative effects on social interactions (Cole et al., 2020). Video gaming also involves a broad web of interaction including the fan community and social media (Taylor, 2018).

Research suggests that the richness of video games as a positive feature of communication and narrative media that help individual manage affective states (Bowman & Tamborini, 2015; Villani et al. 2018) Children' gaming involves collaboration with and support of one another through sharing knowledge and problem-solving as well as exploration of game strategies (Danby et al., 2018). For example, Pepper et al. (2013) found that in collaborative mode, players interacted by exchanging positive comments. Dezuanni et al. (2015) pointed out that as children play and share their gaming activities, they become part of both the virtual world of the games and the

social world they inhabit. Aarsand (2013) conceptualizes the children's collaborative gaming cultures as participatory cultures that involve much more than just playing the game.

For example, children's social video gaming involves interaction with various platforms, applications, and online communities to advance in the game, learn and communicate (Hajibayova, 2021). Researchers have observed the dominant role of social media platforms, such as YouTube and Twitch video-streaming, which gamers often consult to learn new strategies and techniques and further enhance their gaming skills (Albarelo et al., 2021; Burgess & Green, 2018). Social game influencers' live streams are also viewed for leisure entertainment and to obtain the game accessories and promotional codes that they often disseminate (Albarelo et al., 2021).

During the COVID-19 pandemic, the AC:NH video game became a highly popular way to detach from the social restrictions and stress of quarantine and seek much needed human connections, even if such connections were computer-mediated (Johannes et al., 2021; Pearce et al., 2021b). AC: NH's emphasis on design and crafting has also provided vast possibilities for creativity and self-expression that positioned the game as a platform for participation and social commentary (Hao, 2021).

AC:NH thus provided families and friends with opportunities not only to interact in novel social contexts but also explore new characteristics about each other, such as artistic talents and interests (Martinez et al., 2022). Barr and Copeland-Steward (2022), also found that playing AC:NH served a therapeutic purpose by providing a sense of structure and routine. Along these lines, Pearce and colleagues (2021a, b) observed that the AC:NH's emphasis on positive interaction helped families to cope with the pandemic and take on shared ownership and responsibility. In an ethnographic study, Gandolfi and Gandolfi (2021) observed that playing AC:NH provided young children with a safe surrogate for live social interactions.

In this way, AC:NH affordances provide an invisible infrastructure for the connective actions of playing and communicating that involves a range of interactions with human and non-human agents across various platforms and services that influence individuals' experiences with the video games as well as shape their perceptions and behaviors. In the context of playing AC:NH in a time of pandemic, when these affordances assumed particular

significance, the aim of this study was to investigate children's interactions with the various platforms as well as associated information needs, seeking and discovery. This study was guided by the following research question: *What information behaviors and embodied practices emerged from children's playing AC:NH?*

3. Theoretical Framework

Gibson's (1979) understanding of ways in which the affordances of various tools shape human environments was adapted in the present study. Gibson (1979) argued that people, like all animals, always perceive objects with which they interact within their environments in terms of their affordances:

The perceiving of an affordance is not a process of perceiving a value-free physical object to which meaning is somehow added in a way that no one has been able to agree upon; it is a process of perceiving a value-rich ecological object. (p. 60)

The theory of affordances has been increasingly utilized to explain the relational nature of actions that emerge from people's interactions with objects and technologies (Faraj & Azad, 2012). Suchman (2007) theorized that individuals' actions are situated in the "complex world of object, artifacts, and other actors, located in space and time," whereby the complex world is an "essential resource that makes knowledge possible and gives action its sense" (p. 177).

4. Methodology

As young children's pervasive engagement with digital devices usually begins between the ages of 9 to 12 (Auxier et al, 2020), in this study criterion sampling (Patton, 2002) was applied to collect data from young children in this age group who played Animal Crossing New Horizons. Participants of the study were recruited through the personal contacts of one of the researchers and social media platform groups associated with Animal Crossing New Horizons and parenting in which this researcher had membership.

Following a theoretical sampling procedure (Corbin and Strauss, 2008), children were recruited and interviewed until saturation was reached, and new data added little or no meaningful information or insights. The final sample consisted of 15 children,

12 girls and 3 boys. Prior to beginning the interviews, the participants and their parents were informed of the purpose of the study, possible risks and benefits involved, and measures to protect participants' privacy and confidentiality. All interviews were conducted online by one of the researchers.

Participants were compensated with a gift card in the amount of \$10 initially, and then, in order to intensify participation, compensation was increased to \$20.

The interviewer used a semi-structured interview protocol that covered the following key areas: (1) children's interactions with their friends (or family) while playing the game; and (2) children's game related information perception, needs, seeking and discovery. Each interview lasted about 30 minutes. Children's parents were often present during the interview, and some children asked them game related questions or for clarifications. Some parents also provided additional information associated with their children's responses.

The interviews were analyzed inductively using a constant comparative method, which included viewing the interview recordings, closely reading the interview transcripts, and identifying and refining major themes in the transcripts (Corbin and Strauss, 2008). Then, axial coding (Charmaz, 2006) was conducted to organize the refined themes into broad categories corresponding to the children's game-related information perceptions, needs, and seeking and discovery behaviors as well as their interactions with their family and friends while playing the AC:NH.

5. Results

Communicating and Collaborating: Playing Together While Staying Apart

Children often mentioned that their parents strengthened their interest in playing Animal Crossing. One of the parents was often mentioned as playing regularly, often taking turns and sharing the game as it was restricted to use on one device. As key mediators in children's socialization (Shin, 2015) parents were also engaged in finding playmates on social media AC: NH related groups. While playing, children utilized various communication platforms, including Facebook's Kids' Messenger, Google Meet and Zoom, to communicate via video calls with their friends.

Even though the children ruminated on missing school and not seeing their friends during the

pandemic lockdown, they shared excitement and joy with regard to playing Animal Crossing with their family and friends. They also mentioned playing regularly in groups of two or three school or neighborhood friends.

I have Facebook Kids Messenger to chat and call. After I am done with my online school, I am allowed to call in with my friends and play. I usually play with (ID-1, age 10).

The children's collaborative play was entertaining, tactical, and entrepreneurial as they made use of affordances of both game and external platforms to advance in the game. They engaged in a range of AC:NH in-game and game related activities, including playing hide-and-seek and dress-up on each other's islands, helping with others' design ideas, and storing items for friends if they restarted the game.

I like to dress up in coordinated outfits and take pictures with my friends... we either design our outfits or buy I also like playing hide-and-seek.... (ID-2, age 10)

I like to help my friend to clean up weeds on her island ..., and I also store her items and bells when she restarts her island.... (ID-1, age 10).

I like to design I designed a dress and pathway to my island house.... It is very nice, and all my friends like it a lot.... (ID-2, age 10)

Those playing AC:NH with their parents and siblings often expressed shared responsibility for their island, as one of the participants described:

Last week I forgot to sell my turnips, they got all rotten ... I lost a lot of bells. My mom wants me to tell her when I buy turnips, so she makes sure to sell them by Sunday morning before they get rotten... (ID-3, age 9)

Children also mentioned parental restrictions on their playing along with comments on the parents' own attraction to the game:

Each of us... my sister and I ... have 30 minutes a day to play Animal Crossing ... My mom plays the most (big smile) ... (ID-3, age 9)

...we are allowed to play about one hour every day My dad loves playing too. ... (ID-4, age 9)

The connecting thread of the responses was children's excitement and appreciation of a way to interact with their friends regardless of pandemic restrictions. As one of the participants pointed out: "I love being able to play with my best friends while being home ...I do not [have]to wear [a] mask... I do not like wearing [a] mask at all... (ID-4, age 9).

Anthropomorphism

The AC:NH kawaii aesthetic, coupled with careful attention to game characters' appearances and personalities, has engaged and motivated children, provided positive affective experiences, and encouraged attachments. When they talked about their villagers, children mainly described how they adored certain ones and how desperately they wanted to acquire villagers that were rated cute by either the internet ranking of AC:NH villagers or the players' own judgments.

All my villagers are adorable.... I just love them.... (ID-4, age 9)

Children's strong affection for the anthropomorphized AC:NH animal characters indicated the qualities they valued in human relations and their expectations of reciprocity. Thus, participants expressed not only the importance of being friendly with their island residents, but their expectations that their characters would be friendly and engage actively with them.

I must visit our villagers, so they feel liked and stay on our island. If we are not friendly, they may want to leave our island. (ID-5, age 9)

I cannot do much with my villagers...They always say the same things... I wish I could do more with them. (ID-1, age 10).

I like talking with my villagers.... receiving and sending letters to them.... (ID-7, age 9)

Cultural elements of the game, such as the Japanese cultural practice of gift exchange and sociality (Befu, 1998), in which the central purpose of gifts is to establish and maintain social ties, (Yano, 2013) further intertwined children's perceptions of human

and nonhuman agents and triggered their considerate and polite actions toward nonhuman agents:

I must give gifts to my villagers to show that I like them and want them to stay on my island... (ID-8, age 10)

The humanization of nonhuman agents blurred children's on-screen and off-screen experiences and interactions into a heterogeneous circuit (Schneider & Taylor, 2018), which helped them to discover and learn about the beings that inhabited their Animal Crossing Islands, leading to off-screen interest in and sometimes interaction with their real-world counterparts:

... the other day I caught [an] orchid mantis ...I have it on display in my Animal Crossing Museum.... It lives in flowers I hope to see it somewhere, maybe in our garden.... (ID-9, age 10)

I play with my mom...My friends do not play this game.... It is really for girls ... (ID-5, age 9)

Even though the children's collaborative playing was largely positive, some reported unfavorable experiences, such as having their island ravaged or items taken.

I have one friend who takes my stuff I accidentally leave around my Animal Crossing islands.... I do not like it... I have to figure out how to prevent her walking to some parts of the island.... (ID-6, age 11).

Information Perception, Seeking, and Discovery: Motivated, Entrepreneurial or Worrisome?

While the children often referenced family and friends as their main source of game-related information, they also used the internet to find what they needed. Some children described restrictions on their uses of the Internet, but others sounded quite skillful in performing internet searches to discover AC:NH related information. Those with limited Internet access often asked their parents, who sought and shared the needed information. The children with independent internet access used Google as their "go to" platform to find game related information. In searching, they tended to pose full questions rather than key search terms, for example, "I ask questions on Google... like 'how can I....'" (ID-11, age 10)

Children expressed preferences for pictorial over textual results, such as images and videos, with YouTube often referenced as one of the key sources of game related information.

Children's AC:NH-related information seeking behaviors were driven by various information needs to advance in the game, such as tips on catching certain animals, managing island finances, or spotting fake artwork. Their information searches were often aesthetically motivated, such as finding strategies to get appealing island residents or finding resources to design pleasant surroundings and attractive items, but also competitive, such as searching for ratings of AC:NH villagers. For example, they often mentioned various strategies for acquiring villagers who met their criteria of "cuteness," favoring certain species (e.g., bears) and temperaments (e.g., happy).

I want that grumpy villager so badly... If I get that villager..., I also wish I had a top ranked villager... (ID-13, age 11)

Children frequently mentioned the use of the Animal Crossing portal¹ and fandom site² for game updates, guides on making island money (aka bells) and crafts, tips on catching bugs and fish, and casting votes on the animal crossing villager popularity list. Yet, children's efforts to advance in the game and obtain island currency often went beyond the basic options, to include such activities as running auctions to sell surplus or unwanted items and offering or trading services, like watering someone else's flowers, on the AC:NH fan community site, Nookazon³. For example, the father of one of the participants (ID-14) set up a Nookazon account for her to make extra bells by selling items and picking up chores for Nookazon users, which she also introduced to her friend. Some participants also said that they liked certain animal crossing social media game influencers, whom they followed and tried to interact with (ID-15).

Children's affective ties with the game characters as well as interactions with social media friends and gamers also led to some negative actions and disappointments. For example, some seemed to be unhappy with new game mates or reported aggressive behavior in the game:

You know... I was playing with one of my mom's Facebook friends, ... who ran around all my flowers and destroyed them I hated it.... I am not going to let [this

person]... to visit my island anymore (ID-15, age 9).

I smack the villager that I don't like with a net as I would like him to leave my island ... (ID-14, age 9).

In this regard, one of the parents who attended the interview considered children's pursuit of YouTube social game influencers as a negative outcome of playing AC:NH, arguing that: "YouTubers' suggestions are rude and inappropriate even though it is just in-game actions directed toward game characters."

6. Discussion and Conclusion

The children shared feelings of pleasure and excitement about a variety of tasks that they had managed to accomplish while building their AC:NH dream islands, from capturing all species of fish and displaying them in their island museum to designing custom pathways to their houses for their and their friends' aesthetic pleasure. The appealing AC:NH kawaii design, coupled with the anthropomorphized behaviors, minds, and emotions of the animal characters, encouraged interwoven perceptions and expectations that led the children to play out scenarios relevant to their own experiences and lives (Küster et al., 2021). Epley et al. (2007) suggest that people tend to anthropomorphize animals and other phenomena when they are motivated to be effective social agents but lack a sense of social connection to other humans. The children's lack of socialization during the pandemic lockdown could explain their enthusiasm about playing and interacting with the game characters as with their real-world friends. The affective attachment to and subjectification (Coanda & Aupers, 2021) of AC:NH characters also often motivated the children to utilize external platforms, such as fan sites and social media gamers' content to explore and pursue such ends as acquiring desirable game characters as their villagers. Besides children's admiration of AC:NH's kawaii design, they relished the underlying educational elements of the game, which helped them to learn more about living things and cultural values as well as basic economics (Mateer & O'Roark, 2020) as they expanded and maintained their virtual islands. In line with previous studies suggesting the learning benefits of collaborative game environments (e.g., Peppler et al.,

¹<https://www.animalcrossingportal.com>

²<https://animalcrossing.fandom.com>

³<https://nookazon.com>

2013), the children often mentioned discovering new living things, learning how to manage their island finances (aka bells), and custom-designing items.

In spite of structural inequalities in gaming spaces and stereotypical associations of video-gaming with hardcore male gamers, some of the children's perceptions of AC:NH as a "girls' game" reflects Nintendo's attempts to appeal to much more diverse audience (Cote, 2020). In that respect, Cote (2018, p. 496) has identified the need for continued effort to "break video games' historical masculinization and undermine exclusionary practices based on in- and out-groups."

In line with previous studies of children's information seeking behaviors (Spink et al., 2010), the children in this study often relied on information sources suggested by family and friends and created information landscapes in collaboration with fellow players, with whom they developed similar ways of making meaning and knowing (Lloyd and Wilkinson, 2016). They accessed their information landscape through shared language, material artifacts, and embodied practices (Lloyd and Wilkinson, 2016). The children's internet searches and attention to ratings were mainly driven by aesthetic interests such as the desire to design pleasant surroundings or find attractive items for their domiciles, including appealing island residents. Another key motivation for internet searches was entrepreneurial as the children attempted to find ways to make additional bells, the island currency, in order to advance in the game and build a top-rated island. With regard to search strategies, the children's preferences for questions rather than key phrases in their Google search inquiries like and for pictorial rather than textual information sources are commonly found among young children (Bilal & Gwizdka, 2018; Slone, 2003). In particular, their preference for AC:NH related information on YouTube is aligned with previous studies of young children's game related information behaviors (e.g., Dezuanni et al., 2015). Carter et al. (2020) have argued that YouTube video gaming content targeted to young children serves not only as a key source of learning, sharing, and social interaction, but also as one of the many paratextual factors that shape the emergence of an online gaming culture among them. This study demonstrates that a mosaic of emotions arose from the children's interactions with YouTube content, ranging from excitement about learning new techniques to advance in the game to anxiety about personally experiencing the negative situations it featured. Goetz et al. (2005, p. 49) found that even

when children feel contentment during their interactions with media, as they become conscious of their own susceptibilities, they "incorporate and use fear and the adrenalin it produces to endow their fantasies with emotional realism." Moreover, young children's preferences for YouTube video gaming resources, usually adult-generated, raise parental concerns about the reliability of publicly distributed information as well as overall lack of assessment of the quality and content of YouTube videos (Neumann and Herodotou, 2020), especially those that target or attract young players. As one parent who attended her child's interview pointed out, even though the YouTubers' tips for antagonistic behaviors are directed to the game characters, the encouragement to engage in rude practices is very disquieting. Moreover, children's blurred perceptions of platform-suggested results and their potential impact on children's everyday lives call for more investigation of transparency of platforms to ensure ethical and accountable information services (Hajibayova, 2019).

As children operate within a range of commercialized platforms and networks that in turn shape their experiences, there should be close consideration of these spaces as contexts of play. The affective attachments they form, coupled with the impact of social media game influencers, raise concerns about whether children's negative and even brutal treatment of game characters deemed undesirable may be extended to human agents. In this vein, Livingstone et al. (2014) have argued that even though it is unknown how exposure to inappropriate content forms children's emotional reactions, policy interventions should be in place to address these emotions in efforts to promote the awareness, digital literacy, and safety of young children. Livingstone et al. (2017, p. 101) have advised that endeavors to build a safe online environment for children should be "combined with efforts to enhance children's and parents' coping strategies and resilience in the face of risk, so that it [digital exposure] does not lead to actual harm" As Livingstone has observed (2021b), the technology brings out the hopes and fears that parents have for their children as well as boundless contemplation of how they can both be in the digital world and meet modern democratic family expectations.

This is relatively a small study, which provides a limited understanding of children's information behavior in the context of the popular AC:NH video game. Further studies should be undertaken to explore children's interactions and communications across various platforms for further insights into the

affordances and challenges of child-oriented online games and ways to create safe environments for children to play, learn and interact.

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