Livestreaming from the bedroom: Performing intimacy through domestic space on Twitch

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Abstract

This article looks at the appearance of domestic spaces on the popular livestreaming platform Twitch.tv, with a focus on livestreams that appear to be shot in streamers' bedrooms. Many Twitch streamers broadcast from their homes, making domestic space central to questions of placemaking for this rapidly growing digital media form. Within the home, bedrooms merit particular attention because they carry particular cultural connotations; they are associated with intimacy, embodiment, and erotics. Drawing from observations of gaming and nongaming streams, we map where bedrooms do and do not appear on Twitch. We locate the majority of bedrooms in categories that foreground connections between streamers and viewers, like Just Chatting, Music & Performing Arts, and autonomous sensory meridian response (ASMR). By contrast, across a wide range of video game genres, bedrooms remain largely absent from gaming streams. The presence of bedrooms on Twitch also breaks down along gender lines, with women streaming being far more likely to broadcast from their bedrooms than men. Here, we build from existing research on both livestreaming and digital placemaking to argue for an understanding of place on Twitch as fundamentally performative. This performance is inherently gendered and bound up with the affective labor of streaming. In addition, we demonstrate how the bedroom, even when it does not appear on screen, can be understood as a 'structuring logic' of placemaking on Twitch. Given the history of livestreaming, which grows out of women's experiments with online 'lifecasting', the bedroom sets expectations for the type of spatial and emotional access a stream is imagined to offer viewers. In this sense, the absence of bedrooms in gaming streams can be understood as a disavowal of intimate domestic space: an attempt by

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predominantly male streamers to distance themselves from the implicit parallels between livestreaming and practices like webcam modeling.

Keywords
Digital media, gender, intimacy, livestreaming, place, video games

This article looks at the appearance of domestic spaces in the background of Twitch livestreams. Digital placemaking is a key part of the work of livestreaming, and livestreams are themselves crucial sites for understanding where and how placemaking is being performed in digital spaces today. Many streamers on Twitch broadcast live video from their homes, where personal, domestic spaces such as kitchens, living rooms, or bedrooms often appear on screen. Within this set of domestic spaces, we focus specifically on livestreams that appear to be shot in streamers' bedrooms. Bedrooms carry particular cultural connotations associated with intimacy, embodiment, and the erotic. Existing scholarship on the relationship between domestic and digital spaces also has yet to fully explore the importance of the bedroom as a site that often stands at the interface between online and offline experience. Here, we argue that the erotics of the bedroom are central to placemaking on Twitch, where the bedroom is both a physical location that streamers broadcast from and a conceptual space that structures the practices, aesthetics, and place-related norms of livestreaming on Twitch. Building from an understanding of digital space on livestreaming platforms as culturally constructed and fundamentally performative, we ask: What genres of Twitch streams are most often broadcast from the bedroom? What sorts of streamers do or do not include their bedrooms on screen? And how might attending to the bedroom help us bring to light the gendered, embodied, affective, and sexualized character of place on Twitch?

To answer these questions, we performed a series of observations of Twitch livestreams between March and May 2020. Although Twitch is most widely known as a platform for video game livestreaming, we intentionally looked at streams that covered a range of content, including a variety of both gaming and nongaming streams. In total, we observed roughly 180 streams: 20 in each of eight categories, with additional 20 as supplemental material for context. While collecting quantitative data was part of our observation process, our analysis is first and foremost qualitative, bringing feminist writing on the theoretical dimensions of digital labor, domesticity, and the cultural constructedness of space into dialog with forms of placemaking found in contemporary livestreaming. Through these observations, we found clear patterns around both the appearance of bedrooms and their absence. Broadly speaking, streams in categories overtly characterized by sociality and affective performance, like Just Chatting, Music & Performing Arts, and autonomous sensory meridian response (ASMR), were likely to feature bedrooms as backdrops. By contrast, video game livestreams that emphasized video game play and mastery were strikingly unlikely to feature bedrooms, instead presenting more generic domestic spaces as backdrops or removing video feeds of streamers entirely. These differences also broke down largely along gender lines, with women streamers much more commonly broadcasting from their bedrooms than men streamers, though we recognize the limitations and problems that come with making presumptions about a streamer's gender. This suggests that the matter of where a streamer broadcasts from and how they perform placemaking through their streams is highly gendered. It also suggests that, even in representing the absence of place, streamers actively engage in the work of constructing cultural spaces through their streams.

By mapping the appearance of bedrooms on Twitch and highlighting their role in digital placemaking, we are drawing attention to important yet often unspoken cultural facets of livestreaming, which is itself being an increasingly prominent form of digital expression, entertainment, and labor today. For example, the choice of men streamers to broadcast from generic domestic spaces can be seen as a disavowal of the bedroom, which has in fact been key to livestreaming across multiple decades of Internet history. In the case of video game streams in particular, our work reveals how strategies for digital placemaking are deployed to distance streamers from the feminized associations of the bedroom: associations which make explicit the parallels between livestreaming and webcam modeling, a form of online sex work. Looking at livestreaming more broadly, we also argue that the bedroom can be understood as a 'structuring logic of placemaking on Twitch. Regardless of where streamers broadcast from, the idea of streaming from the bedroom – that is, inviting viewers into intimate, personal spaces – sets the terms for the kinds of spatial and emotional access a livestream is imagined to offer. In this sense, as we argue in our conclusion, all livestreaming can be understood as streaming from the bedroom. These insights about the role of the bedroom on Twitch also have broader implications for understanding digital placemaking. They bring to the fore the physical, embodied, intimate materiality of the home as a key locus for making space through the digital.

Making space on Twitch

Livestreaming is the practice of broadcasting real-time content online for an audience. Often audience members can interact with the person streaming (referred to as a 'streamer') and each other through public text-chat and other interactive affordances. While there are a number of digital platforms that support livestreaming, the largest and most prominent as of writing is Twitch.tv. Many public events and other forms of media are broadcast live; however, 'livestreaming' still generally describes the practices of individuals and small groups, including some full-time professionals and a larger number of amateur and hobbyist streamers. Video game livestreaming is one important subset of livestreaming. As scholars like TL Taylor (2018) have demonstrated, livestreaming is a rapidly growing phenomenon that is having profound effects on the landscapes of Internet culture and broadcast media. By the start of 2020, Twitch reported having 17.5 million daily visitors and 4 million active streamers, though the accuracy of these numbers remains up for debate (D'Anastasio, 2019).

News reports and the company's own marketing often tell a particular history of Twitch that focuses on its relation to video games, with other types of content presented as peripheral. In truth, the origins of Twitch are broader. The platform now known as Twitch was originally founded in 2007 as Justin.tv, a site designed to host 'lifecasting', the then-burgeoning practice of broadcasting the ins and outs of one's daily life online (Coyle, 2007). Over time, video game streams became the most popular segment of the site, eclipsing all other content by 2011. In 2014, the company made its shift to gaming content official, rebranding itself as Twitch Interactive; soon after, it was acquired by the conglomerate Amazon (Machkovech, 2015; MacMillan and Bensinger, 2014; Truong, 2014). From 2012 to 2016, only video game content was allowed on Twitch, with other types of entertainment discouraged or even banned (McWhertor, 2015). Since then, however, Twitch has reconsidered its exclusive focus on gaming, crafting deals to stream television shows and professional sports. In 2016, Twitch began adding nongame streaming categories, recalling its roots as Justin.tv by once again allowing users to broadcast themselves 'IRL' (in real life), a category that has since split off into a further variety of nongaming categories (Twitch, 2018).

Today, while the list of popular channels featured on Twitch's 'browse' page still suggests an audience preference for video games, viewers can watch live content ranging from drawing and fine art to cooking and makeup tutorials to live musical performances and karaoke.

Livestreaming is also the subject of a growing body of scholarship. In addition to Taylor's foundational book *Watch Me Play* (2018), researchers have explored issues like how race (Gray, 2017), disability (Johnson, 2019), and affective labor (Woodcock and Johnson, 2019) shape the experience of streamers. Work from the field of human–computer interaction (Robinson and Isbister, 2020) has also addressed topics such as livestreaming as a creative practice (Fraser et al., 2020) and how streaming can promote prosocial behavior (Struzek et al., 2020). A number of reports have highlighted how discriminatory attitudes around gender and sexuality pervade the cultures of Twitch, where toxic 'gamer' perspectives often still dominate, women streamers are commonly viewed as illegitimate (Ruberg et al., 2019), and streamers' bodies are highly regulated according to heterosexist logics (Cullen and Ruberg, 2019). Identity-based harassment is an ongoing concern for streamers on Twitch. To date, scholarship on the role of place in livestreaming has focused on how platforms like Twitch serve as 'third spaces' (Hamilton et al., 2014), a term popularized by sociologist Ray Oldenburg to refer to 'public places that host the regular, voluntary, informal, and happily anticipated gatherings of individuals beyond the realms of home and work' (Oldenburg, 1989: 16). Framing Twitch as a third place suggests that it is neither work nor home – whereas, to the contrary, one of the key features of Twitch is it is often precisely *both work and home*, especially for streamers. Thus, concerns around the ways that Twitch blurs play and labor (Catá, 2020; Wenz and Taylor, 2020) should also be seen as closely related to questions about places more typically associated with leisure are inhabited, performed, and indeed put to work on Twitch.

Exploring the cultural implications of placemaking on Twitch requires attending to the complexities of the platform. Twitch streams typically include multiple bounded visual elements, forming layered, overlapping markers of space – for example, a window displaying video of a streamer, contained within a larger window showing video game play, positioned alongside a demarcated area for chat, all presented within the frame of the Twitch channel (Figure 1). To talk about Twitch as a 'space' or a series of spaces is to talk about all of the following and more: the spaces that appear on camera during Twitch broadcasts, the overlapping spaces of interface elements on screen, the community spaces that form around specific streamers' channels, and the space of Twitch as a broader platform. The spaces from which streamers broadcast are themselves varied. While some use relatively blank backdrops or green screens, others decorate the backdrops of their video with specific items or lighting to give their streams a particular aesthetic or personality. In this regard, even when it appears casual or unstaged, the construction of space as represented by streamers should be understood as performative, part of the brand-building labor that Sarah Banet-Weiser (2012) has described. On Twitch, space is never straightforward or self-evident. Rather, the act of livestreaming (which encompasses the actions of a streamer, their audience, and the platform simultaneously) constitutes and produces space, as scholars like Helen Morgan Parmett (2017) have argued of media more broadly. Space, according to Henri Lefebvre (1991 [1974]), is the product of a complex network of presuppositions, practices, and representations that shape cultural norms. This is true of digital spaces as well as physical ones, a fact that becomes particularly apparent through the construction of space in livestreaming.

Of the many spaces that take shape on Twitch, the physical spaces of streamers' homes are particularly prominent. As Taylor (2018) describes, Twitch streamers often broadcast from their houses. Ongoing news coverage of streaming as a professional practice confirms and emphasizes
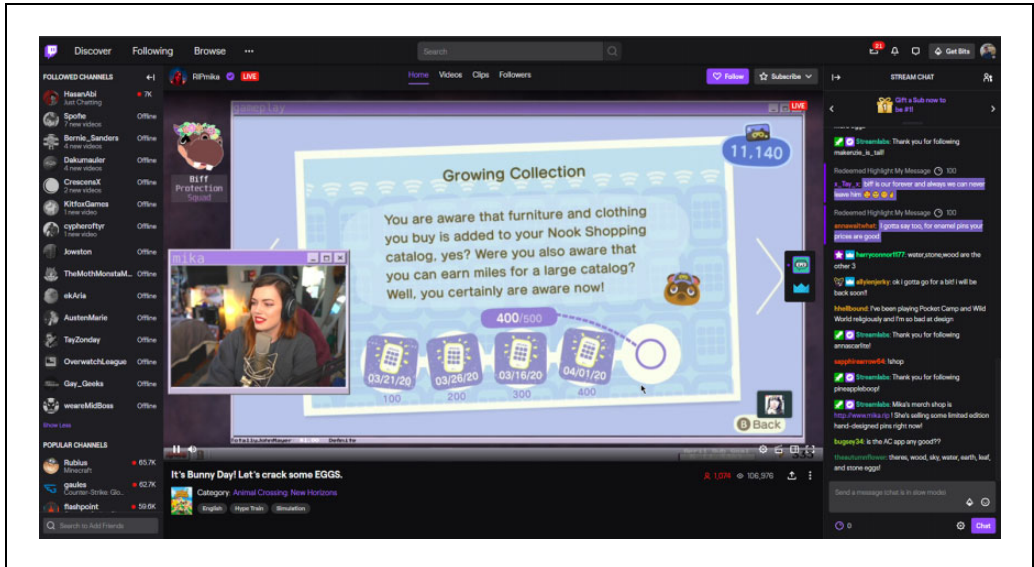
Figure 1. An example of multilayered space in Twitch channels.

this connection between streaming and domestic space, with reports describing streaming as a virus-proof job (Segal, 2020) where one can 'make thousands literally by just sleeping' (D'Anastasio, 2020a). In this way, the work of placemaking on Twitch parallels earlier moments in media history when broadcast entertainment has taken up new residence within the home. For example, Lynn Spigel (1992: 13, 20) has noted that the introduction of television into viewers' houses turned the home into a space of exhibition that required adjustments to new norms surrounding space and visual pleasure. Fittingly, the idea of the home as a 'space of exhibition' for broadcast media takes on new life and new meaning in the age of livestreaming. In addition, a considerable percentage of 'camming', broadcasting oneself via webcam as a form of online sex work, takes places in cam models' bedrooms. Early 'camgirls', writes Theresa Senft (2008: 1), experimented with new media technologies by broadcasting live from their bedrooms in the late 1990s. Webcam modeling, according to Angela Jones (2020: 41), relocates erotic performance from the strip club to the home and gives clients a sense of intimate access to models' private lives. Though livestreaming performances on Twitch are rarely explicitly erotic due to platform regulations (Ruberg, 2020), they offer a similar sense of intimacy and access through their invitation into the streamer's home.

For scholars of digital placemaking, livestreaming platforms offer valuable sites for exploring how place is actively produced and reproduced through physical, embodied, culturally coded performances in online spaces. Writing on digital space has often sought to explore tensions between distance and materiality – a sense that the Internet, according to Morgan Parmett (2017: 181), makes 'our place-based affiliations matter little compared to our capacity to bridge-differences through interconnectivity'. Related work has also explored how digital tools might help map geographic spaces (de Souza e Silva and Sutko, 2009; Graham and Marvin, 1995; McCullough, 2006) and, conversely, how the digital realm might itself be mapped (Dodge and Kitchin, 2001; Mitchell, 1995; Wertheim, 2000). Other work has directly addressed the interplays between

digital media and spaces of the home (Berry et al., 2010), including recent texts that have argued for the importance of understanding the notion of 'home' itself through questions of gender and sexuality (Pilkey et al., 2017), drawing out connections between 'home' and heteronormative visions of domesticity (Fraiman, 2017). Finally, feminist scholars have also highlighted connections between digital space and domestic spaces through issues of digital labor, by arguing that work in online spaces has come to parallel 'women's work' in the home (Arcy, 2016). While this work is invaluable for making sense of domestic and digital space in tandem, a consideration of livestreaming also pushes these ideas in new directions by making literal the connection between the home and the digital.

Observing performances of space

To map and theorize the appearance of bedrooms in the video feeds of Twitch streamers, we conducted multiple sets of observations of streams during March and April 2020. Because we wanted to reach a broad understanding of how space was performed across different Twitch genres, we watched both gaming and nongaming streams, selecting a handful of notable types of stream from each of those two areas. For each type of stream, we observed approximately 20 streams, focusing on English-language streams that had the highest number of active viewers. We recognize that structuring our analysis through Twitch's own categorization system introduces potential complications, since individual streamers often move between categories. Because of this, the patterns that we observed are less concretely tied to *who* is streaming than to the type of content streamed. In our observations, we focused our attention on how streamers presented space in feeds of themselves, such as whether they appeared to be streaming from a domestic space, how that space was arranged, and what items appeared in it – or how, conversely, streamers chose not to represent interior space, such as by using a green screen or including no video footage at all.

For our analysis of streams that did not include video game play, we selected three categories: Just Chatting, Music & Performing Arts, and ASMR. We selected these categories because they represent a range of the most popular nongaming activities that take place on Twitch. For instance, Just Chatting has become the category that consistently attracts the most concurrent viewers on Twitch across all categories, regularly outnumbering gaming streams (D'Anastasio, 2020b). The tally of viewers watching these streams at the times of our observations varied from a few dozen to more than 5000. We also chose these categories because, despite their popularity, they are among the least studied and often most disparaged on Twitch, with much scholarship replicating the platform's own self-positioning as a space for gaming and the 'toxic gamer culture' surrounding Twitch still denouncing nongaming streamers (Consalvo, 2012). We believe it is equally crucial to study nongaming spaces on Twitch. For our analysis of gaming streams, we chose to focus on five video games that consistently drew large numbers of viewers, as of this writing in 2020. From the most popular games being streamed on Twitch, we selected these because they represented a range of video game content featured on the platform, allowing us to get a fuller picture of the cultural practices around placemaking in video game livestreams. These games included *Fortnite* (Epic Games, 2017), *Grand Theft Auto V* (Epic Games, 2013), *Minecraft* (Mojang Studios, 2011), *Stardew Valley* (Chucklefish and Barone, 2016), and *Animal Crossing: New Horizons* (Nintendo, 2020). As with the nongaming streams, the numbers of viewers watching varied from as many as 5550 viewers to as few as 20. We also supplemented our observations of these games by looking at streams for related titles.

Below, we break our discussion of these representations of space into two main categories: places where we largely did and did not see bedrooms. This also closely parallels the divide between nongaming and gaming streams, pointing us toward an entrenched yet implicit divide between how different modes of streaming are expected to perform intimacy, gender, and erotics through placemaking. We recognize that it is impossible for us to assess with certainty what room a streamer is *actually* broadcasting from simply by observing streams. In fact, it is very possible that many of the streams we discuss below that seem to take place outside the bedroom are in fact shot in bedrooms, with cameras angled away from beds or other markers of intimate domestic space. Therefore, in mapping and interrogating the appearance of space on Twitch, we understand these spaces as constructs characterized by cues like furniture, decorations, background objects, props, equipment, and lighting that suggest and thereby enact their status as certain sites. In this particular sense, it does not matter where streamers are actually broadcasting from, but rather how they choose to present and perform space in ways that signal certain cultural affinities.

Live from my room: Bedrooms in nongame streams

Bedrooms appear frequently in nongaming streams. Among the three Twitch categories that we focused on (Just Chatting, Music & Performing Arts, and ASMR), Just Chatting is the most popular and prominently featured on the platform. 'Just Chatting' designates streams consisting of conversations between streamers and viewers. Unlike gaming streams, which typically focus on gameplay with footage of the streamer as a secondary element, the purpose of Just Chatting is to facilitate direct engagements between streamers and their audiences. Though Just Chatting streams are broadcast from a variety of locations, bedrooms are a common sight in this category. In our observations, women streamers in the Just Chatting category were especially likely to broadcast from bedrooms. As backdrops against which streamers presented themselves, these bedrooms often featured a crafted mise-en-scène: an artful if casual array including markers like beds, dressers, closets, and shelves containing personal items. Through these items, streamers performed their spaces as inviting, intriguing, cozy, personal, and personalized. In these streams, the appearance of bedrooms often communicated a tone of emotional accessibility and personal connection – as if the viewer knows the streamer so well that she has invited the viewer over for a chat in her room. Some (not certainly not all) of these streams played up the erotic valence of streaming from the bedroom, using strong mood lighting and prominently displaying beds as if to suggest that other activities *could* take place in this room and perhaps even be caught on camera (Figure 2).

The Music & Performing Arts category offered an interesting contrast to Just Chatting. This category is dedicated to live musical performances by streamers, who sing songs or play instruments for their audience. As in Just Chatting streams, in Music & Performing Arts streamers there is no video game play to take central focus, so the main visual interest of the stream falls to the streamer themself. Through music and performance, streamers also build a kind of dialog with viewers, which is especially evident when they take requests from viewers in real time. While bedrooms do make appearances in the Music & Performing Arts category, it is more common to see streamers broadcasting from domestic spaces set up as music rooms or artists' studios. Though these spaces often have many of the same visual markers as bedroom scenes on Twitch, such as fairy lights and soft pastel color palettes, they more typically feature musical instruments or turntables rather than beds (Figure 3). Like Just Chatting streams, Music & Performing Arts streams perform domestic space in ways that are meant to be intimate – an invitation into the
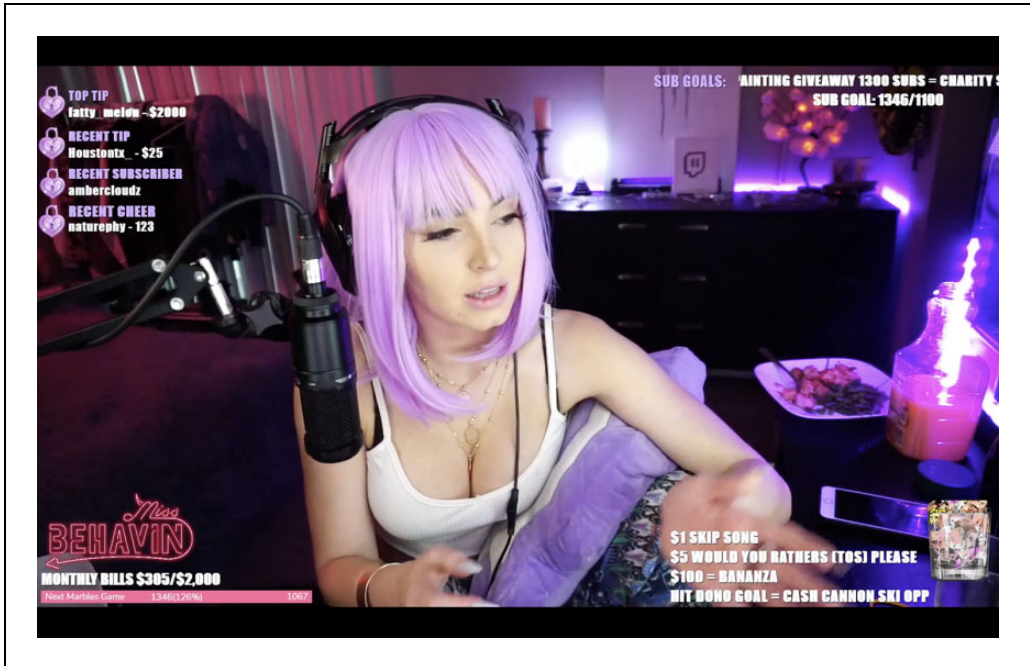
Figure 2. A Just Chatting streamer broadcasting from the bedroom.

streamer's personal artistic space – yet this intimacy takes on a more creative rather than erotic implications.

ASMR streams represent the highest concentration of bedrooms in the Twitch categories we observed. An acronym for autonomous sensory meridian response, ASMR is a performance style known for inducing a satisfying, euphoric tingling sensation in viewers through the practice of particular aural and visual techniques. These techniques, which often include whispering sensually or delicately tapping a microphone, are designed to create noises that simulate physical nearness and touch. As Joceline Andersen (2015) argues, the pleasure that arises from ASMR content, while often explained as a form of pure sensation and defended in the prestige language of science and medicine, results from heteronormative articulations of care and emotional intimacy. It is perhaps unsurprising then that ASMR streamers on Twitch are overwhelmingly women. Visually, ASMR streams are characterized by close-ups on a streamer's face, lips, and hands as they lean in close to the microphone, which becomes a crucial set piece to be held and touched as part of the performance – a kind of proxy for physical contact between the ASMR streamer and the Twitch viewer.

In ASMR streams, bedrooms move from the background to the foreground. Here, the physical and tactile elements of the bedroom that form a backdrop in other nongaming streams become the tools of performance itself, with ASMR streamers often lounging on a couch or bed as they whisper sweet affirmations to viewers. Soft plush items like pillows and blankets are brought close to the camera and used to generate ASMR sounds (Figure 4). In this way, the construction and performance of space in ASMR streams is core to the content of the stream itself, with the sweetly colored, soothing space of the bedroom or dimly lit living room playing a key role in creating the overall sense of the ASMR performance as pleasurable and calming. ASMR streams reveal that the
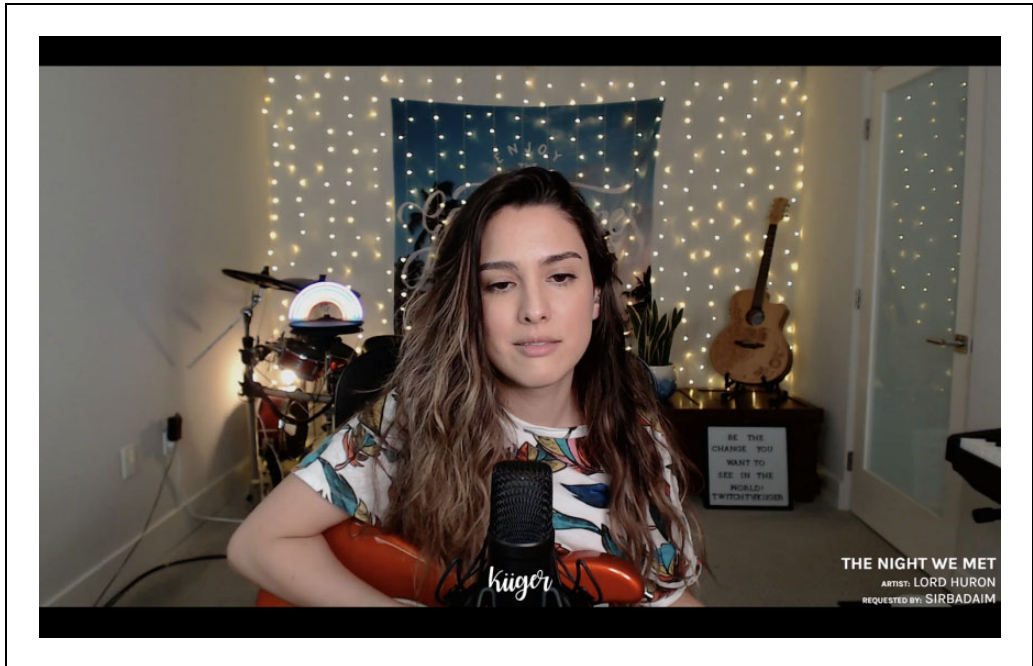
Figure 3. A streamer in the Music & Performing Arts category displays instruments behind her.

space of production can be just as important in constructing the cultural meaning of a stream as a streamer's active performance – and that, indeed, the affective dimensions of a livestream are inextricable from its construction of space. The 'pure sensation' promised by ASMR emerges from the gendered voice and body of the streamer (Andersen, 2015: 697) but also from the place and context of its production.

These Twitch categories in which bedrooms regularly appear have many elements in common. All three (especially Just Chatting and ASMR) are populated largely by women streamers. They are also generic categories, organized not around a particular game but by medium or mode of performance. All three place streamers themselves front and center, making the viewers' sense of engagement with a streamer key to the experience of watching the stream. They invite the viewer into the personal life and intimate space of the streamer for conversation and sociality. Perhaps more vitally, success for streamers in these categories hinges on this invitation to and production of an intimate space. The streamers' performances rest on communication with the viewer, whether this means literally talking with them and responding to their chat messages, playing the songs they want to hear, or whispering affirmations within the inviting space of the bedroom. In these streams, the bedroom becomes both a space for this intimate communication and itself a presence that communicates closeness between the streamer and viewer.

Anywhere but the bedroom: Absent spaces in gaming streams

Just as revealing as the places on Twitch where we did see bedrooms are the places where we did not. In contrast to the nongaming streams described earlier, bedrooms were strikingly absent in
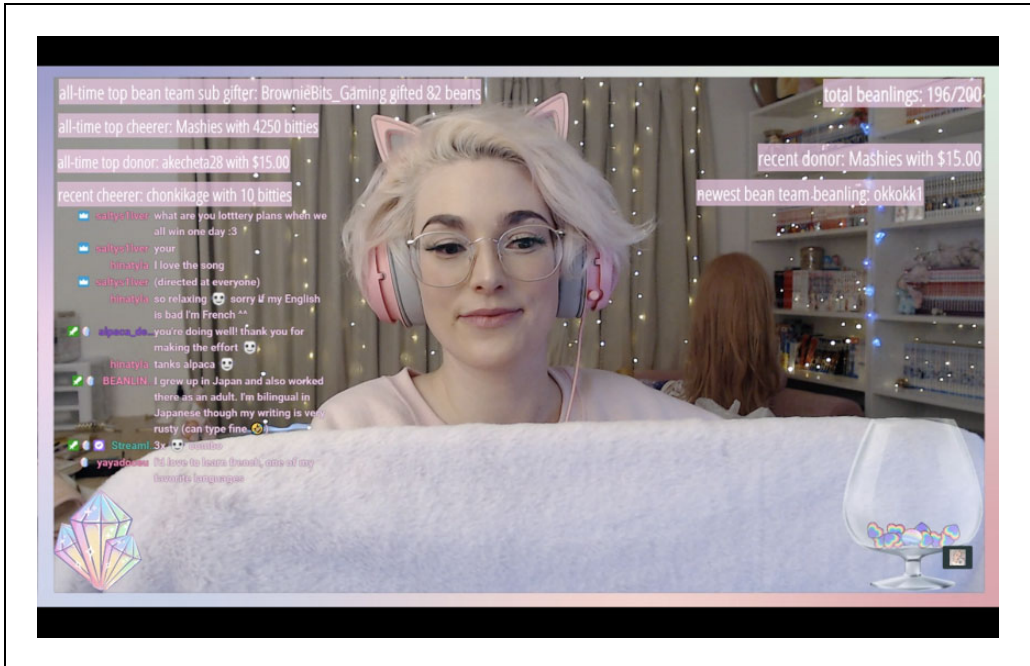
Figure 4. In an ASMR stream, bedroom elements take center stage. ASMR: autonomous sensory meridian response.

gaming streams. Instead, these streams tended to include representations of other, more generic, less intimate domestic spaces (such as a relatively characterless living room or office) or to exclude the surroundings of the streamer entirely. Notably, the ways that gaming streams performed these spaces – or lack thereof – differed across video game genres, and at times across different games within the same genre. That is, in addition to observing a broader cultural norm implicitly dictating that gaming streams on Twitch should not include bedrooms, we also observed a more granular set of cultural norms which reflect shared standards for *where* streamers should stream and *how much* of that place they should show on camera depending on which video game they play.

In battle royale video games and multiplayer online battle arena (MOBAs) such as *Fortnite* (Epic Games, 2017) and *League of Legends* (Riot Games, 2009), which are regularly among the most-watched games on Twitch and are typically associated with esports and 'hardcore' gamer culture, most of the streamers we observed did include video footages of themselves that showed their physical surroundings. None were streaming from bedrooms, but nearly half appeared to be streaming from a domestic space like a living room or home office. These scenes often included physical markers that suggest shared or work-focused spaces within the home, with items like desks, computer towers, sofas, and chairs in the background, and some cameras catching glimpses of dining rooms or kitchens in more open-plan homes. Other streams in this group appeared to be broadcasting from a nondescript interior space, and only 5 of the 20 streamers observed used green screens or did not show themselves in video feeds. Because gender plays an important role in the cultural norms of digital placemaking on Twitch, it is worth noting that, at the time of our observations, the vast majority of players in this genre were men; of the 20 streamers, only 3 were women.

Streams of other AAA video games reflected very different patterns of representing physical space. In *Grand Theft Auto V* (Epic Games, 2013) streams, for example, the standard and most popular practice was overwhelmingly for players to include no video footage of themselves. Instead, streamers filled up the full available visual space on their channel with gameplay footage. A notable percentage of these streamers also did not include spoken audio commentary, removing themselves as much as possible from the broadcast. In these streams, the absence of representations of streamers and the physical spaces in which they play suggests that differing norms around placemaking reflect differing values within the subcultural pockets of Twitch. By excluding representations of streamers, *Grand Theft Auto V* streams communicate that they value gameplay and the game itself over the presence or personality of the streamer. In this sense, space on Twitch can also be thought about as space *taken up* or encroaching upon the visual real estate of the broadcast interface. This trend for *Grand Theft Auto V* streamers to remove themselves from the broadcast is striking in part because many Twitch streams of non-esports games thrive on the personality of a streamer, which builds community around a channel. It is also interesting to note that this standard for the representation of space in *Grand Theft Auto V* did not hold true for Twitch streams of video games that are, in some regards, similar to *Grand Theft Auto V*. In streams of games such as *Dead by Daylight* (Behaviour Interactive, 2016), *Resident Evil 3* (Capcom, 2020), and *Final Fantasy VII Remake* (Square Enix, 2020) – all likewise single-player, high-budget, mainstream AAA video games with high viewerships on Twitch – we saw patterns in representations of spaces that more closely matched those found in battle royale games and MOBAs.

In other gaming genres, streamers performed the absence of physical space in different ways. *Minecraft* (Mojang Studios, 2011) streams, for instance, were most likely to feature the use of green screens. Green screens allow streamers to edit out their background and superimpose footage of only themselves over their gameplay – like a meteorologist showing us tomorrow's forecast. The practice of green screening places streamers in a complicated relationship to space. On the one hand, green screens erase the physical space behind the streamer, seemingly eradicating a sense of place. On the other hand, this same technique creates a different performance of space by inserting the player directly into the game. For example, a *Minecraft* player who uses a green screen will almost appear to be floating within the world they are building (Figure 5). In first-person games like *Minecraft*, where the player-character is not seen on screen, the green screen cutout of a streamer takes on the role of the avatar, both layered on top of the game and visually incorporated into it.

We concluded our observations of gaming streams by looking at two video games commonly associated with more diverse player bases: *Animal Crossing: New Horizons* (Nintendo, 2020) and *Stardew Valley* (Chucklefish and Barone, 2016). In contrast to the other streams we observed, we found a significantly higher percentage of women and LGBTQIA+ streamers (those who had marked their streams with the LGBTQIA+ tag), as well as streamers of color. In this sense, the demographics of the *Animal Crossing* and *Stardew Valley* streamers are more closely aligned with those of many nongaming streams. Nonetheless, the representations of space in *Animal Crossing* and *Stardew Valley* streams resembled other gaming streams. More than half of streamers included video footage of themselves in generic or nondescript interior spaces. As in other gaming streams, these spaces sometimes featured personal items and game paraphernalia, such as plushies and character cutouts, that contributed to the streamer's performance of identity. Yet some of the most popular *Animal Crossing* streams included no footage of the streamer at all. This suggests that, while there is surely a relationship between identity and how streamers choose to perform space,

Figure 5. The use of green screens place streamers in the space of a game.

the cultural norms that shape placemaking on Twitch are prescribed more along lines of streaming content than they are mapped to a streamer's identity.

While bedrooms were largely absent from the gaming streams we observed, we did encounter a few exceptions that proved revealing. Among *Stardew Valley* streamers, for example, we saw a handful of women whose video feed included beds. In one *Stardew Valley* stream broadcast from a bedroom, for example, nearly half of a streamer's background was taken up by a bed with black and white sheets, a wrought iron headboard, and a collection of-game themed plushies lined up on her pillow (Figure 6). Not all of these streams fell within the top 20 streams that we officially observed. Nonetheless, their presence serves as a valuable reminder that the divide between nongaming and gaming streams, with their different norms around the performance of space, is permeable and blurry. The presence of bedrooms in *Stardew Valley* streams also drew our attention to another category of intimate domestic space found scattered among gaming streams: spaces that were not technically bedrooms (in that they do not include representations of beds) but still performed qualities of bedroom-ness. For example, soft surfaces and pink- or purple-tinted lighting are common features of livestreams broadcast from the bedroom. Yet these qualities also appear in non-bedroom spaces – such as in a *Fornite* stream we observed, in which a streamer broadcast herself in front of a large, nest-like wicker chair filled with pillows, or a set of *League of Legends* and *Minecraft* streams we observed with pink and purple lighting that gave them an almost romantic glow. This challenges our own imagined divide between bedroom and non-bedroom spaces and demonstrates how performances of the bedroom on Twitch can and do extend beyond the boundaries of streams that include overt representations of bedrooms.

Figure 6. Streaming Stardew Valley with a bed in the background.

All streaming is streaming from the bedroom

Together these observations map a larger picture of bedrooms on Twitch: where they do appear, where they do not, and what forms of placemaking are deployed through their construction or absence. Yet, as we have suggested, Twitch streams that do and do not include representations of bedrooms are not fundamentally separate categories. Rather, they reflect different strategies of making space through livestreaming with their own particular relationships to issues of intimacy and access. Considering this array of streams has allowed us to identify threads that cross Twitch streams of many kinds, including those not discussed here, and to locate the bedroom as a structuring logic that shapes the way that place is performed and imagined on the platform even when beds themselves are not seen on screen.

When we begin to look for bedrooms on Twitch, we see them everywhere – even in the places where, technically, they are not. Paying attention to the bedroom prompts us to see how bedroom-like elements appear across many genres of Twitch streams. These common elements may be physical items, like soft plushies that recall pillows or lighting that sets an inviting mood, or they might be affective qualities, like performances of place that offer a sense of closeness with the streamer. The practice of streaming from the bedrooms lays plain the invitation to intimacy and access that is inherent in all livestreaming. After all, the basic fact of streaming implies an intimate invitation: entry, via webcam and direct address, into the private space and thoughts of the streamer. Looking to the bedroom as a site of performance on Twitch reminds us that all livestreaming, wherever it takes place, is an intimate, embodied, gendered, and arguably erotic business that often literally takes place in the home. Put in spatial terms, all streaming is streaming from the bedroom.

The promise of intimacy and access that comes with streaming from the bedroom, where livestreaming was born, also spills out into other areas of the house. When broadcasting from what

appear to be home offices and living rooms, for example, it is common for video game streamers to position themselves in front of shelves or other forms of displays that show off a variety of game paraphernalia. Filling the visual space with items that represent themselves allows streamers to demonstrate their personalities and distinguish themselves from other streamers who may stream similar content. Importantly though, this is also a way to give viewers intimate access to the streamers' inner worlds; the visual array stands in for the constellation of things the streamers love. Streaming from a messy, shared domestic space like a family room with objects lying around can also signal a kind of access. Whereas the bedroom welcomes viewers into an intimately erotic space, streaming against these backdrops of seemingly unorchestrated daily life welcomes viewers into intimately familial spaces.

Thus, attending to Twitch livestreams broadcasts in the bedroom casts the practice of livestreaming in a new light. It highlights the cultural implications of elements of streaming that might otherwise be overlooked as technical or incidental – such as where a person streams from, how they set up their space, and how they orient their camera. The case of the bedroom also makes clear that placemaking in the digital sphere has gendered implications. On Twitch, streaming from the bedroom is a practice associated with women streamers and most often deployed by women streamers in categories focused on the connections between streamers and their audiences. In one sense, streaming from the bedroom becomes another form of 'women's work' within the digital sphere. At the same time, the fact that the bedroom looms large in livestreaming even when it is not physically present suggests that streaming itself might be seen as a feminine-coded practice, one that carries an erotic charge both exemplified in and carried over from the bedroom. Calling attention to the appearance of bedrooms on Twitch is also a way to draw out these connections between livestreaming today, which is often associated with young male gamers, and the earlier practices that shaped them, led by women testing the boundaries of intimacy by broadcasting their lives on the Internet from their bedrooms.

To understand how identity and cultural norms are performed on livestreaming platforms like Twitch, we need to account for the way that streamers make the spaces from which they stream. These spaces are deliberately constructed – part of the work of livestreaming that goes hand in hand with streamers' performances of their bodies and personalities on screen. Through their different approaches to making space, streamers can signal either their embrace or disavowal of the intimate implications of livestreaming. This is evidenced, for example, through the visible use of the bedroom by many women streamers in categories like Just Chatting, ASMR, and Music & Performing Arts, where the implicit invitation into the personal space of the bedroom functions as a performance of physical and emotional access for viewers. It is also evidenced by the relative absence of bedrooms in gaming streams, where the presentation of domestic spaces stripped of intimate markers or the use of green screens allows primarily men streamers to perform what we can envision as a kind of streaming masculinity. As an expression of digital placemaking, this streaming masculinity is characterized by its attempt to turn away from the bedroom and distance itself from the erotic, feminine-coded implications of streaming. In this sense, the work of digital placemaking on Twitch is not only about the construction and performance of space. It is also about making a demarcation around the spaces of Twitch: attempts to delimit and contain, through the construction of space, the implicit connection between streaming more broadly and a particular place that has been deemed undesirable. Yet, the bedroom cannot be contained. Today, with the rise of categories like Just Chatting, we see bedrooms and the types of people who broadcast there returning to the fore, placing the bedroom once again center stage in livestreaming.

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