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Examining Intimate Infrastructures: Identity Work and a Sense of Community within Grindr

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Preface

This project was in part inspired through my previous research on Tinder, which involved interviews with bisexual and gay men, who discussed how Tinder differed from Grindr. With no personal or professional experience on Grindr, I had little understanding of how the space worked. As much of the academic literature regarding queer digital dating spaces focused on Grindr as well, I sought out spaces which could provide insight, such as blogs and community forums. These spaces provided glimpses into Grindr, as well as a sense of community stemming from the app, which directed my interest to how the infrastructure of a dating app such as Grindr could potentially influence a sense of community for its users. My Honours research also led to an interest in how people on the app may be constructing their identities within a space which reflected a sense of community, while still being associated with hook-up practices.

Statement of Authentication

This thesis is submitted in partial fulfilment of the requirements of the Master of Research. The work presented in this thesis is, to the best of my knowledge and belief, original except as acknowledged in the text. I hereby declare that I have not submitted this material, either in full or in part, for a degree at this or any other institution.

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Abstract

Spaces for queer-identifying people have traditionally existed in secretive or underground locations, however, the digital age has led to more visible digital spaces which queer men may seek out for social practices. The existence of digital-physical spaces such as Grindr, where the app can function entirely within digital space but may extend to the physical through meet-ups and GPS data, allows queer men to use this space to engage with identity work. Grindr also provides a space for seeking a sense of community without users having to physically locate themselves within queer-designated spaces. In this thesis, I examine how queer men may navigate Grindr's design and affordances through its intimate infrastructure to engage with identity work and seek a sense of community. Building on the work of Light, Burgess, and Duguay (2018), this project qualitatively examines Grindr using an expanded app walkthrough methodology, comprised of digital ethnography and semi-structured interviews with seven Australian Grindr users who volunteered for this study. My findings are presented in a temporal structure which reflects how a user may experience each part of Grindr's intimate infrastructure over the course of their app usage. Through this research I found that Grindr was being used for trialling and exploring queer identities and intimacies within a space perceived as safe through its affordances for anonymity, and its location as a visible queer space. Additionally, I found that Grindr's location as visible within mainstream society was providing an important access point, or gateway, to broader queer communities by affording a safe space for users to seek a sense of community. This research contributes to broader understandings of how digital spaces may be used to engage with identity work and seek a sense of community in an increasingly digital world.

Examining Intimate Infrastructures: Identity Work and a Sense of Community within Grindr

Introduction

Modern society is often characterised as constantly connected, yet socially isolated. Our constant connectedness allows us to access services, information, and potentially, other people much faster than by traditional physical mediums. The integration of physical and digital spaces may allow people to construct identities within digital spaces to reflect specific situated identities, such as on dating apps, which may be different from the 'self' they present within the physical spaces they occupy. This integration could allow people to seek out a sense of community within digital spaces, rather than locating their sense of community through physical proximity.

In the technologically entangled world we now inhabit, the rise of smartphone apps in everyday life has led to new communities, new ways to express our identities, and new ways to communicate (Thorsteinsson & Page, 2014). These new communities are capable of rapidly responding to and creating social norms, symbolic scripts, and socially acceptable behaviours (Kavoura, 2014), while also reflecting the technological intimate infrastructure they exist within. Intimate infrastructure in this thesis refers to the foundational structure and design of apps, as understood through traditional definitions of infrastructure (Star, 1999), such as menu options, included and excluded features, and the order of layout, and how this infrastructure may influence intimate relationship seeking. This intimate infrastructure may direct user behaviour through its design and affordances, in the same way in which physical infrastructure may direct people in physical spaces. An example of this directed behaviour would be if a building has no elevator, people must use the stairs, and if an app has no option for a declaration of sexuality, people may have to declare this by repurposing other design features. The concept of intimate infrastructure on Grindr was developed during this research

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to examine how the app's design and affordances could mediate intimacies within digital spaces, through features explicitly designed to reflect intimacies, as well as through the apps affordances, which can allow for intimacies in excess of the advertised or intended purpose of the app. One such affordance is the use of the messaging feature to seek out local information and help develop a sense of community, rather than only being used for intimate sexual practices as suggested by the design of the app. Through the conceptual framing of intimate infrastructure, Grindr can be examined for both the design and affordances of the app. The specific design and affordances of Grindr include how it constructs a space for intimacy with oneself through identity work, intimacy with others through sexual practices and the formation of a sense of community, and how intimacy is directed through intimate infrastructure, both through explicit design features and the affordances which may be used beyond the intentions of the app design or designers. This project seeks to examine how users of Grindr navigate the intimate infrastructure to engage with these varying intimacies.

While Grindr has been extensively covered in academic research and literature, primarily examining risks and dangers associated with Grindr usage (Albury & Byron, 2016; Winetrobe, Rice, Bauermeister, Petering, & Holloway, 2014), the current literature does not adequately address how the app's intimate infrastructure may direct and influence the sense of community forming through Grindr, as well as how Grindr may be a place of identity work for members of queer communities. In this project, 'queer' is used to refer to anyone whose identity work positions them outside the conventions of heteronormativity—where everyone is assumed and expected to be heterosexual and cis-gendered (Elia & Eliason, 2010). This was chosen to reflect the identities of my participants, as they did not all identify as gay or homosexual, and this term is understood to be more inclusive (Mathers, Sumerau, & Cragun, 2018). For more discussion on the specifics of 'queer' in this thesis, refer to "Grindr and queer identities" starting on page 16. In this project, I look to address the existing gap in the literature, providing further insight into how digital spaces can both engage with broader communities through experiencing an increased sense of community, as well as be a space of identity work for platform users. My research aim was to examine Grindr as a space of identity work, as well as a space for constructing a sense of community, directed and influenced by the affordances of the intimate infrastructure of the app. Identity work refers to the active processes which people undertake in order to construct a version of their identity which fits their self-image and self-understanding, as well as the setting in which it is being constructed (Beech, 2008; Sveningsson & Alvesson, 2003). 'Sense of community' in this thesis refers to feelings of belonging and sameness within a group, through shared experiences, shared aspects of identities, or shared interests. In line with previous research discussing 'sense of community', I use this term to reflect that communities do not need to be bound by geographical proximity, but can be developed through imagined communities (B. Anderson, 2006; McMillan & Chavis, 1986). Using an expanded app walkthrough including interviews with Grindr users, I investigated how Grindr users were navigating the intimate infrastructure to engage with identity work and form a sense of community. Through this analysis, Grindr was presented not only as a dating platform for men seeking men, but also was framed as a space in which users could construct specific identities for themselves regarding their sexuality, as well as an access point, or gateway, for users to build a sense of community. I present the analysis of this thesis through a temporal structure reflecting how an average user of Grindr would encounter different features within the app, from the initial downloading of the app, to learning curves which would appear after using the app for longer periods of time. I then discuss how the sense of community constructed through the affordances of the intimate infrastructure of Grindr changes over the course of app usage, with Grindr initially being a place of belonging for men identifying within marginalised sexualities, and becoming a recognisable and visible signifier for broader communities

centred on queer experiences after long-term app usage. After the analysis, I discuss conclusions from this project, the limitations of this research, and possible further research directions.

Grindr as a Sense of Community

Grindr was launched in early 2009 as a geolocative social app for gay and bisexual men. While the advertising still maintains this focus on gay and bisexual, the users of Grindr represent greater diversity of identities which further supports my usage of 'queer' in this thesis to reflect the diversity of identities among Grindr users. Following its initial launch, Grindr received multiple awards for design and emerging technology, as well as for its steadily growing popularity (VB Staff, 2016). In 2017, Grindr announced that it had reached 27 million users in 192 countries, with approximately 5 million active users per month. Grindr works on a 'Freemium' model, meaning that the basic features of the app, such as building and viewing profiles, using limited filters to search for profiles, and sending and receiving messages, are available to all users for free. The use of freemium models for apps provides benefits in that people who may have limited resources still have the ability to access digital spaces, albeit with potentially limited features (Fumagalli, Lucarelli, Musolino, & Rocchi, 2018). In addition to the free features, Grindr also sells a subscription called Grindr XTRA, which gives users more detailed filters, removes in-app ads, and allows users to view 6 times as many profiles at a time. This subscription service reflects the overarching purpose of the app as a business centred around monetising varying forms of intimacy. Grindr XTRA subscribers can 'like' and message people outside their geographical range using the 'explore' feature on Grindr and have access to additional features including different app icons and other usage features such as a 'snooze' function for alerts, which allows alerts to only come through during certain time periods. Through locking certain

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features behind a paywall, including features that may support user's privacy such as alternative and non-recognisable logos and the snooze function, Grindr's business model capitalises on both users desires for varying forms of intimacies, as well the fear and stigma associated with queer identities (Schrimshaw, Downing, & Cohn, 2018). An interview with the company's 2016 CTO Lukas Sliwka (VB Staff, 2016) revealed that whilst the expected trend for Grindr XTRA subscriptions was the short term option of a month, the yearly subscription was the most popular. As Grindr is marketed as a dating app, it was expected that users would choose a monthly subscription option, and once they found a partner, they would delete the app, however, it appears that users are using the app for more than simply romantic relationships. The CTO explained that through data-mining the chat transcripts, Grindr data analysts revealed that users were not using Grindr solely for romantic relationships, but also for wider social intimacy practices, including travel recommendations, and finding out local information. These findings have also been addressed by academic literature, with research focused on the use of Grindr as an information sharing platform for newly arrived queer immigrants in Europe (Shield, 2018). However, Grindr's most commonly perceived motivation for use is its construction as a hook-up app, where users can seek casual sexual encounters through the convenience of their phone. This motivation of use has been documented by both mainstream media sources, such as Vanity Fair, as well as through academic literature (Van De Wiele & Tong, 2014).

With many free apps generating large yearly revenues, privacy rights often come into play with companies using the digital labour—activities performed outside of working hours which can be collected and monetised within big data by the platform operators (Fumagalli et al., 2018)—of its users to fuel revenue. In this way, app users are presented as 'prosumers', both consumers of the app and its services, as well as producers of monetizable data (Fumagalli et al., 2018). Grindr's privacy policy allows all profile data uploaded by users to be sold to third party apps, with the exceptions of HIV status and Tribe identification. In this way, while Grindr emphasises its subscription options through in-app banner advertising and message advertising, it is possible that much of the revenue for Grindr results from the sale of user data (Fumagalli et al., 2018). This means that privacy and user data may be of concern for users in respect of how and where their data is being sold and marketed, which could also influence feelings of safety and anonymity. If data is being used for third parties such as marketing companies targeting Grindr users, it is possible that advertisements that users are served outside of Grindr, on other digital platforms such as Instagram, may unintentionally 'out' them, causing a decrease in the perception of safety around the app. Whilst this unintentional outing may present an ethical issue regarding the commercial aspects of Grindr and monetising user data, it still fulfils its original purpose to monetise intimacies.

During this thesis, I developed the concept of 'sense of community' to examine how people may seek out a sense of belonging and kinship within spaces that may not reflect their spatial or genetic ties, which often form the basis of traditional constructions of community. I built this understanding in reference to the work on 'imagined communities' as a conceptual frame to discuss how communities may form outside of geographic or familial bonds. 'Imagined communities' have been defined as large communities tied together through common identities and networks, but not necessarily direct contact; for example, a shared national ideal can be common to many members of a country without them having met each other (B. Anderson, 2006; S. Fox, 2004; T. Phillips, 2002). These imagined communities reflect shared values or ideals about what it means to be part of each community, and can provide a sense of community through building feelings of belonging (McMillan & Chavis, 1986). Feelings of belonging can be built through the perception of shared experiences, which on Grindr may often reflect the salient experience of 'coming out', and discussion of this topic may help to establish a commonality between users. The increase of social media usage, including dating apps such as Grindr, has generated new communities through new kinds of interactive media networks (Kavoura, 2014; T. Phillips, 2002). The construction of digital communities through social media allows for information sharing and community learning, such as new symbolic scripts and acronyms, as well as practices, such as sharing nudes, to be spread and normalised more rapidly than would be feasible in physical spaces (Kavoura, 2014). In physical spaces, a new norm may take months to come into effect when shared through physical and offline communication, but in digital spaces this may take just a few hours (Kavoura, 2014; Wajcman, 2014). The collective learning which occurs within each imagined community, leading to shared scripts, norms, and behaviours, results in collective practices (Kramer & Kramer, 2012), making collective learning and collective practices entangled and inseparable. These collective practices, and the intimate infrastructure they are both constituted and contained by, can then shape and direct behaviours of community members, as well as construct community spaces that reflect shared norms and community practices, such as the acceptability of nude sharing on Grindr, which would not be viewed as acceptable on Tinder (C. Phillips, 2015). Through understanding and engaging with these practices, users of digital spaces such as Grindr may experience a sense of community within the app, as a result of sharing experiences and understandings of acceptable situated practices. The sense of community which is built through online platforms may be both spatially distant, by not requiring members to exist in geographically similar locations, and temporally distinct, through users having different needs from their sense of community over the course of their app usage. In this current research project, I seek to examine how Grindr users' experiences of shared experiences and temporal processes, such as community learning, may influence how they construct a sense of community through Grindr.

While digital communities may not always have a physical connection, such as geographic proximity, they still have material consequences through the formation of social groups, physical meet-ups, and a shared identity which may influence material presentations of the self (Johnston & Longhurst, 2010). Grindr's location as a digital-physical space, where user's physical locations are heavily integrated with app usage through the relational proximity feature, also impacts the material consequences of the app through physical connection, as users can locate each other spatially. By integrating the phone's global positioning system (GPS) as part of Grindr's intimate infrastructure, this strongly links Grindr's digital platform to the physical world. Within social media spaces, there are linguistic and symbolic scripts that tie specific imagined communities together, which in turn construct ways of being for those that belong to them, and increase the feeling of a sense of community (Kavoura, 2014; McMillan & Chavis, 1986; Miller & Behm-Morawitz, 2016). An example of these symbolic scripts is the usage of emojis in dating profiles. While many emojis have a commonly understood meaning across multiple platforms, such as a smiling face meaning happy, certain emojis have specific meanings which emerge in different communities (Danesi, 2017; Moses, 2018). As an example, emoji arrows pointing either up, down, or both, on Grindr are used to represent different preferred sexual positions or roles (Danesi, 2017; Moses, 2018). The inclusion of emojis with specific meanings can convey messages with levels of discretion, while also contributing to shared collective practices within the Grindr community, and can construct a deeper sense of community through the mutually understood community-based cyphers (B. Anderson, 2006; Moses, 2018).

Grindr is officially marketed as a "mobile social networking app" (*Grindr - Gay chat*, 2019), however, it has frequently been constructed as a 'hook-up' app for queer men, both from within queer communities as well as broader mainstream society. Mainstream media outlets such as *The New York Times* and *Vanity Fair* have described the primary motivation

for the use of Grindr as a platform on which to seek casual sexual encounters, commonly referred to as 'hooking up' (Van De Wiele & Tong, 2014). The construction of Grindr as an app for casual sexual encounters has been reinforced by the broad spectrum of research which focuses on the spread of sexually transmitted diseases because of sexual activity resulting from Grindr usage (Crooks, 2013; Van De Wiele & Tong, 2014). Whilst Grindr's intimate infrastructure is designed to facilitate casual sexual encounters, through features such as the speed of finding a partner, the ease of identifying distance to travel, and the bluntness in discussing motivations for use of Grindr, it has also been identified within academic literature that seeking sexual encounters may not be a primary motivator for many users. Van De Wiele and Tong (2014) found that more users listed other forms of intimacy, such as chatting and seeking new people to talk with, as motivations for use than those who listed sex-seeking. The Van De Wiele and Tong (2014) findings suggest that while the practice of seeking casual sexual encounters is a motivation for using Grindr, and a strong motivation for many, it is not the only reason that people use the app, despite the popularisation of that explanation in mainstream media (McCosker, Albury, Pym, Byron, & Race, 2019). Whilst it has been documented that there are many motivating factors to use Grindr (Shield, 2018; Van De Wiele & Tong, 2014), little research has examined how the affordances of Grindr's intimate infrastructure may allow it to be a space to build a sense of community, and how the sense of community constructed around and through Grindr may be important to users. I aim to help address this gap through the current study.

Grindr and queer identities. The term 'queer' has a complicated history, from its roots meaning ill or unusual, to its use as a slur towards LGBT identifying people, to being taken back politically as a term identifying people as external to heteronormative structures (Bennett, Grossberg, & Morris, 2013). While the term queer may still hold stigma for some, within this thesis, I choose to use it as a term that recognises support of a more inclusive construction of the myriad of gender and sexuality identities which are not identified by 'LGBT', at the same time reflecting the flexibility and fluidity of identity as something which may change throughout the life course (Khayatt, 2002). In this research, I examined Grindr and the ways in which its intimate infrastructure may afford for varying forms of intimacies, which may extend past the intimacies included within labels such as Gay, Bisexual, or Transgender. In order to address both the varying sexualities of my participants, as well as the varying identities of those who participate in the spaces I discuss, 'queer' is used to represent a more inclusive term for discussion of identity. With this, I use 'queer communities' to refer to those communities which reflect members who may identify outside of the conventions of heteronormativity, through gender, sexuality or relationship identities. Within the literature regarding queer communities, 'queer' and 'LGBT' are often used interchangeably, suggesting that the term 'LGBT' captures and represents the identities of all people who identify outside of heteronormativity. With the expanding understanding of the diverse nature of gender identities and sexualities, those four categories of Lesbian, Gay, Bisexual, and Transgender no longer cover the scope of identities present within queer communities (Renn, 2007). The use of the term 'LGBT' to represent all queer communities not only restricts the identities to those four, but also uses a Westernised model of prominent sexual identities to represent the global queer population. The use of 'LGBT' as an encompassing term has also been adopted in mainstream spaces, such as with forms and signup pages on websites that acknowledge the inclusion of lesbian, gay, bisexual, and

transgender as identities, but rarely including a broader scope of representation. The collective expectation of monosexual queerness—the attraction to a single same gender creates an environment of homonormativity, wherein there is an expectation of homosexuality coupled with cis-gendered identity (Mathers et al., 2018). The expectation of homonormativity may continue from broader expectations of heteronormativity, as the monosexual queer identities, such as gay and lesbian, are often constructed as more acceptable and compatible variations of heteronormativity. This expectation of homonormativity, both within queer communities and external to them, positions those outside of homonormativity as unequal within many of the social views of sexuality (Mathers et al., 2018). Those who do not conform the homonormative expectations may experience stigma within queer communities, as well as from people outside the community. This experience of stigma may influence how people outside of homonormativity construct their own identity, as well as how they engage in different physical and digital spaces. As this research seeks to examine experiences of men who use Grindr, the terminology adopted throughout this project reflects the broader understanding that Grindr users may differ in sexual identities, as well as relationship status (Renn, 2007), and therefore I have used 'queer' to refer to this diverse population (Renn, 2007).

Grindr serves an important purpose for queer communities by providing a space which is widely recognisable for queer-identifying men (Conner, 2019). The visibility of Grindr in both queer-specific media, such as blogs and queer newsletters, and mainstream media, such as *Vanity Fair* and late-night talk shows (Conner, 2019) allows potential users to identify and access queer spaces without having to search hard for them, which may differ from physical queer spaces. While visibility for sexual minorities can create problems through presenting visible targets for anti-queer attacks, such as police using Grindr in Egypt to target and arrest queer men (Abd El-Hameed, 2018), the mainstream visibility of Grindr within Australia is important, as it is situated as an access point to queer communities. In Australia, Grindr presents a platform for queer men which can provide feelings of safety through the technological affordances of the app's intimate infrastructure allowing for anonymity (Jaspal, 2017), as well as not requiring any linked accounts. Furthermore, Grindr's location as a digital and physical space, can be accessed without having to move around physical spaces, meaning users may access digital spaces designated for queer people, without having to locate themselves in physical queer spaces. Similarly, Grindr's location within a phone may add to the intimacy of the app, as users access it through a device which is often private, unlike a shared computer. Grindr's privacy-focused design is important, as historically, queer-identifying people have been marginalised, pathologised, and persecuted for their sexuality and gender identities (Crawley & Willman, 2018). Queer identities are becoming more visible within Australian society, such as with pride parades and the visibility of queer-identifying people. There is also more social acceptance of queer identities, through the de-pathologising and decriminalising of homosexuality. However, stigma, backlash against new laws which support queer communities, and discrimination against queeridentifying people on the grounds of religion is still experienced within Australia, and many other Western societies (Ioverno et al., 2018). This stigma exists in part due to the construction of heterosexuality as the norm, through the repeated socialisation of heteronormativity throughout early education, schooling, and mainstream media, which builds a societal expectation that everyone is cis-gendered, heterosexual, and monogamous (Bailey, Gaulin, Agyei, & Gladue, 1994; Grace & Hill, 2004). Being queer in a heteronormative society is still perceived to be a departure from the norm and is often still felt to be stigmatised. This stigma is visible not only through overt commentary, such as antigay protests, and government-enforced practices such as "Don't Ask, Don't Tell" in the USA (Burks, 2011), but also through covert socialisation, such as the expectation of 'coming out'

and clearly identifying as queer, with no similar expectation placed upon heterosexualidentifying people (Samuels, 2003).

Due to still-present feelings of marginalisation and stigma, and historical knowledge of persecution, queer spaces are often separated from mainstream spheres, such as distinct bars catering to queer populations, and queer apps, such as Grindr, catering to specific queer populations (Aunspach, 2015; Jaspal, 2017). The construction of queer identity work will often emerge or be consolidated within spaces such as Grindr and other queer designated spaces, both physical and digital. The digital and physical intimate infrastructures within these spaces afford opportunities for identity work which may be overlooked through mainstream schooling and socialisation. The identity work and construction of situated identity within these spaces allows users to trial different aspects of their identities, and seek out others like them, and build a sense of community.

Much of the academic research on Grindr has focused on the risks associated with Grindr, such as safety in encountering the (non)stranger (Davis, Flowers, Lorimer, Oakland, & Frankis, 2016), and, more broadly, the risks of queer men's casual sexual activity such as the transmission of sexually transmitted infections (STIs) (Albury & Byron, 2016; Landovitz et al., 2013; Winetrobe et al., 2014). This research reflects constructions of queer men's populations and intimate practices which predates Grindr and digital platforms, and frames queer men's encounters as inherently more risky than those of their heterosexual counterparts due to assumptions of queer men's sexual encounters being anonymous and rapidly established (Winetrobe et al., 2014). These assumptions are maintained and reproduced through the design of the intimate infrastructure of Grindr, which directs users to continue the socially constructed narratives by encouraging rapid encounters through the immediacy of messaging and the sorting of profiles via geographical proximity. Grindr is also one of the few dating apps to include information and reminders around STI testing in its design, the inclusion of which reflects historical and current beliefs of 'risky' intimate practices within queer communities (Conner, 2019; Michael Joseph, Maurice Adib, Joseph, & Tal, 1991). While the HIV status feature appears to be positively engaged with, with many users declaring their HIV status and last test date, its inclusion within a queer men's platform might suggest a perception that they are the only population is risk. However, a recent report on HIV diagnoses in Australia found that heterosexual diagnoses in both men and women are on the rise (*Annual surveillance short report 2018 HIV in Australia*, 2018). With the majority of Grindr research focused on sexual risks and the design features which may influence this, academic research has generally paid less attention to the affordances of the intimate infrastructure which may be in excess of the designers' intentions, including the use of Grindr construction as a space for both community engagement, and as a place of identity work.

While there is ongoing stigma towards queer communities from those outside the communities, stigma towards specific identities from within queer communities is also prominent. Stigma within queer communities is often directed towards people identifying within plurisexual identities, such as pansexual and bisexual, and studies have suggested that plurisexual-identified people experience more stigma than their monosexual peers (Flanders, Dobinson, & Logie, 2017; Roberts, Horne, & Hoyt, 2015). While mainstream society has become more inclusive of queer identities, there is still a strong emphasis towards the monosexual queer identities, such as lesbian and gay (Flanders et al., 2017), reflecting Western society's overall construction of normalcy as contained by the heteronormative assumption of being cis-gendered, and monosexual. This expectation of monosexual queer identities and monosexual attraction are presumed in the same manner that heteronormativity assumes cis-gender and heterosexuality (Mathers et al., 2018). Within Australia, the largest pride

parade is called the Sydney Gay and Lesbian Mardi Gras, a title which excludes many of the broad spectrum of queer identities that both attend and are included in the event itself. This stigma within queer communities can impact on peoples' mental health, with plurisexual people feeling higher levels of stigma than their monosexual peers (Flanders et al., 2017; Roberts et al., 2015). This also reflects a boarder leaning towards an acceptance of the more 'traditional' queer identities, such as lesbian and gay. While Grindr's advertising includes reference to bisexual men, its full name within the Google Play Store, 'Grindr – Gay Chat' still reflects its position as a 'gay'-dominated platform. Grindr's intimate infrastructure may be reinforcing assumptions of homonormativity, while also reflecting wider social constructions of monosexism through its advertising and design, and this may impact how users identifying within plurisexual identities can engage with the platform for identity work.

In current scholarship, researchers have examined self-presentation within dating apps (Birnholtz, Fitzpatrick, Handel, & Brubaker, 2014; Cover, 2012; Ward, 2016), and how the construction of digital profiles creates a space to experiment and trial different aspects of identity (Robinson, 2018). However, the current field has paid little attention to how one person may construct their identity to reflect the specific possibilities or options for identity work situated within each platform. Users of digital platforms engage with identity work within each app's intimate infrastructure to construct an identity that can reflect the version of themselves that is constructed to reflect the purpose of a specific platform directed through its design and affordances. Robinson (2018) discusses how youth cultures participate in an 'identity game' within digital platforms, which sees them testing and trialling new identities while removing or deleting identity presentations which did not provide the hoped-for result. Whilst Robinson (2018) examined the ongoing identity work enacted within a single app, it is possible that examining the identity work constructed across multiple platforms may present new findings with regard to the impact of app structure and digital affordances. One paper examined how Tinder and Grindr are both used by queer men, however, due to the design and affordances of the apps' intimate infrastructures, the motives for use of the two apps varied greatly, with Tinder being seen as a place for less hyper-sexualised profiles and relationship formation, and Grindr presented as a hyper-sexualised space (MacKee, 2016). The combination of these findings of the socially constructed meaning of different apps, with the findings around trialled and 'successful' identities, leads to the discussion of how identities within Grindr may be trialled and expressed with regard to specific contexts. This suggests that Grindr's intimate infrastructure is both a platform on which practices may be learnt through repeated use, such as which photos and profile information garner what responses, and how presentation may be trialled and changed in order to access and enact specific intimacies, both with oneself and others. Within the scope of this project, I seek to examine how the intimate infrastructure of Grindr affords different forms of intimacy through identity work and constructions of sexuality.

Influencing a Sense of Community through Intimate Infrastructure

Researchers have begun to examine the embedded cultural narratives within technology design (Bivens & Hoque, 2018). Bivens and Hoque (2018) examined Bumble's platform design as a dating app originally for heterosexual men and women to see how certain design choices may direct and prioritise specific understandings of gender, sex, and sexuality, which in turn may influence user behaviour within the app. Through examining the advertising copy attached to Bumble, Bivens and Hoque (2018) suggested that while Bumble markets itself as feminist-driven and a step outside 'traditional' dating roles, the copy suggested that aside from women being placed in the position of having to initiate contact, traditional understandings of heteronormative femininity were still expected, including traditionally feminine traits such as kindness and friendliness, while also clarifying that women should not take themselves too seriously. While marketed towards all people, Bumble expects users to follow traditionally enacted gender roles, aside from who is expected to initiate contact. This targeted design also directs the app towards heterosexual users, with the advertising copy and subsequent platform design reinforcing heteronormative values and expectations. Bumble also prescribes specific traits onto bodies, by framing men's bodies as sources of danger through harassing behaviour and violence, while framing women's bodies as the objects of affection, and a space in which dominant traits, such as messaging first, must be forced upon users in order to be enacted (Hollander, 2001). The targeted design creates a space in which heteronormative constructions of gender are still assumed, and user behaviour is directed to continue to fulfil heteronormative expectations. This can be seen through the targeted design of other platforms, such as Grindr, which also reflects assumptions and expectations of users' gender and sexuality. It is evident through the focus on immediacy of physical meetups within Grindr, which are reflective of assumptions of gay men's high desire for sexual encounters (Klinkenberg & Rose, 1994). By building these assumptions into the intimate infrastructure of Grindr, it prioritises specific presentations of identity work from users, which then further influences the identity work conducted by users within the app.

The intimate infrastructure of Grindr is influenced by socio-political environments and conditions while also working to actively shape these conditions, such as the emphasis on proximity within Grindr, which both reflects assumptions of immediacy of queer men's partner seeking, while also serving to enforce this behaviour (Wajcman, 2010). Through the choices afforded by intimate infrastructures of different apps and their designs, developers construct specific gender and sexuality presentations for users' through imagining and anticipating the choices, motives, skills, and tastes of users, and incorporating existing gender roles and norms into the design and shape of the technological artefact (Friz & Gehl, 2016; Wajcman, 2010). These choices are often enacted through targeted platform design, wherein platform developers will choose a target audience for their platform and build the intimate infrastructure on the basis of assumptions regarding the target audience. This intimate infrastructure then influences the behaviour of users, reinforcing the constructions of user identity which informed the platform design. In the case of Grindr, the app was designed and targeted towards 'gay' men, which then directed the intimate infrastructure development, reinforcing assumptions and stereotypes of queer men, such as the emphasis on proximity, immediacy, and convenience for partner-seeking. While targeted design can have benefits in terms of providing users with specific features, such as including in-app photo taking and editing capabilities on photo-sharing platforms, it can also direct user behaviour through prioritising certain ways of being within digital spaces (Bivens & Hoque, 2018), such as reinforcing homonormativity with Grindr. The intimate infrastructure of Grindr reflects and reinforces existing constructions of queer men's identities which then privileges those specific presentations of identity work. Users are able to navigate this intimate infrastructure using the design features in the intended or directed manner, however, they are also able to navigate the technological affordances in ways which may be in excess of the intended designs, such as using the display name feature within Grindr to identify gender and sexuality rather than using it to present a neutral display name.

App design can also direct a user's understandings of other users and their profiles. This can include using specific identifiers, filters, or features to catalogue, classify, and separate profiles. Within Grindr, 'Trans', being the shortened form of Transgender, exists in two spaces: the Identity section as an option for gender identity, and more prominently within the Tribe menu (Shield, 2018). The latter location for the identity of 'Trans' is problematic, as it equates 'Trans' within the filter Tribe, a list of body-type describers, such as Bear or Otter. The inclusion of Transgender identity in a list of body types equates the gender identity of transgender to body identities, many of which are often seen to be transient properties (Jaspal, 2017), and aligns gender to the shifting temporality of physical appearance. Jaspal (2017) discusses interviews with participants who discuss the ability of Grindr profile features, such as Tribe and Position, to test out and change identities rapidly and frequently. In this way, Grindr's intimate infrastructure influences user's views of other's identities, such as classifying Transgender within a list of changeable traits, as well as directing users to certain behaviours, such as filtering specifically for Transgender identities, creating potentially fetishized identities (Shield, 2018).

Unlike many digital dating services, Grindr does not use algorithms based around mutual interests or hobbies to match users (Tong, Hancock, & Slatcher, 2016) or present a 'deck' of profiles for users to swipe through that requires mutual interest to initiate contact (David & Cambre, 2016). Instead, Grindr's main page presents users with a grid of profiles sorted by spatial proximity to the user which users can scroll through. This design allows users to message each other without restriction or the need for mutual interest, as well as allowing users to view many more profiles at any given time and quickly scroll through them. This feature can facilitate faster interactions as mutual interest does not need to be established prior to contact being made and can also be used to initiate communication outside of romantic interests. An example of this could be messaging a user to seek information about local events, with no expectation of romantic or sexual attraction. These platonic interactions can help to foster feelings of sameness and a sense of community through allowing for messaging outside of romantic or sexual contexts. The emphasis on speedy connections within Grindr suggests assumptions about the targeted audience, including traditional understandings that men prefer multiple intimate partners rather than investing in one partner, as well as the desire to skip over slower aspects of romantic encounters such as small talk (Bailey et al., 1994). Building these assumptions regarding queer men's intimate practices into the intimate infrastructure of the app can reinforce specific constructions of identity,

potentially making those constructions more prominent within the identity work afforded by Grindr. However, while the grid-like presentation can provide speedier interaction, it has also been likened to a 'meat market', where users can shop for profiles without considering all presented profiles (Bonner-Thompson, 2017). Due to the small size of the thumbnails viewable within this 'meat market', it has been argued that users need to make profiles that present a more heavily emphasised masculinity and desirability in this space due to the immediacy of decision making within the grid presentation (Bonner-Thompson, 2017). In these choices of design features, the design can start to be seen to influence and direct the practices and sense of community that exist within the app, which could include reinforcing specific constructions of identity through imbuing the intimate infrastructure with assumptions regarding queer men's intimate practices, as well as allowing the app to be used to foster a sense of community. The emphasis on speed and immediacy, both of digital intimacy and physical encounters, could potentially increase the likelihood that Grindr would be perceived as a hook-up app, as well as be used to achieve short-term intimate encounters instead of longer-term relationships.

Discussions of how intimate infrastructure may be directing and influencing specific identity work and feelings of a sense of community leads into how social constructionism provides a theoretical framework to analyse these concepts within my research. In the following chapter, I expand on how social constructionism applies to the concepts covered in this thesis.

Theoretical Approach

The theoretical approach I have adopted for this research is social constructionism. This approach was chosen in order to examine how Grindr users actively construct a sense of themselves within narratives of gender, sexuality and heteronormative society, as well as how they may be constructing Grindr as a space in which to undertake this identity work. Social constructionism also reflects how the design of Grindr may be based around popular constructions of men's queerness and intimate practices. These constructions of men's queerness and intimate practices are often located in Western contexts, reflecting the dominant narratives of Western queer men, which are then embedded within the app design. Examining Grindr through social constructionism allowed further engagement with how the intimate infrastructure of Grindr is not neutral, but rather produces specific constructions of men's queerness.

I also use social constructionism to examine how identity work and a sense of community are constructed by the intimate infrastructure of Grindr. I will therefore address how technology constructs user identity through the choices made available by the intimate infrastructure; how specific identities within Grindr may be constructed by users; how intimate infrastructure may prioritise certain ways of being; and how participants in the interviews constructed their identity during the specific context of an interview. Social constructionism will also be used to examine how technological spaces may allow for the formation of a sense of community through intimate infrastructure choices and user's constructions of sameness and shared experiences, both of which build a sense of belonging and community.

Social constructionism proposes that reality is a series of co-constructed understandings between people (Tagg, Lyons, Hu, & Rock, 2017). These co-constructed realities impact our understanding of the world around us, the technology we use, and our own self-identity and sense of belonging. Using a social constructionist epistemology, no singular understanding of reality is interpreted as true. Moreover, the production of knowledge and the experience of reality is understood as constructed through social processes and interactions (Burr & Dick, 2017). In this approach, processes and interactions are shaped by practices and technologies, such as constituting specific constructions of sexuality within the intimate infrastructure of Grindr as detailed in the previous chapter. Such intimate infrastructure is viewed not as a neutral tool, but as a result of socially influenced choices which direct, design and frame the technology, and subsequently the users, within particular constructions of identity, such as gender, sex, and sexuality. Technology is often perceived as a neutral tool designed to solve a problem or fill a need. However, using a social constructionist framework, technology can be understood as constructing the users of a platform, an articulation of their needs, the solutions it presents, as well as the marketing for the app. All of which are used to inform and build the intimate infrastructure. Through including these elements within the design of the intimate infrastructure, this constructs possibilities for identity work for potential platform users even before they officially join the app. The pre-emptive construction of users is evident in other apps such as Bumble's construction of 'The Queen Bee' which locates potential users within traditional views of femininity in promotional copy prior to using the app (Bivens & Hoque, 2018).

With regards to identity work, I acknowledge the co-production of identity as a situated narrative which may change through the telling of stories within the interview context. Identities are produced through personal experiences and social contexts, and can vary across lifetimes, as well as between contexts (Lorber, 2018; Taylor & Littleton, 2006). An example of this is that users may present themselves differently in an interview about dating apps as compared with an interview about social networking apps. This

epistemological stance allows me to reflect on the ways in which identities are situated within the context of Grindr, where the focus of identity is framed through sexual practices, while also being contained within the intimate infrastructure of Grindr, as well as being situated within the co-produced context of an interview conducted with me, a woman, and therefore visibly not an intended Grindr user. In this framing, it is also acknowledged that the data reflects the situated co-production of identity and Grindr experiences, which may have differed had the interviews been conducted by a queer man.

This approach is important for understanding differing presentations of community. In this thesis, I use 'sense of community' to explore the constructions of sameness for Grindr users, through shared experiences and feelings of belonging that influences definitions of community and community building (Kenyon, 2000). This assumption of sameness is visible in the intimate infrastructure of Grindr through the framing of 'Gay' as a universal aspect of the users through the inclusion of 'Gay Chat' in the full name of Grindr within the Google Play store. Further, sameness is emphasised through the choice not to include a space for sexual identity within the profile section of the intimate infrastructure. However, this restriction can also serve to provide a stronger sense of community through the perception of shared experiences.

Using a social constructionist framework, I examine how the intimate infrastructure of the app privileges certain ways of being within the app through prioritising certain features and options within its design. I also examine how participants make their own narratives of identity and sense of community using the app within an interview context. In this way, I attempt a retelling of participants' narratives, in order to examine how they construct their own experiences and also explore how those experiences may be directed through strategic choices afforded by the intimate infrastructure. Following on from the current scholarship which attends to Grindr's uses and how intimate infrastructure may influence a sense of community, this research contributes to academic understandings of how Grindr's intimate infrastructure may influence a sense of community, and how users may engage within digital spaces for identity work. The research questions this project addresses are:

- 1. How does the intimate infrastructure on Grindr influence a sense of community?
- 2. How does the intimate infrastructure of Grindr shape queer men's identity work?

Methodology

In addressing these research questions, a multi-modal analysis was undertaken comprising of an app walkthrough on Grindr by the researcher (Stage 1), as outlined by Light, Burgess & Duguay (2018), followed by semi-structured interviews (Stage 2) with current Grindr users. The walkthrough attended to how the design of the app could be constructing, privileging and emphasising certain practices and norms, and examined cultural narratives constructed and reproduced within the app. This was followed by semi-structured interviews which provided insight into how this design is negotiated, interpreted and understood by users (Gill, Stewart, Treasure, & Chadwick, 2008; Light, Burgess, & Duguay, 2018), as well as informing how users may be navigating affordances outside of the explicit design features. Conducting the walkthrough first helped establish a common language and understanding situated within Grindr usage which allowed for a narrative approach to the interviews (Taylor & Littleton, 2006). This is particularly important with my research focus on Grindr as I am visibly external to Grindr's intended users, meaning that establishing a shared language with participants is important to improve comfort during the interview process. The two stages of the multi-modal research design and analysis are discussed in more detail below.

Stage 1: The Grindr App Walkthrough

The app walkthrough methodology used in this research is based on the work of Light et al. (2018) which frames human and non-human interactions through positioning human users as intermediaries, and the non-humans as mediators (Light et al., 2018). Within this model, user interfaces and functions are considered non-human actors, and these design elements are positioned as agentic in the practices of specific apps. An example of technology's agency can be seen through the emphasis placed on physical proximity within the intimate infrastructure of Grindr, affording fast and convenient intimate contact through focusing users' attention on that feature (Blackwell, Birnholtz, & Abbott, 2015). Using the walkthrough method, I examined the app and its design and affordances in depth in order to understand how the intimate infrastructure was directing and affording different forms of intimacy. Analysing the intimate infrastructure of the app helps to understand how app designers can influence the users through privileging certain practices and constructions of identity, such as traditional feminine behaviours on Bumble (Bivens & Hoque, 2018). The walkthrough method also incorporates affordance theories (Bucher & Helmond, 2017), which argue that not only are actions and behaviours influenced by environments, but that the design of technology directs practices of use through what the design affords. The walkthrough method allows for examination of these affordances of the app's design, such as navigational menus and profile layouts (Light et al., 2018).

The expanded walkthrough methodology I developed within this project also included examining and researching additional digital platforms and resources such as Reddit, blogs and digital magazines. Expanding the walkthrough in this way provided a more comprehensive account of user experience on the apps through examining the interrelated construction of identities and practices among multiple platforms. The examination of app ecosystems, wherein apps are viewed as interconnected to other spaces and not existing in a silo, is based around previous research conducted under the Travel in the Digital Age (TinDA) Project¹ which argued that users of dating apps often use other internet-based resources to understand and navigate dating platforms. The expansion of the walkthrough to include other digital spaces allowed me to understand specific situated practices within Grindr, including the meanings of emojis and abbreviations within a Grindr-specific context. This methodology aimed to provide a framework to examine the broader social context in which apps may be designed, as well as the strategic intimate infrastructure which may be informing and affording particular constructions of user identities.

By examining the symbolic repertoire displayed on dating profiles through emojis, the app walkthrough allows for insight of shared meanings and practices associated with the sense of community produced through the app (B. Anderson, 2006; Danesi, 2017; Light et al., 2018). The strategic use of emojis as part of the written text allows for communication in a visually expressive manner while working within the constraints of text-based systems (Danesi, 2017). As emojis function as a visual language, understanding their situated meanings is important when analysing digital spaces. While some emojis, such as the smiling face, have a shared meaning, other emojis can be specific to smaller clusters of communities, such as the 'thumbs up', ', emoji. In some cultures, the thumbs up emoji is a harmless acknowledgement, much like saying 'ok', whereas in parts of the Middle East, West Africa, Russia, and South America, the emoji is understood as offensive (Danesi, 2017). The multiplicity of meaning is also present within individual communities, such as including an

¹ The TinDA Project is a research group within Western Sydney University with a broad range of research topics within digital spaces. My research candidature is supervised within this research group.

emoji which depicts fitness or exercise on a dating profile. This could be denoted, collectively, to mean enjoying the outdoors since fitness is associated with the outdoors. However, while some connotations of the emojis can establish potential shared interests, it could also represent exclusionary messages, such as only looking for physically fit matches. Emoji meanings are constituted by each community of use, as the constructed meaning of a symbol in one community may not be shared with another (Danesi, 2017; Kerslake & Wegerif, 2017; Light et al., 2018; Moses, 2018). Due to the specificity of symbolic language including emojis and abbreviations to the communities in which they are situated, the use of connected and related digital spaces provides important insight into community-specific practices. This provides further support for expanding the walkthrough to include other digital platforms to assist with understanding these community cyphers.

Direct researcher engagement with the app, through the walkthrough, enabled a more grounded approach to the subsequent data collection stage—interviewing—as I gained practical experience working with the app. The combination of the app walkthrough and the user interviews allowed insight into intimate infrastructures through exploring how the design and affordances within Grindr influence identity work and sense of community (MacLeod & McArthur, 2018; Star, 1999).

Ethical Considerations of Stage 1: The Grindr App Walkthrough

Through this section, I discuss some of the ethical considerations which were involved in conducting the app walkthrough within Grindr. In line with the guidelines set out by the Association of Internet Researchers, updated in October 2019, the ethical considerations I discuss in this section are part of incorporating attention to ethical processes at all stages of my research, with specific attention to digital methodologies (Brake et al., 2019). Including an explicit discussion of ethical considerations regarding the walkthrough within this thesis was important due to ways in which data is collected in the often-changing nature of digital spaces. While methodologies such as interviews have well established ethical protocols, often rigorously covered by governing ethics councils and review boards, ethical practices in digital spaces are less well established, warranting explicit discussion of processes undertaken during research.

To complete the walkthrough of Grindr, I required a profile on the platform. Through discussion with my supervisory panel, the Western Sydney University Ethics advisors, as well as my own ethical reflections on researching within dating spaces, it was decided that my profile should be as minimal as possible. This meant that I would only include what I was required or prompted to include by Grindr, and while I would examine all available features, I would not update any features on my profile unless directed by explicit instructional material. When prompted to upload a photo by Grindr, I took a picture of what was immediately in front of my phones' camera, which was the corner of my keyboard. As a result of this decision, my profile included no information about myself, as well as no sections of the profile filled out. By creating an almost blank profile—excluding the photo of my non-descript keyboard—it was believed that I would cause the least disruption to other app users, as I would be just one of the many minimalist profiles that are present on Grindr.

Due to the direct engagement I had within the digital spaces of Grindr, journal notes were used to ensure ethical practices were maintained. Throughout the course of the app walkthrough, profile screenshots became necessary for my own notes in order to record specific features of Grindr, as well as descriptions and inclusions of profile aspects in a specific context and ordering. For the purposes of this research, screenshots were also important due to the rapidly changing nature of Grindr app versions, meaning the intimate infrastructure I examined may substantially change, and visual documentation is important to support the analysis (Coughlan & Perryman, 2015). This is also important as the data from this project will remain within the TinDA Project more broadly for use in future studies, and screenshots of the app version I examined may be necessary to provide context to the intimate infrastructure I examined (Coughlan & Perryman, 2015). In order to maintain the ethical approach to the research, I ensured that no screenshots included user's faces or identifiable names so that no users could be identified from my data. While many of the screenshots included the display names of profiles, this was deemed to be non-identifying data where the display names were descriptors specific to Grindr, such as "BtmHosting", and therefore not legal names. The display names are also not required by Grindr to be unique, which contributed to their anonymity, as many people could have "BtmHosting" as their name, which means that these usernames are unlikely to be searchable around other parts of the web, particularly due to their context-specific nature, which would serve to protect user identities in any publications (Coughlan & Perryman, 2015). As these names were often general descriptors of physical attributes or sexual practices, they provided no identifiable data. Where capturing screenshots with identifiable data was unavoidable, such as where faces or assumed given names were visible, screenshots were edited by me to anonymise profiles, including blurring and blacking out photos and names. Screenshots were only taken where descriptions of the profile did not capture the profile adequately due to the richness of data included in the profiles. Screenshots within Grindr often did not include identifiable data as user profiles do not always include photos of users faces or names, and were more likely to include descriptions of different intimacies sought. Taking screenshots for research conducted within digital spaces is also a commonly used practice to capture the richness of data presented visually within these platforms, including previous research conducted on Grindr (Coughlan & Perryman, 2015; Renninger, 2019).

Informal Consultation with Grindr Users

After conducting the app walkthroughs, it was considered beneficial to conduct informal discussions with some Grindr users around the proposed questions for the interviews. These discussions were conducted informally with four peers and associates individually over a two-week period during March, 2019. The discussions were not recorded, as I was not collecting data for the project, but rather informing my own understanding of how the questions I was going to ask during the interviews would be understood by Grindr users. During these informal consultations, we discussed the type of information I was looking to generate in my research, the types of questions I intended to ask and how these questions could be altered to be more clearly interpreted, as well as yield a greater understanding for the research. Following these discussions, I edited and expanded the questions so they reflected both an evolving research focus on identity work and a sense of community, as well as changing the wording to be more easily understood. The questions were then reviewed by my supervisory team and collaboratively edited into the final series of questions that would be presented during the interviews.

Stage 2: Interviews with Grindr Users

Since the app walkthrough method only provided my experience of Grindr, and I am not part of the communities on the app nor able to spend very long on the app, semistructured interviews were conducted with active app users (Light et al., 2018). Previous research contends that the inclusion of interviews following an app walkthrough allows investigation of the impact that the app has on users, on both how users build a sense of community, and how this sense of community may extend beyond the app (Duguay, 2017b). The interviews, therefore, provide insight into the users' experiences and generation of cultural narratives in the apps, as well as any learning experienced on the app and long-term use (B. Anderson, 2006; Kavoura, 2014). In line with methodological recommendations for achieving data saturation, this project sought a minimum of six participants for the interviews (Guest, Bunce, & Johnson, 2006). This research recruited participants who identified as men, over 18 years old, and used Grindr, in order to understand how socially constructed narratives of gender may inform intimate practices. Specific recruitment for cis-gender men was done in order to examine how consistent socialised narratives of gender, present from birth, may inform intimate practices. Grindr users who identify as non-binary, transgender, gender queer, or gender fluid may experience the design features of Grindr in different ways, potentially reflecting other socialised narratives of gender presentation. Future research could focus on the experiences of those who identify as non-binary, and how potentially conflicting gender narratives are experienced and negotiated within gendered spaces.

Using a hybrid methodology allowed me to examine both the embodied experience through the tactile walkthrough method, while also allowing users to describe not only their response to the app's design and affordances, but locate themselves and their experiences on the app within socialised gender narratives, and explain aspects of their app usage through the interviews (Pink, Sinanan, Hjorth, & Horst, 2016; Star, 1999; Taylor & Littleton, 2006). The interviews also served to provide insight into how the affordances of the intimate infrastructure are navigated over time. Conducting the walkthrough provided a grounded approach to understanding the app design through its intended use; as well as an understanding of the interface and how the design suggests the app should be used, through the positioning of different features (Light et al., 2018; Star, 1999). Following the walkthrough with interviews allowed for an overlaying of the experiences of users to help understand how the app's technological affordances are used to provide a sense of community, and how Grindr interacts with constructions of dominant narratives of queer and gender identities and communities (Gill et al., 2008). During the interviews, participants were able to discuss their own experiences of Grindr, and how they constructed their Grindrspecific identity presentations within the intimate infrastructure. This provided important information about the affordances of Grindr that I, as a Grindr outsider, may have experienced differently due to my positioning as a woman and as external to Grindr. My positioning outside of Grindr may have impacted and limited my understanding of the platform (Condie, Lean, & Wilcockson, 2017). Thus, my position may have directed me to construct specific features which do not exist within my personal life (such as the Tribes), as more notable than others, and this may not have reflected the experiences of Grindr's intended users. Due to the complex nature of technological use, observing the full user experience of the apps would not be practical, or possible, in an interview (Light et al., 2018; Pink et al., 2016). The app walkthrough allowed for an increased understanding of the early stages of Grindr use, while the interviews allowed for discussion on the experiences of Grindr, including how the intimate infrastructure was navigated over long-term usage (Pink et al., 2016). Using a multi-modal approach helped to understand Grindr and its extensions beyond its own design (Condie et al., 2017).

Seven interviews were conducted with Australian Grindr users who identify as men. Of the seven interviews, three were conducted in-person, and four were conducted over internet-based videocalls in order to accommodate the participants' schedules and convenience. Of these seven participants, six identified as gay and one as bisexual. Participants had been using Grindr for varying amounts of time, from a few months to more than five years. For those interviews conducted over Skype, participants were sent the information sheet and consent forms a few days prior to the interviews, and consent was reconfirmed during the interviews which were scheduled after receiving the digitally signed forms. Each interview took between 40-65 minutes, was recorded on a recording app on my phone and then automatically uploaded to a password protected digital storage location, and removed from my phone. At the beginning of each interview, I reminded participants about their right to withdraw at any point, and then gave some context for the study. This context included telling participants about my walkthrough on Grindr and assuring them that they were welcome to speak freely about all aspects of Grindr, including sexually explicit interactions, as I had some understanding of how the app functioned and therefore they did not need to 'keep it clean'. One participant had expressed how they were unsure of how to talk about Grindr in a 'PG' form, and this explanation seemed to relax participants and provided a shared understanding of the platform, and therefore a common language (Taylor & Littleton, 2006). For the reporting of the analysis, participants were given pseudonyms to protect their identities.

As per outlines for qualitative research, the depth of data gained is believed to provide an exploratory understanding of the research questions (O'Reilly & Parker, 2013). The interview questions were grounded within the extensive walkthrough I conducted, which generated richer interview data through the embedded nature of the questions within user experience. This rich data, combined with the extensive walkthrough provided an exploratory examination of intimate infrastructures with specific attention to identity work and sense of community, within men's experiences of Grindr. Future research may examine the experiences of other users, both to further the findings from the current study, as well as examine other experiences of the same digital space, such as that of transgender users. A project with a larger scope may be needed to fully explore this subject, as well as provide context for differing experiences of different users (O'Reilly & Parker, 2013). Additionally, the smaller interview sample size of this project allows for all interview data provided by participants to be used and analysed in depth (O'Reilly & Parker, 2013).

Recruitment

Interview participants were recruited through posts on academic social media pages. This method is believed to allow for a non-biased sampling pool due to the shareable and redistributable nature of the posts (Baltar & Brunet, 2012). The recruitment text included my contact details as the principle researcher. Potential participants were invited to contact me for more information regarding the study as well as indicate their willingness to participate in the study. This study aimed for a minimum of six participants, which was sought to achieve theoretical data saturation (Baker & Edwards, 2012; Guest et al., 2006).

Participants

The seven interview participants were assigned the pseudonyms Alex, Ben, Chris, David, Ethan, Fred, and George. All participants were under 30 years-old, had completed at least their Higher School Certificate, and had been using Grindr for varying lengths of time. Some participants had only recently joined Grindr, whilst others had been using Grindr for many years. When discussing how long they had been on Grindr, many participants did not remember the exact age or year they joined, but gave me approximations. Because of this, I have grouped users into three broad categories for Grindr usage; short-term users, being less than one year on Grindr, medium-term users, having between four and six years on Grindr, and long-term users, who had approximately 10 years of experience on Grindr. Six of the seven participants identified as gay, and one as bisexual. Alex (27 years old) and Ben (28-years old) were long-term users. Chris (24 years old), David (28 years old), Ethan (22 years old), and Fred (24 years old) were medium-term users. George (23 years old) was a short-term user and was also the only participant who identified as bisexual.

Approach to Analysis

When analysing the interview data for this project I employed a thematic analysis as outlined by Braun and Clarke (2012). Through using this approach, I could make sense of themes, meaning and shared experiences across the entirety of the interview data. This informed understandings of constructions of situated identity work conducted within Grindr, as well as the formation of a sense of community (Braun & Clarke, 2012). This method of qualitative analysis allowed for the data generated through the interviews to inform me through an inductive approach, which is a particularly important part of this research project due to my position outside of Grindr. The interviews were coded individually for meaningful concepts, and then recoded in conjunction with the other coded interviews for commonalities across the data which reflected shared experiences of the app. The codes were then sorted into related themes and higher order themes which are presented below.

In what follows, I describe the approach to analysing how interview participants engaged with Grindr's intimate infrastructure for identity work and sense of community. From this, three higher order themes arose, which were 'Identity Work', 'Communities', and 'Intimate Infrastructure'. The theme of Identity Work included three subthemes: 'Stigma around men's queerness', where participants discussed how they managed experiences of stigma around their identity and how their management of their identity interacted with Grindr; 'Homonormativity', whereby Grindr was constructed as being a place for homosexual cis-gendered men; and 'Gender and identity', which discussed the different design features of identity construction within Grindr's intimate infrastructure, such as the Tribe feature. The theme of 'Communities' included the two subthemes: 'Grindr as a Queer Gateway', which discussed Grindr's construction as an easily accessible recognised queer space; and 'Learning Cultural Protocols and Practices', which discussed community and social practices established over time within the context of Grindr. The final meta-theme, 'Intimate Infrastructure', also included two subthemes: 'Shopping for Partners', in which the participants discussed the commodifying way the intimate infrastructure constructs and commodifies user profiles; and 'Anonymity and Verifiability', which examines affordances of safety within the app design. These themes were sense-checked by my supervisory panel and were further reviewed prior to the final presentation of analysis. Further revision involved organising the data through a temporal structure, blending the walkthrough and interview data. This blended temporal structure is outlined below.

In order to present the findings in a coherent structure, the analysis of the walkthrough and interviews is presented in a temporal ordering which examines Grindr through the different stages of use, from my experience of downloading Grindr to long-term experiences of community both within the app and outside of it as discussed by the participants. The temporal ordering developed from the insights generated through the data presents the analysis through the temporality of Grindr's intimate infrastructure, discussing different design features and affordances within the app in the order they would become relevant to regular users. This ordering was drawn from the key insights generated through thematic analysis, which informed the emerging construction of how the intimate infrastructure influences practices of identity work and a sense of community through its design and affordances.

The following chapter is presented in five sections, which starts with 'Downloading and Setting-up of Grindr', which discusses my experiences of Grindr in its initial stages of use, followed by 'First Encounters', which covers the layout of the main pages as experienced by both myself and the interview participants, and how I was directed by the app to start using the platform. Following on from this, I discuss 'Profile Building as Situated Identity Work', which examines the intimate infrastructure of the profile building elements and the affordances I experienced, as well as how the specific design feature of Tribe constructs user experiences of identity work within the app as discussed by the interview participants. Following this, I examine how my interview participants experienced learning over the course of their Grindr usage within 'Learning Curves of Queer Dating Literacies', and how dominant social narratives, such as homonormativity (see 'Homonormativity as a learnt process'). Homonormativity was acknowledged by all participants when they discussed learning about normative expectations of gender and sexuality identity and behaviours through their engagement with the intimate infrastructure of Grindr, as well as with other users. Finally, in the section titled 'Sense of Community as a Temporal Process', I discuss how Grindr's intimate infrastructure may afford a sense of community throughout all stages of the user experience; from my initial experiences and profile set-up, to long term use as discussed by the participants. This long-term use also involved discussions of their use of platforms external to Grindr, which use the Grindr brand, such as its logo, to signify queerness and queer spaces.

Walking and Talking through Grindr: User Experience from Download to Long-term Use

As outlined above, I will start with a focus on the app walkthrough detailing the initial stages of Grindr use, whilst also drawing on relevant interview data. The use of the interview data increases as the analysis progresses through the timeline of use, focusing more on the findings from the thematic analysis, reflecting the participants' continuing use of the app.

Downloading and Setting-up of Grindr

The Grindr walkthrough was initiated on January 26th, 2019. I downloaded Grindr, version 5.1.0, from the Google Play store onto my Google Pixel 1 phone. Within the Google Play Store, the Grindr app is categorised as a social app, and the '#2 top grossing' in the social category app on the play store, second to BIGO LIVE, a live streaming app. At the time of writing, Grindr has more than 10 million downloads.

Grindr's advertising within the Google Play store includes photos of promotional profiles, and screenshots from different features of the app. The first informational line within Grindr's promotional text is "Exclusively for gay, bi, and curious men. Chat, share pics, and meet up" (*Grindr - Gay chat*, 2019). Through this opening message to potential users, Grindr constructs its users as exclusively men, who identify as gay, bisexual, or curious. The construction of Grindr as "exclusively for men" (*Grindr - Gay chat*, 2019) could exclude potential users who may identify outside of cis-gender men, including transgender users and gender-queer individuals. This framing also constructs the app as a community of men who identify as gay, bisexual, or curious, and implies that men who identify outside of these sexualities may be external to the community. Through the ordering of 'chat, share pics, and meet up' Grindr has prioritised the 'chat' function within their app, which is also prioritised through the advertising photos which include a screenshot of the messaging screen. The

prominence of the chat function may reflect both Grindr's interests as well as those of users. Grindr may prioritise the chat function within its intimate infrastructure as it could benefit Grindr through keeping people active on the app, which may garner both more users and advertisers, serving to further monetise practices of intimacies within the app. However, it may also reflect user interests as the chat function affords ways to interact with other people and engage with identity work and the formation of a sense of community within Grindr's intimate infrastructure. The chat function may be providing a way for users to seek out others with shared experiences and discuss commonalities, such as the 'coming out' process, which can serve to support users' sense of community by establishing a sense of belonging through these shared experiences. Through one-on-one communication, users' may also use the platform for situated identity work, such as when they discuss what different identity presentations mean within a Grindr context. By placing 'meet up' last within the ordering of Grindr's usage, it could suggest that this may not be the most important or most used intimacy within the intimate infrastructure for many users and the app developers. Alternatively, it could also suggest known practices within the app regarding the expected progression that in-app connections would follow - messaging would occur, such as sending face pictures, prior to initiating physical contact. However, within the listing of social media handles for Grindr, the snapchat name is 'Zerofeetaway" which suggests a focus on physical proximity and its importance in immediate meet ups which may reflect existing constructions of queer men's intimate practices as predicated on frequency, speed and convenience (Miller, 2015b; Zervoulis, Smith, Reed, & Dinos, 2019). The prioritising of the chat feature may also suggest to potential users that the app allows a safe space for communication for queer men, as well as a platform which allows for men who are not geographically close to chat, potentially increasing their sense of community through allowing geographically distanced people to discuss commonalities.

Within the advertising copy for the app, there are repeated references to improved ease for users to identify and find what they are looking for through the advanced filters and 'About Me' section. This emphasis on the ability to look for, and find, specific forms of intimacy is reflective of the app marketing itself to be desirable, while also capitalising on the specific intimate practices and desires of users, which serves to monetise the seeking of specific intimacies.

The photographs included within Grindr's promotional display on the Google Play store show multiple, racially-diverse, well-muscled and well-groomed young men, all of whom are shown in varying stages of undress—however, no explicit or full nudity is displayed. This depiction of men on Grindr reflects constructions of how the 'ideal' queer man should look within contemporary society (E. Anderson & McCormack, 2016). Grindr's advertising may also serve to construct practices of sexual racism, as while many racial background are represented within the advertising, the pictures depicting partnering practices only included same-race couples This framing of exclusively same-race relationships reflects broader concerns around Grindr and its association with practices of sexual racism (Bond & Compton, 2015; Conner, 2019).

Once the app was downloaded, I was taken to a log in screen. The log in screen has a black background, with no information regarding who or what the app is for, or any content about Grindr aside from the Grindr logo included in the top centre of the screen. This screen appears to be designed mainly around a need for discretion on the app, with no advertising or mention of what Grindr is. However, it could also be that Grindr has a strong enough brand identity that further explanation other than the logo is unnecessary, reflecting Grindr's construction as both mainstream and highly visible. On this screen, there is also a 'sign up' button, which leads to a new page where users can create an account. To sign up, I had to

provide an email address, a password, and date of birth. If I selected an age lower than 18, a red warning appeared declaring that users must be over 18 to access Grindr. However, I was able to reselect a different date of birth following this warning. The option to receive emails regarding the account, subscription, and special offers is checked by default, further serving to support the monetising of intimacies practiced within Grindr's intimate infrastructure. After completing these steps, an account is created. The sign-up process allows users to create an account prior to reading or being presented with a terms and conditions page, or a page regarding their privacy policy. While at this stage users can still choose to exit out of the app, Grindr has been given both a date of birth, as well as an email address. This information may be stored and accessed by Grindr or its third-party companies, potentially being used to generate revenue for Grindr. However, it is unclear at what stage the app may grant access to user data.

After completing the 'Create Account' section, I was taken to a Terms of Service page. Within the Terms of Service page, Grindr emphasises (through bold text) that the app is for over 18s. While it is not specified why Grindr is for over 18s, it can be assumed that due to the app's physical location and visibility features, as well as it's connection to hook-ups, the app developers had to enforce an 'adults only' policy, as is common practice across dating apps regardless of sexuality. Including this policy also allows the apps to be hosted within the main app stores, which serves to generate more revenue through the ease of seeking and downloading the app. The app's Terms of Service page also declares that Grindr does not conduct criminal background checks, nor verify information of users. It also emphasises that Grindr is not liable for any outcomes when the app has been used in countries or areas where homosexuality is illegal. Both of these declarations reflect potential concerns for users' physical safety, through acknowledging the risks presented in using a platform intended for an often heavily stigmatised group. Grindr also declares that no pornographic, implied pornographic, or nude/implied nude photos or content is allowed to be uploaded to the app. Due to the fact that this may be impossible to police within the apps' messaging system, as well as Grindr users well documented behaviour regarding the openness in sending and receiving pornographic material (C. Phillips, 2015; Tziallas, 2015), the inclusion of this within the user agreement appears to be more reflective of the app ensuring that it is allowed to be hosted within the app stores (Roth, 2015), rather than something that Grindr intends to enforce.

Following the Terms of Service page, much of the same information is highlighted and emphasised within the secondary Privacy Policy page, with the added inclusion of the fact that Grindr will never declare HIV status or Tribe identities to third parties. Interestingly, Tribes and HIV status are the only identity aspects that Grindr will never declare, with all other user data available to third parties at the discretion of Grindr. These two aspects are presumably chosen as HIV status extends to Tribes, as a possible Tribe is 'Poz' reflecting a positive HIV status. Despite Grindr's perceived emphasis on discretion, by not requiring linked accounts, real names, or face photos for example, the extent to which Grindr agrees to keep information private is limited to only HIV status and Tribe identity. Through this, Grindr's privacy policy constructs HIV status, and consequently Tribe identity, to be the only information with potential for personal risk. However, this dismisses the possibility of risks associated with sharing device IDs, emails, phone numbers, and geographical locations, which could all be used to identify individual users. Grindr's policy statements do not make clear how this risk is managed, or any precautions taken to protect individual users.

Once the Terms of Service and Privacy Policy pages are accepted, and the three 'nota-robot' tests are passed, I was taken to the 'Home' screen. This first screen is the screen that the app opens to each subsequent time the app is started, and is advertised on Grindr's website and promotional copy which I have included below as Figure 1. Here, Grindr presents a grid of other user's profiles, sorted by proximity and therefore convenience, as well as a 'Fresh Faces' section at the top which shows a row of profiles that I could scroll horizontally through in order to look at new user profiles. The Fresh Faces feature may reflect the emphasis on temporality of Grindr use, with an increased focus on 'new' people, suggesting a cycling through of the available users. The thumbnails of user profiles include their photo, display name, and a dot which is either green, to show whether someone is online, or empty, showing they are offline. Free users are able to view 100 profiles at a time, while Grindr XTRA users can view 600. This feature of Grindr XTRA is often presented as a major selling point, which reflects constructions of queer men's intimate practices as seeking multiple partners rapidly. During my experience on Grindr, users' display names within the grid are often seen to be descriptions rather than names, such as "Top Debottom"², "504

• "³, "ChunkyBear" and "BtmHosting"; however, the advertising copy shown in Figure 1 includes much less explicit and sexual display names than I observed while conducting the walkthrough. Other common items which are displayed in the name section includes preferred position, such as top or bottom, race, age, and Tribes, specifically when the Tribe identified is 'Trans'. The specific identity markers prioritised in the display name suggests how users are navigating the intimate infrastructure to conduct identity work which may be important to other Grindr users, such as the ability to host—meaning the user can have people at their home—age, position, and race. Including these identity features within the display names may also reflect the speed of decisions which can occur within Grindr, with the display names conveying rapid information to accommodate the expected temporality on

² The eyes emoji, '**b**', often means 'looking', or 'looking for'.

³ Across multiple social media platforms, the peach emoji, ' \heartsuit ', is used to refer to buttocks, and the eggplant emoji, ' \heartsuit ', refers to male genitalia.

Grindr. The emphasis on speed and convenience is reflective of Grindr's promotional material, suggesting a continued constructing of queer men's' intimate practices as being driven by temporality and convenience.



Figure 1: A screenshot from Grindr's advertising copy depicting the grid layout of the home page. The advertising material did not serve to reflect my experience, as the standard Grindr grid I viewed including more descriptive display names, as well as less face photos. Source: Grindr, Google Play Store,

https://play.google.com/store/apps/details?id=com.grindrap p.android

First Encounters

Throughout this section of analysis, I explore my experiences of the main grid page, specifically how the grid and features were seen on my first access to the platform. I also discuss the salient points of the grid layout as explained by some of the research participants, including the emphasis within Grindr on seeking 'new', and how the intimate infrastructure directs shopping-like behaviours, with users marketing themselves to others.

Following the initial download and setup of Grindr, I was immediately able to message and interact with other users from the main grid page. As Grindr's intimate infrastructure is built around a grid layout, the potential intimate options are presented at the same time, meaning that users are able to scroll through and compare profiles, rather than make forced choice decisions on each profile individually, like other popular apps such as Tinder (David & Cambre, 2016). The grid design presents users with a quantity of profiles available to be chosen, which can be compared to establish which profiles are more worthy of effort and engagement, depending on the intimacy sought, and allow people to make choices based on a large amount of comparative options (Bonner-Thompson, 2017). Grindr's intimate infrastructure also contributes to people 'marketing' themselves to other users, such as choosing specific photos and display names that rapidly convey meanings. An example of this specific marketing is viewable through the usernames presented on Grindr as mainly being descriptors, such as "Top bottom", rather than having legal names or generic usernames which may be found across other social media platforms. The grid design also encourages users to emphasise specific aspects of their identity, such as their body type through photos, as well as sexuality and preferred sexual role, such as top or bottom, often portrayed through the display name.

By presenting user profiles as a plethora of shoppable options, Grindr also increases the social acceptance of highly selective behaviour on the app, as it constructs other users as a commodity to fill an immediate intimate need (Carpenter & McEwan, 2016). As the intimate infrastructure positions users as a shoppable commodity, users were seen to be marketing themselves to others, much like advertising material within online shopping, including a reliance on 'new' as an important selling point. The prioritising of 'new' within Grindr's intimate infrastructure was clear from the initial entrance into the main grid page through the inclusion of a Fresh Faces feature at the very top of the grid. When I was performing the walkthrough, I looked to the Grindr subreddits⁴ to understand if the Fresh Faces feature showed only new Grindr users, like myself, or also accounts with new profile pictures. Other Grindr users had asked this question within the subreddits, and scrolling through the responses suggested that the feature does include users with new profile pictures, suggesting that changing your profile picture may attract more attention through this prioritised placement. Alex (27, gay) found that his main profile photo was an important feature in marketing himself, and he explained "Sometimes I find if conversations are pretty dry, I change my photo and then you get more conversations". He suggested that the reason he was not receiving more conversations was because his marketing of himself through his visual presentation was not achieving his end goal, therefore by changing his presentation to other users, he alters the profiles which may be attracted to him. Alex also discussed scrolling through Grindr's grid to look for 'new' users, explaining "I think you want to go further down because usually people who are closer to you they're there all the time and if you haven't spoken to them for the first three years you're not going to speak to them any time soon". Through Alex's explanation of scrolling practices, he suggested that since "they're

⁴ Subreddits are a dedicated space of discussion and replies around specific topics on the broader website Reddit, for example, 'Sydney', 'Grindr', and 'LGBTAustralia' all have separate subreddits which can be viewed publicly and without an account, but require an account to post on.

there all the time", there is an emphasis on finding 'new', and finding something that will catch other users' attention. Changing profile photos, as well as display names, may serve to spark interest from other users due to the perception of new-ness. Ethan (22, gay) also discussed looking for 'new', saying:

Most of the time I just go through the grid but I have started using the Fresh Faces, not that I ever really message or tap them, I just kind of like want to know who's out there, it's like who's new to this, and then if I see any cute ones I kind of like make a mental note because I'll kind of see what area they're in or how far away they were

Ethan describes using Grindr, and the Fresh Faces feature to see what is available, as well as how far away the new faces are. The language he uses to describe this activity reflects online shopping discourses, such as looking at the 'New In' categories within online retailers and making 'mental notes' when window shopping. The reliance on marketing oneself through pictures within Grindr may be a result of the platform design, where it is assumed that users will not go through each profile individually like on Tinder or Bumble (David & Cambre, 2016), but rather will see all profiles in a grid and engage only with the ones which trigger interest through the limited information communicated through the profile picture and display name. Grindr's intimate infrastructure creates a space in which identity work is focused on constructing and presenting oneself in a way that fits into the grid layout, while also conveying the most relevant information for other users such as, but not limited to, body type, sexual role, and ability to host. In order to achieve this identity work, users need to actively construct a thumbnail and display name which conveys this information, requiring attentive and context-specific identity work to situate themselves within Grindr's intimate infrastructure infrastructure within Grindr's intimate infrastructure is therefore directed by the intimate infrastructure within Grindr,

which suggests that the design and affordances within Grindr, and potentially other dating apps, may direct how users present their identity within each specific platform.

While Grindr users may navigate the affordances of the display names to convey information that may be most important to the users, Grindr's design also prioritises certain identity information through the inbuilt filters. From the main grid page, users can filter the number of profiles shown through a list of 12 potential filters, however, only three, 'Age', 'Tribe', and 'Looking for', are available for free. The free features suggest that this information is assumed by the designers to be important for both minimal functionality and for sustaining Grindr users' interest and uptake. Free users are able to refine the minimum and maximum age they are looking for, choose one Tribe at a time to search for, and select one 'Looking for' status filter. Selecting multiple Tribes at once, or multiple 'Looking for' statuses, triggers an ad for the premium subscription service. The 'Advanced' filters, which are reserved for premium users, includes 'online now', 'photos only', 'haven't chatted today', 'height', 'weight', 'ethnicity', 'body type', 'position', and 'relationship status'. When using Grindr with the premium filters available, the filters are no longer listed as advanced filters, but instead categorised as 'My type', which can be turned on and off. Using the words 'My Type' may justify sexual racism and other forms of discrimination by constructing user discrimination as a 'preference' or 'type' rather than as prejudice (Shield, 2016). However, it is important to note that experiences of sexual racism were not discussed by any of the interview participants.

When viewing a profile, I was given the option to 'Tap' which would send the profile a notification that I had tapped them, or I could message them directly. Profiles can also be 'starred', which would add them to my 'Favourites' list, or blocked, which means that I would not see the profile again within my grid. Grindr also includes an 'Explore' feature, which allows users to look at profiles in other locations without having to physically move, or spoof⁵ their phones' GPS. The inclusion of the 'Explore' feature allows users to 'window shop' on other geographic locations. Participants discussed how the Explore feature was beneficial for seeing who might be available in other spaces, with Alex (27, gay) saying "I like [exploring] in the city because if I am going out that night, I'm like who might I run into". Within this quote, Alex explains using the intimate infrastructure to survey possible people who may be available to him when he goes into the city and thus uses it to effectively window shop for potential partners. His use of the app to explore potential people he might encounter in specific physical spaces is reflective of how Grindr usage plays out in physical spaces, as well as how the app's design may be directing behaviour (Star, 1999). The intimate infrastructure allows Alex to look at profiles in physical spaces he is planning on going to, which could let him assess more options earlier to make an informed partner choice when he gets to his intended location. Grindr could be constructed as a catalogue of intimacy, by allowing users to preview potential intimate partners prior to being in physical proximity, or potentially even direct users to go to specific locations. The use of Grindr as a catalogue supports previous scholarly work on digital dating spaces as markets and shopping platforms, termed 'relationshopping' (Heino, Ellison, & Gibbs, 2010), offering a wider range of choices that can be pre-assessed prior to physical interactions.

Unlike many contemporary dating apps such as Tinder, messaging within Grindr, or Chat as it is framed in the promotional copy, does not require mutual interest in order to start a conversation. Users can send messages, photos, gifs, gaymojis (Grindr's inhouse emoji collection), and their real-time location to any other user. During my walkthrough, I began receiving messages as soon as I was taken to the grid page, prior to any form of profile set up.

⁵ Spoofing GPS coordinates involves changing manufacturer settings within a mobile device to reflect different GPS coordinates than the physical location of the mobile device.

While I did not respond to any messages received in order to have as little presence on the app as possible, I received a large number of messages even with a blank profile. Some of these messages were general greetings ("hey" "How are you?"), however, most messages skipped over standard greetings and instead involved overly sexual text messages and photos. Text messages I received included "Fancy a bj or a fuck now?" and "U fuck me", while images I received were often sexually explicit photos, such as an erect penis, with no accompanying message. The directness and volume of such messages suggests overtly sexual practices may be constructed as normal through Grindr's intimate infrastructure, by affording instant messaging and photo sharing features within the app. As I was new to Grindr, the messages were a surprise, not because of their content, which is well-documented colloquially and within scholarship, but through the speed at which I was contacted as soon as I was online. In both my personal and research experiences, I have only used apps which include a declared mutual-interest requirement for messaging, which may have shaped my interest in how this affordance of Grindr's intimate infrastructure was navigated by Grindr's intended users. Within the context of the walkthrough, it was unclear what the expected response to messages, particularly sexually explicit photographs, was meant to be. As my blank profile received photos and messages, it is possible users send such messages in bulk to multiple accounts which are shown to be online, close to the sender, or within the Fresh Faces groups, in order to cast as wide a net possible for potential intimate responses. The ability to contact other users so rapidly, and without establishing mutual interest, affords many forms of intimacy, from the ability to seek immediate meet-ups, the exchange of intimate photographs and messages, as well as information seeking. Navigating the instant messaging feature, something the interview participants discussed, was framed as an aspect which needed to be learnt. Drawing on a comment from an interview participant, I refer to the rapid and often ongoing adaptation and learning afforded by the Intimate infrastructure of the app

as 'learning curves'. Learning curves, including practices such as unsolicited sexually explicit messages, are further discussed by participants within the 'Learning curves in Queer Dating Literacies' section below.

On initial access to the grid page, a green banner appears stating that profiles with photos and information get more messages, and, when clicked on, I was taken to a basic profile editing page. Following the appearance of the green banner, no further instructions were provided on setting up or building a profile, or on app use, for the rest of my experience on Grindr. The lack of further instruction suggests both that users will be able to understand the intimate infrastructure and design features of Grindr, while also not directing how users may navigate the affordances of the intimate infrastructure in excess of the explicit design features. The initial profile building page included spaces for a profile photo, a display name, age, and a 'Looking for' menu. The features presented in the initial profile building prompt appear to make up the basics of profile building on Grindr. However, profile options were expanded upon editing my profile later (discussed in the following section 'Profile building as situated identity work'). When uploading a profile photo within the basic profile building page, a notification appeared at the top of the 'take a photo' page, which says "Remember, no nudity allowed". While the flagging of 'no nudity' may be intended to reduce the hypersexualisation that occurs within Grindr, it also suggests to new users that nudity may be a common choice for main profile photos, continuing Grindr's construction as a hypersexualised space. After taking a photo, the image is greyed out with a 'pending review' notification, which appears to be common practice across many queer men's apps (Tziallas, 2015). The 'pending review' feature suggests that profile photos may be policed for nudity and suggestive content as per the Terms of Service (Tziallas, 2015). However, as demonstrated by the photos I received, the 'no nudity' policy is only enforced in relation to the profile photo and not in relation to individual sharing of images. Photos, like all profile

information, are not necessary for the set up and build of a profile, which helps to position Grindr as a safer space through affording user anonymity. Another affordance of anonymity is the display name feature. The display name on the profile must be under 15 characters, but otherwise has no restrictions, including that it is not required to be unique, nor does it need to reflect given or legal names. Grindr's affordances for anonymity within the intimate infrastructure may appeal to users as it offers discrete engagement with queer communities and gives control as to when and if a user's identity is disclosed. When choosing the display name, there is a reminder warning that the display name will be viewable in the main grid layout of profiles. This warning suggests that Grindr acknowledges that users may wish to keep their actual name private, and instead may choose to display a non-identifying name. Users also customise the display name space to present situated identities, preferences, descriptors, or other details relevant to users. The last feature on this initial page is the 'Looking for' drop down menu, which positions Grindr as a space for seeking specific intimacies through the language used. The default selected is "no response", but other options include Chat, Dates, Friends, Networking, Relationship, and Right Now, which reflects previous research that Grindr may be used for motivations outside of casual physical intimate encounters. The responses in this initial profile page can be changed and updated through the profile at any time. Following the 'Looking for' options, I was taken back to the main grid page.

As shown throughout this section, it is clear the grid layout users are presented with may be constructing users as intimate commodities, which can be shopped and consumed for specific intimacies. The position of users as commodities was also experienced by the participants, who discussed using Grindr to 'window shop' for intimacies, while also constructing their own profiles as a form of marketing for themselves.

Profile Building as Situated Identity Work

While I have covered the initial profile building as prompted by Grindr in the previous section, the detail in other users' profiles evidenced that there was still a lot of profile features I had not accessed. In this section, I discuss my own experiences of the expanded profile building features, as the interview participants did not remember how they engaged with building their profiles when they were first on the app. Following my exploration of the profile elements from the walkthrough, I examine the experience of the Tribe feature as a form of situated identity work within Grindr's intimate infrastructure as explained by the participants.

After the initial profile building, I was able to access my profile through the main grid page, where my profile was displayed in the top left corner of the grid. I was not prompted to add additional information, however, after clicking on my profile, I was able to edit it further with a larger range of information. The expanded features include an 'About Me' section with a limit of 255 characters, as well as height, weight, ethnicity, body type, position, Tribes, and relationships status, all included within 'Stats'. The options within ethnicity include Asian, Black, Latino, Middle Eastern, Mixed, Native American, South Asian, White, and Other. The inclusion of Native American, but no other Indigenous identities, suggests that the app locates itself within a North American context. By editing the different aspects of identity within this expanded profile section, I could engage with more situated and detailed identity work through navigating the design and affordances of Grindr's profile building.

Within this expanded profile editing page is an 'Identity' section, which includes gender and pronouns, which is followed by a 'Sexual Health' section, with HIV status and last test date. Finally, there is a social profile links section for Facebook, Instagram, and Twitter. Grindr does not have a space for Snapchat to be integrated within the intimate infrastructure, possibly in order to keep one-to-one photo exchanges based within Grindr exclusively, which may help to keep people on the app, serving Grindr's intention of monetising specific intimacies. The linkage of Facebook, Instagram, and Twitter may serve to help construct users as people rather than commodities, while also removing some anonymity, through the connection to other social media accounts viewed as more verifiable given their more mainstream location. In the Stats section, I could choose each answer from a dropdown menu. In the Identity section, gender is chosen from an option screen which provides 'no response' as the default, or to choose from 'Man' or 'Woman', which each have four options underneath: 'Man/Woman', 'Cis', 'Trans', or 'Custom'. Following these options there is a 'Non-binary' option, where users can choose 'Non-binary', 'Non-conforming', 'Queer', 'Crossdresser', or 'Custom'. The custom options in all three sections allow users to write in their own identifiers. The pronouns section allows choices of 'no response', 'He/Him/His', 'She/Her/Hers', 'They/Them/Theirs', or 'Custom'. The gender identity section also includes information about gender identity in a link called 'What do these words mean?'. Through the inclusion of a distinct non-binary category, customisable options, as well as a link to information regarding gender, Grindr works as a space for a gender diverse population. The addition of the information section also potentially improves inclusivity and visibility for gender diverse populations (Walch et al., 2012). The inclusion of gender information within the intimate infrastructure could also expose users to wider possibilities for identification by allowing them to use the space to trial different gender identities. The increased visibility for diverse queer identities may also contribute to feelings of belonging within the digital space through acceptance and recognition, which could strengthen users' sense of community (McMillan & Chavis, 1986).

The inclusion of Sexual Health within the Identity section of Grindr serves to construct Sexual Health as a feature of identity, which should be discussed with the same ease and frequency as other identity aspects. Under Sexual Health, users can choose to display their HIV status from a dropdown menu, with responses available being 'No response', 'Negative', 'Negative, on Prep', 'Positive', 'Positive, undetectable'. Users can then declare their most recent test date, being able to only select dates within the last two years. By limiting the date range, Grindr's intimate infrastructure conveys the message that tests should be updated if the last test date was outside this range. After entering a last test date, Grindr offers a free reminder service for regular sexual health check-ups at 3 or 6 monthly intervals. While this reminder can serve a valuable and important service for users, it assumes users will be on the app for longer than 3 months, which is in line with the comments made by Grindr's CTO around users being on the platform longer than expected (VB Staff, 2016). The sexual health section also includes a link to a sexual health FAQ page with information on STI testing, HIV and PrEP⁶, and safe sex practices. Sexual health presents a unique aspect of situated identity work, as while many aspects of identity work may be carried across social platforms, HIV status is rarely presented on other social accounts (Winetrobe et al., 2014). This design feature of Grindr's intimate infrastructure allows users to engage with aspects of identity that are often taboo in everyday life, such as HIV status and last test date. While users can engage with the sexual health section on an individual level, such as setting reminders for their next test, this section may also serve to bolster feelings of acceptance within Grindr for those who are HIV positive, and reduce the stigma regarding discussions of sexual health. Grindr's intimate infrastructure may therefore be affording a sense of community to those who may feel particularly ostracised due to their

⁶ PrEP refers to Pre-Exposure Prophylaxis, which is a medication strategy used primarily for HIV prevention (Landovitz et al., 2013).

sexual health status. Alternatively, it may also act as a criterion of exclusion for those users who do not want to hook-up with men with anything other than a negative HIV status.

Tribes as designed identity work. Tribes, and the imagery of Tribes, have existed within social science studies for much of the fields' history (Clay, 2018). Historically, Tribes have functioned as a social and or family group with shared ideals, practices, and norms, providing a sense of community through shared knowledge. Tribes, and the Tribe terminology, existed within queer men's communities prior to Grindr, and Tribe names often refer to and construct distinct body types, such as a 'Bear' having body characteristics including a large build and a lot of hair, compared to an 'Otter', having a small build and a lot of hair, or 'Twink', being a young man with a slender build and often hairless. While not mandatory in setting up a profile, Tribes as social groupings are reproduced within Grindr's intimate infrastructure to create recognisable distinctions in Grindr. Reproducing these distinct categories could inform other's experiences of Grindr as a catalogue of intimacy through affording rapid choices based on specific Tribe-based constructions of identity. Tribe information can also be used to form in-group/out-group relations, with users declaring that they are not looking for members of certain Tribes. The Tribe filter can also be navigated by users to search only for profiles identified as certain Tribes, potentially furthering the commodification of other users through specific Tribe identities. During the walkthrough, I noticed that Tribes were included within most of the profiles, which I thought reflected both its importance to users, and its importance within the intimate infrastructure, especially as Tribes are one of the three filters available for free users to search for other profiles. Tribes were engaged with, not only through the Tribe function within each profile, but also within the construction of people's display names such as 'Trans' or 'ChunkyBear'. Grindr provides a list of 14 possible Tribe identities, however, unlike with gender or sexuality, no information as to what the identities mean is provided. Grindr does not dictate what would qualify in each

Tribe, so users can construct meanings individually. Deciding which Tribe to identify with appeared to be a point of identity work for Grindr users. Throughout the walkthrough, I used mainstream websites and community forums around Grindr to understand the tribal groups of Grindr. On the subreddit dedicated to Grindr ("General Subreddit for Grindr," n.d.), users would post photos of themselves and ask for other users to tell them which Tribe they fit into, suggesting that self-ascribing a Tribe may present difficulties for users and that Tribe identities are taken up as a relational phenomenon. There were also multiple webpages and blog posts discussing who fits within each Tribe, as well as general descriptors of each Tribe. The use of the Grindr subreddit to identify different Tribes that users may fit within suggests that Tribe identity may be less prominent within queer communities prior to Grindr use. However, within the blogs and websites, there were more Tribes listed than existed on Grindr. This wider spectrum of Tribe identities could suggest that while it may not be prominent prior to Grindr usage, Tribe identities exist within the broader queer communities, and may be expanded upon past the list presented within Grindr's intimate infrastructure as a form of accepted collective identity work within queer communities. While the concept of Tribes outside Grindr seems to construct a strong sense of community, Tribes within Grindr are seen either as a mode of convenience, or a problematic feature of identity. Many participants discussed that while the Tribe design feature is prominent within Grindr's intimate infrastructure, and they frequently see it used, they did not use it as a primary feature of identity work.

Many of the interview participants reported that the purpose of the Tribe feature was unclear and that they were unsure of whether it was meant to refer to who they identified as, or who they were seeking out. Grindr's lack of instructional material within the intimate infrastructure of the app could have contributed to this confusion, as well as the broader community providing conflicting information through the community forums such as the Grindr subreddits. The other main reason provided for not engaging with the Tribes feature was how Tribes were constructed and then policed within Grindr, meaning that the identity a user may choose for themselves may be 'corrected' by other users. Ben (28, gay) explained "I just don't know where I'd fit to be honest, I think there's a mismatch between maybe where I do think I fit and where I would want to fit". This tension suggests both that there are Tribes which are constructed as more desirable, where he would want to fit, and less desirable, where he feels he does. While these tensions may exist differently for each user, higher value Tribes may lead to users claiming idealised Tribe identities (Clay, 2016).

Ethan (22, gay) discussed the tension between where a user may self-identify compared to where others may place them. He located this tension as part of a disjunction between Tribes as a body type compared to Tribes as a persona:

I've never been one for like big on Tribe names and things like that because I've met people who are like the biggest scary looking dudes who end up being like complete little sissies who just want to be treated like a little girl [...] on Grindr I feel like people tend to get more experimental and they use Grindr as maybe a place to like escape those like set ups like I'm not just an Otter, I can like also be like a scary top, I can be like a Bear if somebody would just let me treat them like a Bear.

While Tribes are traditionally constructed on visual cues, such as Bears being larger men who are hairy and Otters who are skinnier men with large amounts of hair (Clay, 2018), Ethan discusses Tribe identity as a persona which is constructed and situated within specific contexts. This makes the physical Tribe descriptors less important for him as he discusses the possibility of a common disconnect between the physical and personality components of Tribe identities. The disconnect between how a person may identify versus how others may identify them was also discussed by Ben (28, gay):

[...]there are conversations about how people who are categorised as Twinks, [I] find that uncomfortable sometimes, because they don't necessarily want to fit into that category, so the kind of responsibility for falling within or outside of that category isn't a sort of a self-identification necessarily as sort of where you were placed.

Within this quote, Tribes are no longer positioned as something which an individual chooses for themselves, but rather something that others assign as a result of a person's physical traits. As the Tribes have socially constructed meanings that may differ between users, the Tribes can result in contradictory definitions between users.

The use of the Tribe identity on Grindr also appeared to be constituted through interaction with other users, as well as through using the app's intimate infrastructure to alter visibility to other users. Within the app walkthrough, it was seen that while the situated construction of the 'Daddy' Tribe commonly referred to older queer men, it was not uncommon to see users who declared their age to be mid-to-late twenties identifying within the Daddy Tribe. The presence of younger men within the Daddy Tribe contradicts broader definitions of the Tribe, suggesting either users have reconstituted the meaning within Grindr, or the design feature is being used to signal that users are looking for 'Daddy's', or potentially a combination of the two.

Another distinct use of the Tribe identity was within the Tribe 'Trans'. Users who identified within the Tribe often included their tribal identity within the display name of their profile, as well as including it in the 'About Me' section. However, when using the 'Trans' Tribe filter to search for other users, there would also be users who identified as cis-gendered, either through their 'About Me' or 'Gender Identity' sections, who declared that they were on the app exclusively looking for Trans users. This use of the Tribe identity reflects the apps intimate infrastructure design, in that Tribes are one of the only free filters, so users could include themselves within the Tribe that they are searching for to potentially find other users within that Tribe. The practice of including oneself in the Tribe they are seeking may also explain some of the experiences of the interview participants. Many of the participants discussed that when looking at Tribe identities on Grindr, they would often come across profiles where they would disagree with the self-identified Tribe: "sometimes you look at certain profiles and you're like oh, they ticked the Twink Tribe and you're like, I don't think they're a Twink" (David, 28, gay). Without specific instructions within Grindr's intimate infrastructure to describe both the purpose of the Tribe filter and a set of standardised descriptors for each of the Tribe categories, the Tribe feature on Grindr appears to confuse constructions of identity work, rather than streamline them for many users.

It was also noted that while Tribes were not identified as a salient feature within Grindr, despite the prominence within the intimate infrastructure, Tribe identities were important outside of Grindr for some communities. In previous generations, when there was less queer visibility in mainstream society, Tribes may have been used to create inclusive spaces for people who did not fit commonly held archetypes of how a gay man 'should' look (Locke, 1997). The lower visibility could have impacted those whose appearance fell outside of societal expectation, causing them to feel excluded as they did not fit the dominant narratives constructing how queer men should present (Milone, 2016). It is possible that the reduced usage of Tribes by the interview participants was the result of a generational difference. Ethan (22, gay) explained:

I would say more of the older generation use it, it's definitely like the older gays, especially on there, they're used to Tribes and they're used to Tribes being the easy way to differentiate from each other, a lot of young people I find don't bother with half of that. As Ethan perceives it, Tribes appear to be used mainly by older generations. While this research did not specifically seek out participants from any age group, the recruitment methods—using Twitter to recruit participants—may have inadvertently recruited a younger sample group. The interview participants were all under 30 years old, and as such, may reflect a younger queer sociality, which may not focus on Tribes as a distinctive aspect of their dating experience. It is possible that Tribes, while still prominent within queer communities, are now less prominent due to the increased visibility of queer identities. Through increased mainstream visibility, younger generations of queer communities may no longer need Tribes to establish a sense of community, as community seeking may now be possible through different social and digital practices.

The ways in which advertising and mass-media constructs social understandings of how bodies should look has been well documented, and Tribes may have provided a way for men who were already marginalised due to their sexuality to also find acceptance for their body type (Locke, 1997). As there has been a rising acceptance of queer identifying people within broader communities, people who identify as queer may not only be seeking out community within other queer spaces, but also participating visibly in mainstream society (Milone, 2016). This could mean younger queer generations are less dependent on historical productions of queer sociality—which may have been based around Tribes—to find social connections (Milone, 2016). Tribes may have historically been more important as a way to find smaller communities within the broader queer populations, as well as finding spaces of acceptance within queer communities, but it may no longer hold as much appeal due to the availability of online community spaces which are not dependant on body type or sexuality, as well as the integration of queer visibility in mainstream spaces. This integration may reduce the need for Tribe identities within current society, as groups are no longer necessarily built through sexuality, but rather around broader interests. The importance of Tribes within Grindr may have been influenced by the choices afforded by its intimate infrastructure. There were no guidelines designed into Grindr for how to use the Tribe feature, therefore it was unclear to participants if it was meant to reflect a self-assigned Tribe identity, or meant to be used to identify who users were seeking. Nor were there any guidelines on what each Tribe meant, and how to identify who would fall into which category. Interviewees discussed this confusion, which suggests that Tribes are an unclear aspect of the intimate infrastructure, and this may have decreased interviewee engagement with the feature. Unclear infrastructure often leads to reduced usage of whole platforms (Hosking & Clarkson, 2017), and while most of Grindr is simple to figure out through some repeated use, and potentially using the relevant online forums, the meaning of Tribes was consistently debated by participants, which potentially led to users not engaging with the feature as part of their identity work or intimacy seeking.

Learning Curves of Queer Dating Literacies

A central tenet of the sense of community concept I discuss throughout this thesis is that acceptable social practices are made through repeated social contact and learnt behaviour (B. Anderson, 2006). As learning social practices occurs over time and through contact with other community members, I was unable to experience much of the learning for myself during my short period of time on the walkthrough. However, the interview participants explained their learning within Grindr over the course of their usage. The learning curves that were discussed included the use of emojis as part of Grindr profiles, learning to read other profiles for different intimacies, constructing specific presentations of identity to curate intimate responses, the importance of both anonymity and verifiability within Grindr, and the practices pertaining to nude images on the app. Grindr was also seen to encourage homonormativity as a learnt practice, wherein users navigate Grindr's intimate infrastructure by attending to its construction of assumed homosexuality alongside cis-gendered identity presentations (see 'Homonormativity as a learnt process' for a discussion of homonormativity).

One of the most common learning curves within Grindr's intimate infrastructure is the use of emojis and acronyms to communicate information rapidly to other users. During my walkthrough, acronyms and emojis were present in almost all profiles, and many of the acronyms and emojis required searches for Grindr-specific meanings from external websites or blogs. Acronyms and emojis were also a feature in all interviews, both through the participants' use of them within their own profiles, with emojis being chosen to communicate information quickly, as well as discussion of them as ever-present within the Grindr community. The emoji functions as a socially constructed cypher which can convey information around moods, interests, and behaviours to other users of the same community. Many of the emojis discussed communicated the same meaning to most users, such as the House $(\widehat{\mathbf{m}})$ emoji meaning where someone lives and the maple leaf $(\widehat{\mathbf{m}})$ referencing marijuana usage. While Grindr functions as a platform for a broad sense of community-i.e. all Grindr users-it also contains smaller specialised communities. While many of the acronyms, such as NPNC⁷, and emojis, such as the eggplant (\mathbb{N}), function as a universally understood language within the broader Grindr community, the smaller communities often construct their own unique patterns of engagement. As Ethan (22, gay) explained: "it was a learning curve, emojis were just like a way that people could put BDSM features or like things that they were into without having to write the full thing". His explanation describes the emojis both as a way to rapidly communicate interests, as well as to potentially avoid

⁷ NPNC is a common acronym meaning No Pic No Chat, which refers to the necessity of face photos in initiating contact.

embarrassment or stigma through not having to write their sought intimacies explicitly. Within mainstream Western society, while sexual kinks and fetishes are often a point of interest, they are still usually discussed discreetly due to the prevailing stigma of intimate desires which fall outside the predominant 'acceptable' views of sexual interest (Bezreh, Weinberg, & Edgar, 2012). Ethan's explanation that emojis are a way to communicate without using explicit language may suggest that while Grindr is viewed as an open and diverse platform for sexual interests, many interests may still carry stigma.

Many participants discussed their experience of learning on Grindr through their current intimate practices. Ben (28, gay) explained:

There are a bunch of quite successful people on Grindr who have, successful is a weird way of putting someone who can hook up a lot very easily, but who don't have anything in their profile other than just pictures, and I don't tend to talk to those people.

Ben discussed that as he was less interested in 'hooking up', he had learnt that profiles which included nothing except photos were often reflective of users seeking only hook ups. His positioning of other users as 'successful', reflecting their ability to hook-up, suggests both a belief in the affordances of the app's design to hook up and do so frequently, as well as a perceived personal goal of the other users. Grindr's mainstream construction as a space for sexual intimacy with others (Van De Wiele & Tong, 2014) may contribute to Ben's positioning of achieving this goal as 'successful'. He elaborated on his growing skill in learning to read profiles, further saying: "if people don't have text then I get the feeling that they're either just there for a hook up and there's going to very limited conversation about anything other than a hook up". In this instance, Ben suggests that he had learnt over time that users with no text information were solely seeking hook-ups, reflecting his learning throughout the continued use Grindr.

Another aspect of learnt practices directed through the design and affordances of the intimate infrastructure was tailoring profiles to attract not only the most attention, but also specific intimacies. The specific intimacies sought often reflect the user's current desires. Ethan (22, gay) explained:

So if I'm looking to be the bottom, because like it changes, I'm looking to be the bottom then I'll put something a little bit more feminine, little bit more meek looking, if that's the right word, just sort of like vulnerable and like yeah, I'm willing to be subordinate and then like if I want to, and if I'm in the mood to be a top I'll put like my hat forward or even just a hat in general, and take a bit more of chest photos.

In this quote Ethan discusses learning to tailor his profile content over the course of his Grindr usage. Through this learnt practice, he could then construct a version of his Grindrsituated identity which captured the interests of other users, which he later describes as "bait pictures" (Ethan). His use of tailored content suggests that throughout his use of Grindr he established how others were presenting their photos on Grindr, as well as the types of responses to his own posing, which led to him being able to curate a profile designed to elicit particular intimacies. He also frames specific sexual positions as being more feminine, through their meeker stance or subordinate nature, or more masculine, through the use of chest pictures and masculine-associated accessories such as wearing hats. The positioning of feminine behaviours as subordinate reflects heteronormative constructions of gender within which most people are raised through school, religious, and familial connections, suggesting that 'traditional' roles are still represented within queer spaces (Friz & Gehl, 2016; Klinkenberg & Rose, 1994; Miller & Behm-Morawitz, 2016).

The sharing of bare face photos as a means of verifiability was discussed both as an expected practice, as well as a requirement in initiating contact. Many participants did not

wish to talk to users who did not display face photos, even though many also acknowledged that when they first started using Grindr, they also did not include their face in pictures. Chris (24, gay) explained the distinction between a bare face photo compared to a face photo using filters, saying "I've noticed one or two people I still stop talking to because I still don't know what they look like after talking to them for like a month because they've only ever used the [photo] filters". Chris's quote suggests that a face photo must not include visual filters, such as beauty or comedic filters, to show a true representation of the other user and provide a sense of identifiability and therefore affordances a form of intimacy with the other person. Participants also discussed that if a user who did not have a face photo in their profile contacted them, it was an expected practice that in the first message sent a face photo would be included. Fred (24, gay) also explained that face photos were a requirement prior to meeting up with someone, explaining: "I would definitely make sure I knew what they looked like, and that I knew as much information as I could about the person before I felt comfortable". The sense of comfort derived from knowing what someone looks like is a common theme within online community research, with face photos being a prominent contributor to feelings of personal safety and constructions of 'safe' behaviour (Albury & Byron, 2016; Duguay, 2017a). The use of face photos provides a sense of safety, verifiability, and intimacy through revealing identifiable information to the other user (Miller, 2015a). A torso photo may not be easily identifiable, but a bare face photo is, which can make the encounter feel less dangerous through a mutual sense of identifiability. The combination of bare face photos with personal information may be constructing an assemblage of verifiability for users of Grindr to elicit feelings of safety when meeting up with other users. This combination of face-photos and information may also produce constructions of authenticity, where perceptions of the 'real' person are in tension with opportunities for playing with, or working on, multiple presentations of oneself.

While the ability to be anonymous appears to be central to Grindr's user base, through the design and affordances of the intimate infrastructure, the desire for verifiable profiles of other users was a strong theme within the interviews. The interview participants discussed wanting to talk to people whose profiles included face photos, or wanting to connect through other accounts, such as Instagram or Facebook. Alex (27, gay) discussed how others responded to him not having mainstream social media accounts: "people would go so what's your Facebook let's talk on there and I'd say I don't have Facebook, I've got iMessage, WhatsApp and they're like oh no, I'm good". The importance of verifying other users through linked social media accounts, specifically photo-sharing based and networking spaces such as Facebook, speaks to the ways in which users of digital spaces manage their own safety, and perhaps certainty for their desire of the other, through ensuring that other users have visible accounts on platforms often linked with family profiles and close friends. Due to the prominence in everyday social interactions, having a presence on 'mainstream' social media may make a Grindr user more trustworthy. The two alternative platforms Alex offered to other users for connection are not photo based, and do not show visible connections to other people. Therefore, potential matches could not verify his identity and he may have been perceived to present more risks than someone who had a visible Facebook account. The use of popular social media accounts to verify identities is a common practice both socially and commercially, with many platforms allowing users to set up a platform through pre-filled data from major social platforms such as Facebook and Instagram (Duguay, 2017a). Due to the mass use of Facebook and Instagram, and their construction as 'real', these platforms provide users with a sense of security, with Facebook profiles constructed as accurate representations of a person, their broader social identity—as situated within familial and social networks on Facebook—and their social connections (Duguay, 2017a). As such, asking to talk on one of these more mainstream platforms, rather than on

Grindr, where the intimate infrastructure affords anonymity through not requiring linked accounts, may increase users' feelings of safety around the interaction. However, not having accounts on platforms such as Facebook or Instagram, as described by Alex, could increase feelings of risk for other users. While the affordance of anonymity is beneficial for many users, particularly new users who may not wish to identify themselves, the lack of verifiability within Grindr can cause concerns for user safety.

A large part of Grindr's cultural practices is sharing 'nudes', photos which involve either full, partial, or implied nudity, which on Grindr often involves pictures of genitalia or buttocks. Nudes sharing is the more sexually explicit version of 'trading pics' on Grindr which often also includes photos of torsos, legs, and arms. All participants discussed the practices of both sharing nudes and trading pics within the interviews, and that photo sharing is a large practice on the app, with many in-app conversations centred around trading pics, often without necessarily intending to meet up. When asked why photo sharing was so prominent, especially considering the large amount of free pornography on the internet, Chris (24, gay) explained: "if someone's sending you sexual photos personally towards you then that means they at least like you enough to manage to be sexually active and send like real explicit photos towards you". Unlike commercially produced pornography, sharing nudes on Grindr seems to construct a sense of intimacy around the images, which might make them more desirable than commercial pornography (C. Phillips, 2015; Tziallas, 2015). Chris further suggests that the sharing of nudes may also indicate how desirable a user is on Grindr and could create a positive view of themselves through being seen as attractive to other users. While mutual sharing of nude photos was a large part of Grindr discussions, there was also discussion about the common practice of an unsolicited 'dick pic'⁸. While sharing nudes and trading pics are both viewed to be accepted practices within Grindr, the unsolicited dick pic is a common but often not well received practice (Mandau, 2019). This practice often entails a user initiating a chat with a dick pic without prior consent or contact, which is afforded by Grindr's intimate infrastructure through not requiring mutual contact, and being able to share photos. Within the interviews, participants discussed confusion at what that practice was meant to achieve, as well as a dislike of the practice compared to trading pics, with Ethan (22, gay) saying:

I have, like I had one that went really rapidly they're like hey, how you doing, you look hot based on the profile picture, do you want to trade some pics, and I'm like, even then, sometimes I fall into the trap and I'll just start trading pics, that to me is still better than just new message notification, chest pic, penis, penis, butt, penis, butt, foot, for some reason. And I'm like thanks bro, you look like you need an ankle brace or maybe like a foot scrub, that could help, you know, like exactly, that's the question, what is the response to that? What is the response to having someone just unleash a volley of nudity at you and you're like 'okay?'

In his quote, Ethan explains that when the conversation starts with some small talk, the possibility of trading pics is appealing, whereas when the opening message is nude photos with no context it creates confusion around both the expected response, as well as the intention behind it. His quote may suggest that due to the commonness of the practice of unsolicited dick pics, there may be a smaller community within Grindr where the practice is

⁸ A 'dick pic' refers to a photo containing exclusively just male genitalia, often erect, and often taken on a smartphone.

both viewed as acceptable, and possibly well received. However, for those outside that community, the practice is viewed negatively and with confusion. These findings have also been previously suggested through interviews with heterosexual men and women, who, when receiving unsolicited dick pics, are often confused and uncomfortable, as well as unsure of how to respond (Mandau, 2019). Whilst decisions about what is, or is not, acceptable may vary within a community, these decisions still appear to be regulated by perceptions of norms, and such norms afford and regulate possibilities for practices. In the discussion that follows I address the operation of homonormativity within the intimate infrastructure of Grindr.

Homonormativity as a learnt process. While much of society functions according to an assumption of heteronormativity where people are assumed to be cis-gendered and heterosexual (Grace & Hill, 2004), Grindr appears to function on a homonormative premise, whereby people are assumed to be cis-gendered men, who identify as gay. While Grindr's app store marketing claims the app is for "gay, bi, and curious men", the app's intimate infrastructure, and its users, constructs users of the app as gay cis-gendered men, which is visible within Grindr's full app title "Grindr – Gay Chat". As discussed earlier, Grindr's intimate infrastructure does not have a designated space for inclusion of sexuality within the profiles. The lack of inclusion could be taken to mean that it is assumed that if someone was on Grindr, they were a man looking for other men, and that their sexuality would reflect that, making the explicit inclusion of sexuality unnecessary. Alternatively, the exclusion of sexuality could also reflect that it is not viewed as important for Grindr users, with constructions of men's sexuality being focused around physicality, thus making information about sexuality unnecessary (Baumeister, 2000). The lack of inclusion could also reflect the motives of Grindr users (Carpenter & McEwan, 2016; Henderson, 2016). Previous research has found that Grindr users often use Grindr for physical hook-ups, while using other apps, such as Tinder, when seeking a long-term relationship (Chan, 2017; Henderson, 2016). The sexuality of the partner found for a hook-up may be less important to users than the sexuality of someone which users intend to be with in a long-term relationship. Through the walkthrough, I noticed that far more profiles were looking for 'NSA' or 'no strings attached' fun, meaning hook-ups with no lasting emotional connection, than were looking for 'LTR', or 'long-term relationships'. These findings are in line with previous research regarding the motivations for Grindr usage (Henderson, 2016), as well as reproducing common constructions of men's sexuality, wherein men are constructed to be sex driven (Baumeister, 2000).

Without a dedicated space for identification of sexuality within Grindr, some users have constructed their profiles in other ways, navigating the affordances of intimate infrastructures to include their sexuality within their presented identity work, outside of the design features of the app. Within the app walkthrough, the 'bisexual' sexual identity was engaged with in specific ways that were different to the assumption of homosexuality. Within the walkthrough in Stage 1 of the data collection, users who identified as bisexual often had their sexuality clearly labelled within their profiles. This identification was often written in the 'About Me' section, and occasionally within the name section of the users' profiles, such as 'Bi Masc'. The explicit inclusion of specific sexualities may demonstrate how learning from experiences of using Grindr suggests that bisexuality may need to be identified early in interactions due to possible stigmas associated with it. George (23, bisexual) explained his experiences of the homonormativity within Grindr:

I think there is also a degree of erasure and of not bigotry, there sort of an attitude towards bisexual people I think that's still there in the LGBT community, I've been lucky enough to avoid it but I have heard about it, basically there are people on sides both hetero and homosexual sides that insist that bi people do not exist and they just can't make their minds up or they are not just full gay yet or something. I guess I include that because I don't want you to talk to me if you think that.

Through this quote, George highlights several reasons for including his sexuality in his profile. His discussion of the erasure of bisexuality within both mainstream and queer communities suggests that his decision to include his sexuality may be in part to improve the visibility of his sexual identity within Grindr. By including his sexuality in his profile, George also protects himself from people who would judge or discriminate against him for his sexuality and therefore deters prejudiced people from contacting him (Mclean, 2008). The homonormativity within Grindr, like the dominant heteronormativity within broader Western society, creates a space in which those who identify outside of homonormative parameters, such as those who identify as bisexual or transgender, may feel the need to explicitly state their difference. This was also noted by interview participants who were not bisexual, such as Ben (28, gay) who explained:

I think predominantly bisexual and pansexual and demisexual and all the things that are typically not the focus within a broadly gay app, I think that those people are the ones to articulate a sexuality to make it very clear that they're not only after like other gay or cis men

As Ben explained, the only people who are seen to identify their sexuality on Grindr are those who do not align with the dominant identity construction within Grindr of cis-gendered and homosexual men. Fred (24, gay) furthered this discussion of homonormative expectations, explaining his understanding of why people who identify as outside the dominant narrative declare it in their profiles: "I think that they'll put down what they identify as and I think that might be because they might feel safer with someone who is non-binary". Through his quote, Fred not only discusses the homonormativity within Grindr, but also suggests that while Grindr functions with a sense of community for those potentially marginalised from mainstream society, it also presents a space for sub-communities to seek each other out through identifying their distinction from the broader Grindr community. As Grindr is presented as an inclusive space for gay, bisexual, and curious men, the expectation that people who identify as other than cis-gendered and homosexual would identify their difference from this expectation within their profile may be a learnt practice emerging from ongoing use of the app. The expected 'gay-ness' of Grindr users creates an environment where those who do not fit the assumed parameters are expected to 'out' themselves through

declaring their deviation from the norm, much like how queer identifying people are expected to 'out' themselves from heterosexual culture. The homonormative construction and regulation of identities and variations in identifications among users, not only constitutes learning to articulate oneself within norms, but also within communities and subcommunities.

Sense of Community as a Temporal Process

Grindr usage may be motivated in part through seeking a sense of community, however, the purpose of the sense of community, and the function it serves, may change during the course of their usage (Kenyon, 2000). Grindr may initially be sought out as a space that is a safe-haven away from the dominant cultural marginalisation experienced by queeridentifying men, which could provide a sense of belonging through shared identity features and experiences. However, over the course of Grindr usage, the function of Grindr as a gateway may become less important, as users may further construct their identities and social connections outside Grindr. While users may no longer need Grindr as an introduction to queer communities and identities, Grindr may still serve an important role as a visible and recognisable brand around which queer men can identify, allowing for Grindr's sense of community to expand to other platforms, such as through the Grindr subreddits when first using Grindr, and the Best of Grindr Instagram account. The shifting construction of Grindr's sense of community from initially seeking out the app, to extending the sense of community off-app after longer term use, may make the affordances for the sense of community an important and salient point of use. Making queer visible in a straight world. While acceptance of queer-identifying people has improved within mainstream Western society, homophobia is still experienced through discrimination and stigma against marginalised sexualities. The stigma associated with men's queerness was discussed by all participants, both through fear of ramifications within physical spaces, as well as fear experienced and reproduced within Grindr itself. Feelings of marginalisation within mainstream Western society may contribute to queeridentifying people seeking out spaces where they feel a sense of belonging, such as Grindr. As many participants discussed their initial use of Grindr being in conjunction with their first coming out, fears of being recognised and publicly identified were voiced as a concern at their initial use of Grindr, and sometimes continuing on through use for fear of professional ramifications.

With concerns of discrimination based on sexuality, it is possible that many potential Grindr users seek out the space for the intimate infrastructure's affordances for anonymity. While there are many concerns regarding anonymity and online disinhibition (Albury & Byron, 2016), this anonymity may also afford users a safe and non-identifiable way to engage with and explore queer communities, as well as exploring and constructing their own identities within a digital space, without having to locate themselves within a queer identity in physical spaces (J. Fox & Ralston, 2016). Participants discussed how the affordance of anonymity was important when they first started using the app, as well as how this importance has changed over the course of their Grindr usage. The interview participants also discussed how other users may take advantage of the anonymity to engage with and construct different aspects of their sexual identity. For many participants, they discussed not originally including their face within their profile in order to protect their identity. George (23, bisexual) explained:

I didn't want to be recognised by somebody who I tangentially knew, just scrolling through, when I was still uncertain about my sexuality and about how public I wanted to be about it. And I didn't want people to, I don't know, I didn't want someone to see and then start talking about it, without me being about to talk about it first if you know what I mean.

George discusses both his desire to keep his anonymity on the platform, while also expressing his desire to control the narrative of his own identity (Legate, Ryan, & Weinstein, 2012). The desire to control the narratives of sexual identity was also expressed by other participants who described using caution when first on the app, as they were not out to all of their social group and wanted to be able to control the sharing of their own identity. The desire to be in control of the personal narrative regarding coming out, as well as narratives of identity more broadly, is a documented occurrence whereby people identifying within marginalised sexualities are often aware and cautious of the stigma surrounding queer identities (Marrs & Staton, 2016). Controlling who they are out to, as well as how much information is revealed, has implications both for their own mental health in terms of feeling accepted, as well as potentially mitigating certain risks which may be associated with coming out, such as social or professional ostracization (Legate et al., 2012). The affordance for anonymity within Grindr's intimate infrastructure is constructed here as a benefit, whereby users may engage with the platform, without having to out themselves. The beneficial points of Grindr's affordances of anonymity reflects participants' concerns surrounding the stigma associated with men's' queerness, as discussed in earlier sections.

The concern of being recognised and possibly outed continued past the initial stages of use for the interview participants, specifically in regard to their professional lives. The interview participants discussed how people might navigate the intimate infrastructure and its affordances for anonymity to protect their professional identities. David (28, gay) explained how he chooses his profile pictures:

it's all contextual because it depends what, again yeah, I suppose going back to you know, fear of being closet, a fear of being outed or something, that might make you not put up a photo, or if you've got a particular job you might not want to put up a particular photo [...] I would just have a photo that didn't have my face.

David discusses how even within Grindr, a space for queer men, there is a sense of fear around being 'outed', or publicly identified within queer identities outside of Grindr (Fox & Ralston, 2016; Legate, Ryan, & Weinstein, 2012). The emergence of this fear within a dedicated queer space speaks to the everyday fear experienced by many queer men, as well as concerns about responses to an individual's sexuality could have ramifications in the physical world (J. Fox & Ralston, 2016; Legate et al., 2012). David briefly mentioned a potential ramification when saying "if you've got a particular job". His explanation that some people would be unable to have their face up on their profile due to professional concerns, reflects how stigma around men's queerness persists and may lead to men constructing their identity presentations to 'pass' as aligning with heteronormative constructs, including presenting as heterosexual in professional contexts (Orne, 2013). This concern may result from the fear of ramifications within physical spaces such as potentially being fired or ostracised (Marrs & Staton, 2016). The concerns regarding the stigmatisation of queer identities further demonstrate how the affordances of anonymity are important for Grindr users, and yet for many users this is in tension with the intimacy of face pictures which may be used to identify Grindr users.

Within Grindr, socialised ingrained homophobia also exists, which is particularly prominent in the frequent inclusion of 'straight-acting' as a requirement of potential partners.

Participants discussed the prevalence of people seeking 'straight-acting' on Grindr, and when asked to elaborate on what that means, David (28, gay) said:

I think a lot of it's got to do with like gay voice, gay voice, and how flamboyant they are with their hands and stuff [...] it's like they have this image about gay men should be masculine men, the only thing that is gay about them is sex.

David's discussion of the preference for 'straight-acting' men may reflect potentially socialised and ingrained homophobic views, established through the heteronormativity, within the Grindr community which are enacted through rejecting users who embodied stereotypical 'gay' traits such as a more feminine voice or hand gestures (Reynolds, 2015; VanderStouwe, 2018). Chris (24, gay) also discussed the preference for 'straight-acting' in relation to the more preferable Tribes:

the typical masculine, which is like the Jock kind of you would think they might be straight at first glance sometimes, like they don't look very gay at first glance type of thing, I think that is definitely like what a lot of people view as like the desirable type of Tribe to be in at the moment.

The idea that a Jock (a designated Tribe on the app's infrastructure) does not "look gay" reflects the socially constructed stereotypes of gay men and their behaviour, as well as how they construct and present their identity to others (Reynolds, 2015). By actively seeking those who do not align with these stereotypes, and therefore do not present as 'gay' to the outside world, this behaviour suggests a rejection of the stereotypical queer identity. As a result of the stigma that queer men face because of their sexualities, tailoring identity presentation in order to construct a version of themselves that aligns with dominant social narratives, such as presenting as 'straight-acting', may create a way to exist within mainstream society with less fear of discrimination based on their sexuality (Orne, 2013). This form of identity work may

be a way to locate one's queer identity within a heterosexual world, by adhering to dominant heteronormative social constructions of how men are expected to look and act, while still participating in queer spaces.

As a result of the stigma experienced by queer men, being able to access queerdedicated spaces in a safe manner remains an important part of queer experiences. Marginalisation and 'othering' from mainstream society may lead to feelings of isolation, increasing the desire to seek out belonging through building a sense of community within digital spaces. Grindr may now serve as a type of visible gateway to search for a sense of community through the app's visibility within mainstream society, and the ease with which it can be accessed. People who wish to engage with queer identities in a safe way may seek out Grindr and related digital spaces to explore their own identities through the affordances within Grindr's intimate infrastructure, while also experiencing a sense of community with queer spaces.

Grindr as a queer gateway. Within all of the interviews, the participants explained how Grindr functioned as a way to enter and engage with broader queer communities, an approach that I have labelled a 'Queer Gateway'. The app acts as a way for queer men to interact within and examine the queer communities around them, as well as their own identities. Alex (27, gay) discussed that initially, when he was not sure about how his family would react to him coming out, he used Grindr to find other people who were also gay or queer-identifying, saying:

I wasn't fully out to my family, which I later found out they were like completely okay with it and everything, but I didn't know that at the time and I think it was a way to connect with people who are possibly like-minded. His perceived rejection from his family as a result of his sexuality prompted him to seek people who were "like-minded", suggesting the assumption that other queer men may have experienced similar situations, and potentially could provide support or advice in his situation. Finding support within Grindr through shared experiences could build a sense of community through being able to discuss shared experiences of being a queer man. Grindr allowed him to find other people to connect with while still not being "fully out" to his family. When discussing other users who may be in similar situations, Alex said "I think it's just because yeah, they're lonely, they can't talk to their male friends about it because they don't want to come out to them, so they need someone else to talk to". In this quote, Alex suggests that as a result of feeling isolated, queer men may use Grindr to seek connection, a sense of community, and a safe space to discuss their sexuality which they may not feel safe doing in other everyday spaces. The intimacy formed through discussing and sharing experiences with others who may have experienced similar things, is afforded through the intimate infrastructure's capability for instant messaging without mutual contact, and helps to build the sense of community in Grindr.

While Grindr provides a sense of community during initial stages of use through discussion of shared experiences, it also can help users engage with queer communities without having to go to physical queer spaces. George (23, bisexual) discussed his usage of Grindr in the context of trying to learn about broader queer communities, saying:

I was like, I know like two gay guys that I'm friends with I guess and speak to on a regular basis and I don't necessarily feel confident enough yet talking to them about this sort of stuff, like just getting stuff off my mind and learning about everything and so I was just chatting with guys and it was not to hook up with them but just to learn about different parts of the community and stuff like that.

While George is aware of the construction of the app as a hook-up platform, he started using Grindr as an information tool for learning about the queer community within his area without necessarily having to out himself to his existing social network. Grindr's intimate infrastructure afforded a safe and clearly identified environment within which he could seek out other members of queer communities as well as explore local communities for those who may not be ready to be out publicly. It has been well documented how Grindr is used as a platform to engage with local communities, such as looking for local knowledge (Shield, 2018), Grindr's importance as a space which may afford a sense of community to marginalised members of society may require further academic attention.

Grindr's location as a digital-physical space builds an environment for users to explore their own sexuality and identity work without having to physically locate themselves as queer. George (23, bisexual) discussed his usage of Grindr as a way to explore a part of his identity he had not previously engaged with:

I had like a weird imposter syndrome where I was like talking to people in the LGBT community and I was like oh, what if I'm not really bi and so then I was like oh cool, well I'll go on there and we'll see if I can find something I'm comfortable with and give it a go.

As explained by George, his construction of his identity as a bisexual man was being disrupted through not having engaged with another man sexually, leading to him to use Grindr to seek an intimate experience to confirm his sexual identity to himself. Grindr's location as the predominant app for queer men, with affordances for anonymity and discretion, allows for more private explorations of identity than more traditional cruising locations such as physical bars and bathhouses/saunas (Aunspach, 2015; Miller, 2015b).

All participants discussed their use of Grindr as a queer gateway, and one user explicitly discussed how other users were open to him wanting to use Grindr as an introduction to queer communities. However, given that Grindr's CTO has openly discussed that Grindr's conversations are analysed by their data specialists (VB Staff, 2016), it is assumed that Grindr must know about this motivation for use, and yet Grindr's promotional material does not make reference to this. It is possible that through Grindr's lack of positioning as a 'Safe Space', and dominant positioning as a hook-up app, it has actually created a safe space, as it is not targeted for being a safe space. Within the last decade, the appearance of 'Safe Spaces' has often led to anger and outrage focused on the concept from anti-Political Correctness movements (Nagle, 2017). The anger generated by the 'Safe Space' movement has led to coordinated attacks on safe spaces, such as the online community '4chan' organising for traditionally 'safe' tags on Tumblr to be targeted with graphic and sensitive content to disrupt the perceived online 'Safe Space' (Nagle, 2017). With Grindr being a prominent and recognisable queer space, its perception as solely a sex-based hook-up app has constructed a space that is not perceived to be 'safe' under the common meanings of 'Safe Spaces'. However, due to its shared user experiences and its recognisability within mainstream society, it has become both a hook-up app, and a safe space for its users if they choose to use it that way.

The users' perceived shared experiences (i.e. coming out, experiencing stigma, trying to explore queer communities) may increase a sense of community, fostering openness to discussions around shared experiences for new members, as where there is a community understanding of specific events and fears, there can also be community support. During the walkthrough, using the explore feature, I looked at rural communities in NSW, and found profiles made by 'LGBT support' groups in rural communities, in which the profiles advertised meet-ups and local events. Through advertising on Grindr, these LGBT support

groups could raise awareness for physical queer spaces, while also allowing users to view the information in private, both through digital anonymity, and a lack of search history, due to Grindr's intimate infrastructure and location within a phone. In this way, Grindr's visibility in mainstream society may also improve its ability to function as a queer gateway. The intimate infrastructure is easy to access and set up, and requires no verification of identity, which can improve user feelings of safety about being able to access local queer communities without having to physically identify themselves as queer by visiting physical spaces designated for queer people.

Alex (27, gay) also discussed how Grindr, as a result of its brand recognition within mainstream society, could be providing an important service: "I also think it's very important for the gay community to have Grindr, Tinder, and just apps in general like that who showcase us and represent us". The construction of Grindr as a form of queer visibility may also contribute to its use as a gateway platform. As Grindr is recognised within mainstream Western society as the prominent queer men's' dating app, it may serve not only as a dating app, but also as a starting point for engaging with and exploring aspects of one's identity, as well as an information sharing platform for queer men. The visibility of Grindr contributes to potential users seeking it out in order to find a space which affords a sense of community through its intimate infrastructure.

Drawing on the interview data to theorise Grindr as a Queer Gateway was of particular interest to me, as there was no clear indication of this use within the walkthroughs: I found no promotional copy suggesting this, nor did my exploration of other connected digital spaces reveal this as a motivation for use. The interview participants discussed using Grindr to find out both about the experience of being queer when they were first coming out, as well as using it to explore local queer communities. The location of Grindr as a queer gateway was discoverable through discussion with active users of the app, providing further support for the expanded walkthrough approach. While all participants discussed the queer gateway as part of their Grindr experience, the use of Grindr as an introductory space to broader queer communities and fostering a sense of community has not received adequate attention within scholarship focused on Grindr, and is also not mentioned within any of Grindr's advertising copy.

A changing sense of community: Grindr and other apps. Grindr's sense of community and social practices stem from its location within digital spaces, and the technological affordances granted within the intimate infrastructure. Through the technological design that allows users to message and send pictures without mutual interest, users can approach each other seeking different intimacies, from sexual and romantic pursuits to social connection and support through their shared experiences. The ability to seek different forms of intimacy can foster a sense of community on Grindr, which may be particularly important during initial stages of coming out. However, as the need for support surrounding coming out often reflected the initial stages of Grindr use for the interview participants, it is possible that the purpose of the sense of community established through Grindr changes over the course of use.

Following the Grindr walkthrough, I believed that Grindr users would be very engaged with the connected, albeit not officially sanctioned, Grindr-focused digital spaces, such as the subreddits, as those were the digital spaces I found and used during the walkthrough. My assumption stemmed from multiple points within the walkthrough, such as Grindr's intimate infrastructure not designing a space for community engagement within the app, potentially leading to seeking a sense of community outside the app, which I believed may occur through the subreddits. At the time of writing, the global Grindr subreddit has over 24,000 subscribers ("General Subreddit for Grindr," n.d.), with far more assumed to be occasional visitors through the publicly viewable nature of Reddit (Moore, 2015). Despite the large user base of the subreddit, when the sense of community was discussed in the interviews, the engagement with Grindr-related spaces was most prominent through Instagram. Many participants discussed how they followed the Best of Grindr Instagram account, which, at the time of writing, had 1.6 million subscribers. Some participants reported using blogs and subreddits initially, as they were uncertain navigating the intimate infrastructure when they first started using the platform. Their use of these platforms during initial Grindr usage could suggest that platforms which provide introductory user information, such as the subreddits or blog posts, could be occasionally visited, but are not consistent over Grindr's usage. However, platforms such as the Best of Grindr Instagram account, which reflect humorous content centred on the experiences of queer identities in modern society, are engaged with over longer periods of time. It is also noteworthy that as I was a new user of Grindr, it is possible that the subreddits were more salient for me as a Grindr beginner. My position as a Grindr beginner meant that I leaned more on platforms which focused on introductory content, such as the subreddits and blog posts, however, as most of the interview participants were medium- to long-term users, they found platforms which extended the sense of community from Grindr onto other social media sites, such as the Best of Grindr Instagram, to be more important.

While the Grindr subreddits and blogs may be most useful during the initial use of Grindr, with users seeking them out to explore unfamiliar aspects of the intimate infrastructure, the Best of Grindr Instagram account appears to serve a different purpose. Whilst the title of the Instagram account, "Best of Grindr", positions it as an account constructed around Grindr, the content shared is not focused on Grindr and is predominantly humorous content related to being a queer man more broadly, rather than focused on the usage of Grindr. The lack of focus on Grindr-specific content could suggest Grindr usage is so synonymous with being a queer man that Grindr is now included within the dominant construction of modern gay identity, and Grindr may be constructed as a signifier of queerness and as a recognisable and visible icon around which queer communities may form. This mainstream visibility could also reflect Grindr's construction as a queer gateway through its synonymous association with being a queer man. The experiences of heterosexual single people using Tinder and equivalent dating apps is often perceived as an integral part of being single and heterosexual, and it seems that Grindr is not associated only with being single, but also with being a queer man. It is possible that the strong association between Grindr and queer men's experiences may also stem from a continuing of the sense of community found on the app during initial Grindr usage. Due to the rise of the integration of technologies such as smartphones and their apps into aspects of everyday life and identity work, further understanding how the sense of community built within the app extends to other platforms and spaces is needed to fully understand the impact of these apps.

Conclusion

Through this research, I sought to examine how the intimate infrastructure of an app, in this instance Grindr, could influence a sense of community, and how the design of digital spaces could be engaged with by users as a space for identity work. As discussed in previous chapters, Grindr has a unique position as a visible platform, with high recognition in mainstream media, whilst creating a safe space for queer users. The positioning of Grindr constructs the platform as an access point for men seeking to engage with queer communities, with users of the app explaining it as a space for exploration of identities and using it to find a sense of community or collective intimacy. Whilst the platform does not specifically design for community engagement, the intimate infrastructure affords multiple intimacies by providing a forum for one-on-one communication, which can foster a sense of community through shared experiences. The sense of community afforded through Grindr's intimate infrastructure extends beyond the app into other digital spaces, such as the Best of Grindr Instagram account. As the Best of Grindr account is located within a social app, which does not exist for romantic affiliations, this can also foster a larger sense of community centred on both Grindr usage and the lived experience of being a queer man.

In terms of using Grindr for identity work, this study contributes new research on how users may be navigating the intimate infrastructure to engage within identity work within Grindr, through the adherence to assumptions of gender and sexuality norms, as well as through constructing situated-identities specifically for their Grindr accounts. While it has been documented that digital spaces allow users to construct, trial, and reconstruct their identities (Robinson, 2018), Grindr creates a space in which people are not only trialling their identities in search of intimacy with themselves, but also constructing their profiles to attract other specific intimacies. Working within the intimate infrastructure's small photo grid layout, and minimal displayed characters in the display name, Grindr users construct their profiles to convey the most information in an environment dominated by similar profiles. This self-marketing is done through emojis in the display name, with " \bigcirc 4 \checkmark " conveying meaning much faster within the grid layout than the words "Bottom looking for Top", which would also not be allowed due to the limited character spaces. The choice of photos was also understood to be important in this self-marketing, with people choosing photos which displayed themselves in different ways depending on the intimacies they were seeking.

This research focused on how users engage with the app, both in how they navigate the intimate infrastructure within the app to construct different identities, as well as how the app can influence a sense of community. Further research could examine how apps are now entangled with broader identity work, such as the use of Grindr being synonymous with queer men's experience. As apps and digital technologies are embedded within modern society, examining the relationship these technologies have with our experiences of self, as well as our experiences of community, is an important topic for future research to pursue.

Limitations

A possible limitation that this project faces is my position as an outsider to Grindr. Prior to this research, I had no experience with Grindr, which meant that my initial understandings of the intimate infrastructure may have been influenced by the platforms I had experienced, such as Her and Tinder, leading to my research focus on areas which were new to me. Being a woman may also have impacted the interviews, as different data may have been gathered by a Grindr-using man, as users may have been more comfortable discussing the interview topics with someone who may have had similar experiences to them. My position as a White woman also leads into the second limitation this study may face: the incidental recruitment of primarily White-identifying men. The recruitment process did not seek to recruit from specific ethnicities, however, all but one participant identified as 'White'. This incidental recruitment may have impacted findings, as race and racial issues were not discussed within the interviews, despite racial issues, such as sexual racism (Conte, 2018), being a well-documented problem within Grindr. My research project was undertaken as an exploratory study to begin to examine how intimate infrastructure could influence a sense of community, and how the intimate infrastructure could be engaged with by users as a space for identity work. Future research could further this understanding through interviewing a larger research sample to achieve broader conceptualisation and confirmation of the current findings.

Further Research Directions

Further research could advance the findings of this study in several ways. Only people who identified as men who used Grindr were interviewed, which means the findings may not reflect the experiences of those who identify as non-binary. Additional research would be well suited to show how the intimate infrastructure of Grindr may influence the identity work of non-binary identifying people, as well as how Grindr may impact their sense of community. Future research may also seek to examine how people of colour engage with identity work and the development of a sense of community within Grindr when located within a White-dominated society, with specific regards to sexual racism. Pursuing these topics would contribute to how different people engage with the intimate infrastructure of Grindr to conduct identity work and construct a sense of community within the digital age.

References

- Abd El-Hameed, D. (2018). The Egyptian General Directorate for Protecting Public Morality. *Journal of Middle East Women's Studies*, 14(2), 252–254. https://doi.org/10.1215/15525864-6680387
- Albury, K., & Byron, P. (2016). Safe on My Phone? Same-Sex Attracted Young People's Negotiations of Intimacy, Visibility, and Risk on Digital Hook-Up Apps. *Social Media* + *Society*, 2(4), 205630511667288. https://doi.org/10.1177/2056305116672887
- Anderson, B. (2006). *Imagined communities: reflections on the origin and spread of nationalism*. Retrieved from https://books.google.com.au/books?id=nQ9jXXJVvgC&source=gbs_navlinks_s
- Anderson, E., & McCormack, M. (2016). Bisexuality: It is Complicated. In *The Changing Dynamics of Bisexual Men's Lives. Focus on Sexuality Research* (pp. 15–29). https://doi.org/10.1007/978-3-319-29412-4_2

Annual surveillance short report 2018 HIV in Australia. (2018).

- Aunspach, C. (2015). From the Gay Bar to the Search Bar: Promiscuity, Identity, and Queer Mobility on Grindr. *Communication Studies Theses, Dissertations, and Student Research.* Retrieved from https://digitalcommons.unl.edu/commstuddiss/33
- Bailey, J. M., Gaulin, S., Agyei, Y., & Gladue, B. A. (1994). Effects of gender and sexual orientation on evolutionarily relevant aspects of human mating psychology. *Journal of Personality and Social Psychology*, *66*(6), 1081–1093. https://doi.org/10.1037/0022-3514.66.6.1081

Baker, S. E., & Edwards, R. (2012). How many qualitative interviews is enough? Expert

voices and early career reflections on sampling and cases in qualitative research. Retrieved from http://eprints.ncrm.ac.uk/2273/4/how_many_interviews.pdf

- Baltar, F., & Brunet, I. (2012). Social research 2.0: virtual snowball sampling method using
 Facebook. *Internet Research*, 22(1), 57–74.
 https://doi.org/10.1108/10662241211199960
- Baumeister, R. F. (2000). Gender differences in erotic plasticity: The female sex drive as socially flexible and responsive. *Psychological Bulletin*, 126(3), 347–374. https://doi.org/10.1037/0033-2909.126.3.347
- Beech, N. (2008). On the Nature of Dialogic Identity Work. Organization, 15(1), 51–74. https://doi.org/10.1177/1350508407084485
- Bennett, T., Grossberg, L., & Morris, M. (2013). New Keywords: a Revised Vocabulary of Culture and Society. Wiley.
- Bezreh, T., Weinberg, T. S., & Edgar, T. (2012). BDSM Disclosure and Stigma
 Management: Identifying Opportunities for Sex Education. *American Journal of* Sexuality Education, 7(1), 37–61. https://doi.org/10.1080/15546128.2012.650984
- Birnholtz, J., Fitzpatrick, C., Handel, M., & Brubaker, J. R. (2014). Identity, identification and identifiability. *Proceedings of the 16th International Conference on Human-Computer Interaction with Mobile Devices & Services - MobileHCI '14*, 3–12. https://doi.org/10.1145/2628363.2628406
- Bivens, R., & Hoque, A. S. (2018). Programming Sex, Gender, and Sexuality: Infrastructural Failures in 'Feminist' Dating App Bumble. *Canadian Journal of Communication*, 43(3). https://doi.org/10.22230/cjc.2019v44n3a3375

- Blackwell, C., Birnholtz, J., & Abbott, C. (2015). Seeing and being seen: Co-situation and impression formation using Grindr, a location-aware gay dating app. *New Media & Society*, *17*(7), 1117–1136. https://doi.org/10.1177/1461444814521595
- Bond, B. J., & Compton, B. L. (2015). Gay On-Screen: The Relationship Between Exposure to Gay Characters on Television and Heterosexual Audiences' Endorsement of Gay Equality. *Journal of Broadcasting & Electronic Media*, 59(4), 717–732. https://doi.org/10.1080/08838151.2015.1093485
- Bonner-Thompson, C. (2017). 'The meat market': production and regulation of masculinities on the Grindr grid in Newcastle-upon-Tyne, UK. *Gender, Place & Culture*, 24(11), 1611–1625. https://doi.org/10.1080/0966369X.2017.1356270
- Brake, D. J., Gammelby, A. K., Heise, N., Henriksen, A. H., Hongladarom, S., Jobin, A., ... Wilhelm, C. (2019). *Internet Research: Ethical Guidelines 3.0*. Retrieved from https://aoir.org/reports/ethics.pdf;
- Braun, V., & Clarke, V. (2012). Thematic analysis. In APA handbook of research methods in psychology, Vol 2: Research designs: Quantitative, qualitative, neuropsychological, and biological. (pp. 57–71). https://doi.org/10.1037/13620-004
- Bucher, T., & Helmond, A. (2017). *The Affordances of Social Media Platforms*. Retrieved from http://www.annehelmond.nl/wordpress/wpcontent/uploads/2016/07/BucherHelmond_SocialMediaAffordances-preprint.pdf
- Burks, D. J. (2011). Lesbian, gay, and bisexual victimization in the military: An unintended consequence of "Don't Ask, Don't Tell"? *American Psychologist*, 66(7), 604–613. https://doi.org/10.1037/a0024609

- Burr, V., & Dick, P. (2017). Social Constructionism. In *The Palgrave Handbook of Critical Social Psychology* (pp. 59–80). https://doi.org/10.1057/978-1-137-51018-1_4
- Carpenter, C. J., & McEwan, B. (2016). The players of micro-dating: Individual and gender differences in goal orientations toward micro-dating apps. *First Monday*, 21(5). https://doi.org/10.5210/fm.v21i5.6187
- Chan, L. S. (2017). The Role of Gay Identity Confusion and Outness in Sex-Seeking on Mobile Dating Apps Among Men Who Have Sex With Men: A Conditional Process Analysis. *Journal of Homosexuality*, 64(5), 622–637. https://doi.org/10.1080/00918369.2016.1196990
- Clay, S. (2016). *Cataloguing Bodies: Tribes on Grindr* (University of Queensland). Retrieved from https://www.researchgate.net/publication/321712567
- Clay, S. (2018). The (Neo)Tribal Nature of Grindr. In *Neo-Tribes* (pp. 235–251). https://doi.org/10.1007/978-3-319-68207-5_15
- Condie, J., Lean, G., & Wilcockson, B. (2017). The Trouble with Tinder: The Ethical
 Complexities of Researching Location-Aware Social Discovery Apps. In K. Woodfield
 (Ed.), *The Ethics of Online Research* (pp. 135–158). https://doi.org/10.1108/S2398-60182018000002006
- Conner, C. T. (2019). The Gay Gayze: Expressions of Inequality on Grindr. *The Sociological Quarterly*, *60*(3), 397–419. https://doi.org/10.1080/00380253.2018.1533394
- Conte, M. T. (2018). More Fats, More Femmes: A Critical Examination of Fatphobia and Femmephobia on Grindr. *Feral Feminisms*, (7). Retrieved from https://feralfeminisms.com/wp-content/uploads/2019/04/3-Matthew-Conte.pdf

- Coughlan, T., & Perryman, L.-A. (2015). A murky business: navigating the ethics of educational research in Facebook groups. *European Journal of Open, Distance and e-Learning*, 146–169. Retrieved from http://oro.open.ac.uk/43343/
- Cover, R. (2012). Performing and undoing identity online: Social networking, identity theories and the incompatibility of online profiles and friendship regimes. *Convergence: The International Journal of Research into New Media Technologies*, *18*(2), 177–193. https://doi.org/10.1177/1354856511433684
- Crawley, S. L., & Willman, R. K. (2018). Heteronormativity made me lesbian: Femme, butch and the production of sexual embodiment projects. *Sexualities*, *21*, 1–2. https://doi.org/10.1177/1363460716677484
- Crooks, R. N. (2013). The Rainbow Flag and the Green Carnation: Grindr in The Gay Village. *First Monday*, *18*(11). https://doi.org/10.5210/fm.v18i11.4958
- Danesi, M. (2017). The semiotics of Emoji: the rise of visual language in the age of the Internet. Retrieved from https://books.google.com.au/books?id=xEPqDAAAQBAJ&dq=emoji+dating&lr=&sour ce=gbs_navlinks_s
- David, G., & Cambre, C. (2016). Screened Intimacies: Tinder and the Swipe Logic. *Social Media* + *Society*, 2(2), 205630511664197. https://doi.org/10.1177/2056305116641976
- Davis, M., Flowers, P., Lorimer, K., Oakland, J., & Frankis, J. (2016). Location, safety and (non) strangers in gay men's narratives on 'hook-up' apps. *Sexualities*, 19(7), 836–852. https://doi.org/10.1177/1363460716629334

Duguay, S. (2017a). Dressing up Tinderella: interrogating authenticity claims on the mobile

dating app Tinder. *Information, Communication & Society*, 20(3), 351–367. https://doi.org/10.1080/1369118X.2016.1168471

- Duguay, S. (2017b). Identity modulation in networked publics: Queer women's participation and representation on Tinder, Instagram, and Vine (Queensland University of Technology). https://doi.org/10.5204/thesis.eprints.111892
- Elia, J. P., & Eliason, M. J. (2010). Dangerous Omissions: Abstinence-Only-Until-Marriage School-Based Sexuality Education and the Betrayal of LGBTQ Youth. *American Journal of Sexuality Education*, 5(1), 17–35. https://doi.org/10.1080/15546121003748848
- Flanders, C. E., Dobinson, C., & Logie, C. (2017). Young bisexual women's perspectives on the relationship between bisexual stigma, mental health, and sexual health: a qualitative study. *Critical Public Health*, 27(1), 75–85. https://doi.org/10.1080/09581596.2016.1158786
- Fox, J., & Ralston, R. (2016). Queer identity online: Informal learning and teaching experiences of LGBTQ individuals on social media. *Computers in Human Behavior*, 65, 635–642. https://doi.org/10.1016/j.chb.2016.06.009
- Fox, S. (2004). The New Imagined Community: Identifying and Exploring a Bidirectional Continuum Integrating Virtual and Physical Communities through the Community Embodiment Model (CEM). *Journal of Communication Inquiry*, 28(1), 47–62. https://doi.org/10.1177/0196859903258315
- Friz, A., & Gehl, R. W. (2016). Pinning the feminine user: gender scripts in Pinterest's signup interface. *Media, Culture & Society*, 38(5), 686–703. https://doi.org/10.1177/0163443715620925

- Fumagalli, A., Lucarelli, S., Musolino, E., & Rocchi, G. (2018). Digital Labour in the Platform Economy: The Case of Facebook. *Sustainability*, 10, 1757. https://doi.org/10.3390/su10061757
- General Subreddit for Grindr. (n.d.). Retrieved December 1, 2019, from https://www.reddit.com/r/grindr/
- Gill, P., Stewart, K., Treasure, E., & Chadwick, B. (2008). Methods of data collection in qualitative research: interviews and focus groups. *British Dental Journal*, 204(6), 291– 295. https://doi.org/10.1038/bdj.2008.192
- Grace, A. P., & Hill, R. J. (2004). Positioning queer in adult education: Intervening in politics and praxis in North America. *Studies in the Education of Adults*, 36(2), 167–189. https://doi.org/10.1080/02660830.2004.11661495
- Grindr Gay chat. (2019). Google Play Store: Grindr LLC.
- Guest, G., Bunce, A., & Johnson, L. (2006). How Many Interviews Are Enough? *Field Methods*, *18*(1), 59–82. https://doi.org/10.1177/1525822X05279903
- Heino, R. D., Ellison, N. B., & Gibbs, J. L. (2010). Relationshopping: Investigating the market metaphor in online dating. *Journal of Social and Personal Relationships*, 27(4), 427–447. https://doi.org/10.1177/0265407510361614
- Henderson, S. (2016). Looking for Right Now: A Rhetorical Analysis on Gay Men's Diction Relative to Grindr. *The National Conference On Undergraduate Research (NCUR)*, 3–6. Retrieved from

http://www.ncurproceedings.org/ojs/index.php/NCUR2016/article/view/1857

Hollander, J. A. (2001). Vulnerability and Dangerousness: The Construction of Gender

through Conversation about Violence. *Gender & Society*, *15*(1), 83–109. https://doi.org/10.1177/089124301015001005

- Hosking, I. M., & Clarkson, P. J. (2017). Now You See It, Now You Don't: Understanding User Interface Visibility. Universal Access in Human–Computer Interaction. Human and Technological Environments, 436–445. https://doi.org/10.1007/978-3-319-58700-4_35
- Ioverno, S., Baiocco, R., Lingiardi, V., Verrastro, V., D'Amore, S., & Green, R.-J. (2018). Attitudes towards same-sex parenting in Italy: the influence of traditional gender ideology. *Culture, Health & Sexuality*, 1–17. https://doi.org/10.1080/13691058.2018.1459846
- Jaspal, R. (2017). Gay Men's Construction and Management of Identity on Grindr. Sexuality & Culture, 21(1), 187–204. https://doi.org/10.1007/s12119-016-9389-3
- Johnston, L., & Longhurst, R. (2010). *Space, Place, and Sex: geographies of sexualities*. Retrieved from https://books.google.com.au/books?id=S2nt2b5NvwcC&dq=space+place+and+sex+&lr =&source=gbs_navlinks_s
- Kavoura, A. (2014). Social media, online imagined communities and communication research. *Library Review*, *63*(6/7), 490–504. https://doi.org/10.1108/LR-06-2014-0076
- Kenyon, E. (2000). Time, Temporality and the Dynamics of Community. *Time & Society*, *9*(1), 21–41. https://doi.org/10.1177/0961463X00009001002
- Kerslake, L., & Wegerif, R. (2017). The Semiotics of Emoji: The Rise of Visual Language in the Age of the Internet. *Media and Communication*, *5*(4), 75.

https://doi.org/10.17645/mac.v5i4.1041

- Khayatt, D. (2002). Toward a Queer Identity. *Sexualities*, 5(4), 487–501. https://doi.org/10.1177/1363460702005004006
- Klinkenberg, D., & Rose, S. (1994). Dating Scripts of Gay Men and Lesbians. *Journal of Homosexuality*, 26(4), 23–35. https://doi.org/10.1300/J082v26n04_02
- Kramer, K.-L., & Kramer, K.-L. (2012). Approaches to A Sustainable User Experience. User Experience in the Age of Sustainability, 31–68. https://doi.org/10.1016/B978-0-12-387795-6.00002-0
- Landovitz, R. J., Tseng, C.-H., Weissman, M., Haymer, M., Mendenhall, B., Rogers, K., ... Shoptaw, S. (2013). Epidemiology, Sexual Risk Behavior, and HIV Prevention Practices of Men who Have Sex with Men Using GRINDR in Los Angeles, California. *Journal of Urban Health*, 90(4), 729–739. https://doi.org/10.1007/s11524-012-9766-7
- Legate, N., Ryan, R. M., & Weinstein, N. (2012). Is Coming Out Always a "Good Thing"?
 Exploring the Relations of Autonomy Support, Outness, and Wellness for Lesbian, Gay, and Bisexual Individuals. *Social Psychological and Personality Science*, 3(2), 145–152. https://doi.org/10.1177/1948550611411929
- Light, B., Burgess, J., & Duguay, S. (2018). The walkthrough method: An approach to the study of apps. *New Media & Society*, 20(3), 881–900. https://doi.org/10.1177/1461444816675438
- Locke, P. (1997). Male Images in the Gay Mass Media and Bear-Oriented Magazines: Analysis and Contrast. In L. K. Wright & J. P. Dececco (Eds.), *The Bear Book: Readings in the history and evolution of a gay male subculture* (p. 284). Retrieved from

https://books.google.com.au/books?hl=en&lr=&id=VG_uG5dXzd4C&oi=fnd&pg=PA1 03&dq=bear+clubs+gay&ots=gG9tinaVoI&sig=rsqSk4k3LZGY9wL1_QWlb9kkKLk#v =onepage&q=bear clubs gay&f=false

Lorber, J. (2018). The Social Construction of Gender. In D. B. Grusky (Ed.), *The Inequality Reader: Contemporary and Foundational Readings in Race, Class, and Gender* (2nd ed., p. 786). Retrieved from https://books.google.com.au/books?hl=en&lr=&id=ZUtWDwAAQBAJ&oi=fnd&pg=P T278&dq=social+construction+of+gender+judith+lorber&ots=SDyjcdkRUk&sig=kcNS W_zqx5Wzje2OV1e3La3vW5I#v=onepage&q=social construction of gender judith lorber&f=false

- MacKee, F. (2016). Social Media in Gay London: Tinder as an Alternative to Hook-Up Apps. Social Media + Society, 2(3), 205630511666218. https://doi.org/10.1177/2056305116662186
- MacLeod, C., & McArthur, V. (2018). The construction of gender in dating apps: an interface analysis of Tinder and Bumble. *Feminist Media Studies*, 1–19. https://doi.org/10.1080/14680777.2018.1494618
- Mandau, M. B. H. (2019). 'Directly in Your Face': A Qualitative Study on the Sending and Receiving of Unsolicited 'Dick Pics' Among Young Adults. *Sexuality & Culture*, 1–22. https://doi.org/10.1007/s12119-019-09626-2
- Marrs, S. A., & Staton, A. R. (2016). Negotiating Difficult Decisions: Coming Out versus Passing in the Workplace. *Journal of LGBT Issues in Counseling*, 10(1), 40–54. https://doi.org/10.1080/15538605.2015.1138097

Mathers, L. A. B., Sumerau, J. E., & Cragun, R. T. (2018). The Limits of Homonormativity:

Constructions of Bisexual and Transgender People in the Post-gay Era. *Sociological Perspectives*, *61*(6), 934–952. https://doi.org/10.1177/0731121417753370

- McCosker, A., Albury, K., Pym, T., Byron, P., & Race, K. (2019). Swiping, stealthing and catfishing: dating and hookup apps in the media / APO. https://doi.org/10.25916/5d7ed40274311
- Mclean, K. (2008). Silences and Strereotype: The impact of (mis)constructions of bisexuality on Australian bisexual men and women. *Gay & Lesbian Issues and Psychology Review*, 4(3), 158–165. Retrieved from http://www.groups.psychology.org.au/glip/glip_review/TheReviewislistedonUlrich'sPer iodicalsDirectory:http://www.ulrichsweb.com/
- McMillan, D. W., & Chavis, D. M. (1986). Sense of community: A definition and theory. *Journal of Community Psychology*, 14(1), 6–23. https://doi.org/10.1002/1520-6629(198601)14:1<6::AID-JCOP2290140103>3.0.CO;2-I
- Michael Joseph, K., Maurice Adib, S., Joseph, J. G., & Tal, M. (1991). Gay identity and risky sexual behavior related to the AIDS threat. *Journal of Community Health*, 16(6), 287– 297. https://doi.org/10.1007/BF01324514
- Miller, B. (2015a). "Dude, Where's Your Face?" Self-Presentation, Self-Description, and Partner Preferences on a Social Networking Application for Men Who Have Sex with Men: A Content Analysis. *Sexuality & Culture*, 19(4), 637–658. https://doi.org/10.1007/s12119-015-9283-4
- Miller, B. (2015b). "They're the modern-day gay bar": Exploring the uses and gratifications of social networks for men who have sex with men. *Computers in Human Behavior*, *51*, 476–482. https://doi.org/10.1016/J.CHB.2015.05.023

- Miller, B., & Behm-Morawitz, E. (2016). "Masculine Guys Only": The effects of femmephobic mobile dating application profiles on partner selection for men who have sex with men. *Computers in Human Behavior*, 62, 176–185. https://doi.org/10.1016/j.chb.2016.03.088
- Milone, A. (2016). Seen, But Now Heard: How Increased LGBT Visibility Contributed to Cultural Acceptance of Gay Marriage. *Phi Alpha Theta Upper New York Regional Conference*. Retrieved from https://dspace.sunyconnect.suny.edu/handle/1951/69896
- Moore, C. M. (2015). *Redditors Revealed: A Uses and Gratifications Approach Motivational Factors Influencing Users of the Social News Website Reddit.com* (Hawaii Pacific University). Retrieved from https://search.proquest.com/docview/1712861127?pqorigsite=gscholar
- Moses, E. (2018). Eggplants and Peaches: Understanding Emoji Usage on Grindr. *Electronic Theses and Dissertations*. Retrieved from https://dc.etsu.edu/etd/3379
- Nagle, A. (2017). *Kill all normies: the online culture wars from Tumblr and 4chan to the altright and Trump*. Retrieved from https://books.google.com.au/books?hl=en&lr=&id=y-MIDwAAQBAJ&oi=fnd&pg=PT7&dq=tumblr+4chan&ots=Q_3v7oZBDh&sig=bqskO wwtSkSaJ2gB5PVF1341-Y8#v=onepage&q=tumblr 4chan&f=false
- O'Reilly, M., & Parker, N. (2013). 'Unsatisfactory Saturation': a critical exploration of the notion of saturated sample sizes in qualitative research. *Qualitative Research*, *13*(2), 190–197. https://doi.org/10.1177/1468794112446106
- Orne, J. (2013). Queers in the Line of Fire: Goffman's Stigma Revisited. *The Sociological Quarterly*, 54(2), 229–253. https://doi.org/10.1111/tsq.12001

- Phillips, C. (2015). Self-Pornographic Representations with Grindr. Journal of Visual and Media Anthropology, 1(1), 65–79. Retrieved from http://www.visual-anthropology.fuberlin.de/journal/Vol_1_1_2015/PHILLIPS.pdf
- Phillips, T. (2002). Imagined Communities and Self-Identity: An Exploratory Quantitative Analysis. *Sociology*, *36*(3), 597–617. Retrieved from http://journals.sagepub.com.ezproxy.uws.edu.au/doi/pdf/10.1177/003803850203600300
 6
- Pink, S., Sinanan, J., Hjorth, L., & Horst, H. (2016). Tactile digital ethnography: Researching mobile media through the hand. *Mobile Media & Communication*, 4(2), 237–251. https://doi.org/10.1177/2050157915619958
- Renn, K. A. (2007). LGBT Student Leaders and Queer Activists: Identities of Lesbian, Gay,
 Bisexual, Transgender, and Queer Identified College Student Leaders and Activists. *Journal of College Student Development*, 48(3), 311–330.
 https://doi.org/10.1353/csd.2007.0029
- Renninger, B. J. (2019). Grindr Killed the Gay Bar, and Other Attempts to Blame Social Technologies for Urban Development: A Democratic Approach to Popular Technologies and Queer Sociality. *Journal of Homosexuality*, 66(12), 1736–1755. https://doi.org/10.1080/00918369.2018.1514205
- Reynolds, C. (2015). "I Am Super Straight and I Prefer You be Too" Constructions of heterosexual masculinity in online personal ads for "straight" men seeking sex with men. *Journal of Communication Inquiry*, *39*(3), 213–231. https://doi.org/10.1177/0196859915575736

Roberts, T. S., Horne, S. G., & Hoyt, W. T. (2015). Between a Gay and a Straight Place:

Bisexual Individuals' Experiences with Monosexism. *Journal of Bisexuality*, *15*(4), 554–569. https://doi.org/10.1080/15299716.2015.1111183

- Robinson, L. (2018). The identity curation game: digital inequality, identity work, and emotion management. *Information, Communication & Society*, *21*(5), 661–680. https://doi.org/10.1080/1369118X.2017.1411521
- Roth, Y. (2015). "No Overly Suggestive Photos of Any Kind": Content Management and the Policing of Self in Gay Digital Communities. *Communication, Culture & Critique*, 8(3), 414–432. https://doi.org/10.1111/cccr.12096
- Samuels, E. J. (2003). My Body, My Closet: Invisible Disability and the Limits of Coming-Out Discourse. In *GLQ: A Journal of Lesbian and Gay Studies* (Vol. 9). Retrieved from https://muse.jhu.edu/article/40803/summary
- Schrimshaw, E. W., Downing, M. J., & Cohn, D. J. (2018). Reasons for Non-Disclosure of Sexual Orientation Among Behaviorally Bisexual Men: Non-Disclosure as Stigma Management. *Archives of Sexual Behavior*, 47(1), 219–233. https://doi.org/10.1007/s10508-016-0762-y
- Shield, A. D. (2016). New in Town: Gay Immigrants and Geosocial Media. In A. Dhoest, L. Szulc, & B. Eeckhout (Eds.), *LGBTQs, Media and Culture in Europe* (pp. 258–275). https://doi.org/10.4324/9781315625812-26
- Shield, A. D. (2018). Grindr culture: Intersectional and socio-sexual. *Ephemera: Theories & Politics in Organization*, *18*(1), 149–161. Retrieved from www.ephemerajournal.org
- Star, S. L. (1999). The Ethnography of Infrastructure. American Behavioral Scientist, 43(3), 377–391. https://doi.org/10.1177/00027649921955326

- Sveningsson, S., & Alvesson, M. (2003). Managing Managerial Identities: Organizational Fragmentation, Discourse and Identity Struggle. *Human Relations*, 56(10), 1163–1193. https://doi.org/10.1177/00187267035610001
- Tagg, C., Lyons, A., Hu, R., & Rock, F. (2017). The ethics of digital ethnography in a team project. *Applied Linguistics Review*, 8(2–3), 271–292. https://doi.org/10.1515/applirev-2016-1040
- Taylor, S., & Littleton, K. (2006). Biographies in talk: a narrative-discursive research approach. *Qualitative Sociology Review*, 2(1), 22–38. Retrieved from http://oro.open.ac.uk/4643/
- Thorsteinsson, G., & Page, T. (2014). User attachment to smartphones and design guidelines. *International Journal of Mobile Learning and Organisation*, 8(3), 201–215. https://doi.org/10.1504/IJMLO.2014.067020
- Tong, S. T., Hancock, J. T., & Slatcher, R. B. (2016). Online dating system design and relational decision making: Choice, algorithms, and control. *Personal Relationships*, 23(4), 645–662. https://doi.org/10.1111/pere.12158
- Tziallas, E. (2015). Gamified Eroticism: Gay Male "Social Networking" Applications and Self-Pornography. *Sexuality & Culture*, 19(4), 759–775. https://doi.org/10.1007/s12119-015-9288-z
- Van De Wiele, C., & Tong, S. T. (2014). Breaking boundaries: the uses & gratifications of grindr. Proceedings of the 2014 ACM International Joint Conference on Pervasive and Ubiquitous Computing - UbiComp '14 Adjunct, 619–630. https://doi.org/10.1145/2632048.2636070

- VanderStouwe, C. (2018). 'Straight-ish': Agency, constraints, and the linguistic negotiation of identity and desire in online personal advertisements among men seeking men. *Gender and Language*, 13(1), 122–145. https://doi.org/10.1558/genl.30939
- VB Staff. (2016). Mobile app analytics: How Grindr monetizes 6 million active users (webinar). Retrieved April 30, 2019, from Venture Beat website: https://venturebeat.com/2016/04/05/mobile-app-analytics-how-grindr-monetizes-6million-active-users-webinar/
- Wajcman, J. (2010). Feminist theories of technology. *Cambridge Journal of Economics*, 34(1), 143–152. https://doi.org/10.1093/cje/ben057
- Wajcman, J. (2014). Pressed for time: The acceleration of life in digital capitalism.University of Chicago Press.
- Walch, S. E., Sinkkanen, K. A., Swain, E. M., Francisco, J., Breaux, C. A., & Sjoberg, M. D. (2012). Using Intergroup Contact Theory to Reduce Stigma Against Transgender Individuals: Impact of a Transgender Speaker Panel Presentation. *Journal of Applied Social Psychology*, 42(10), 2583–2605. https://doi.org/10.1111/j.1559-1816.2012.00955.x
- Ward, J. (2016). What are you doing on Tinder? Impression management on a matchmaking mobile app. *Information, Communication & Society*, 1–16. https://doi.org/10.1080/1369118X.2016.1252412
- Winetrobe, H., Rice, E., Bauermeister, J., Petering, R., & Holloway, I. W. (2014). Associations of unprotected anal intercourse with Grindr-met partners among Grindrusing young men who have sex with men in Los Angeles. *AIDS Care*, 26(10), 1303– 1308. https://doi.org/10.1080/09540121.2014.911811

Zervoulis, K., Smith, D. S., Reed, R., & Dinos, S. (2019). Use of 'gay dating apps' and its relationship with individual well-being and sense of community in men who have sex with men. *Psychology and Sexuality*. https://doi.org/10.1080/19419899.2019.1684354