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**Making epistemic citizens: Young people and the search for reliable and credible sexual health information**

**Abstract**

The 21st century has seen the proliferation of technologies and sources of information on issues of all kinds, including sexuality. Amid debates about the role of social media and the internet in mediating sexuality, questions about credible, reliable and objective sources of information have also arisen, particularly in relation to young people’s knowledge-seeking. Drawing on key ideas from the theorisation of sexual citizenship, and considering them alongside Foucault’s notion of the ‘episteme’ and the work of science and technology studies scholar John Law, this article examines a ‘collateral reality’ produced by contemporary demands on young people to source, assess and act on sexual health information. Using interviews collected with 37 young people living in Australia, the analysis identifies a range of approaches to sexual health-seeking practices, key dynamics in the construction of reliability and fact, and the extent and nature of the accommodations many young people report making to navigate incomplete and unreliable information. With the contemporary self increasingly framed through the ability to discern truth from falsehood, reality from fake news, these demands and choices have significant implications for qualification as the proper modern citizen. Accommodating information weaknesses and gaps in sexual health information, we argue, produces what we call contemporary ‘epistemic citizens’; young people explicitly aware of the limits of official knowledges about sexualities, and of the expectation that individual citizens must either content themselves with officially constituted sexual selves or else seek and enact marginal or unofficial alternatives using sources generally denigrated as unreliable. As we will conclude, current forms of sexual health information and related calls for youth literacy operate as a mechanism for generating a specific modern form of epistemic citizenship. Future sexuality education might consider ways to support more literate, sophisticated epistemic citizens relieved of the responsibility to piece the truth together on their own, and who in turn feel more included.

**Introduction**

The 21st century has seen the proliferation of technologies and sources of information about issues of all kinds, including sexuality. Hailed by some as a step forward in offering accounts of sex and selfhood much more expansive and diverse than traditional mainstream accounts (Attwood, Hakim and Alison, 2017), these developments have also been criticised as opening up scope for bullying, unwanted exposure and new forms of normalisation (Flood, 2009; Nicol, 2012). Amid debates about the role of social media and the internet in mediating sexuality (Attwood et al., 2017), questions about reliable sources of information have also arisen, particularly in relation to young people’s knowledge-seeking. How do young people access information about sexuality and sexual health, and what sources of information do they trust most? These important questions are the subject of a qualitative research project recently conducted in Australia, which investigated the role of sexual information-seeking in the formation of notions of credibility, reliability and objectivity. This article examines these issues in detail. Drawing on, and inverting, key ideas from the theorisation of sexual citizenship, and considering them alongside the work of science and technology studies scholar John Law, this article examines the ‘collateral realities’ produced by contemporary demands on young people to source, assess and act on sexual health information. Using interviews collected with 37 young people aged between 18 and 21 living in Australia, the analysis identifies a range of approaches to sexual health information-seeking practices, key dynamics in the construction of reliability and fact, and the extent and nature of the accommodations many young people report making to navigate incomplete and unreliable information. In the process, the article examines the ways in which accommodating such information weaknesses and gaps produces what we call contemporary epistemic citizens; young people explicitly aware of the limits of official knowledges about sexualities, and of the expectation that individual citizens must either content themselves with officially constituted sexual selves or else seek and enact marginal or unofficial alternatives using sources generally denigrated as unreliable. With the contemporary self increasingly framed through the ability to discern truth from falsehood, reality from fake news, these demands and choices have significant implications for qualification as the proper modern citizen. What kinds of epistemic citizens, we ask, are constituted in the production and pursuit of sexual health knowledges, and what are their implications for broader, urgently needed, debates about the nature of truth and the responsible, knowing citizen?

**Background and literature**

While many researchers, educators and advocates position relationships and sexuality education as essential to providing young people with the knowledge and skills to have fulfilling relationships and navigate important issues such as consent, the nature of such information and how it should be presented is by no means settled (Sundaram and Sauntson, 2016). In Australia, sexual health information aimed at young people frequently focuses on issues of risk, such as sexually transmissible infections, and pays little attention to pleasure (Allen, Rasmussen and Quinlivan, 2014). While sources that advocate for consideration of pleasure, or sex positive approaches, do exist, it is unclear how young people may find or access them. Formal relationships and sexuality education in schools is not nationally mandated in Australia, and guidelines and policies differ by jurisdiction and can vary across schools in the same jurisdiction (Mitchell et al., 2011; Fisher et al., 2019). Multiple studies note a consistent trend in negative experiences with school-based relationships and sexuality education (e.g. Pound, Langford and Campbell, 2016; Narushima et al., 2020; Waling et al., 2020). This research suggests that this aspect of education often does not meet the needs of young people, with many reporting a preference for positive and supportive LGBTIQ (lesbian, gay, bisexual, trans, intersex and queer)-inclusive material that addresses broader issues such as intimacy and trust, and is not centred solely on penile-vaginal intercourse and risk (Grant and Nash 2018; Waling et al., 2020; Waling et al., in press).

Given these dynamics, it is perhaps unsurprising that young people report seeking sexual health information on the internet (Magee et al., 2012; Cassidy et al., 2014; Fisher et al., 2019; Waling et al., in press). Significantly for our analysis, research suggests that gender and sexuality shape engagement with online sexual health information in complex ways. For example, LGBTIQ young people appear to use the internet as a source of sexual health information more than their heterosexual counterparts (Charest, Kleinplatz and Lund, 2016; Nikkelen, van Oosten and van den Borne, 2020). Explanations offered for this include fear of prejudice and discrimination, and lack of appropriate content in formal education and health service settings (Grant and Nash 2018; Narushima et al., 2020). Other research also suggests that LGBTIQ content is absent from much formal sex education, or takes a heterosexual viewpoint that does not address the experiences and concerns of gender and sexually diverse young people (Grant and Nash 2018; Pound, Langford and Campbell, 2016; Shannon, 2016; Waling et al., in press). Indeed, in a recent national survey of young people and their sexual health, participants indicated an awareness of the information they were not receiving in their formal relationships and sexuality education (Waling et al., in press). Young people’s widespread use of the internet and social media has led some researchers to call for greater provision of sexual health information via social media (Byron et al., 2013; Lim et al., 2014; Byron, 2017). However, they also caution that young people can be hesitant to access sexual health information using social media because of concerns about confidentiality and the potentially negative implications for online exposure (Byron et al., 2013; Lim et al., 2014; Patterson et al., 2019). That said, online spaces such as Reddit have increasingly been used by people (including young people) seeking sexual health information and medical diagnosis due to the anonymity they afford (Nobles et al., 2019). These concerns point to the importance of understanding the social dynamics that shape young people’s online engagement, the processes by which they assess the credibility of internet-based sexual health information, and how the pursuit of reliable and credible sexual health information itself shapes identities and perspectives.

While young people’s views on formal sexual health education have been researched in detail (i.e. Alldred and David, 2007; McKee et al., 2014; Pound, Langford and Campbell, 2016; Pound et al., 2017; Waling et al., 2020; Waling et al., in press), less is known about how they appraise information found online, and what this process of appraisal means in terms of their sense of self, belonging and responsibility within mainstream sexual health knowledge systems (what we will term ‘epistemes’ [see below]). Some scholars have raised concerns about young people’s ability to evaluate online health information critically (e.g. Eysenbach, 2008) and pornography is often cited as a major concern in this regard, with some suggesting that it promotes unrealistic expectations about sex and encourages gender-based violence (Goldsmith, Dunkley, Dang, and Gorzalka, 2017; Davis et al., 2020). However, others argue that young people are not merely passive consumers of sexual health information, instead actively weighing up the credibility of the sources they find (Magee et al., 2012; Patterson et al., 2019; Simon and Daneback, 2013). Australian research on young men’s sources of sexual health information found that they used strategies such as cross-referencing online information to evaluate reliability (Litras, Latreille and Temple-Smith, 2015). Similar strategies have been identified in recent research on how young sexual minority women evaluate different forms of online sexual health information (Flanders et al., 2020). Building on and extending this literature, our analysis examines the strategies used by young people to collect and assess sexual health information, and considers the implications of these activities for their perspectives on public health, mainstream health advice and their own belonging within Australia’s mainstream sexual cultures. To conduct the analysis we begin by outlining our key concepts: sexual citizenship, collateral realities, the episteme and, in turn, epistemic citizenship.

**Approach**

The notion of sexual citizenship emerged in the early 1990s as a means of describing the relationship between sexuality, the state, and global market economies and consumption (Aggleton, Prankumar, Cover, Leahy, Marshall and Rasmussen, 2019). Defined broadly, the term refers to the ways in which claims to social and political belonging may be made by those traditionally excluded from full participation in the polity by virtue of their sexual identities or practices. In claiming rights to live openly and without legal constraint as non-heteronormative citizens, for example, LGBTIQ people enact forms of sexual citizenship via claiming common features of citizenship such as ‘enfranchisement, inclusion, belonging, equity and justice, tempered by new responsibilities’ (Aggleton et al., 2019, paraphrasing Weekes, 1998, p. 4). One of the strengths of the notion of sexual citizenship and its mobilisation in scholarship on LGBTIQ claims-making is its capacity to illuminate the mutually constitutive relations between the conventionally separated public and private spheres of citizenship and sexuality. As have feminists (for example, Vance, 1984; Pateman, 1988) before them, activists and scholars working in this area have drawn attention to the key role putatively private practices such as sexual relationships play in producing some as citizens and excluding others from such status.

Sexual citizenship has been taken up by a wide range of researchers, including those interested in discourses of sexuality surrounding youth, and young people’s ways of navigating sexual identity, sexual practice and sexual norms. As Aggleton et al. (2019) point out, while sexual citizenship is, in itself, a challenging concept in the ways in which it collapses public and private, its use in understanding young people in particular is even more fraught, most obviously because any discussion of sexuality relating to young people faces a range of further challenges and concerns. As indicated above, a number of researchers have identified issues of direct relevance to our argument in this article, in particular, the difficulty young people face in accessing reliable factual advice, information and support on issues of sex and sexuality. This dynamic is especially evident in the interview material that forms the basis for this article, and that has been analysed in earlier publications from the same project (Removed to preserve anonymity, 2020; Removed to preserve anonymity, under review).

To place this dynamic in context, we also draw on the notion of the episteme as mobilised in Michel Foucault’s book, *The Order of Things* (1994 [1970])*.* In this work Foucaultexamines three disciplines – economics, linguistics and natural history – in order to illustrate the ways in which these diverse intellectual fields share characteristics he defines as emerging from an ‘episteme’ common to all. What does Foucault mean by ‘episteme’? For him the term refers to the system of knowledge, of basic concepts, available at a given time, a system that operates both as the basis for, and boundary of, all knowledge. As Payne puts it, epistemes ‘both enable and limit the production of knowledge, not simply by external, institutional, or political manipulation but by their own determination of the extent of possible intellectual production’ (Payne, 1997, p. 45).

Foucault’s book opens with the citation of a short story by Borges in which a taxonomy of animals, reputedly taken from an ancient Chinese encyclopaedia, is quoted (1994, p. xv):

Animals are divided into: (a) belonging to the Emperor, (b) embalmed, (c) tame, (d) sucking pigs, (e) sirens, (f) fabulous, (g) stray dogs, (h) included in the present classification, (i) frenzied, (j) innumerable, (k) drawn with a very fine camelhair brush, (l) *et cetera*, (m) having just broken the water pitcher, (n) that from a long way off look like flies.

Wholly incongruent with modern Western logics, this taxonomy indicates to Foucault the inherent contingency of processes of classification (of systems of knowledge), that is, their dependence on their intellectual, political and philosophical contexts. He thus asks,

What if…errors (and truths), the practice of old beliefs, including not only genuine discoveries, but also the most naïve notions, obeyed at a given moment, the laws of a certain code of knowledge? (1994, p. ix)

His intention is to describe this ‘code of knowledge’, the ‘epistemological space’ in which his three disciplines of economics, linguistics and natural history are formed. This is not, he says, to draw their validity into question, but to provide a description of the ‘positive unconscious’ (Foucault, 1994, p. xi) of their knowledge.

Part of the task of this article is to likewise consider the ‘unconscious’ that informs the acquisition and navigation of sexual health information described by our participants – to identify and consider the implications of the conventions and values informing the composition and assessment of that information – what science and technology studies theorist John Law might call the ‘hinterland’ of these composition and assessment efforts. In doing so, the article will illuminate how, in searching for reputable sexual health information, participants simultaneously act to qualify as ‘epistemic citizens’. As Law has observed about the production of any given reality (such as the reality of the youth sexual citizen with rights and responsibilities), other realities always ‘get done incidentally, and along the way’ (2011, p. 156) – that is, ‘collateral’ to the main realities being produced in any process of meaning making. In the context of youth sexual citizenship, such collateral realities are many. Here we focus on one we have termed ‘epistemic citizenship’, or the pursuit of forms of citizenship inclusion through the enactment of specific epistemic values and practices. In mobilising this expression we acknowledge connections with other notions of epistemic citizenship such as that articulated in Foster’s work on patent law in South Africa (2012, p.iii). Here the term is defined as:

the ways in which privileges and responsibilities are being granted in unequal ways based upon whose knowledge matters most to neoliberal economies. To be sure, citizenship has always been linked to knowledge and power. Yet, this research contends that lines of inclusion and exclusion within the nation-state are being drawn in new ways through the expanding regulation and control of knowledge.

Foster draws on Sheila Jasanoff’s elaborations of civic epistemologies (2005) to build her approach, noting that, for Jasanoff, ‘modes of citizenship find new expression in political contestations over science and knowledge’. As will become clear, the argument being made in our analysis here identifies similar contestations in our data, while focusing especially closely on the governmentality dimensions of particular engagements with knowledge making and values relating to knowledge. This focus arises out of two key observations:

1) our interview data indicate considerable struggles among young people to find relevant and reliable relationships and sexual health information, inviting extensive and complex processes of research and synthesis; and

2) this research and synthesis entails the enactment of a particular episteme – that of scientific rationalism – and a particular kind of knowledge citizenship – one in which young people enact themselves as careful, informed, responsible seekers of high-quality, trustworthy, legitimate knowledge about sex and sexuality, even as that high-quality information remains elusive, and its promise of quality is undermined by failures of scope or detail.

As we will argue, these dynamics are important for several reasons. First, they are uniquely challenging for young people in that official or formal knowledge resources available to them are so limited and partial. Second, based on our interviews, they appear to require the strict separation of knowledge into binary pairs (fact and opinion, science and experience) – the very binary dynamic that has historically erased the relationship between sexuality and citizenship, limiting capacities to challenge sex and sexuality-based discrimination, and expand rights. This is the scientific rationalism noted above. Third, even as young people take up the injunction to separate science and experience, fact and opinion, these efforts do not deliver the clear, representative and nuanced information they seek. In concluding our analysis, we will argue that sexual health information and the call for youth literacy in it operates among young people as a mechanism for generating a specific modern form of ‘epistemic citizenship’ by which new citizens are minted not only as sceptical, but also as responsibilised for seeking and finding the ‘truth’ even as that truth itself proves relentlessly partial.

**Method**

The analysis conducted here draws on semi-structured interviews conducted with 37 young people in Australia aged between 18 and 21. Recruitment primarily relied on a database of contacts from a national sexual health survey of Australian secondary students (Fisher et al., 2019). Prospective participants who responded to an initial email invitation were screened to confirm eligibility. The majority (17) of the 32 young people who were recruited using this method were heterosexual or LBQ women (see appendix for participant breakdown). In order to recruit more young men and trans and gender diverse people, we posted a special call targeting these groups on social media. Five more participants were recruited this way, including two heterosexual men, one non-binary person, one trans man and one trans woman. This brought the total number of participants to 37. Of particular relevance to our focus on assessments of reliability and truth, most participants were university students in their first or second year of study, which meant that the majority had at least a secondary school education, and had embarked on higher education.

Interviews were conducted via audio/video conferencing, phone calls and instant messaging. These collection methods were adopted because the project was conducted during the outbreak of COVID-19 in Australia, meaning in-person contact was highly restricted. While the differing functionalities of these technologies likely shaped how the interviews unfolded, the approach allowed us to be highly flexible in complying with the COVID-19 restrictions and adapting to the contextual constraints of our participants. For example, the majority of young people did not have access to private spaces for voice or video-chat interviews (four out of five were living with their parents at the time of interview). As a result, about half opted for an instant messaging interview as this enabled a degree of privacy and freedom in responding. Ethics approval was granted by the [redacted] University Human Research Ethics Committee (HEC20110).

Interviewing via instant messaging was not without challenges. Participant responses were slow at times, and these interviews took on average 30 minutes longer than audio/video or phone interviews. Assessing facial expressions and body language, or vocal inflection, which can be important parts of the data collection process, is also not possible in this method. However, instant messaging had positives as well, for example, it allowed young people a degree of privacy in talking about stigmatised and taboo topics, and offered a platform with which they were familiar. The degree of distance and anonymity the platform offered likely aided openness in talking about sensitive topics. Instant messaging also enabled a degree of flexibility as participants could access Zoom via computer or mobile device wherever they felt comfortable, and did not require them to travel to a physical location, which can be difficult due to cost, time or physical mobility restrictions.

Participants were given an information statement explaining the project, and each gave written or audio-recorded verbal consent before the interview. Interviews explored preferred sources of sexual health information, why certain sources were chosen, how credibility and trustworthiness were assessed or determined, and what measures might be effective in developing trust and improving access to reliable sexual health information. The approach taken in this article to the notion of ‘sexual health’ draws on the World Health Organisation (WHO) definition, in which sexual health encompasses a spectrum of physical, sexual, social and emotional well-being issues.[[1]](#footnote-1) As ‘sexual health’ can have an array of meanings for young people, and can often only focus on STI/HIV/HPV prevention and reproductive health, we first checked to see how participants understood the term and what it meant to them. Follow-up questions were then asked if participants did not mention particular topics. These included consent, relationships, pleasure, and diverse genders and sexualities. Some participants raised these topics without prompting.

Audio and video interviews were professionally transcribed (instant messaging does not need transcribing as it is conducted in text format). To protect participant identities, each was assigned a pseudonym and all identifying details were removed from the transcripts.

A thematic analysis approach was used to analyse the data (see Braun and Clarke, 2006). The authors first familiarised themselves with the data by reading the transcripts and post-interview research reflections. A coding schedule was then developed with reference to the aims of the project, the relevant literature and the contents of the interviews themselves. This schedule was cross-checked and adjusted prior to coding. Once the coding schedule was agreed upon, the data were coded using NVivo software. Authors periodically discussed the findings to ensure codes were addressing the main research questions. In this article, we focus on the codes ‘Sources of sexual health information’ and ‘Trust in sexual health information’. Latent themes emerging from these codes were explored, agreed upon by the authors to ensure their relevance to the research questions, and then defined and written up to form the basis for the analysis presented here.

**Analysis: Performing epistemic citizenship**

As we have noted, the young people in our study consistently describe complex processes for accessing and evaluating information about sexual relationships and sexual health via the internet. Key factors in this process were: the kind of information sought, the kind of information considered valid or important (here medical information and lived experience were clearly separated), and demographic and identity issues such as gender identity and/or sexual orientation. For information on physical states and processes, such as those relating to pregnancy or STIs, government or organisation website domains (i.e. .gov or .org) were often deemed credible and trustworthy, the rationale being that they are informed by reliable medical sources, focus on facts, and are written by doctors or sexual health experts. For information on relationships, or consent and sexual practices, forum-based websites such as Reddit, or question-and-answer websites such as Ask.com and Quora, were positioned as often more relevant or useful, in that they were seen to offer more detail and explore a diversity of experiences. In assessing reliability, a number of participants paid particular attention to language, especially where the content was concerned with medical sexual health questions, explaining that, to them, language that was professional (often meaning medical or scientific) in tone indicated the source was more trustworthy than if the language used was colloquial in tone. Participants also noted that they did not necessarily trust the information they received from the internet, friends or parents, and often felt the need to crosscheck one source with other online sources, or turn to their general medical practitioner (GP) (Litras, Latreille and Temple-Smith, 2015). In addition, trans and gender diverse and lesbian, gay and bisexual+ participants noted that they were more likely to trust a sexual health website that had strong sexuality and gender diverse content, even if it was not a .gov or .org website or otherwise regarded as credible, on the basis that it would have a better understanding of their unique needs than other websites. In these comments we can identify a number of issues of relevance to our analysis: the desire to identify reliable, credible information by accessing official sources, the importance of language and tone in communicating credibility, the common experience of encountering multiple divergent accounts, the role of GPs as trusted sources in their level of education and access to science, and the importance of inclusivity in communicating and demonstrating reliability. Overarching these issues was a dynamic implicit in many responses and made explicit by Eve (woman, bisexual, 18, IM messaging[[2]](#footnote-2)), who explained her own view on the use of the internet to access sexual health information in these terms:

Most websites are pretty good at explaining things from scratch. However, it is up to the individual to discern the reliability of that information.

Eve’s final words in this extract raise an important question, one that underpins our analysis: what collateral realities are made when young people seek knowledge about a sensitive and contested area such as sex and sexuality, particularly in a ‘post-truth’ world? How might individuals understand their role in gleaning the ‘truth’, given widespread recognition that our media, social media and broader internet landscape are characterised by false information and ‘fake news’? Below we examine in more detail the ways in which young people articulate their pursuit of reliable information on (or the ‘truth’ of) sexual health, and in so doing, how they frame this responsibility, identifying as we proceed the key epistemic issues visible in their descriptions, and the forms of epistemic citizenship produced (and enjoined) ‘along the way’.

***Distinguishing fact from opinion or experience***

One of the key discourses mobilised by participants in our study was the importance of distinguishing fact from opinion or experience (Flanders et al., 2020). It is here that we identify a strong thread of scientific rationalism – in particular, its dependence on the binary logic of reason versus emotion or experience in the production of scientific fact – in the episteme informing participant engagement with sexual health knowledges.

For many participants, the distinction between fact and opinion or experience was treated as self-evident, and as core to ensuring the reliability of information. As Blake (woman, straight, 18, video chat) explains, when asked about how she identifies reliable information, finding credible sources depends on the kind of information being sought: fact or opinion:

It depends on the topic, like if it's an opinionated [sic] topic, everybody’s got their own opinion on how things should be. If it's a factual topic, I would try and find a lot more other resources, and a lot more other opinions, and kind of compare them to each other, and try and figure out what I believe the most.

Here, when Blake uses the word ‘opinionated’ she is drawing a distinction between a matter of opinion, such as how one might feel about an experience or practice, and a matter of fact, such as how an STI can be transmitted. Carrie (woman, bisexual, 19, IM messaging) draws a similar distinction, if in reverse:

if it’s backed by like a scientific study or something i feel comfortable noting it as facts but if it’s on a reddit forum or something like that i more take it as personal experience or opinion.

Hayley (woman, straight, 19, audio chat) also provides an example of this distinction, offering a detailed description of trying to find out more about menstrual cup usage:

I’ve gotten a mix of both scientific [fact] and personal experiences with sexual knowledge […] With the menstrual cup, sometimes if I urinate, it can actually fill up with urine, and if I looked on a scientific website, that said scientifically this is impossible, there is no connection between the urethra and the cervix … but then I’ve looked it up on things like Reddit and there’s been a lot of other women that have had instances of experiencing the same thing, and it’s, like, okay I’m not losing my mind, that it must be possible.

In this case, as in many others recounted by participants, Katie perceives a functional difference between fact and experience, rather than, for instance, framing the experiences she consults as also composed of facts – facts relating to the location of the urethra and the positioning of the cup – that would likely resolve the apparent dissonance between scientific facts and experience in her account.

Also notable in participant accounts was the sense of a specific undersupply of reliable, factual information about LGBTIQ sex, relationships and sexual health (Grant and Nash 2018; Pound, Langford and Campbell, 2016; Shannon, 2016; Waling et al., 2020; Waling et al., in press). As Ted (man, bisexual, 19, audio chat) explains, in referring to the consequences of this undersupply:

I’d probably choose a[n] LGBT site over a government site. There ha[ve] been times when I’ve looked for information before and the whole premise behind the information that they were giving was quite outdated. So yeah, I’d probably change my answer and say a[n] LGBT site that I think has valid information that’s, you know, not like a blog really. I’d probably look for that, look at that site for information.

In cases such as Ted’s, the desire to access facts is modulated by the awareness that some providers of validated information may not offer current information in that the premises of the information are dated (for example, that marriage is for men and women, or that reproduction occurs only in heterosexual relationships).

In all these extracts participants discuss the importance of locating valid, reliable information based on scientific fact. At the same time, they also describe other priorities, such as accessing information that offers greater detail by way of descriptions of experience, or else is more current and unencumbered by dated premises (such as the norm of the heterosexual couple). These dynamics have been identified previously in our work on this project (omitted to preserve author anonymity). Here, the key point for our analysis is the distinction consistently drawn by participants between fact and experience (with the latter sometimes framed as ‘opinion’). Even as many of their accounts offer direct insights into the ways in which fact and experience are mutually productive and co-extensive, the importance of the epistemic distinction is itself never queried. As noted at the outset, the scientific rationalist episteme that underpins simplistic claims about the nature of fact has been key to education in the West since the Enlightenment. It is unsurprising then to see its traces in this context. That said, it remains important to consider the role of adherence to this powerful epistemic commitment in ordering, assessing and in some respects limiting, information, especially information about identities and practices that exceed normative assumptions. This is the first aspect of the collateral reality of epistemic citizenship identified in our analysis: adherence to a narrow definition of fact as being distinct from experience.

***Piecing together sources***

A second aspect of the collateral reality of epistemic citizenship is also enacted by young people as they seek and establish reliable information about sex, relationships and sexual health: the need to piece together information from different sources in order to produce knowledge they are satisfied is reliable and relevant. Often this piecing together involves mixing highly credible and less credible information as gaps emerge that prove difficult to fill. The description offered by Leslie (genderqueer, lesbian/gay, 19, IM messaging) focuses specifically on accessing information relevant to her sexuality:

I have defiantly [sic] found some [sources] that relate to my sexuality even though there is often less than there is about Heterosexual or even Gay male[s]. However for my gender I have found almost nothing […] It is difficult to find it, I often just go with a mix of Female and Trans male information and I do find that by using the two of them I can find things to help.

While Leslie talks about piecing together information from different sources to build relevance to her experience, Zander (man, straight, 20, audio chat) talks about the piecing work necessary where conflicting information is evident:

Yeah, I do think there is that gap. […] I would tend to, if I did find conflicting information, I would look at, first of all, I’d look at a lot more different sources and compare a few more, and if it's still conflicting I would probably ask some kind of forum on, like, Reddit or something like that.

In a further comment on this process of piecing together information, Mark (man, straight, 19, IM messaging) cites the value of identifying common information across different sources, placing particular emphasis on the points of agreement where other disagreements exist. If these sources disagree on key issues, the points they share in common, he reasons, must have some reliability:

I think it’s hard to assume that whatever I’m reading is ever hundred percent accurate but I guess I lean more towards articles that are on more official sites or written by a doctor, and sometimes even contrasting arguments seem to have some points which they agree on.

While Mark describes employing a form of reasoning based on identification of common ground despite divergent positions, Jessica (woman, bisexual, 18, video chat) outlines turning to refereed journals to find answers, expressing what appears to be a high degree of confidence in the scientific peer-review process for establishing reliable knowledge, but also turning to blog posts or other ‘real-world’ material to confirm her conclusions:

**And how do you determine whether a source is actually reliable so if you go online, how do you actually assess, what are the steps you take to assess information to ensure that it’s accurate and reliable for you?**

So like I said if I’m reading something from a journal, I know a lot of the information in there has to be really heavily scrutinised and you know, worked through in order to make sure that it’s good enough for that particular journal so I think that reassures me. If I can find anything that is like referenced or supported by other evidence, that’s definitely helpful, and if I find something and I’m able to find, you know, like a blog entry or you know how, like, you’ve got like mainstream websites and they have people that work there that like write about their experiences with their sexuality?

**Yep.**

If I can find like a real-world example to relate to, I think that also helps me decide whether something is, you know, accurate or not.

This process of collection and synthesis described so frequently by participants has two important implications for our analysis. First, as flagged in the previous section, young people indicate that much of the information registering as epistemically reliable is nevertheless often insufficiently detailed and comprehensive, often selective in its focus. Second, young people describe having to conduct extensive searches to piece together enough information to answer their questions, taking upon themselves, in the process, the responsibility for this quest. Here the dimensions of epistemic citizenship constituted in this domain of knowledge and selfhood can be identified: an injunction to assume responsibility for self-education, even in a context of knowledge scarcity that operates beyond individual control.

***Establishing hierarchies of expertise***

In the previous sections we have examined the ways in which core binaries in the episteme of scientific rationalism – fact and experience, science and opinion – are identified and reproduced by participants, while both types of information are often sought out and pieced together in the production of reliable knowledge. As participants have indicated, identifying reliable yet diverse and nuanced information is not easy. For some, GPs have the capacity to fill the gap between dry or narrow scientific information and arbitrary personal experience. As Katie (woman, bisexual, 19, audio chat) explains, if faced with a choice between a range of sources, including her own knowledge and social media platforms such as Instagram, she regards her GP as her most trusted informant:

I always talk to my doctor about it because she’s ultimately, like, way more educated in biology than I am and sort of like pharmaceuticals and stuff. But yeah, like I just, back to Instagram I just don’t trust it like there’s not that many scientifically literate people on Instagram and I’ve seen blatantly wrong information in people’s captions. And nobody has even caught onto that so, yeah, it just concerns me, like I’m actually quite annoyed by the fact that people can, you know, market themselves as like sex educators and then spread literally like scientifically wrong stuff about biochemistry that could, you know, potentially harm somebody.

Here, Katie’s GP figures as the properly educated counter to internet imposters producing dangerous and baseless knowledge.

A similar preference expressed by Jessica (woman, bisexual, 18, video chat) for her GP mobilises terms slightly different from Katie’s, in that she describes her GP as able to convert obscure or difficult-to-follow scientific information (such as diagrams) into more accessible knowledge. As Jessica puts it, offering an insight into the lengths to which some young people must go in seeking information, in the end her GP is the quickest way to access reliable, accessible information:

Yeah, definitely it’s been a lot of, ‘Oh what’s this, what is that, what is this diagram, oh wait, that’s what my, you know, pubic region looks like, that’s great’. Like it’s, that’s been very challenging to do independently. And I think now, as opposed to spending hours and hours of researching stuff about my body, I’ve reached the point where I’d rather than just go to my GP and get an answer straight away. Does that make sense?

Luke (man, straight, 19, video chat) also reproduces the scientific rationalist episteme when he identifies GPs as his authoritative source in seeking sexual health information:

Yeah, well it really depends on the sources, like if my mum’s telling me one thing, the internet’s telling me another thing, and a [GP] is telling me a third thing, then I’m just going to trust the [GP], because they went to school for twelve years or however long it takes to be a [GP].

Whether or not GPs are consistently able to engage young people in clear, open discussions about sex and sexual health, and provide comprehensive, current and accurate information, remains open to debate, and a literature on these issues indicates that GPs are not always able to act effectively in this capacity (Jarrett, Dadich, Robards and Bennett 2011; Macdowall et al., 2010; Roberts, Crosland and Fulton, 2013). That said, many young people in our project expressed faith in the ability of GPs to do so. Thinking back to the outline of scientific rationalism provided earlier, this faith in GPs is consistent with the animating episteme at work in participant responses overall: the role of scientific training and method in the constitution of the crucial distinction between fact and opinion, truth and experience. Katie articulates this link clearly in the remarks she makes following her nomination of her GP as a key source of reliable information:

I think, like, my science education is like the most valuable thing to ever come to me and I’ve probably talked about it, like, way too much but I just can’t imagine, like, going through just, like, life but not knowing, like, what certain drugs can do or, like, how molecules work and stuff like that. Because I just find it really helpful for informing myself of, like, what I’m getting into but then yeah, like, because it helps me be critical because if I didn’t know that a chemical behaved a certain way and somebody just said ‘Oh it behaves [in] this way’, I would never question it. Do you know what I mean? It’s not like I think that I’m right all the time, it’s just that I have a lot of, I hear a lot of different information and I can critically pick between which one I think is more plausible and not just take things at face value because like one person says so and they’re the only thing I’ve heard.

Here, as with previous remarks made by participants about their search for information, Katie spells out a sophisticated and highly responsible relationship to information – one in which she brings to bear the full extent of her formal science education to navigate the public domain in which distinguishing between claims is a personal necessity. Importantly for Katie, this education also informs her critical perspective on the truths produced within this episteme:

Even in the scientific community, like, it’s not always like a clean process. People manipulate data, people have agendas, you know, it’s like publish or perish [and] some people just put out really bad work just so they can keep their research rankings.

Even where she critically questions the politics of research and impact on research findings, Katie emphasises an investment in distinctions between fact and opinion or, more specifically, personal ‘agendas’. For Katie, her capacity to critically appraise this information and make these distinctions is so important, she ‘can’t imagine […] going through […] life’ without it.

Where does this plethora of information, commentary, and reliable and unreliable facts leave the epistemic citizens in our study and elsewhere? In a previous article we identified the production of a sceptical public of sexual health information among our participants. Here we would emphasise this same dynamic, in comments such as Mark’s (quoted above):

I think it’s hard to assume that whatever I’m reading is ever hundred percent accurate […].

As we have argued here, this scepticism seems to carry with it a sense of felt obligation to collate, sift, synthesise, filter and assess information and sources in order to act as proper epistemic citizens animated by the pursuit of scientifically validated reliable knowledge.

**Conclusions**

In this article, we have drawn on, and inverted, key ideas from the theorisation of sexual citizenship, and considered them alongside Foucault’s notion of the episteme and Law’s work on ‘collateral realities’. Putting these theoretical resources to work, we identified for the first time as far as we are aware a highly consequential collateral reality produced by contemporary demands on young people to source, assess and act on sexual health information: what we have termed ‘epistemic citizenship’. As our data suggest, young people struggle to find relevant and reliable relationships and sexual health information, and engage in extensive and complex processes of research and synthesis to generate their own knowledge base. At least three steps are cited here: distinguishing between fact and opinion or experience, synthesising different sources, and establishing hierarchies of expertise. In this respect, it is possible to argue that current forms of relationships and sexuality education, and the discourses surrounding them, produce specific subjects who: valorise science as objective and factual; separate fact and experience and science and opinion; accept responsibility to piece together the truth; and perform scientific literacy as a key credential for responsible epistemic citizenship. Explicitly aware of the limits of official knowledges about sexualities, they must either content themselves with officially constituted sexual selves or seek out and enact marginal or unofficial alternatives using sources generally denigrated as unreliable. These processes of research and synthesis are based on and reproduce a particular episteme (which we do not argue is intentionally or consciously pursued) – that of scientific rationalism – and a particular kind of related knowledge citizenship – one in which young people enact themselves as careful, informed and responsible seekers of high-quality, trustworthy, legitimate knowledge about sex and sexuality, even as that high-quality information remains elusive, and its promise of quality is undermined by failures of scope or detail.

These dynamics are uniquely challenging for young people in that they appear to require the strict separation of knowledge into binary pairs (fact and opinion, science and experience) – the very binary dynamic that has historically erased the relationship between sexuality and citizenship, limiting capacities to challenge sex and sexuality-based discrimination (Grant and Nash 2018), and expand rights. Even as young people take up the injunction to separate science and experience, fact and opinion, these efforts do not deliver the clear, representative and nuanced information they seek. In its current forms, relationships and sexual health information, and the call for youth literacy implied within it, operates as a mechanism for generating a specific modern form of ‘epistemic citizenship’, one by which new youth citizens are minted not only as sceptical, but also as responsibilised for seeking and finding the ‘truth’ even as that truth itself proves relentlessly partial. Future sexuality education might consider ways to overcome the rigid separation of fact and experience (Lamb, 2013), science and opinion, and in doing so, produce even more literate, sophisticated epistemic citizens who are then better placed to challenge the public/private split that hinders rights claims for diversity and inclusion.

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## APPENDIX: Demographic Characteristics of Participants

|  |  |  |  |
| --- | --- | --- | --- |
| **Table 1 Characteristics of participants (N = 37)** | | |  |
|  |  |  |  |
|  |  | **n** | **%\*** |
| **Age** |  |  |  |
| 19 |  | 15 | 41% |
| 18 |  | 13 | 35% |
| 20 |  | 7 | 19% |
| 21 |  | 2 | 5% |
|  |  |  |  |
| **Assigned sex at birth** |  |  |  |
| Male |  | 19 | 51% |
| Female |  | 18 | 49% |
|  |  |  |  |
| **Completed education** |  |  |  |
| Secondary school |  | 33 | 89% |
| Primary school |  | 2 | 5% |
| Bachelor’s degree |  | 1 | 3% |
| TAFE |  | 1 | 3% |
|  |  |  |  |
| **Country of birth** |  |  |  |
| Australia |  | 25 | 68% |
| India |  | 2 | 5% |
| Malaysia |  | 2 | 5% |
| South Africa |  | 2 | 5% |
| Bosnia and Herzegovina |  | 1 | 3% |
| Indonesia |  | 1 | 3% |
| Kyrgyzstan |  | 1 | 3% |
| New Zealand |  | 1 | 3% |
| Singapore |  | 1 | 3% |
| United Kingdom |  | 1 | 3% |
|  |  |  |  |
| **Employment/study status** |  |  |  |
| University student |  | 30 | 81% |
| High school student |  | 4 | 11% |
| Unemployed |  | 2 | 5% |
| Employed |  | 1 | 3% |
|  |  |  |  |
| **Ethnicity\*\*** |  |  |  |
| Anglo-Celtic Australian |  | 19 | 51% |
| North-West European |  | 4 | 11% |
| Southern and Central Asian |  | 4 | 11% |
| Southern and Eastern European |  | 3 | 8% |
| Southern and East African |  | 2 | 5% |
| Australian Aboriginal |  | 1 | 3% |
| Eastern European |  | 1 | 3% |
| Maori |  | 1 | 3% |
| Maritime South-East Asian |  | 1 | 3% |
| North-East Asian |  | 1 | 3% |
|  |  |  |  |
| **Housing status** |  |  |  |
| With parents |  | 30 | 81% |
| Shared accommodation |  | 2 | 5% |
| University residence |  | 2 | 5% |
| With partner |  | 2 | 5% |
| Sole resident |  | 1 | 3% |
|  |  |  |  |
| **Relationship status** | |  |  |
| Relationship |  | 20 | 54% |
| Single |  | 15 | 41% |
| Casual dating |  | 2 | 5% |
|  |  |  |  |
| **Relationship style** |  |  |  |
| Monogamous |  | 32 | 86% |
| Either |  | 4 | 11% |
| Polyamorous |  | 1 | 3% |
|  |  |  |  |
| **Religion** |  |  |  |
| Not religious |  | 21 | 57% |
| Christian |  | 5 | 14% |
| Catholic |  | 3 | 8% |
| Agonistic |  | 2 | 5% |
| Hindu |  | 2 | 5% |
| Atheist |  | 1 | 3% |
| Buddhist |  | 1 | 3% |
| Orthodox Christian |  | 1 | 3% |
| Pagan |  | 1 | 3% |
|  |  |  |  |
| **Residential location** |  |  |  |
| Outer suburban |  | 18 | 49% |
| Capital city/inner suburban |  | 9 | 24% |
| Regional |  | 8 | 22% |
| Rural |  | 2 | 5% |
|  |  |  |  |
| **Secondary school type \*\*\*** |  |  |  |
| Government schools |  | 20 | 54% |
| Other private schools |  | 11 | 30% |
| Religious-based schools |  | 6 | 16% |
|  |  |  |  |
| **Self-identified gender identity\*\*\*\*** |  |  |  |
| Man |  | 17 | 46% |
| Woman |  | 15 | 41% |
| Trans woman |  | 2 | 5% |
| Genderqueer |  | 1 | 3% |
| Non binary |  | 1 | 3% |
| Trans man |  | 1 | 3% |
|  |  |  |  |
| **Self-identified sexual orientation\*\*\*\*** | |  |  |
| Heterosexual or straight |  | 22 | 59% |
| Bisexual |  | 8 | 22% |
| Gay or lesbian |  | 5 | 14% |
| Pansexual |  | 2 | 5% |
|  |  |  |  |
| **State/territory** |  |  |  |
| Victoria (VIC) |  | 17 | 46% |
| New South Wales (NSW) |  | 10 | 27% |
| Queensland (QLD) |  | 5 | 14% |
| South Australia (SA) |  | 3 | 8% |
| Tasmania (TAS) |  | 1 | 3% |
| Western Australia (WA) |  | 1 | 3% |
|  |  |  |  |

\*Percentages have been rounded up to the nearest whole percentage and may not add up to 100% as a result.

\*\*Ethnicity is reported following the Australian Standard Classification of Cultural and Ethnic Groups, developed by the Australian Bureau of Statistics. Cultural and ethnic background was classified according to a combination of self-reported group identification with cultural or ethnic groups, participants’ birthplace and their parents’ birthplaces.

\*\*\*School types are reported based on participant descriptions.

\*\*\*\*Gender and sexual orientation are reported based on participants’ self-selected terms.

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2. We have reproduced participants’ original spelling, grammar and punctuation in all quotes drawn from instant messaging interviews. [↑](#footnote-ref-2)