Mapping the online sex industry
Introduction

This briefing paper is a product of the Beyond the Gaze (BtG) research project, which is the largest study to date of the working conditions, safety and regulation of internet-based sex work in the UK. Funded by the Economic & Social Research Council, and carried out by researchers at the University of Leicester and the University of Strathclyde. The research had several key aims, including to map the trends in internet-based sex work markets. The study used a participatory action research model/Community co-researchers with lived experience of sex work assisted in the recruitment of research participants, reviewed the research instruments/methods and contributed to a range of the project outcomes. Data gathered between October 2015 and March 2017 included:

- online survey of 641 sex workers based in and/or working in the UK, who use the internet in their work;
- semi-structured interviews with 62 sex workers of all genders who use the internet for their work;
- semi-structured interviews with 56 police representatives from 16 forces across the UK; and 21 individuals, including managers/staff of online advertising platforms, moderators of online sex worker forums and staff of sex work safety schemes, plus other experts on online regulation of commercial sexual services;
- online survey of 1,323 customers of sex workers using the internet;
- online survey of 49 projects providing support to online sex workers; and
- desk research to map online spaces where sex workers market and/or provide services.

The advances in internet and digital technologies present myriad possibilities for the advertising of commercial sex, as well as the creation of new forms of sex work (e.g. webcamming). Online sex work is multiple and diverse, which makes mapping the current UK sex industry, including the size of the sex worker population, extremely challenging. As part of the BtG project we identified some of the key methodological challenges in mapping the scale and extent of internet based sex work, which this briefing paper addresses.

What is mapping and why is it done?

Mapping takes many different forms and can include estimates of the numbers of sex workers in defined geographical areas as well as more detailed investigations that attempt to uncover the physical places where (and in what numbers) sex workers are actually working. There are various reasons for estimating numbers of sex workers and sex working environments and different stakeholders may have very different motivations for undertaking such an exercise. Mapping is sometimes carried out by sex work support services or health projects, to identify unmet needs in terms of service provision and support among sex workers (Global Network of Sex Work Projects 2015).

The police may use mapping to identify any criminal activities associated with the sector. The BtG research found forces mapping online spaces as part of actions to identify victims of modern slavery; in some cases, such activity then led to enforcement action, including against sex workers. A smaller number of forces used online mapping to inform community development work, informing how they contact people working online in order to encourage them to report any crimes to the police should they wish to.
While researchers, project workers and epidemiologists (and in some cases even the police) may not conduct their mappings with enforcement or other action in mind, it is crucial that they remain alert to the risk that their outputs could be misused by other parties, which may undermine sex worker safety or privacy. For example, if information is made public without anonymization, it could then be used by the police to conduct enforcement action, by the media in sensationalist ways or by local vigilantes or individuals/predatory offenders to attack and abuse sex workers (Global Network of Sex Work Projects 2015). The Sex Worker Implementation Tool (SWIT), a comprehensive set of guidance for the implementation of HIV/STI programmes with sex workers, published by the World Health Organisation and other agencies, provides a set of recommendations to researchers and projects in their conduct of mapping exercises including that sex workers should be involved in, or even lead, the mapping and that confidentiality must be ensured (World Health Organisation et al., 2013).

**Mapping Pre-Internet Sex Work**

Mapping sex work populations, even before the advent of internet based sex work, has always been challenging because of the clandestine nature of sex work. Much sex work remains part of the informal economy, despite the fact that some sex workers do register with the authorities as self-employed workers, there are no official statistics on the number of sex workers in the UK. Previous attempts have, however, been made to conduct population size estimates of sex workers in the UK (Kinnell 1999; Cusick et al 2009; Pitcher 2015). These studies used slightly different methodologies but all were based on data provided by projects that work with sex workers. We learned from interviews with internet based sex workers, as part of the BtG research, that while some did access support services or specialist sexual health clinics, many did not. This suggests that if these methodologies (focused on data provided by projects) were used now they would miss huge swathes of the online sex work population. Is it possible then, using alternative methodologies, to accurately map the extent of online sex work?

**Mapping Online Sex Work**

Given the proliferation and transience of online sex work we believe that it is extremely problematic to provide a reliable population size estimate of online sex workers in the UK, or indeed anywhere. We will explain below why we have reached this conclusion and explore the unique difficulties presented in mapping sex workers who work online.

**Counting profiles and adverts**

One method that could be used to estimate the extent of the online sex industry in the UK would be to look at sex work advertising platforms (as a front-end user) and simply count the number of sex worker profiles/adverts. This method is, however, inadequate and will never provide a complete and accurate picture of the extent of online sex work for several reasons. One of these reasons is that the number of sex worker profiles/adverts online does not necessarily translate into the number of sex workers actively working because many of the adverts may be out of date and no longer active yet still appearing online.
As an illustration of the difficulties in mapping online sex workers by counting adverts/profiles we conducted an exercise to compare the number of profiles appearing online (as a front-end user would see) on AdultWork.com (a market leading adult services platform) with data on profiles provided directly by the platform’s site administrators. Analysis for this briefing was based on data provided by AdultWork.com covering periods, 1 May 16–31 July 16, 1 November 16–31 January 17 and 1 February 17–30 April 17. Crucially, an advertiser’s anonymised information was only included in the data provided by AdultWork.com if they had logged in or registered on the website between the relevant dates, they had supplied sufficient information to build a profile, and their profile had been approved by the site’s moderation team, which means they would usually have provided profile pictures and specified their gender. Applying these criteria significantly increases the likelihood that the data set provided by AdultWork.com more accurately reflects the number of sex workers actively working during the time period specified.

Table 1 (below) shows the differences between the numbers of profiles we counted as a front-end user on the platform compared to the numbers provided directly by the site administrators. This means that counting profiles from the front-end of the website (which inevitably includes out of date, inactive and incomplete profiles) potentially over-estimated the number of escorts and webcam workers in the UK actively working on AdultWork.com, between February and April 2017, by over 10,000. The data show that counting the number of front-end profiles potentially over-estimates the number of site users by more than 30% overall and significantly more in the case of webcammers. The proportionate difference, therefore, gives an indication of the extent to which publicly-available data may need to be adjusted in order to present a more realistic figure.

Table 1
Comparison of profile counts on Platform 1, February 2017 - April 2017

<table>
<thead>
<tr>
<th></th>
<th>Number of profiles counted as front-end user (28 February 2017)</th>
<th>Number of profiles in data provided by site administrators (1 February 17 - 30 April 17)</th>
<th>Differences in profile counts / potential over-estimation of site users</th>
<th>Site moderated profiles as proportion of front-end profiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cis-gendered(^1) female escorts</td>
<td>17,849</td>
<td>12,359</td>
<td>5,490</td>
<td>0.69242</td>
</tr>
<tr>
<td>Cis-gendered male escorts</td>
<td>7,337</td>
<td>5,391</td>
<td>1,946</td>
<td>0.73477</td>
</tr>
<tr>
<td>Transgender/transvestite(^2) escorts</td>
<td>1,229</td>
<td>935</td>
<td>294</td>
<td>0.76078</td>
</tr>
<tr>
<td>Webcammers (all genders)</td>
<td>5,611</td>
<td>3,259</td>
<td>2,352</td>
<td>0.58082</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>32,026</strong></td>
<td><strong>21,944</strong></td>
<td><strong>10,083</strong></td>
<td><strong>0.68519</strong></td>
</tr>
</tbody>
</table>

\(^1\) We use the term cis-gendered to refer to people whose gender identity corresponds to the gender they were assigned at birth.

\(^2\) Transgender and transvestite are very different gender identities but it is not possible to search under these as independent categories on Platform 1.
Diverse advertising activities

While the counting exercise recounted above may suggest that obtaining data direct from platforms will provide a more accurate account of the numbers of online sex workers, the next difficulty is accurately identifying all potential advertising sources. While estimating the size of the sex working population is challenging it is equally difficult to identify all the different online platforms where sex workers advertise and operate given the diversity and proliferation, as well as the internationalisation, of all adult platforms.

As well as websites that have national and international reach there are also highly diversified local sites covering towns or regions in the UK. Furthermore, some platforms are widely known and used while others are more peripheral with limited reach and use. While we did conduct our own searches to identify key sex work related websites, and the data from our participants provided insight on the most widely used sites, we make no attempt to estimate the precise number of sex work related platforms that are used by people operating in the UK. If we did estimate, we would be offering data that would be immediately out of date given the fluid and fragile nature of the sex markets online. We are also very aware that in attempting to map the terrain of online sex work that any slight change in law in any relevant jurisdiction could have significant effects on how advertising is organised online. This means that any single quantitative mapping of online sex work would only ever represent a snapshot of its extent and scale in a particular time frame. More robust longitudinal studies that attempted to quantitatively map the online sex industry over specified time periods would require complex methodologies, significant time and resources; and such an exercise was beyond the scope of the BtG research.

The BtG research also established that sex workers have quite diverse advertising and marketing practices. While there are clear market leaders in terms of online sex work platforms this does not mean that they are universally used by all sex workers and our research has highlighted that sex workers of different genders and nationalities may have different advertising practices. For example, while AdultWork.com was a clear market leading website for cis-gendered female sex workers, with 93.4% (n=436) of cis-gendered women responding to our survey noting that they use this site, there were some differences in the use of the platform by sex workers of British and non-British nationality. Among British national respondents to the survey, 83.2% (n=426) used Platform 1 to advertise while only 66% (n=62) of those with non-British nationality used the site. Our qualitative interviews with migrant sex workers suggested that the AdultWork.com identity verification procedures, which were seen as stringent for non-British workers, may present a barrier to this group of sex workers using the site. In addition, male sex workers advertising services to other men tended to use AdultWork.com in much lower numbers, preferring instead specialist websites targeted at men seeking the services of male sex workers.

This all suggests that obtaining an accurate picture of the online sex industry is not possible simply by obtaining data from one platform, even if it is the market leader. Obtaining data from several platforms may help to capture a wider range of sex workers in the population size estimate but that then presents another methodological challenge - multiple counting of the same sex workers appearing across different platforms. From our sex worker survey responses, we were able to ascertain that the average (mean) number of sites used for advertising by each individual sex worker was three, with only 32.8% (n=210) of respondents using just one advertising source. The potential
for double or triple counting of sex workers by quantifying the number of profiles/adverts is, therefore, significantly high. Any attempt to conduct a population size estimate of online sex workers must take into account the risk of over-estimation based on sex workers’ use of multiple advertising/working platforms. As ethical duties of confidentiality would prevent the collection of sex workers’ identifying information as a way to avoid duplication, it would be necessary to use other methods to calculate likely duplicate profiles and the BtG study indicates a possible mechanism for adjusting data to take this into account.

A final methodological challenge we identified is that in some contexts, sex work is advertised online in a covert fashion. For example, we identified dating and hook up platforms without commercial advertising as one of the online spaces used by sex workers to advertise their services. These are websites or applications which facilitate connection between people for personal relationships and unpaid sexual encounters and that have policies prohibiting any kind of advertising for paid sex. Sex work is still advertised on these sites and apps but it is done covertly using a variety of codes and signals. It may be difficult for those unfamiliar with these spaces to recognise and include in any population size estimate the sex workers advertising in these spaces, hence such cohorts of sex workers would likely be under counted.

**Conclusion**

The purpose of this briefing paper has been to highlight the complex methodological challenges in trying to map the online sex industry in the UK. Obtaining data from advertising platforms as a front-end user has been challenged and we have demonstrated that this may significantly over-estimate the number of active users of the website. Furthermore, the proliferation and internationalisation of sex work platforms makes it extremely difficult to identify all of the potential sites of online sex work and sex workers’ use of multiple platforms introduces another risk of over-estimation through double or triple counting. Based on these methodological difficulties we believe that conducting a full and complete mapping of online sex work is highly problematic and would caution against any study or report that proclaims to have achieved this, without any acknowledgement of the limitations of such an exercise.

That is not to say that mapping should never be done and, as discussed previously, there may be situations in which it is useful, for example, to better inform the provision and availability of sex work health and support services. Indeed, efforts to map and identify the size of the online sex industry are likely to continue and researchers will utilize online technology to aid these attempts. During the BtG fieldwork phase we were aware of researchers in the UK and elsewhere using tools to ‘scrape’ the internet to map and identify trends in internet based sex work. All mapping exercises must, however, be undertaken with an understanding that the information gathered will, in most cases, remain partial and never complete. The BtG study has provided important data to inform future methodologies for estimating online sex working populations according to factors such as gender, client profiles, working sector and geographical spread, as well as mechanisms to calculate potential duplication of individual profiles. We would encourage any researchers or projects keen to conduct their own mapping exercise to consult the recommendations of the World Health Organisation in the Sex Worker Implementation Tool (SWIT) and consider collaborating with sex workers and ensuring that measures

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are in place to protect confidentiality and limit the potential to expose sex workers to increased enforcement at the hands of the authorities.

**Thanks and Acknowledgement**

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**References**


**Further Information**

- For further information and resources go to the BtG website [https://www.beyond-the-gaze.com](https://www.beyond-the-gaze.com)
- Follow BtG on [Twitter](https://twitter.com/beyondthegaze) or [Facebook](https://www.facebook.com/Beyond-the-Gaze-1496497424002122/)
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