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a secondary analysis of qualitative data

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# Exploring Youth Information-Seeking Behaviour and Mobile Technologies Through a Secondary Analysis of Qualitative Data

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## Abstract

This paper examines issues associated with secondary analysis of qualitative data and their implications for information behaviour scholarship. Secondary data analysis poses a range of potential challenges for data creators, but also opportunities, including the ability to expand theory to a wider context, strengthen the reliability and validity of existing theory, gain access to populations that may be difficult to access, and to promote data archiving.

The paper uses as a case study of secondary data analysis the results from our re-examination of data gathered previously in the European Union project *Net Children Go Mobile*, drawing from the interview transcripts from the 34 children in the U.K. data set. Our approach to secondary analysis was reanalysis, applying a new interpretive lens to the data that necessitated new questions in order to reveal hidden layers in the data. The data was analysed for evidence of information behaviour in order to understand how mobile technologies may be changing the way that young people seek and use information. The reanalysis of the data set supported existing models of information behaviour but revealed new ways of information seeking based on the affordances of screen size and data plans.

## Keywords

Secondary data analysis, information behavior, youth, digital literacy

## Introduction

In this paper we explore methodological issues related to the secondary use of qualitative data and their implications for information behaviour scholarship. We use our own analysis of qualitative data previously gathered for the European Union project *Net Children Go Mobile* research project<sup>1</sup> as a case study in order to provide a concrete example of secondary analysis and help situate the issues in a real world context.

The *Net Children Go Mobile* project explored the access, risks, and opportunities associated with the use of mobile technology amongst young people in Europe, focusing on safety and security, coping responses, and parental mediation. The analysis leading from this project did not specifically target information-seeking behaviours and so we set out to see if this gap could be filled through secondary analysis. Along the way, lessons were learned about the secondary use of qualitative data and what this might mean for information behaviour research. We wish to share our experiences in the hope that we can help advance the field of information behaviour research.

## Background

### *Secondary Analysis of Qualitative Data*

Secondary data analysis is the analysis of ‘existing data, collected for the purposes of a prior study, in order to pursue a research interest which is distinct from that of the original work’ (Heaton, 1998).

### **The open data movement: Toward a world of data sharing**

Secondary data analysis is dependent on access to someone else’s data. While researchers have always shared data with each other, usually on an ad hoc basis, the open data movement has raised expectations with regard to access to data. Due to the open data movement, we might reasonably expect to see more instances of data sharing between non-associated researchers, a practice that led the authors to explore the process more deeply.

The open data movement is concerned with the ability to *share* data (as opposed to the big data movement, which is principally concerned with issues related to the *volume* of data). This concern for access to data arises from two developments: First, the new affordances of information technologies and open source code have opened up opportunities for the storage, preservation, dissemination, and sharing of data. Second, there is a growing sense that data is a scarce resource that should be used for the common good and that researchers with publicly funded grants therefore have an obligation to share data generated through their projects. Policies reflecting this stance have arisen at the national level, treating data as a national asset and a sharable product of research (Bourrie, n.d.). As a result of the open data movement, researchers now have access to data repositories like the European Union Open Data Portal and Harvard’s Dataverse,

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<sup>1</sup> Net Children Go Mobile: <http://netchildrengomobile.eu/>

where data can be curated, preserved, and ultimately shared with new audiences. However, while the open data movement grows, the use of secondary data analysis in the area of information behaviour research is still uncommon, an emerging practice that has begun to raise questions amongst researchers. One recent example is Vanscoy, Bossaller & Burns' paper presented at the 2017 CAIS conference in Toronto, entitled *Problems and Promises of Qualitative Secondary Analysis for Research in Information Science*. Further, the standards, rationale, and practices associated with the sharing of *qualitative* data in our field are even more limited, with little to guide information behaviour researchers.

### Approaches to Secondary Analysis of Qualitative Data

Secondary data analysis is a broad term which can apply to a range of approaches, even in the context of qualitative research (Heaton, 1998; Corti, 2008). One version is simple reanalysis of a data set, in which one asks new questions of the data. This was our approach, using data collected for a study focused on the use of mobile technology by young people, and reanalyzing it for evidence of information behaviour in order to understand how mobile technologies may be changing the way that young people see and use information. Thus, we applied a new interpretive lens to the data, by asking new questions. Another approach to secondary data analysis is description, in which the data are used to describe a phenomenon such as attitudes evident in historical data. For example, politicians' views on particular issues in the past may be discerned by analyzing historical political speeches. A third approach is to verify findings from a study by critically analyzing the method. A fourth approach to secondary data analysis may focus on comparative analysis or follow-up study of the original phenomena, in a longitudinal study, for example. A fifth approach is to promote methodological advancement, by analyzing methods and procedures used in the original study with a view to learning from mistakes or informing future approaches. Finally, a sixth approach is to conduct secondary data analysis for teaching and learning purposes. Students can be given an opportunity to practice data analysis or methodological analysis, by re-using an actual data set. All of these approaches to secondary data analysis of qualitative data can yield rich results.

### *The Data Set: Net Children Go Mobile project*

*Net Children Go Mobile* was a multi-country European project lasting from 2012-2014 that was funded by the European Commission's *Safer Internet Programme*. In many respects the project paralleled the previous and contemporary EU Kids Online project, sharing many of the same members, analytic structures and procedures, and common research questions, but focusing specifically on risk issues related to portable devices.

The project used both quantitative and qualitative methodologies. Mascheroni and Ólafsson (2014) reported the quantitative findings from *Net Children Go Mobile* while Haddon and Vincent (2014) discussed the European qualitative research covering Belgium, Denmark, Germany, Ireland, Italy, Portugal, Romania, Spain and the UK. In addition, there was a specifically UK qualitative report (Haddon and Vincent, 2015).

The main qualitative fieldwork was carried out from January to September 2014, and was conducted in two phases: interviews and focus groups with children were generally completed by the end of April 2014. The focus groups with adults (parents, teachers, youth workers) continued in certain countries until September 2014. This paper uses the qualitative data from the U.K. English language data set only.

The interviews and focus groups with children utilized a semi-structured interview protocol that was intended to 1) identify the mobile devices and associated apps and platforms used by young people, 2) reveal whether they had encountered a risk situation (often referred to as “things that bother you”, a “situation that worried you” or something that “you disliked”) and how participants felt about it, and finally, 3) the role of parents and schools in supervising or providing guidance.

The *Net Children Go Mobile* applied the same approach to analysis as had been used in the *EU Kids Online* qualitative study (Smahel and Wright, 2014). Each national research team conducted the research in the national language(s). These interviews and focus groups were then coded in Excel, where each part of the interview was summarised in English and the content was indicated with codes (to facilitate subsequent searches of this database). In addition, each national team translated a number of the more interesting quotations into English. The coding matrix used in the original data analysis is not referenced in this paper as it had no bearing on the secondary analysis of the data. However, readers who wish to learn more about the original study can refer to the *Net Children Go Mobile* project web site (<http://netchildrengomobile.eu/reports/>)

Access to the qualitative data began with a personal connection during first author Bowler’s sabbatical at the London School of Economics. During this visit, Bowler reached out to the *EU Kids Online* team and the *Net Children Go Mobile* project, requesting access to the data. The LSE team, with approval of their EU colleagues, agreed to share access to the UK data. Note that this was access to the interviews and focus groups, which are not currently accessible via a data repository.

## The Case: Youth Information-seeking Behaviour and Mobile Technologies

The data analysis was conducted by Bowler and Julien. Although we received 24 transcripts in the UK data set, encompassing individual and group interviews with children, parents, teachers and youth workers, we decided to focus on the transcripts from the interviews with 34 children, ages 9 to 16 years. The transcripts of interviews with five parents as well as 17 teachers and youth workers were read and some annotated but as a whole, were not fully analysed for two reasons: First, the original focus of the study – how adults help young people think metacognitively about their use of mobile technology – had to be let go because the problem did not fit the reality of the data set which, as it turns out, is a possibility when analyzing secondary data. As a result we moved toward a broader approach, focusing on children’s information-seeking behaviour with mobile technologies. This shift in focus is an example of one of the challenges of secondary data analysis. Clearly, we had not read the interviews before the data were shared with us,

making it impossible to predict how the actual content would line up with the original project idea. Second, since the interviews were not conducted by the current authors, question wording could not be altered to directly address the question of support for metacognition. Thus, the secondary data analysis needed to focus on themes which existed in the data set.

Unlike the original *Net Children Go Mobile*, we did not use a formal coding matrix created a priori. Instead, we allowed themes to emerge. Having said that, many of the themes circled around concepts familiar to those conducting research in the field of information-seeking behaviour, such as search, information retrieval, information sources, information authority and credibility, and information search process and sense-making, since the original interview protocols explored use of the internet for informational purposes. For this reason, we were able to interrogate the data through the lens of information-seeking behavior.

The data set had already been annotated by Leslie Haddon and Jane Vincent from the London School of Economics working on the *Net Children Go Mobile* but, as stated earlier, their focus was on risk factors related to mobile technology rather than information behaviour per se. Bowler and Julien began with a close reading of the 16 transcripts of interviews and focus groups with 34 children, ages 9 to 16 years, highlighting text that referenced or alluded to youth information-seeking behaviour. Memos linked to each text selection were written, using descriptors such as *search*, *browsing*, *source*, *skill*, *credibility*, *device*, *platform*, and *technology affordance*, for example.

For each interview or focus group transcript a synthesis note was then written. These notes were reviewed and regrouped for this paper under four broad categories: *information-seeking skills*, *the information-seeking process in relation to the affordances of mobile technology*, *information sources*, and *information credibility*. Within each theme we looked for evidence to *confirm* existing models of information seeking and evidence revealing *new aspects* of information seeking, in order to tell a rich story of how mobile technology is impacting young people's information-seeking behavior. The findings are included here as a clear example of the richness and scholarly potential of secondary analysis of qualitative data, our purpose being to use this exercise in secondary qualitative data analysis to help frame our discussion about the experience in a concrete and practical way that makes sense to a Library and Information Science audience.

### *Information-Seeking Skills*

The common assumption that young people are sophisticated users of technologies for locating information is not grounded in empirical evidence from earlier studies into the digital practices of young people. These studies are pre-social media and smart phone (Agosto, 2002; Branch, 2003; Chung and Neuman, 2007; Dresang, 1999; Dresang, 2005; Fidel et al., 1999; Hargittai, 2010; Rowlands et al., 2008; Todd, 2003; Watson, 1998). However, our analysis of the interviews and focus groups with young people in the *Net Children Go Mobile* study suggests that, although they are often aware

of some of the threats on the internet, speed of information retrieval and rapid assessment of the quality of information continues to be defining characteristics of young people's information-seeking behavior, a characteristic perhaps *amplified* by the affordances of mobile technology, always 'at hand' when a question comes to mind or they feel they need to check something. Young people in the *Net Children Go Mobile* study emphasized rapid, surface-level information seeking that is consistent with earlier, pre-mobile work (Bowler et al., 2001; Rowlands et al., 2008). Isleen (15) for example, looks for information on the go, using her smart phone to search *Google*. This is good, she says, because 'if you're just out and about and you have a question or like if you want to know something you can just Google it.'

There was little evidence in the data suggesting that young people perceive information seeking to be a sense-making activity - an evolving, iterative, problem-solving process and one lens through which to investigate human/information interaction. To be fair, the interview protocols were not theoretically framed around a model of information problem solving. Nevertheless, questions about how the participants use the internet, what they search for, or what platforms or tools they use (such as, for example, Google search engine or Facebook) were open-ended and did present opportunities to reveal aspects of information behaviour.

In this data set, the quick 'look up' search seems to be the predominant model, following a pattern seen in the early internet studies with youth, where "little time is spent in evaluating information, either for relevance, accuracy, or authority" (CIBER, 2008, 12) and information gathering is an exercise in short term information retrieval rather than more a in-depth process of analysis and inquiry (Rowlands et al, 2007). The rapid retrieval of information and assessment (if any) of its credibility - continues to define youth information-seeking behaviour, facilitated even more by the portability of devices. While quick dips into information were ever the norm for young people, now, in the context of "anywhere, anytime" mobile technology, this behavior presents a demonstrates a sophisticated appreciation of the capacities of mobile technologies and their capacity to address "just in time" information needs, rather than a deficit in information skills (although the quick look-up search, while logical in the context of mobile technology, might also be laying the foundation for a habit of mind vis à vis information, where young people understand information seeking *only* in terms of brisk and fleeting information encounters). Is this form of rapid information seeking a function of being able to evaluate when "technologies are fit-for-purpose", as was discovered by Haddon and Vincent (2009) in their study exploring early use of mobile technology by children, where young people made reasoned decisions based on the limitations of their data plan? Or is it a reflection of a lack of education in schools in relation to broader information-seeking skills? We suspect it is a bit of both.

Young people in this study seemed fairly adept at working out the affordances of their technologies in the context of their everyday lives but they did so apparently with little training beyond basic, procedural skills in information technology. We saw scant evidence in the data of education in the schools promoting wider models of information seeking even though the interview protocols did try to reveal sources where young people

find guidance in their internet and mobile technology use. Other than warnings received at school about the credibility of sources or the potential for risk and threats to personal security, the young people in this study did not talk about lessons in strategies for browsing or discovery, how to deal with information overload, or techniques for making sense of information through synthesis and evaluation in order to move beyond short-term information retrieval. Most likely this is because the interview protocol did not specifically address information literacy education. We note as well that the context of information seeking is critical to understanding the information behaviour of young people (Dresang, 2005, Madden et al, 2007). For example, using one's mobile device to search for a bus schedule makes perfect sense in the context of standing at a bus stop, and is an information problem unrelated to the school environment.

Further, participants in general did not associate mobile technology with the activity of information seeking. Emma (13), for example, is asked about how she uses the internet on her smartphone. Her response shows a limited use of a search engine, only using it to find the school's website in order to access her email. Confused, she responds:

Emma: What do you mean?

Interviewer: I mean do you look for maps, do you search for things on Google?

Emma: I just really search. I don't really search for anything on Google except if I want to look on the school website for my email and get my emails.

Beyond questions of information retrieval, it should be noted that previous research has also shown an intersection between social media and information search (Agosto et al., 2012; Ahn, 2011; Moore, 2016). This continues to be the case for the *Net Children Go Mobile* data set. While *Google* was frequently mentioned, the young people in this study equally referenced social media services like *Facebook*, *Instagram*, and *Snapchat*, demonstrating how, for young people, communication and information have become deeply intertwined. Information seeking as a distinct activity worthy of its own attention continues to take a 'back seat' to social capital and social connectedness. Emma (13), talking about who taught her to locate safe and appropriate content on the internet, says her 'mum sort of told me you can go on this but you can't do this. Don't post anything rude or hurtful about anybody.' Here, Emma conflates social media (communication) with information access (search/information retrieval). It seems that, for young people, online is online is online.

These findings suggest, first, that young people do not feel it necessary to distinguish between task, purpose, and the associated technical tool when it comes to online information systems in a mobile world. This may be problematic if young people cannot contextualize their online behaviour nor understand the affordances and *purposes* of particular technologies and applications. Can they, for example, distinguish between credible news sources and some of the content on Facebook that masquerades as news? Second, the findings point to the need to design mobile information systems for young people that account for this blending of social media and other interactive ICT systems.

## *Information Seeking and the Technological Affordances of Mobile Technology*

While the data in the *Net Children Go Mobile* study shows that some aspects of information seeking have not changed since researchers first began investigating the digital behaviour of youth, there is also evidence that new forms of information-seeking behaviour have arisen out of the affordances of mobile technology. As one example, portability and screen size allow young people to differentiate their search behaviour amongst a variety of devices, the choice dependent on the purpose and information need. Smaller, highly portable mobile devices (like smart phones and tablets) promoted quick dips into information to fulfill everyday life needs, and often served as an information tool to support play. Although Alison (10 years) uses her father's iPad for homework, she also uses it to play games and search for fun information on topics of interest (like her favourite animal). It seemed that serious information seeking with real consequences (like a grade for a school project) was associated with desktop and laptop computers. Referring to a school project assigned by her teacher, Alison says 'we have to go on the computer for things like that, so last time, I think, we had a project we had to do the Tudors – had to look up the Tudors – so, I did that.'

One might argue that young people, no longer restricted to computers in the living room (or the bedroom, as the case may be), are *more* autonomous in their information-seeking behaviour. This may be true but the possibility for intergenerational, collaborative information seeking still exists in the world of mobile technology, perhaps even facilitated by it. Alison (10 years) searched *YouTube* on the iPad for videos of musical performances, at her father's request. Alison lives in a family of musicians – she plays the oboe, her father is a percussionist, and her mother is a violinist – 'so', she says, 'we look up things like that'. The portability of mobile technology allows for sharability, and this in turn can encourage co-searching as a family activity, using smart phones and tablets.

We noted earlier that young people do use *Google*, a standard search engine, to seek information. However, in the world of networked, mobile technology, other venues for search also exist, in-app search being one example. John (9-10) searched *Google Play* for games. Isleen (15) searched a 'bus app' on her smart phone to find information about the bus schedule, rather than searching Google. This was a clear improvement over the days before smart phones, when 'you'd have to go really early to the bus in case it came, or in case it didn't. Then with [the] bus app you know when exactly you can leave.' Searching within an app is an example of a targeted approach to information seeking, an efficient strategy for retrieving 'just in time' information at the point of need – an information behaviour clearly facilitated by mobile technology.

When considering the affordances of technology, we must also think in terms of the broader socio-technical environment within which it operates, and not just the device per se. The data plans that support the device, for example, help to shape information-

seeking behaviour. The young people in this study, particularly the older participants ages 14 to 16, were intimately aware of the boundaries imposed by their data plans, some plans seriously limiting the range of possibilities available (at least at the time that this study was conducted). Since the data plan that young people (or their parents) can afford is determined in part by their ability to pay, there is thus a correlation between the socio-economic status of the family and the pattern of information-seeking behaviour of young people. Anuj (11-13 years) talked about how his mobile phone use is related to weekends or weekdays, which in turn, is related to being at home or not. Data charges during the week are more expensive than weekend charges. Therefore Anuj views *YouTube* or streams videos when he is at home on weekends. During the week, when data charges increase, he sticks to short messages on *WhatsApp*. While these examples refer to accessing content and communication, the wider point is that information seeking may also be shaped by these constraints.

### *Information Sources*

Much of the work in youth information seeking has focused on information tasks related to school, aligning with research investigating instruction in information literacy. But in this new world of ubiquitous mobile technology, information sources are embedded in the context of young people's everyday way of life – a part of the reality of growing up in the global north.

The information worlds of young people who have access to mobile technologies have clearly expanded well beyond the flat, non-interactive web that was studied in the early days of the internet. Other than *Wikipedia* and a school-supported web portal, in the *Net Children Go Mobile* study there were few references to text-only web resources. Rather, the young people in this study spoke of information sources in terms of the interactive, visual, and mobile worlds of social media platforms, apps, and game environments. They sought store catalogues, videos to learn language, music lessons, and shortcuts for games, and they did so using a combination of search engines and apps for smart phones or tablets. *YouTube* (accessed via the web site or the app) was a critical information source for several teens in this study, preferring to view rather than read. Sometimes the information source also doubled as the retrieval tool, as noted above, when Isleen searched a bus application on her smart phone to find the bus schedule.

As young people's information ecologies expand through the use of social media and mobile technologies, the worlds of school and everyday life are blending together. Alan (age 14-16), for example, spoke of his reaction when seeing something 'on the news or Facebook' on his smartphone when he was at school – clearly not information related to a school task. Citing privacy concerns (and possibly concerned about the school's embargo on in-school use of mobile phones), he said he would turn to a friend and show them the screen ('Look at this'), rather than share the information via messaging. It is not clear from the data exactly what Alan means by 'news' – it could be an update from a news site or a message on Facebook - but what is clear is that, first of all, this news lives on his mobile device as a signifier of information, as a type of documentation, and it thus follows in the tradition of Buckland's 'information as thing' (1991), offering a way to bridge our understanding of information in a pre- and post-mobile technology world.

Second, this information source entered the protected world of the school environment despite school rules. Young people with access to mobile technology live in a blended world, where ‘school’ and ‘not school’ intersect (sometimes secretly and at times, at cross purposes) confirming the findings of Livingstone and Sefton-Green, in their ethnographic study that followed a cohort of 28 young people in a London-area school over the course of one year (2016).

Nevertheless, even as the form and layout of information sources have changed, so too has their purpose. In the world of mobile technology, young people now create information that informs others about themselves. Discussing how the timeline in *Facebook* can be used for good or ill, Luke (14 to 16 years), talks about how one of his old posts came back to haunt him: ‘There was a big thing that went on recently where people would just look at the oldest things they could find on people’s timelines and just comment on them. That happened. I found that I once did a thing on Facebook where I just asked people if they preferred donuts or waffles ...for no reason, I didn’t even get a response. Didn’t even get a response until a month ago, this is in 2009.’

Timelines in Facebook are an example of what Marchionini has called ‘projections of self’ (2008: 172) – a new form of user-created information that reflects the digital traces of our interactions with people and information objects, conscious and unconscious, which collectively, make up our virtual, quantified selves. Smart mobile devices support this amassing of personal information, through social media content, and even geo-locators and the collection of bio-information. What is critical to note is that other people in Luke’s social world interacted with his information years after it was created and, he assumes, used it to make a judgment about him. As this example demonstrates, this new form of information can document embarrassing things from one’s past, and takes from young people the privilege of forgetting and reinventing the self. However, it may also have affordances for reflection, memory, and self-awareness, as a mirror reflecting one’s growth and development.

### *Determining Information Credibility*

How do teens go about determining information credibility in mobile technology environments? While this facet of technology use was not explored in depth in the *Net Children Go Mobile* study, there were some hints as to what makes digital content worthy of being believed (and therefore, in the context of the original *Net Children Go Mobile* study’s focus on risk to person, safer for young people to access). While research in the area of social media has shown a ‘shift from an authority-based approach to credibility to a reliability approach’ (Lankes, in Meltzer and Flanigan, 2008: 106) and demonstrates that social endorsement from people in their everyday lives, rather than traditional gatekeepers, is a key factor in determining credibility in social media (Bowler et al., 2014: 7), we in fact saw little evidence of this approach in the data. We are not suggesting that social endorsement is not a factor in judging credibility in mobile environments but rather, that it simply did not come up in the interviews and focus groups.

We did note several teens who applied the time-honoured technique of determining source authority – the ‘referred credibility’ described by Flanigan and Meltzer, in their review of the credibility literature (2008: 12). Emma (13) explains how she makes judgments about *YouTube* music and comedy videos:

Interviewer: How do you use You Tube?

Emma: Only for songs or like funny videos that my friends have told me about maybe, like when Sharon Osborne banged into a door, stuff like that. But nothing inappropriate.

Interviewer: How do you know what's inappropriate?

Emma: You can sort of tell if it's made by someone on the front cover when they just show you a little bit of it, you can see because sometimes it says official video and sometimes it's just like made by the people.

Interviewer: And then do you just make a judgement?

Emma: Yes, I make a judgement on that. Usually the ones I've watched are just people singing normally.

Here, Emma uses the term ‘normally’ to stand in for appropriate, where “appropriate” is shorthand for source authority, in the sense that ‘official’ videos (professionally-produced) are more reliably safe than self-published videos by unknown sources. Another teen, Anuj (boy, 11-13 years), talks about how he avoids spam email by judging the credibility of a web site or app, explaining that if he knows ‘the website is a random website’ he will not give out his email. The use of the word ‘random’ suggests that an unknown source signals a lack of credibility.

In our analysis, we saw credibility take on a new meaning in the context of mobile, digital information. Teens are thinking seriously about the trustworthiness of the *container* of the information, the digital infrastructure that holds the information, rather than the value of the informational content. In pre-digital times, information users rarely considered the quality of the container that held the information. Books, once printed and bound, were not expected to change their fundamental shape nor harm the user. However, in the age of digital content, the calculation changes. Our analysis revealed a perspective on credibility focused on the risks associated with malware and viruses, considerations related to software, rather than to the inherent value of the content. Anuj (11-13 years) sought to avoid spam email through a determination of the credibility of a web site or app before providing his email address. Another teen boy (14-16 years) in a focus group explained that he would determine the credibility of a website he goes on, not because he seeks quality information but rather, ‘because I love my computer and I don’t want it to get any viruses,’ thus reflecting a heightened awareness of the risks associated with digital information.

These findings clearly demonstrate the value of secondary analysis of qualitative data. The interviews analysed provided evidence for a deeper understanding of contemporary youth’s information behaviour, particularly their information seeking, their

information sources of choice, the role of technological affordances, and their construction of credibility. Without opening up this data set for secondary analysis, the opportunity to expand its value beyond the original research questions would have been lost.

## Reflections on the Secondary Analysis of Qualitative Data

### *Sharing the Data Set*

Both the *EU Kids Online* and *Net Children Go Mobile* projects had anticipated that the data would be shared and even that the goals and methods might be applied in other contexts, as happened when the *EU Kids Online* survey was used elsewhere. With this in mind, both the quantitative and qualitative methods in each project were described in considerable detail to enable the approaches to be re-usable. However, there are always extra insights to be gained if those re-using either the data or the method talk it through with the original researchers, and this seems even more appropriate when the analysis is going to be of a different kind from the initial project. This would include questions of why issues in the interviews and focus groups were approached in a certain way, why questions were phrased in a certain manner, why some things were and others not asked and where certain areas were explored but where little insight was gained into these topics from the particular participants taking part. Hence when the data is later being re-analysed, it is clearer why it has been generated and exists in a certain form.

In fact, although the *Net Children Go Mobile* team wanted the material to be used, and sharable, it had not anticipated that the original data might be analysed with different purposes in mind. Therefore, it was important to learn about how the interview material would be reanalysed, for what purpose, within what theoretical framework so that it was possible to judge if this reanalysis seemed valid, ethical and indeed feasible. This included evaluating the researchers who would undertake this work. Since the UK data was being used, the UK *Net Children Go Mobile* leader, Leslie Haddon, consulted with the overall project leader and they agreed that the original interview material could be used if someone from the project checked the output of the reanalysis, if the *Net Children Go Mobile* project was formally acknowledged, and if one of its members was a co-author.

### *Matching the Research Problem to the Data Set*

We found it frustrating to realize that our initial research problem (i.e., investigating how parents support metacognition in children's use of mobile technology) would need to be adapted to match the actual data set (Mitchell, 2015). Thus, our analytic focus had to shift in order to find compatibility between the purpose of the new analysis and the affordances of the existing data. This shift is key to a successful secondary analysis. Unfortunately, in order to discover the limitations of the data (at least in terms of the secondary analysis) and the potential for answering a new research question, the researchers conducting the secondary analysis must first invest the time and effort needed to explore the data set. This is inverse to how most research studies operate, where a

research question is devised, a methodology is designed, and finally, the data is collected in ways that allow the research question to be answered. However, in the case of secondary analysis of qualitative data, especially in cases where a new perspective is brought to the data, the dynamic between research question and data is different. In some sense, the research question must arise organically *out* of the data once the secondary researcher becomes familiar with the data. Good communication with the original researchers prior to accessing the data will help clarify the nature and scope of the data but still, secondary researchers may still discover limitations in the data with regard to their original intent only once the data is made available to them.

In the case of this study, the original focus on parental metacognitive support in relation to children's use of mobile technologies proved to be too narrow and not supported by the interview and focus group protocols. Nevertheless this limitation did not preclude exploring the data further and allowing a different window of analysis to emerge, albeit one that still aligned with the areas of interest and expertise of the secondary researchers. It is important to note that should the focus of the secondary data analysis shift, the original researchers – the creators of the data - should be advised as to this change (this was the case in Bowler and Julien's secondary analysis, since one of the original researchers, Haddon, is a co-author of this paper). It may be that the original research team is equally interested in the new focus.

### *Shaping the Research Protocols*

The researchers worked with a data set that they themselves had not generated. This presented a number of interesting challenges. Foremost, we did not have the opportunity to shape the data collection protocols, so when analyzing the interview transcripts, we found it difficult, if not frustrating, not to have the opportunity to re-word some interview questions to address our particular interests. In other words, we missed the opportunity to explore our research focus directly with the participants in an in-depth way.

One example of this happened when the interviewer would ask teen participants how they determined the appropriateness of information. The participants answered this line of questioning but, as information behaviour researchers, Julien and Bowler were left wishing they could draw out this line of questioning further in order to get the participants to focus more directly on the risk of 'bad' information (information credibility, for example). In fairness to the *Net Children Go Mobile* study, studying information quality was not the point of the exercise. Rather, the goal of the original study was to learn more about the physical and psychological risks that young people encounter via mobile technology.

However, there was a positive aspect to the loss of control over protocols and the inability to direct an interview and that is related to the issue of courtesy bias (answering an interview question in ways that are socially acceptable or to avoid offending or disappointing the interviewer). That is to say, the participants, having no expectation that the study was at all interested in their specific methods for seeking and assessing information, perhaps provided answers that we strongly suspect present an honest picture of their information seeking behaviour.

## *Intersubjectivity*

Intersubjectivity is a fulcrum of qualitative research and it relates to the notion of shared understanding, recognizing that ‘meaning is based on one’s position of reference and is socially mediated through interaction’ (Anderson, 2008: 467). Accordingly, knowing is socially situated and the understanding that a qualitative researcher gains vis à vis the research problem relates to their stance within that problem. The stance of an interviewer communicating face-to-face with a respondent is quite different from that of one who is reading the transcripts of the interview. In effect, the secondary researcher switches to observer, watching the interview unfold from afar. The insider/outside stance of the researcher must therefore be a consideration in analysis.

As experienced qualitative researchers, we experienced some challenges related to our own intersubjectivity. That is, the separation between the participants in the study and us (those conducting the secondary analysis) was an unusual stance for those who are used to a more direct intersubjectivity and the shared understandings experienced in qualitative research conducted in situ (Heaton, 1998). This stance created a distance between our position as researchers and the data, which in turn limited our ability to contextualize the data in ways that would have come naturally to us had we collected the data originally (Coltart et al., 2013; Irwin, 2013, Yardley et al, 2013). Nevertheless, we understood that the data was gathered in a context similar to our own (in an Anglophone country with an advanced economy in the Global North), and we noted that the participants used devices and applications similar to those used in our own context. Therefore, we felt reasonably comfortable with our ability to analyze the data set. However, the lesson learned is clear: the context of a data set should not be entirely foreign to those conducting secondary data analyses.

## *Planning for Data Sharing in the Field of Information Behaviour*

From the beginning, the research team guiding the *Net Children Go Mobile* project had every intention of sharing the data products resulting from their study. In fact, data stewardship was an integral part of the project. This cannot be said for most research in the field of information behaviour, even though researchers who apply for grants are often required to lay out a plan for data stewardship. We, the authors, feel that the sharing of qualitative data necessitates a deeper level of planning. For example, in applying for ethics approval from an ethics board or an institutional review panel, potential audiences for the data should be considered, such that study participants who are being interviewed are made aware, from the beginning, of the ways that their responses might be communicated to the world. This openness with study participants might subtly change the study protocol or even the ways that study participants interact with the researchers - a legitimate concern that we think deserves further discussion.

## **Conclusion**

In light of our experience with secondary data analysis in this study, and the findings related to information behaviour which we were able to generate, we believe that that the

benefits of secondary analysis certainly surpass the challenges. We benefited from having the ability to expand theory to a wider context, i.e., to expand understandings of information behaviour to contexts beyond our own. In addition, we appreciated the opportunity to strengthen the reliability and validity of existing theory, since our findings were generally consistent with findings from other work. We also were able to gain access to data from a population that is notoriously difficult to access (young people under 18 years of age). Finally, through this work, the data archiving agenda was promoted. To date, most discussions of data archiving have focused on quantitative data; discussions about archiving qualitative data for secondary use are only beginning. Because of these successes, we conclude that secondary data analysis has significant potential for application in information behaviour research, and we encourage qualitative scholars in the field to find ways to share their data for the benefit of colleagues and students elsewhere.

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