YouTube as an Innovative Resource for Social Science Research
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Abstract
Conceived in 2005, YouTube – a video sharing platform based on Web 2.0 technology – has been extensively used in social studies research and practice. Recently, an increasing number of researchers have turned their attention to YouTube. They have used YouTube in selecting samples and collecting multimodal data for social studies, and examine YouTube or its users in case studies (Harley & Fitzpatrick, 2009; Vergani & Zuev, 2011). Although Thacker and Dayton (2008) assert that such Web 2.0 research has paved new ways for online research that can achieve its aims ideally, a systematic foundation in terms of theory and practice for research through and about YouTube remains sketchy. Some researchers have considered YouTube as a branch of Web 2.0 research, but most of them have not gone beyond the theoretical discussion (Flick, 2009; Snee, 2008). Very often pre-existing data on the website are considered as lacking authenticity and trustworthiness, and data collection from YouTube is - perhaps mistakenly - perceived as a simple and easy process. However, YouTube, with all its benefits, pitfalls and challenges, is now recognised as a sophisticated research resource which requires researchers to employ sensitive and professional judgements to ensure its efficient exploitation.

In order to offer an efficient guide for researchers in studies concerned with YouTube, this paper firstly introduces the medium and describes reasons for its popularity to create a general understanding of why YouTube can be an effective tool in social research. It then goes on to discuss the challenges confronted by researchers, teachers, and students when using YouTube as a resource for their public or personal studies. Lastly, the paper describes the benefits of the medium as a research tool and makes suggestions as to how YouTube can effectively be utilised to produce high quality data. This paper will be of interest to social researchers, particularly those interested in Web 2.0 research, ethics and copyright policies in Web research.

Key Words
YouTube, Web 2.0, social media research, ethical challenges, Web research design, Internet research resources
Introduction
The ‘second phase’ of Web technology is commonly known as Web 2.0 and was first proposed by Tim O’Reilly (2005). In contrast to the earlier Web setting, Web 1.0, in which people are envisaged as passive consumers, Web 2.0 allows people to perform multi-functional roles in the development of technologically-mediated social environments (Lovink & Niederer, 2008). As a result, under the overarching term Web 2.0, a number of social web applications have increasingly become a pivotal vehicle of communication in everyday life. YouTube is one of them.

As the most popular video-sharing platform at present, YouTube has provided a virtual open space for people to share their interests and stories with a worldwide audience, using a range of new multimedia forms of expression. In the YouTube community, barriers to artistic expression and civic engagement are relatively low and support for creating, and developing informal mentorship between online users is high (Burgess & Green, 2009; Strangelove, 2010). YouTube has achieved a remarkable breakthrough, and gained tremendous popularity in a short time. It has enabled the uptake of individual empowerment towards a global participatory culture (Jenkins, 2008).

Observing the rising popularity of YouTube, many researchers across disciplines have turned their attention to social media contexts (cf. Lange, 2007, 2008a, 2008b; Wesch, 2007, 2008). They have discussed possibilities and challenges in conducting research in Web 2.0 settings and have suggested that researchers need to be aware of the difficulties in determining ethical issues along with questions of copyright, choices of methodology and analysis tools. Although some researchers have provided practical, theoretical and methodological suggestions that leave room for flexibility and adoptability to Web 2.0 researchers, there are still considerable questions remaining (Mann & Stewart, 2000; Hine, 2005; Johns, Chen, & Hall, 2004). Compared with other Web 2.0 schemes, the exploration of YouTube in social studies research and practice is in its infancy.

This paper explains why YouTube can be used effectively as a research tool in the social sciences, and deals with challenges and uncertainties in Web 2.0 research as well as considering the potential benefits of investigations in this area. It concludes with a discussion of some of the key issues for ethical considerations, and as such will hopefully assist researchers, teachers and students who intend to use YouTube in their research work.
YouTube at the right place at the right time

YouTube is one of today’s fastest growing Web 2.0 applications. In essence, YouTube is a virtual space where people can watch, upload and distribute videos and multimedia while building and maintaining online social relationships. According to the Nielsen Company (2010), their data showed that in 2009, 75% of Australians were interacting with others through Facebook and 70% of them were engaging in YouTube for social networking. In recent news on YouTube, more than 2 billion views occur per day and over 35 hours of video are uploaded onto YouTube every minute (YouTube, n.d.). Andy Warhol once predicted ‘15 minutes of fame’ (in the future, everyone will be world-famous for 15 minutes), and this forecast seems to have come to fruition in the YouTube phenomenon, as evidenced by its remarkable popularity. Today people are gaining their popularity through sharing their uploaded videos on the web platform. Many of the videos are up to 15 minutes in length.

Undertling the success of YouTube, Burgess and Green (2009) recognised that YouTube’s distinctive characteristics allow its users to experience impartiality in participation, openness of creativity, and user-driven activities. It is a participatory culture which is often identified as one of the key elements of Web 2.0 landscape (Jenkins, 2008) whereby people exchange their unique stories, ideas, knowledge, experiences and even individual personal profiles with a universal audience (Jenkins, 2008). By doing this, people are experiencing a new way of practising digital narratives in a multimodal communications environment (Alexander & Levine, 2008). In turn this can significantly impact on the communication preferences in people’s daily lives. Recent research illustrates the trends driving the powerful growth in social practices related to Web 2.0 technologies. The following sections outline some features of this paper – benefits of YouTube in research, YouTube’s uses as a research mechanism, and its challenges.

Benefits of using YouTube for research

There are several advantages of employing YouTube in research that are commonly accepted by Web 2.0 investigators. First, using YouTube makes it relatively easy to access user-generated content, particularly rich, multimodal data of everyday communication. For example, rather than hand writing diaries, people commonly use blogs and provide the link on YouTube or create video blogs (vlogs) to write diaries in a video format. Second, data collection can be efficient. Considering the ease in collecting data online, researchers are able to collect data whenever they have Internet access. Third, YouTube is a user friendly tool. The use of web-based research can be helpful for researchers in gathering unique data from respondents who are familiar with online approaches, and might provide more valuable personal experiences through the Internet than they would have done with face-to-face interviewing and standardised questionnaires (Snee, 2008). Fourth,
YouTube can be a useful tool for qualitative research, such as ethnographic studies. It can also be employed in quantitative studies. Although some data including personal information and view count can be manipulated by users, other information cannot be changed or hidden. Information that cannot be manipulated include the joined date, the video uploaded date, the last visited date, numbers of friends, comments and subscribers, and comments posted to vlogs or under videos. Such information can be useful for both qualitative and quantitative studies. Fifth, conducting research is costly, but YouTube provides many different types of data that are free for researchers. Sixth, the researcher can save time for transcription (Flick, 2009). Textual information on websites can be easily copied and pasted. Hookway (2008) introduced an instantaneous technique for collecting substantial amounts of data on blogs that helped save time. Last, a number of researchers stated that mixed methods approaches that combine Web 2.0 data with other methods may address issues of representativeness and give an overall picture with multi-dimensional perspectives (Snee, 2008). Kozinets (2010), who coined netnography by combining Internet, ‘net’, and ethnography, ‘nography’, also strongly recommends online researchers to employ mixed methods to triangulate their findings. Lanuge (2007, 2008a), for example, clearly demonstrated this in an ethnographical study in the YouTube context. Looking closely at YouTube as a research mechanism, sensitive topics and unique studies can be addressed in various ways.

**Web 2.0 Research: YouTube as a research tool**

Growing participation in Web-based activities on YouTube has interested researchers and educators. Along with other Web 2.0 applications, YouTube has been widely documented across disciplines including music education (Rudolph & Frankel, 2009), literacy education (Spires & Morris, 2008; Snelson & Perkins, 2009), sociology (Lange, 2007; Vergani & Zuev, 2011), anthropology (Wesch, 2007, 2008) and social technology (Harley & Fitzpatrick, 2008). Very recently, Chareen Snelson, associate Professor at Boise State University, has identified a number of peer reviewed journal articles and conference papers with the keyword ‘YouTube’ in the title, and categorised them by discipline. This is available at [https://sites.google.com/site/literaturereview188/categorized-bibliography](https://sites.google.com/site/literaturereview188/categorized-bibliography).

Among these studies, Lange (2007) investigated the responses of children and youth to aggression on YouTube in order to understand how these young users participated in YouTube and how they are affected by cyber-violence that exists online. For the purpose of her survey, random sampling was used through YouTube to invite young users to participate in interviews. Another study by Harley and Fitzpatrick (2009) investigated a 79 year old video blogger of YouTube as a case study, using qualitative and quantitative methods. They analysed a number of uploaded videos and comments to draw the Web-mediated life of an older person. On yet another occasion Vergani and
Zuev (2011), also used YouTube to employ a mixed method approach to explore the Uyghur nationalist movement. They drew out a sample of videos from a larger collection by using a random number generator to obtain statistical findings (quantitative method), and analysed visual and oral messages in the sample to extract the nationalistic influences contained in the videos (qualitative method).

Each of these studies identified possibilities of the usage of YouTube for quantitative and qualitative research purposes. Lange (2007) has taken her interest in YouTube research a step further. She has engaged with others as an online user in order to understand behaviours and perceptions of the YouTube community from the view point of an insider. Her YouTube channel, AnthroVlog, can be seen as an example of an innovative way of conducting contemporary online research on YouTube. The examples provided here show that a number of different research approaches and interests in YouTube have been undertaken. However, research using YouTube as a social research tool has not yet been fully explored.

**Challenges for Web 2.0 Research**

*Ethical challenges: privacy in the public domain or public in the private space*

One of the significant problems with conducting YouTube in the social sciences is the blurred distinction which exists between what is public and what is private online (Snee, 2008; Lange, 2008b). Establishing clear-cut standards or rules is complicated as the nature of online research is unstructured. Many researchers highlighted the potential ethical challenges of online research, particularly around changing the notion of privacy (Bruckman, 2004; Johns, Chen & Hall, 2004). In a review of the literature, however, there appears to be no consensus among social scientists and social media researchers in terms of the broader question of what is private and what is not. Hutchinson (2001) put forward some points for debate on the issue. First, anything in the public domain does not require consent. This is agreed by some researchers who assert that putting information online should imply consent for the use of online materials (Bruckman, 2004) because all the resources are already available in the public space. Second, private information in online contexts should be considered as confidential (Elgesem, 2002). Indeed, several studies showed that many text bloggers are not particularly interested in sharing their work with a broad range of online audiences, even though they posted their work publicly (cf Hookway, 2008; Kozinets, 2010). For instance, Hookway (2008) found that many bloggers even preferred fewer responses to their blogs than with other communication tools. In other words, it seemed that they wanted to keep their readers at ‘arm’s length’. Similarly, in a YouTube study by Lange (2007), some video makers preferred to get support and feedback from a small group of friends to maintain their private lives.
Third, it depends on how the participants act in online settings. For example, YouTube allows its users to manipulate their social networks by changing functions between public and private.

Thus, there are four distinguishing behaviours that can be made: public, ‘publicly private’, ‘privately public’, and private (Lange, 2008a). Some users allow anyone to access their identities and their work. Some could take ‘publicly private’ behaviour in which their personal information and identities are accessible for anyone, but content such as videos or comments has limited access. Some take ‘privately public’ behaviour by blocking their personal information, but allow people to access to their videos or comments. Finally, some users choose private behaviours, totally concealing themselves and blocking their personal information. These users only allow their friends to access their contents. The points raised here about private/public issues may be seen to confound attempts to undertake online research.

Additional online research issues relate to obtaining informed consent. In a recent report, Web 2.0 researchers in UK were interviewed. In their interviews, they raised issues about gaining informed consent to use Web 2.0 content. Some researchers are of the opinion that it is unnecessary to obtain informed consent (Snee, 2008). In the research based on the U.S. federal regulations, Hudson and Bruckman (2004) argued that asking for informed consent in chat room studies may be considered unethical. In this case, informed consent can be waived (p. 297). These researchers asserted that a waiver of informed consent procedures can be applied, on the basis that research would pose little risk to participants, and negotiation of consent would be impractical. Murthy (2008) also noticed that some researchers such as Denzin (1999) and Schaap (2002) placed less emphasis on ethical issues in relation to informed consent in online settings. Overall, Internet research literature shows that researchers’ ideological orientation on ethics will influence the decisions they make, and that there are intercultural differences in national standards (Snee, 2008; Hine, 2008). Taking all of these into consideration, it seems that obtaining informed consent is less of a concern in online research. Seeking consent seems to be a personal decision rather than a formalised requirement.

**Copyright challenges**

There is a sense that some researchers are over-cautious about copyright issues in relation to online materials. A view has been expressed that if people post materials in the public domain, it should be within researchers’ right to download and analyse online data as long as researchers maintain minimum risk for individuals (Snee, 2008). However, because there are different types of online materials, some should be considered differently in terms of copyright issues. In Australia, downloading YouTube videos can be acceptable if it is used in classrooms for educational purpose.
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(Australian Copyright Council, 2008). The Australian Copyright Council has no specific copyright information on YouTube being used as an online research tool. The usage of online videos can vary from one case to another and the Australian Copyright Council does not have the resources to give a detailed response to each case as there are so many situations where copyright can apply and vice versa. However, according to the YouTube policy, downloading videos from YouTube is legally forbidden unless the website provides a function to do so (YouTube, 2010). For example, the following found in the YouTube Help Forum re-directed the inquirer to the individual sites (http://www.google.ad/support/forum/p/youtube/thread?tid=744e3b4c5e51645e&hl=en), no blanket approach was provided.

Question: are there any legal issues against me saving the videos to analyse for the study as long as there is absolutely no connection between the identity of the poster and the data? (a doctoral student)

Answer: you can't save or use other peoples' videos without their knowledge and permission. You need to message them directly (Help Forum).

Copyright issues also should be considered from the user point of view. Perkel (2008) interviewed a young female messenger user aged 15 to gauge her understanding of copyright. Her response surprised the researcher: she was upset by those people who copied photographs that she has taken without her permission. Rather than taking their actions of copying her resources as a compliment, her reaction was that the Web is “available for people to steal” (p. 1).

**Authenticity and Trustworthiness challenges**

There is concern about the quality of information available online. As a result, online research is regarded as less trustworthy than offline research work (Hine, 2008). Hookway (2008) - referring to Silverman’s concept of an ‘interview society’ in which the only way to retain authenticity is through face-to-face interview – insisted that there is a tendency to marginalise other forms of research (pp.97-98). In a MySpace study, Thelwall (2008) addressed the issue of authenticity and pointed out that the dependability of data would have a pivotal impact on research results. In a MySpace study unease arose because of the suspicion that some users entered false ages in their profiles to get around the site’s age restrictions or they falsify their identities intentionally. Such falsified data are beyond control and skepticism about online information, such as YouTube’s popularity, can be manipulated. The viewer count feature on YouTube can be increased by pressing on the play button repeatedly. Therefore, any person can increase the view count at will. The use of this practice has been acknowledged by some prominent and popular YouTubers (Lange, 2008b). It is
not surprising that the issue of trust and authenticity of online information is in question (Mitra, 2004).

Guidelines for conducting YouTube Research

**Ethical guidelines**

Many online researchers emphasised that ethical consideration should be related to the content studies (Ess, 2002; Lange, 2008a). For example, some researchers like Denzin (1999) and Schaap (2002) did not seek permission from their participants because they were passive observers during their investigations. In online chat room settings, human interactive involvement may consider humans as subjects, while those who write publicly accessible weblogs should be treated as authors (Ess, 2002; Hookway, 2008). Nevertheless even in the same setting, such as web blogs, ethical considerations can differ if a research is studying the bloggers or the content of the blogs. Usually, where texts are studied in literacy studies, the person who created texts is considered as an author, so the focus of the study is in the text, not the person who provided the information. In this case, the human risk can be minimised, whereas in social studies the writer is examined in the study which means that the author becomes the subject (Serfaty, 2004). However, according to Bruckman (2002) even if texts only are studied in research, the texts should be given protection just as human subjects are protected. Although personal information and user-created contents are already available on the public domain, such as YouTube, it cannot be justified that the researcher can liberally use and study these resources. Even though many people post images, upload videos of themselves or personal details in an open place like the Web, researchers must still take ethical issues into their considerations (Lange, 2008a). Although information online is already available to the public, it does not mean that the authors have agreed that their information can be used in any research. Therefore, researchers should act ethically and undertake careful consideration of their research approaches.

Markham (2011) asserted that whether consent for an online study is to be obtained or not, the judgement should be left for the researcher. However, I argue that the decision should be made based on ethical guidelines or formal statements which lead researchers to take responsible actions when they conduct online research. One reference for online researchers is the Association of Internet Researchers (AoIR) ethics document (Ess, 2002). It has clearly pointed out that observers seeking informed consent need to make clear to their subjects how data about them and/or from them will be used. For example, the specific uses of material and how their identities will be protected become part of informed consent to which subjects are asked to agree (Ess, 2002). Lange (2008a) suggests that informed consent to conduct a YouTube study depends on how much information the participants reveal about their identities, how much information is
accessible in a video and how meaningful it is to others. If the researcher is required to obtain informed consent, he or she needs to design a suitable approach to gain consent. It must be kept in mind that obtaining informed consent from online users may decrease the number of samples and therefore the significance of the study could be influenced.

**Copyright guidelines**

Blog researchers are warned to be aware of copyright law (Walther, 2002). This warning might apply to YouTube researchers. In that case before conducting a study using YouTube as a tool to collect data, the researcher needs to understand the terms and conditions under the copyright law. Generally copyright protects a wide range of original literary, artistic, dramatic and musical ‘works’, including those posted on the Internet (Australian Copyright Council, 2007). In Australia, Internet content is automatically copyrighted (Australian Copyright Council, 2007). On YouTube, particularly it is clearly stated in the terms and conditions of use that the creators have the ownership and authorship of their uploaded videos (YouTube, 2010). Anyone who wishes to use or have a copy of a video, is strongly recommended to contact the owner of the video clip in order to get his or her permission or to request a master copy of their work. If the researcher uses a video on the YouTube website as ‘it is’ without downloading the video, the study can be deemed ‘fair’ according to the Copyright Act (1968). This decision can be determined by the purpose, nature, manner and context in which the material is used. If the use of copyrighted materials in online contexts is for a non-commercial purpose, the work is arguably of low skill with no economic benefit, and the materials are used in small and non-substantial circumstances, use can be deemed ‘fair’ (Australian Copyright Council, 2007). However, decisions related to copyright will be made on a case by case basis. It would seem that the use of YouTube for research purposes is relatively unrestricted by ‘fair use’ practices (Center for Social Media, 2008).

**Innovative research approaches**

The Web has challenged the way we conduct research in that researchers are required to adapt familiar methods and develop innovative approaches to fit the unique aspects of the Web. YouTube is clearly a mass Web application. That is, it contains multiple sources of data, new forms of user-generated content, and many different configurations of communication and functions. Therefore, researchers should build their own experiences with YouTube such as uploading videos, commenting, messaging, rating, social networking, blogging, questioning on help forums, and searching with key words or phrases to find appropriate videos efficiently. In addition, researchers should understand other YouTube users.
Another suggestion that might be helpful for researchers is to consider how to invite online users after setting research questions. For ethnographic studies many researchers examined online diaries which they share in the form of blogs and developed strategies to invite bloggers to participate in their studies (Hookway, 2008; Nardi, Schiano, & Gumbrecht, 2004; Serfaty, 2004). Researchers who study video blogs of YouTube are also required to cultivate appropriate strategies which are suitable for online video diary writers. For example, the researcher might create a video blog to upload a video of an informed consent form through YouTube rather than sending a hard copy of the form by post. Therefore, if YouTube is used as a research tool, the approach should be matched to not only the goals of the project but also to the practices of the participants of the project.

**Methodological and analytical considerations**

In any study, the research method should always be employed to match the research question and also needs to be fit for its purpose in terms of design, process and reporting (Snee, 2008). Web-based media such as YouTube, containing sophisticated research resources might require researchers to employ innovative methods of analysing online data, along with process and patterns of production, distribution, usage and interpretation. As observation and ethnography are a major trend in online contexts (Flick, 2009), this paper particularly addresses how observation can be employed differently for ethnographical study in the YouTube context.

The role of observer can still sometimes be considered ‘passive’ in the eyes of bloggers and chat room users if the researcher is not overtly interacting with them (Murthy, 2008). Within the YouTube context, interactive observation can be a valid mechanism for ethnographical study. While monitoring their participation and contribution on YouTube, researchers can also become part of their communities interacting with them and becoming active members of the group. Nissenbaum (2004) introduced this concept as ‘contextual integrity’. By being an active member of the group, the researcher is able to sense what people expect about the information being shared. That is whether or not some information is appropriate to collect, and whether it should be distributed or not. Such decisions will be made on participants’ online behaviours and how they express themselves. Through interacting with the participants online, researchers are able to receive instant messages from their participants, which are usually hidden for ordinary observers. These messages can be fruitful field evidence for social science research depending on the aims of study.

Active observation might be one effective method for a particular study while passive participation can be useful for another study. When automated data collecting programs or coding systems are developed, a massive amount of online data can be collected relatively quickly in a short period.
(Kozinets, 2010; Markham, 2011) and they can present a valuable outcome of quantitative research (cf. Vergani & Zuev, 2011). On the other hand, in a qualitative study, if the pre-existing data (so called secondary resources) are systematically analysed, the result of analysis could shed some light not only on the content and implications of the text but also on the users who have produced the texts (Mitra & Cohen, 1999). If multimodal texts such as texts, images, sounds, signs, gestures and movements are evaluated by systematic frameworks of discourse analysis, critical textual analysis, genre-based analysis or multimodal semiotic analysis (Mitra, 2004; Kozinets, 2010), the outcome can be richer and more meaningful (Markham, 2011).

**Conclusion**
This paper started with addressing a general understanding of YouTube, its status in social science research, and the significance of YouTube study. The benefits of conducting YouTube research have been identified under seven points. This paper then highlighted the challenges, ethical dilemmas and controversies in Web 2.0 research. A number of issues were identified and discussed in detail: privacy or public, copyright, authenticity and trustworthiness. In the third section, the paper touched on new development and approaches in investigative studies using YouTube in order to provide a helpful guide for researchers. This paper made suggestions with regard to ethical considerations and copyright issues that researchers must be aware of when using YouTube for social research. In addition, it demonstrated some approaches, methodologies and analysis tools for literacy and ethnographic studies.

On the help forum of the YouTube website, 912 inquires contain a ‘research’ keyword (Accessed 20 May, 2011), and many of these are related to questions about research. It can be predicted that there is a growing interest in conducting YouTube research across a wide range of disciplines. Online research is still under discussion in regard to several issues mentioned in the ‘challenge’ section earlier. However it is worth meeting the challenges. For example, looking closely at the Web world might give us beneficial message that are of help for social problems. Cyber-bullying is a serious issue amongst young people in our society. Researchers and educators need to plunge into the youth online world to identify the ongoing problem, and provide effective social skills and strategies that any online users can adopt to protect themselves. Another social problem that researchers might examine is intellectual property. Even though today’s young people have gained very high levels of awareness and understanding of the basic principles of copyright (Lenhart & Madden, 2007; Perkel, 2008), copyright issues have to be further clarified. Anecdotal evidence shows that a number of young people have shared, through videos uploaded to YouTube, their own experiences of copyright infringement. For example, some of them commented that their personal YouTube accounts were cancelled once because they used other people’s work. Through
these stories, it can be assumed that online young users are probably learning about copyright by making mistakes. Therefore, in order to help them participate in online activities responsibly, educators need to help them develop an awareness of intellectual property.

Technology has introduced researchers to valuable data from which they can provide rich, holistic insights into people’s social skills and behaviours online. However, bias still exists against online research partly because many researchers are not familiar with the ways in which investigations are conducted and partly because secondary data resources on the Web are still perceived as trivial and of low-reliability. Also, as yet, there is no consensus of fundamental Web 2.0 research guidelines or of systematic frameworks within which to undertake online research. Therefore, researchers should place an emphasis on the development of such guidelines because participation on the Web has implications that need to be studied.
References


