

Ethical research in the digital age

Jeff Gavin and Karen Rodham look at research dilemmas created by social media, internet use and big data

Long gone are the days when psychologists could make participants think they were delivering fatal electric shocks, turn students into prisoners or prison officers and simply watch what happened, or make 9-month-old babies afraid of rats (Milgram, Zimbardo and Watson respectively). Although society has learned a lot from these studies, psychology's professional body (quite rightly) introduced clear ethical standards which researchers must attend to.

At its simplest, the essence of research ethical guidelines is to 'do no harm'. This seems to be a clear and sensible rule of thumb and it is tempting to think of ethics as a set of rules we apply: 'If x happens, then we do y.' However, what happens when the world changes faster than our professional bodies can keep up?

Our kind of research

As applied psychologists, we [Jeff and Karen] have been studying people's behaviour in the digital world working on a range of projects, including:

- online support for eating disorders and chronic pain
- representations of self-harm on YouTube
- relationship issues, such as online dating, sexting and online intimacy
- protest movements on Twitter
- (most recently) cyberstalking and revenge porn

From the outset, we realised that ethics panels were struggling to understand this research, from both a practical and an ethical point of view. Therefore, for the last decade or so, we have been thinking and writing about research ethics as it applies to work conducted on and in the digital world.

Our conclusion is that research ethics is *not* straightforward. Researchers cannot simply follow a set of rules, but rather move towards solving puzzles that address the complexities of this new research environment. In the rest of this article we explore unintended consequences when rules were followed instead of puzzles being solved. We look at the issues surrounding 'big data' and we conclude with a set of questions for you to think about.

Rule books and guidelines

It is clear that our professional bodies have struggled to produce ethical guidelines that keep abreast of the rapidly changing nature of the digital world. Some simply put the onus on the researchers themselves to keep abreast of developments in online research. For

example, in 2002 the British Sociological Association stated:

Members should take special care when carrying out research via the internet. Ethical standards for internet research are not well developed as yet. [...] Members who carry out research online should ensure that they are familiar with ongoing debates on the ethics of internet research, and might wish to consider erring on the side of caution in making judgements affecting the wellbeing of online research participants.

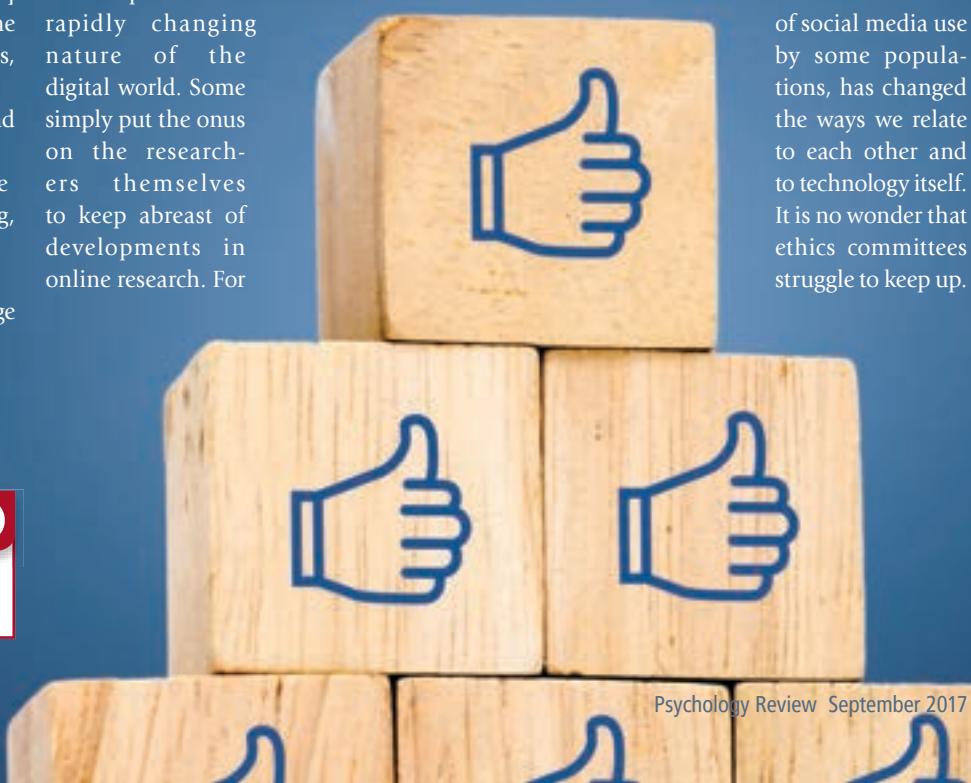
These guidelines were written in 2002, when the digital landscape consisted mainly of the World Wide Web (Web 1.0), email and text-based message boards. The ethical dilemmas posed by these platforms differ markedly from later additions to the digital landscape: YouTube (2005), Facebook (2006), Twitter (2006), Instagram (2010) and Snapchat (2011), to name just a few. In addition, the advent of smartphones,

wearable technologies (such as FitBits) and the near saturation of social media use by some populations, has changed the ways we relate to each other and to technology itself. It is no wonder that ethics committees struggle to keep up.

Signposts



ethical studies, ethical guidelines, internet-mediated research, social media



PROFESSIONAL BODIES HAVE STRUGGLED TO PRODUCE ETHICAL GUIDELINES THAT KEEP ABREAST OF THE RAPIDLY CHANGING NATURE OF THE DIGITAL WORLD

Current BPS guidelines

The expansion of digital technology brings with it new ethical challenges, particularly in terms of consent, privacy and confidentiality. Indeed, in December 2016 the British Psychological Society (BPS) wrote:

as advances in technology extend the opportunities for psychological research, they may also introduce additional complexities around our adherence to established ethical principles, often in ways which may not be immediately obvious.

The BPS Internet-Mediated Research Guidelines, originally written in 2013, highlight the issues facing researchers. They emphasise the need for ethical guidelines *not* to be used as a rule book, but as a set of guiding principles.

This is similar to the position of the British Sociological Association and represents an important shift. It is not possible to have a set of ethical rules that can deal with all situations, rather, all researchers need to ensure that they uphold the essence of our ethical principles (BPS 2009):

- **Respect:** valuing the dignity and worth of all persons.
 - **Competence:** recognising the limits of our knowledge, skill, training and experience.

- **Responsibility:** recognising our responsibility to do no harm.
- **Integrity:** valuing honesty, accuracy, clarity and fairness of our interactions with all persons.

Social media

Even when researchers do follow the traditional ethical rules, they are not always in a position to understand the actual ethical implications of their research in the digital world. Moreover, members of ethics panels are not necessarily familiar with the latest trends in social media. This can lead to blanket judgements regarding all social media research, or ill-informed conditions being placed on the researcher that are incompatible with the media being studied.

As an example, a dissertation student investigating self-presentation through selfies was told she could ask participants to provide screenshots of recent selfies to form the basis of an interview discussion ... provided she at no time looked at these images! While frustrating, this is understandable.

The point here is that, while we can easily apply a set of rules (such as 'researchers must anonymise data'), we need to think beyond these rules to the social practices surrounding the digital practices that we are investigating. Researchers and the ethical committees that oversee their work are not always in a position to do this. How can researchers or ethics committees uphold the responsibility to 'do no harm' if they are not in a position to foresee potential harm (or lack thereof)?

We have suggested that researchers draw on the experience of social media users themselves when anticipating the ethical

issues raised in social media research. Rather than blanket rules, each study should be considered on a case by case basis. In other words, the ethical puzzles facing psychologists have become more complicated as the nature of data has changed. This is due to changes to the digital landscape but *also* because of our new-found ability to collect, analyse and share massive datasets 'mined' from social media.

Big data

Psychologists are now faced with what is known as the 'big data challenge'. 'Big data' refers to datasets that are so large that traditional methods of data collection and analysis no longer work. Instead, complex software is required to 'capture' this data and allow researchers to visualise and see connections and patterns in social media use.

Analysis of TV and tweets

This can be seen in recent research by Brooker et al. (2016) on the relatively new media practice of 'second viewing', or live-tweeting. This refers to simultaneous TV viewing and social media use, often with an official hashtag. Using the same hashtags, the conversation can continue on social media after the show has ended or when others are viewing it on catch-up TV.

THE ETHICAL PUZZLES FACING PSYCHOLOGISTS HAVE BECOME MORE COMPLICATED AS THE NATURE OF DATA HAS CHANGED



EXISTING PSYCHOLOGY ETHICS REGULATIONS ARE CLEARLY NOT DESIGNED FOR BIG DATA RESEARCH

The researchers were interested in the ways that traditional media (TV) and social media (Twitter) converge to enable political discussion in everyday talk. They did this by analysing all publicly available tweets related to the UK TV show *Benefits Street*. First, researchers used recently developed software to 'harvest' all tweets containing #benefitsstreet over a 16-day period. This produced over 124,000 tweets by 6,788 users. They then used a series of algorithms to identify the frequency of tweets across this period, to understand when live-tweeting is most likely to occur.

Next, this vast body of data was displayed on something like a word map, to allow the researchers to visualise how particular words and ideas cluster together in these Twitter discussions. This allowed the researchers to identify how the programme was talked

about on Twitter. Individual tweets, either on a particular topic or by a particular user, were then extracted from the data for closer qualitative analysis. This type of research not only blurs the boundaries between psychology, mathematics and computer science, but also between quantitative and qualitative analysis.

Ethical issues in this research

Existing psychology ethics regulations are clearly not designed for big data research. Such data are not only massively scaled in quantity, but the nature of the data is different to that normally dealt with by psychologists. The data are inter-connected and multi-authored, units of analysis (such as tweets) are shared, liked and retweeted between users, between friends and strangers, celebrities and businesses, and humans and bots. The ability to collect, store, share

References



Alexander, B. (2008) 'Web 2.0 and emergent multi-literacies', *Theory into Practice*, Vol. 47, No. 2, pp. 150–60.

Brooker, P., Barnett, J. and Cribbin, T. (2016) 'Doing social media analytics', *Big Data and Society*, Vol. 3, No. 2. Available at: www.tinyurl.com/n3as5td.

and reanalyse large datasets complicates informed consent.

When would a participant consent and can we know what they are consenting to? For example, at what point might consent be given? When a user posts? At the time that researchers harvest the data from Twitter? Or each time a different researcher analyses the data?

In short, big data research moves the focus away from human participants towards 'distributed groupings or classifications'. Traditional ethical concepts of risk, such as physical harm, psychological distress, breach of privacy and anonymity to individuals, are less relevant than concerns about surveillance, individual and group discrimination, and data protection.

Moving from 'rules' to solving puzzles

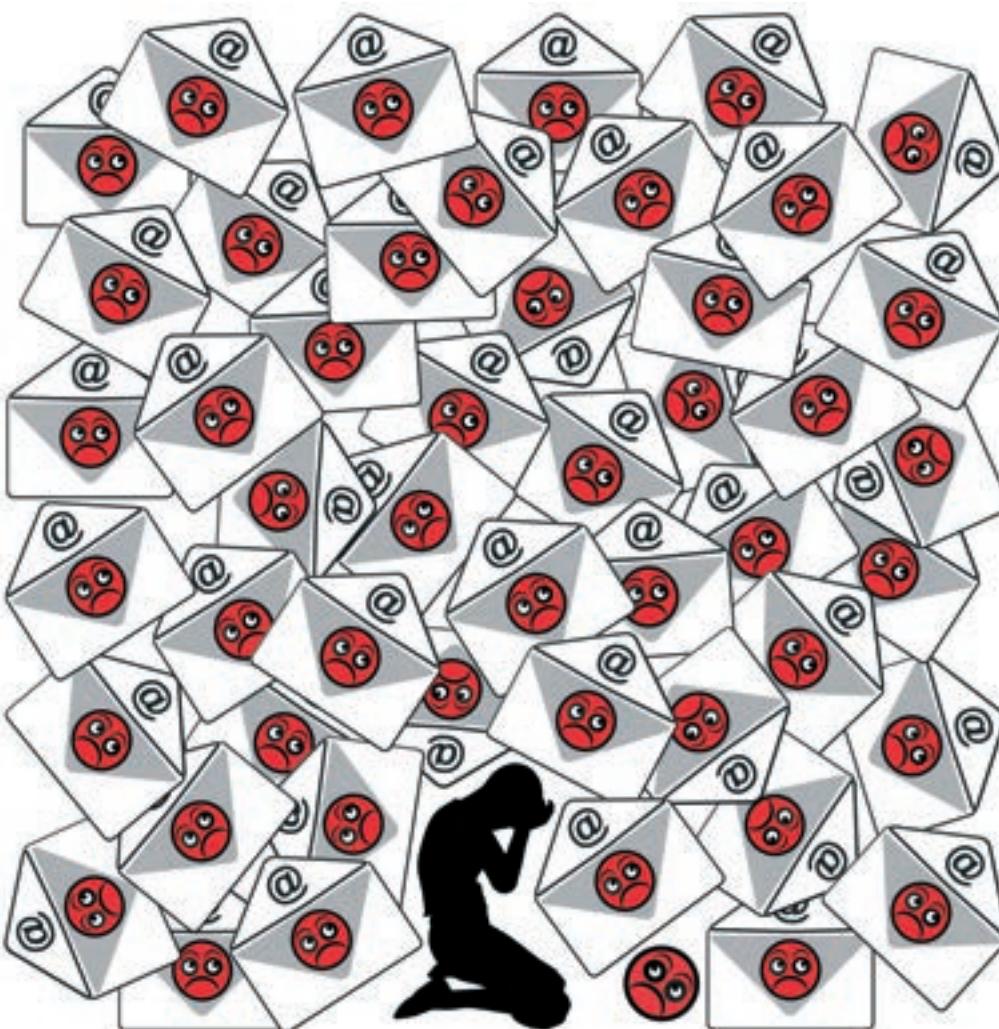
At the start of this article we suggested that it was tempting to think of ethics as a set of rules we apply: 'If x happens, then we do y '. We hope that we have shown throughout this article that the digital world changes too fast for there to be a clear set of rules. What we are now faced with is a fast-changing environment with multiple layers and with this comes the potential for unintended consequences.

As such, psychologists must accept the idea that ethics for the digital age requires a different mindset, one that is geared up to maintaining the mantra of 'do no harm' while achieving this through solving puzzles, rather than applying 'if, then' rules. This ever-changing landscape requires ethics committees and funding bodies to apply different methods of assessing research proposals to reflect this digital age.

Questions for you

Bearing all this in mind, here is a series of questions for you to think about. Consider the following example that was originally used by Alexander (2008) to highlight the complexity of research and the online environment:

Applied psychologists study online topics such as cyberstalking





If you wanted to study the comments on a vlog, whose permission do you need?

- If a researcher wanted to study this discussion, whose consent would be sought?
- In this scenario, whose right to anonymity needs protecting?
- If only one link in this network of sites is considered 'private', does that render the whole exchange private?
- Or does a 'private' user linking and contributing to this multi-site discussion render his or her contribution public?
- How would you solve this ethical puzzle ethically?

Jeff Gavin is a senior lecturer in psychology at the University of Bath, where he teaches cyberpsychology. He researches online support across a range of media, and the role of mobile technologies and social media in young adults' relationships.

Karen Rodham is a professor of health psychology at the Staffordshire University. She employs online research methods to explore how people cope with difficulties. Together, she and Jeff Gavin have published several articles on online ethics.

A YouTube member uploads a video. Others comment on this video, which is subsequently discovered by other internet users through social aggregators and search services. These people add comments to the original video entry (which they might link to from their own YouTube, Facebook or

Twitter accounts via 'liking' or 'sharing' the video or 'following' the original poster), view the video, and add further comments on YouTube, thus intensifying and contributing further to a networked discussion across multiple sites, with multiple authors, and text, hypertext and audio-visual content.

Ethics and A-level online research



Reading the article by Gavin and Rodham may make you think about the ethical issues of carrying out your own research online. The Association for the Teaching of Psychology has recently issued new ethical guidance for student research and they pay special attention to internet-mediated research.

Online surveys

You may, for example, carry out online surveys using tools like SurveyMonkey or KwikSurvey. This may seem safe enough, but there are some recommendations to follow.

First, remember you won't be able to see respondents' reactions to your questions and you won't therefore be able to offer comfort or a referral if you upset them. It is therefore really critical not to survey people online about anything likely to cause upset.

You should also make sure respondents know they can withdraw from the survey at any time or leave out questions. Don't forget to include a debrief at the end of your survey.

Social media

Using social media can raise additional issues because it is incredibly difficult to ensure that participants' privacy, anonymity and confidentiality are maintained. Obviously this is less of an issue if you are analysing material intended for public consumption, for example celebrity tweets. However, it is advisable to steer clear of using your own social networks for student research.

If you *do* want to analyse public social media, look carefully into the provider's policies. You may need, as a matter of law, to obtain their permission before carrying out any analysis.

Matt Jarvis