

SAGE Research Methods Cases Psychology Submission for Consideration

Case Title

A CASE STUDY of DESIGNING ARTIFICIAL FACEBOOK PAGES: A NEW APPROACH to ONLINE RESEARCH

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Abstract

The main objective of this chapter is for readers to develop an understanding of both ethical and technical considerations of using social networking sites in psychology research.

Additionally, this text will describe the rationale behind the development of an artificial Facebook page, as well as the steps and skills that are necessary. This case study will describe some of the difficulties that the authors encountered during this process. It is expected that readers will gain a deeper understanding and develop a better appreciation of the wider issues involved in social networking research.

Learning Outcomes

By the end of this chapter, the reader should be able to:

- Identify the ethical considerations to be addressed in research involving social networking sites;
- Understand the practical considerations of building an artificial Facebook page; and
- Describe the technical issues associated with building an artificial Facebook page.

Project overview and context

The overall aim of the research was to explore and gain an understanding of the social cues on Facebook that communicate relational information. Specifically we wanted to understand the social cues on Facebook that impart relational information, the motivations of Facebook use, and whether a threat to the need to belong results in attention to specific types of social cues.

The initial research questions for the program of research focused on both exploring what social cues were found on Facebook as well as the motivations of Facebook use. To answer these questions we used a mixed methods approach. However, we also had a third research question which examined whether a person who experienced rejection or acceptance prior to reading a Facebook page may concentrate their attention on specific types of social cues. However, this research question contained a number of methodological issues that needed to be understood and addressed before we could start any data collection. Of course, any methodological issue presents a challenge that means a number of different scenarios are considered and discarded, before a decision is made.

Uniqueness of the online environment

All psychology students undertake research methods training where the strengths and limitations of different research methods are discussed. One of the main concerns levied at social psychology is that behavior is often studied in artificial environments, such as laboratories, rather than more natural settings, which can impact on the ecological validity of the research findings (Jost & Kruglanski, 2002). Researchers are therefore turning to social media sites in an effort to address concerns about ecological validity. Furthermore, social media sites give additional insight into human behavior as well as having unique characteristics which differ from face-to-face interactions. For example, when someone is responding to a Facebook post or an email, they have the time to deliberate on what they can say, as well as consider whether to respond. This means that the processes and meanings that

occur on these sites have significant implications for existing theories as well as providing potential for social psychological research (The British Psychological Society, 2013; McFarland & Ployhart, 2015).

Facebook represents a social environment where researchers are able to observe people in their 'natural environment', as a significant proportion of people's lives are played out within this setting. Interactions can range from the mundane (e.g., "what is everyone having for dinner?") to the more important (e.g., the birth of a baby or the announcement of significant life changes). Indeed, social media sites like Facebook are changing the way people interact with others, and this has implications for how people communicate with each other. However, using this environment for research purposes can be difficult given the changing nature of both the Facebook platform and the policies that govern the use of the site (Wilson, Gosling, & Graham, 2012). An additional issue for researchers using Facebook involves thoughtfully addressing ethical concerns and the uniqueness of the online environment.

Research Practicalities

To investigate our final research question, (whether a person who experienced rejection or acceptance prior to reading a Facebook page may concentrate their attention on specific types of social cues) an experimental methodology seemed an obvious choice as an experimental methodology would allow us to create a research design where we could examine differences between groups. That is, one group of participants would experience a threat to their need to belong (i.e., rejection), whereas another group would not. In our experiment we manipulated the need to belong (independent variable: rejection vs acceptance) and the dependent variable was the number of specific social cues recalled from the Facebook page. This was a similar research design as the seminal study conducted by Gardner and colleagues (2000). Gardner and colleagues were also interested in whether a

need to belong threat would result in a bias for specific types of social events. The social events they used were contained within a diary. However, we wanted to use Facebook due to its common use in everyday contexts, and we wanted to adapt this platform to suit our research purposes. The key challenge presented by this was how a participant's actual Facebook page could be included in the research design and still deal effectively with ethical integrity issues such as privacy and social risk.

Ethical considerations.

Facebook research does have the potential for privacy violations depending on the research that is conducted. This has already shown to be the case when Lewis and colleagues (2008) publically released a data set involving Facebook users in their 'Tastes, ties, and time' project. As Michael Zimmer (2010) pointed out, while steps were taken to de-identify the data, some participants were, unfortunately, identified. Given that participant protection is a central component of research integrity, the identification of particular participants demonstrates that a violation of ethical protocols has occurred. Regrettably, the 'Tastes, ties, and time' project provides an example of what can go wrong in research, as well the inherent challenges that accompany datasets involving Facebook users.

Another issue to be addressed is the blurring that can occur of public and private boundaries on social networks. This is a particularly important issue when considering that copious amounts of research use undergraduate students as research participants. On first glance it may be difficult to see why this is a problem - students may receive course credit or entry into a prize draw for their participation, and researchers get the data they need. It would appear to be a win-win situation for both students and researchers. However, our concern focused on asking students if we could access their Facebook pages or profile, and this meant that suddenly we needed to consider social risk. This is a pertinent issue since the research was being conducted by the lecturers in the Psychology school where participants (the

students) were enrolled. In other words, we had either potentially taught the participants previously, were currently teaching them, or would teach them in the future. Social risk meant that there were added dimensions of privacy, anonymity, and confidentiality to consider. For example, imagine that a student gives permission to a researcher to access their Facebook page; the researcher then has access to personal information about the student. Further imagine the complexity that is involved if that researcher is the lecturer in one of the student's classes. This means that the Lecturer potentially has access to information about the student, which they may be reluctant for teaching staff to know. This ultimately means that the student's privacy is put at risk.

Another complication is the other people who may be 'present' on that student's Facebook page. Many Facebook users are tagged in photos or check-ins, which provide detail about the people who are tagged. Sometimes this is just a name, other times it could be photos or sometimes more personal information such as mental health issues. Even though the participant has given the researcher permission to access their Facebook page, these other people have not. Therefore, the researcher has access to the information about other Friends. While this Friend information could be considered 'incidental' having access to this information, is still an ethical concern and must be considered.

After careful consideration of the ethical issues of using 'real' Facebook pages, we decided that using an artificial Facebook page in our experiment would be a better option. By including artificial page/s we had more control over the content of the pages and that meant we felt more comfortable with any potential ethical issues. However, this meant there were other more practical issues we needed to address.

Copyright of Facebook assets and terms of use.

Facebook is a popular social networking site and as such its image assets are a recognizable brand that are protected by copyright. There is a Facebook branding center

website that gives direction and guidance to those who want to use the Facebook brand for film and broadcasting. However at the time of writing, there were no clear guidelines specifically for researchers wanting to use Facebook pages. Previous studies have used a variety of techniques including participants adding the researcher as a Friend through a generic 'Research Friend' profile or setting up Facebook profiles specifically for the research.

This type of research design does raise an important point concerning compliance with Facebook terms of use. While setting up generic profiles such as 'Research Friend' do not seem harmful or damaging, Facebook terms of use explicitly say that you must not create an account for anyone other than yourself without permission (<https://www.facebook.com/terms>). To our mind, this then ruled out the use of a bogus profile on Facebook as part of our research methodology.

After much deliberation we felt that the only way to correctly use Facebook pages in this research was to construct an artificial Facebook page. We could see this option having a number of benefits. Firstly, an artificial page would pose no social risk to a participant. We were not accessing their personal information or Facebook activity. Nor were we then concerned with the incidental information that could appear on a participant's page. Furthermore, we were not invalidating Facebook terms of use.

Research design

Once we had decided on designing and using artificial pages, the next step was to seek permission from Facebook to use their assets in the research. This is perhaps not as easy as it sounds with multiple attempts made to the branding center without success. Each time we received an automated email asking for more information that did not seem consistent with our request. Furthermore, each request seemed to take (what seemed like) a long time. When research timelines are tight, these types of delays can be very stressful. Indeed, these

months were probably the lowest points of the research, and left us all wondering and debating whether to change the direction of the research.

The lifeline came from a chance conversation with a copyright librarian at the university who took on our situation as a challenge. The librarian eventually found someone at Facebook who was able to discuss our research, and then obtain permission for us to use Facebook brand assets. Of course, this was always subject to Facebook branding terms of use.

Construction steps of the Facebook pages.

The first step was to design what the content would be on the Facebook pages. For the research three pages needed to be created: a Timeline, a Newsfeed, and a private message. The Facebook profile of a user was the first step to decide. We decided to go with a gender-neutral nickname, and so 'CJ' was created. The next step in CJ's identity was a surname. To do this, the first author googled popular Australian names from a range of eras. From this information, CJ became CJ Stewart. The google method was also used to create a list of both male and female Friends for CJ to interact with.

The third step was to design the interactions between CJ and their Facebook Friends. These interactions were based on earlier research questions, which identified the social cues used to communicate relational information on Facebook (Machin, Jeffries, & Brownlow, 2015). These social cues were an essential component of the artificial Facebook pages as they were used to create interactions between Friends using cues that would signal acceptance or rejection. Once the interactions were completed, the images that would be used on the pages also had to be considered. These images would represent CJ and the Friends profiles along with 'shared photos' for some interactions. We focused on using images of objects, groups of people, or animals rather than just an image of a single person. An additional step to consider was Australian copyright regulations and so each photo selected was part of either the lead

author's photo collection or downloaded through Creative Commons and made available for public use. The images were then edited through photo editing software such as Photoshop.

Once the basic design of the pages was completed, the final editing included checking that the pages had the look and feel of a genuine Facebook page. The Facebook branding center was an excellent resource to download logos and badges, along with templates for both desktop and mobile devices. This site also contains information about color and design to make sure the final site is consistent with Facebook, and this also addressed parts of the terms and conditions of the creation of the pages. In other words, the same color blue shade that is found on Facebook needed to be used, rather than designing a different color scheme. Given that our expertise was in psychology and not computer design, the final step involved a software technician building the basic pages. The time of the software technician was partially funded by research funding as well as the generous donation of a local business that was interested in the research. Once this was completed, the lead author then edited the pages with the desired images and text.

Further decisions centered on the type of page. We had already decided to create a Timeline, Newsfeed, and private message. We therefore made the decision to use a desktop layout for the Timeline and Newsfeed whereas the private message was modelled on a mobile layout. To add another layer of authenticity to the pages, advertisements were created for the desktop pages. Two advertisements were from real companies that gave permission to use their images, whereas other advertisements were completely made up using clip art and generic information (e.g., Cheap Online Flights and Work from Home). Trending stories were also included to add authenticity. We chose three popular news stories at the time that the pages were constructed (Ian Thorpe: Tells all in interview with Michael Parkinson; Tour de France: Michael Rogers celebrates first solo stage win. Vincenzo Nibali still overall winner; Downey Jr: Iron man star tops Marvel film list).

As a final step, a pilot study was completed with a small group of participants. While the pilot study tested other elements of the experiment, it was also an additional step to ensure that the artificial page had the look and feel of a genuine Facebook page. At no time did any participant indicate that they were suspicious of the Facebook pages or viewed them as anything other than the Timeline, Newsfeed, and private message of CJ Stewart. Thus, it was concluded that the Facebook pages were seen as genuine (rather than artificial) Facebook pages.

Brief summary of the data collected

In the experiment we gave participants a number of surveys that measured concepts such as need to belong, self-esteem and mood, before the participants saw the Facebook pages and were asked to read through these. The participants were then presented with a distractor task (i.e., anagrams) that was completely unrelated to the experiment. We then asked the participants to recall any social interactions that they could remember from the Facebook pages that they had earlier viewed. Their responses were then coded and the differences between the two groups (i.e., rejection vs acceptance) were analysed using a series of statistical tests.

Practical Lessons Learnt

It should be remembered that research, while rewarding on many levels, can present a number of challenges. While research students may feel that there is plenty of time to organize, plan, and execute research, the research process itself can become derailed by concerns and issues that may not initially seem obvious. Sometimes the student has been organized but is dependent on factors outside their control. We really do recommend that students set up timelines and include time for delays as well as organizing contingency plans.

Time for the research is therefore important. In our case, the process of seeking permission from an outside organization such as Facebook, took months and this led to

additional time pressures being applied. While we were still able to complete the research as we had originally planned, the delay had the potential to significantly impact the data collection, as well potentially changing the direction of the research. It is important then, that students and researchers consider time and delays as part of their research planning, as well as involving experts (i.e., librarians) where possible. A further consideration is that of research funding.

Funding may become an important issue if students and researchers don't have the skills necessary to complete a project and need to access the skills of an expert. Therefore we suggest that students and researchers realistically reflect on the skills that they already possess and whether they need to develop or learn new skills for the research they are committing to, or whether these tasks can be (or should be) externally sourced. Designing layouts and editing images is a huge undertaking and unless the researcher is already competent with these tasks, learning these skills may prove to be a distraction from the research itself. Indeed, the lead researcher spent months talking to computer programmers and software designers, as well as investing time (probably too much time!) learning how to edit images and write basic programming and use specific design software. If students or researchers are looking to design artificial Facebook pages (or something similar), they really need to be either confident and competent in these tasks and design skills or willing to invest the time in developing these skills and factor this into their research planning.

Conclusion

In summary, it is possible to conduct Facebook research without using the actual platform itself. Indeed, creating an artificial page does allow for many potential avenues of inquiry for researchers, and once completed, the page can be changed for other research projects. Artificial Facebook pages also provide a way of addressing potential ethical issues and meet Facebook's terms of use. We acknowledge that an artificial Facebook page does

come with some limitations for the research by providing a tension between the artificial and natural environment, although we would argue that the pages do go a long way in reducing the gap.

Exercises and Discussion Questions

When considering issues of ecological validity in research, do you agree or disagree that

Facebook provides a natural environment (compared to laboratory research) to conduct research? Why?

A number of ethical issues were mentioned that the author's had to take into account, can you think of any other issues that need to be considered?

How does the growth of social networking sites impact on the way people interact with each other? What are some of the benefits of online interactions for individuals and what are the potential the challenges?

The author's discussed how they used the artificial Facebook pages in their research. What other types of research projects could use an artificial Facebook page?

Further Readings

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