

Institution: University of Wolverhampton		
Unit of Assessment: 4 Psychology, Psychiatry and Neuroscience		
Title of case study: Self-presentation, communication and identity in the digital age		
Period when the underpinning research was undertaken: 2014 - 2020		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Dr Chris Fullwood Dr Darren Chadwick Dr Lisa Orchard	Reader in Cyberpsychology Reader in Applied Psychology Senior Lecturer in Psychology	2002 - Present 2010 - Present 2015 - Present
Period when the claimed impact occurred: 2017 - 2020		
Is this case study continued from a case study submitted in 2014? N		
1. Summary of the impact		
<p>Through the work of the UK's largest Cyberpsychology research group, researchers at the University of Wolverhampton have made significant contributions to knowledge on self-presentation online and the associated risks and benefits over a diverse range of the population, including those with intellectual disabilities. A wide variety of public, voluntary and private sector organisations have benefited from our innovative research. These include NATO's Innovation Hub, West Midland and Black Country advocacy groups and Studio Lambert, the producers of the reality show <i>The Circle</i>. These organisations created or changed their policies (e.g. NATO), developed new media products (Studio Lambert) and refined their practice after close collaboration with our research group.</p>		
2. Underpinning research		
<p>Recognising the need to provide psychological insights into how digital technologies affect individuals and society, in 2008 Dr Fullwood and colleagues formed one of the world's first Cyberpsychology research groups: Cyberpsychology Research at the University of Wolverhampton (CRUW). CRUW is the largest UK-based Cyberpsychology research group, and staff are widely recognised for their expertise in online self-presentation and identity. Within the context of the COVID-19 pandemic, people are spending increasingly more of their time engaged in significant social, recreational and occupational activities in the online world, so our research is becoming even more relevant to a broader section of the population. Our research has sought to provide empirical evidence for the ways in which new and emerging technologies can be used to develop positive feelings of self-worth, but also to protect potentially vulnerable groups from online harms. The research underpinning this impact case study can be broadly broken down into three overlapping themes relevant to this field:</p>		
<u>Theme 1: How being online affects self-presentation and identity</u>		
<p>We have developed, validated and tested a unique scale [R1, R2] to measure different forms of online self-presentation behaviour afforded by the features of emerging technologies. For example, unique characteristics of the Internet afford users the ability to present idealised and multiple self-images. This has underpinned several important findings [F1 & F2]:</p>		
<u>F1. An individual's self-concept influences sense of 'online' identity</u>		
<p>The notion of self-concept clarity (a clear and stable sense of self) has been linked to better psychological adjustment, a greater sense of purpose and increased self-worth. Research using our Presentation of Online Self Scale (POSS) [R1, R2] shows that individuals with a less stable self-concept are more likely to experiment with their self-presentation while online. This allows us</p>		

to understand better why some individuals present differing versions of themselves online, as well as the reasons why some individuals spend increasingly longer periods of their time online.

F2. Cyberspace offers opportunities for adolescents to develop their self-concept

Our research on cyberspace using POSS [R1, R2] suggests that adolescents and young adults test out different online self-presentations in order to resolve identity crises and work towards a coherent self-concept. This makes an important contribution to our understanding of how young people cope with pressures stemming from increasing digital engagement. We argue that it demonstrates the positive potential of cyberspace as a 'playground' for testing different forms of self-presentation.

Theme 2: Disability, digital inclusion and identities

People with disabilities face many social disadvantages and digital exclusion. How they interact with and express themselves online is seldom studied. A key area of our research focuses on the online lives and identities of people with intellectual disabilities [F3 & F4]:

F3. People with intellectual disabilities can enhance self-determination through digital inclusion

We found that digital inclusion feeds into individuals with intellectual disabilities' sense of identity, autonomy, relatedness and self-esteem [R3]. This finding is important in the context of the increasing coverage of the negative aspects of cyberspace (e.g. gaming and Internet addiction), particularly for this group. Knowing that there are also many positive outcomes associated with the online lives of people with intellectual disabilities should be mirrored by efforts to facilitate greater inclusion and involvement in shaping cyberspace.

F4. Online risk and benefits are perceived societally to be elevated for people with intellectual disabilities

Our research indicates that people with intellectual disabilities are perceived to be at greater risk when they are online [R4]. This is an important finding as it may be one contributing factor in explaining digital exclusion and gatekeeping. Potential digital benefits were also perceived to be greater for this typically digitally-excluded group.

Theme 3: Personality and social media

Given that social media sites are the most dominant platforms for managing impressions in cyberspace, our research has had a special focus on trying to understand what role personality plays in driving one's motivation to use these sites [F5]:

F5. Personality influences social media motives and behaviour

People with different personality types are drawn to use social media to fulfil certain gratifications and engage in different patterns of use on these sites. For example, extraverts are more motivated to make new connections via social media [R5], as well as having more friends and uploading more photographs on average [R6]. This information may be used to tailor the experience more closely to an individual's needs. It also sheds light on what value social media holds for different types of individuals, which is helpful in understanding why some people may develop unhealthy (e.g. addictive) relationships with the technology.

3. References to the research

All papers have gone through stringent peer review processes. R1 has been cited by prominent practice and review articles, including in a prominent APA practice article on adolescent perceptions of therapists' social media competence and therapeutic alliance (Pagnotta et al., 2018), and a leading review on classroom use of social media in writing (Galvin & Greenhow, 2020). The research on online identities with people with intellectual disabilities (R3 & R4) led to an invitation for Fullwood to chair a special session on 'psychological considerations in designing and using online digital communication' at HCI International 2019.

R1. Fullwood, C., James, B. M., Chen-Wilson, C. H. (2016). Self-concept clarity and online self-presentation in adolescents. *Cyberpsychology, Behavior, and Social Networking*, 19(12), 716-720. <https://www.doi.org/10.1089/cyber.2015.0623>.

R2. Fullwood, C., Wesson, C., Chen-Wilson, J., Keep, M., Asbury, T., Wilsdon, L. (2020). If the mask fits: Psychological correlates with online self-presentation experimentation in adults. *Cyberpsychology, Social Networking and Behavior*. <https://www.doi.org/10.1089/cyber.2020.0154>. (REF 2 Output).

R3. Chadwick, D. D., Fullwood, C. (2018). An Online life like any other: Identity, self-determination, and social networking among adults with Intellectual Disabilities. *Cyberpsychology, Behavior, and Social Networking*, 21(1), 56-64. <https://www.doi.org/10.1089/cyber.2016.0689>.

R4. Chadwick, D. D., Quinn, S., Fullwood, C. (2017). Perceptions of the risks and benefits of Internet access and use by people with intellectual disabilities. *British Journal of Learning Disabilities*, 45(1), 21-31. <https://www.doi.org/10.1111/bld.12170>.

R5. Orchard, L., Fullwood, C., Galbraith, N., Morris. (2014). Individual differences as predictors of social networking. *Journal of Computer Mediated Communication*, 19(3), 388-402. <https://www.doi.org/10.1111/jcc4.12068>. (REF 2 Output).

R6. Eftekhar, A., Fullwood, C., Morris, N. (2014). Capturing personality from Facebook photos and photo-related activities: How much exposure do you need? *Computers in Human Behavior*, 37, 162–170. <https://www.doi.org/10.1016/j.chb.2014.04.048>.

4. Details of the impact

The importance and relevance of cyberpsychology research has become apparent during the COVID-19 pandemic which has resulted in more time spent with digital technologies and ongoing debates around digital addiction and online harms. Outlined below are 4 key areas of impact [I] that have resulted from the leading cyberpsychology research at the University of Wolverhampton.

I1. Impacts on public policy, laws and services

Findings from our research into online self-presentation, particularly around how the affordances of technology present people with opportunities to experiment with different forms of self-presentation behaviour [F1, F2], prompted an invitation in 2018 from NATO's Innovation Hub to provide expert consultancy. Dr Fullwood was one of 13 international contributors to the NATO "Cyberpsychology Project" [C1, C2], giving expert consultancy on cyber-related human capital management and human intelligence (HUMINT). His input was considered crucial in helping develop NATO's strategies, policies and capabilities with the ultimate goal of "improving NATO's ability to operate in cyberspace and leverage relevant scientific advances" [C2]. For example, Dr. Fullwood's contributions to discussions prompted a recommendation for the development of training and educational resources on human aspects of cyberspace for cyber technicians. This is an important step forward in ensuring psychological ramifications are considered by those working in very technical fields. Further applications of cyberpsychology within the workplace are also in the pipeline. For example, the 'CyberMind' project (funded by Innovate UK) generates potential interventions to reduce stress in cybersecurity professionals, the full impact of which will manifest post REF2021.

I2. Impacts on creativity, culture and society

As a result of our research expertise in the field of online identity and presentation of 'self' in social media, we received an invitation from award-winning TV production company Studio Lambert in 2018 to consult on the development of a new television show called *The Circle*. Drawing on research findings focusing on the psychological elements of self-presentation [F1, F2, F5], we were able to provide expertise and insights to support the development of the programme's format. *The Circle* is a unique factual entertainment series focusing on how people portray themselves via

social media. The show has important cultural significance because it is an acknowledgement of the enormous impact of how new and emerging technologies alter the ways in which we may present the self to others. The show has helped to generate discussion among the general public around the notion that people may not always be who they say they are online, which has important ramifications for raising awareness around online fraud and scams involving false profiles.

The producers of *The Circle* considered our input “very constructive for the development of the show” and “very useful regarding both of our content and our casting process” [C4]. Season 1 first aired in September 2018, with the first episode attracting a viewing audience of approximately 1,500,000 [C5]. After proving a success, Season 2 aired in 2019, with an average audience of 1,200,000 viewers [C6], acquiring 24.2% of the share of 16-34 year olds viewing TV at that time [C6]. The US version of the show aired in January 2020 on Netflix, and was one of the most watched shows on Netflix in 2020 [C7]. The format has proved a huge success internationally, and represents arguably the only popular TV show in circulation that tackles content around self-presentation online and the risks of online fraud.

13. Impacts on social welfare

A collaborative community project has involved researchers and third sector charitable and advocacy groups Dudley Voices for Choice, Friend2Friend Lichfield and Building Bridges Training, aiming to increase awareness of the benefits and risks of socialising online to those with intellectual disabilities. We have raised awareness of the online risks to those with intellectual disabilities by cascading information based on our findings [F3, F4] to 14 local advocacy groups spanning the Black Country and broader West Midlands Region. Our work has increased education around safe online practices and empowering individuals. It educated users around the types of apps they might use to reduce social isolation. One of the groups, Dudley Voices for Choice, highlighted that the project was particularly beneficial “for those who were shielding and those who were living alone”, affecting “positive impact on the mental health of people within the group.” [C8]. Further feedback showed that the project “highlighted the importance of support for people to both stay safe and access the Internet” [C8]. In all, this project had been a significant success, helping to educate groups who often struggle to find effective materials and creating substantial benefits for local people with intellectual disabilities.

14. Impacts on practitioner and professional services

Dr Fullwood was a member of the original steering committee responsible for proposing the formation of the BPS Cyberpsychology section in 2017. The formation of this section has subsequently made it possible for a large community of Cyberpsychology experts, academics and practitioners to work together. This collaboration pioneered the largest expert advisory body in the discipline, which now serves a wide range of stakeholders, including government and policy makers. For example, members of the advisory group (including Dr Fullwood) were consulted in a response to the House of Lords’ COVID-19 committee focusing on the long-term impact on wellbeing for living online [C9]. The group were able to offer a balanced, research-informed perspective on the benefits and drawbacks to the increasing reliance on digital technologies for issues such as diagnosing health conditions, day to day working, job opportunities and physical activity [C9].

Dr Fullwood was also a member of the task and finish group who updated the Ethics Guidelines for Internet Mediated Research, an internationally-recognised resource vital to supporting ethical online research, and widely used across disciplines (downloaded 4,524 times from November 2019 – November 2020; BPS Comms team). Guided by our own research findings on the digital divide for people with intellectual disabilities [F3, F4], and given that data collection is increasingly moving online, revisions included novel recommendations to avoid excluding voices of people with intellectual disabilities from research. These considerations were previously omitted and will therefore provide guidance to ensure research participants with intellectual disabilities are treated ethically through adherence to a set standard. The Chair of the BPS Cyberpsychology Section and Chair of the Group writing the guidelines indicated the importance of the contribution of Dr Fullwood, particularly around the aspects of the policy on the importance of online spaces for

those with intellectual disabilities [C10]. The group's work has become importance for the work of psychological practitioners and we aim to further foster practitioner impact through the BPS, via CPD events planned for the next REF cycle.

5. Sources to corroborate the impact

C1. Website for NATO's Cyberpsychology project - <https://www.innovationhub-act.org/project/cyber-psychology>

C2. Full report NATO's Cyberpsychology project - <https://www.innovationhub-act.org/sites/default/files/docs/Cyber%20Psychology%20Report.pdf>

C3. Letter of recommendation from NATO

C4. Testimonial endorsing our expertise from Studio Lambert

C5. The Circle Season 1 viewing figures - [https://www.channel4.com/press/news/circle-drives-16-34-viewing-channel-4#:~:text=The%20new%20series'%20launch%20episode,debut%20episode%20\(1.5m\).](https://www.channel4.com/press/news/circle-drives-16-34-viewing-channel-4#:~:text=The%20new%20series'%20launch%20episode,debut%20episode%20(1.5m).)

C6. The Circle Season 2 viewing figures - <https://metro.co.uk/2019/09/25/emma-willis-richard-madeley-bring-circle-highest-ever-viewing-figures-series-2-launch-10808046/>

C7. List of most watched Netflix shows - <https://www.forbes.com/sites/danafeldman/2020/12/08/here-are-the-10-most-watched-netflix-original-and-limited-series-of-2020/?sh=6aa3db8f243e>

C8. Testimonial from Chief Officer for Dudley Voices for Choice

C9. Joint BPS Cyberpsychology section response to House of Lord's COVID-19 committee call on the long-term impact on wellbeing for living online.

C10. Correspondence from Chair of Task and Finish Group for revising Ethics Guidelines for Internet Mediated Research