Impact case study (REF3)

Institution:
Sheffield Hallam University

Unit of Assessment:
UOA27 - English Language and Literature

Title of case study:
Opening Up Digital Fiction: Expanding creative practice, increasing participation, and preserving cultural heritage

Period when the underpinning research was undertaken:
2006-2020

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:
Prof Alice Bell	Professor of English Language and Literature	01/01/2007-present
Dr Jen Smith	Post-Doctoral Researcher	06/01/2014-05/06/17
Dr Isabelle van der Bom	Post-Doctoral Researcher	05/04/2016–05/07/2017

Period when the claimed impact occurred:
January 2014 – December 2020

Is this case study continued from a case study submitted in 2014?
No

1. Summary of the impact

Digital fictions use digital technologies to tell stories. Professor Alice Bell's research on the production and reception of digital fictions examines their history and investigates the cognitive

processes involved in reading them. The Opening Up Digital Fiction project has generated and informed new digital fiction by both professional and novice writers; opened up digital fiction to nearly 2,500 people at events across 5 countries; and has significantly increased the use of and expanded provision for digital fiction in galleries and libraries in England, Wales, Ireland, Norway and Portugal.

The research has provided an original and uniquely immersive means of preserving and archiving digital fictions at immediate risk of loss through technological obsolescence. The project has reached school children of all ages, pre-school children, teachers, gallery, museum, and library visitors, fiction writers, software and web developers, librarians, archivists, and curators including at the British Library and the National Library of Wales.

2. Underpinning research

Digital fiction is specifically written for and read on a computer (e.g. desktop, smartphone, tablet) and requires reader interaction (e.g. clicking a mouse, following a hyperlink, controlling an avatar). This often means that readers can make choices about their journey through the text and/or influence the story in some way. Most digital fiction uses text alongside sound, image, and film and are published as CD-ROMs, web-based hypertext fictions, interactive apps for mobile devices, narratively-driven videogames, and Virtual Reality.

Since 2003, Professor Alice Bell's research has investigated the production and reception of digital fiction. Her work in transmedial narratology and stylistics [**R1**, **R2**] examines the way that digital media can be harnessed to tell stories. This includes analysing the way that text, sound, and image can be used in combination as well as medium-specific forms of interactivity such as hyperlinks which allows readers to make their own way through a multilinear narrative. This research documents an important moment in cultural history by examining the formal characteristics and continually emerging technologies of which digital fictions are built including the ways in which external technological changes can lead to their obsolescence.

A second strand of Bell's work examines how readers cognitively process digital fictions [**R3**, **R4**]. Working within the discipline of cognitive poetics, which investigates how readers process language in literature, Bell's work is unique in using insights from the cognitive sciences, digital media theory, and stylistics to account for the way that readers process digital fiction specifically. Within this context, Bell's reader response research [R5, R6] has also empirically investigated immersion and interactivity in digital fiction in both private and public spaces (e.g. galleries). From 2014-17, Bell was PI for the £243,000 AHRC-funded Reading Digital Fiction project, collaborating with digital media theorist Professor Astrid Ensslin (Alberta), creative writing scholar Dr Lyle Skains (Bangor), and Post-Doctoral Researchers, who were recruited to the project, Dr Jen Smith (Hallam) and Dr Isabelle van der Bom (Hallam).

Synthesising empirical research with public engagement, Bell led the development of the project's new participatory research methods. These practice research methods both underpinned and reciprocally drew on the project's public engagement activities, whereby participants both benefitted from and contributed to the research. Participants read works of digital fiction individually and subsequently discussed their responses during interviews and reading groups. The participants' verbal responses were then linguistically analysed to identify the readers' emotional, spatiotemporal, and interactional relationship to those texts. The research has resulted is an empirically based understanding of the way that readers cognitively process multimodal, interactive, and immersive features in digital fiction [R5, R6], influencing the way that authors produce their works of digital fiction. While existing research characterised engagement in print literature and videogames as a complete and totalising relocation to a fictional world, Bell's research demonstrates that engagement with and/or immersion in digital fiction is usually an intermittent and hybrid experience. The research has found empirical evidence of the movement of attention between different forms of verbal, aural, and visual media. The research has also shown how extra-textual features, such as the environment in which the digital fiction is experienced, can affect the reader/players' absorption in and response to the narrative.

3. References to the research

R1. BELL, A. (2010). *The Possible Worlds of Hypertext Fiction*. Basingstoke: Palgrave-Macmillan https://doi.org/10.1057/9780230281288

R2. BELL, A., ENSSLIN, A. and RUSTAD, H. K., eds. (2014). *Analyzing Digital Fiction*. New York: Routledge. http://shura.shu.ac.uk/12555/

R3. BELL, A. (2014). *Schema theory, hypertext fiction and links*. Style, 48 (2), 140-161. http://shura.shu.ac.uk/6940/

R4. BELL, A. (2016). *Interactional metalepsis and unnatural narratology*. Narrative, 24 (3), 294-310. https://doi.org/10.1353/nar.2016.0018

R5. BELL, A., ENSSLIN, A., VAN DER BOM, I., and SMITH, J. (2018*)*. Immersion in digital fiction. *International Journal of Literary Linguistics*, 7 (1). https://doi.org/10.15462/ijll.v7i1.105

R6. BELL, A., ENSSLIN, A., VAN DER BOM, I., and SMITH, J. (2019). A reader response method not just for 'you'. *Language and Literature*, 28 (3), 241–262. https://doi.org/10.1177/0963947019859954

4. Details of the impact

Opening Up Digital Fiction has resulted in the production of new works of digital fiction, expanded digital provision in libraries and galleries, increased the number of people reading digital fiction internationally, and saved digital fiction works from obsolescence.

1. Influencing digital fiction production and supporting new forms of artistic expression

Bell's research on the reader's experience of interactivity and immersion has influenced the production of digital fiction, leading to the creation of new works and expanding digital fiction authorship. Since 2015, Bell has worked as a research consultant with Dreaming Methods, a leading digital fiction production company, to support new forms of literary expression. Bell and Dreaming Methods were awarded an GBP8,000 research grant from Sheffield Hallam University to produce a new piece of digital fiction called *WALLPAPER* which would draw on and inform Bell and colleagues' AHRC-funded empirical research. Described by leading international gaming magazine, PC Gamer, as 'a very cool thing' [**E1**], *WALLPAPER* sold 198 copies [**E2**], was exhibited to 700 people in Sheffield, Wakefield, and Oslo [**E3**] and generated new empirical findings on immersion [**R5**]. This research was also applied by Dreaming Methods in the development of further work including a Virtual Reality version of the original *WALLPAPER* piece. As Creative Director/CEO of Dreaming Methods states, the research has 'contributed significantly to the direction of our work' by 'influenc[ing] how we balance text-based content with other rich media, design and develop methods of navigating works, and evaluate reader/player reactions, particularly through public engagement' and in gaining 'a deeper understanding of how our future narrative experiences might best be developed' [**E2**].

Bell and colleagues launched the Opening Up Digital Fiction Writing Competition in 2017. As the only digital fiction competition in the world aimed at both established and novice writers, it encouraged more writers to experiment with digital media and inspired the production of new cultural artefacts, with 110 digital fictions submitted from 24 countries [**E4**]. The awards ceremony was streamed and archived online and 23 shortlisted and 5 winning works are published indefinitely on the RDF website [**E5**]. Commenting on the diversity of the submissions, a competition judge concluded that 'the shortlisted works truly show how digital fiction can be opened up to new writers and audiences' [**E4**]. The competition is now a bi-annual international event attracting 57 entries from 9 countries in 2018. It was postponed in 2020 due to COVID-19 but submissions are live for 2021 [**E5**].

The competitions were supported by 9 writing workshops and artist talks for 641 adults and 17 children in Sheffield, Wakefield, Bournemouth, Cork, and Porto [**E3**] which were co-designed and led by the project researchers and Dreaming Methods. The researchers also published resources online, available internationally [**E5**]. In addition to significantly increasing digital fiction production and expanding digital fiction authorship, this writing programme influenced creative practice (e.g. 'I know how to create a story with digital fiction'), increased knowledge of and confidence with software (e.g. 'I learned about working on various platforms, using images, sounds and video'), and inspired participants to use their new skills in other contexts (e.g. 'I might consider this as a job'; 'I would like to use [the software] for care home residents to create memory box stories') [**E4**].

2. Expanding audience reach, increasing cultural participation, and influencing professional practice

Bell's research [**R1-R6**] formed the basis of 49 public engagement events (including 20 workshops, 11 lectures, and 8 exhibitions) with extensive reach in England, Wales, Norway, and Portugal and which have led to permanent changes to library and gallery provision and practice.

Led and delivered by Hallam colleagues and Dreaming Methods, the events were attended by 2,394 adults and 70 children (aged 0-16) [**E3**] and have resulted a 153% increase in participants' knowledge about digital fiction and significant increases in confidence with digital technology (88% of exhibition visitors) [**E4**]. Bell developed a pathway with 46 reading group participants whose discussions were subsequently used in Bell's empirical research [**R5**, **R6**].

Events were aimed at audiences who would not otherwise be exposed to digital literary culture including: literary festivals (e.g. Oslo Poesifilm festival 2017), games festivals (e.g. Games Britannia Videogames Education Festival 2017), humanities festivals (e.g. Being Human 2017), and art galleries (e.g. The Art House, Wakefield).

Three websites (www.readingdigitalfiction.com; www.wallpaper.dreamingmethods.com; https://digitalfiction.co.uk/). extended the international reach of the project further, alongside an online exhibition of 26 works with associated critical commentaries. As of 10 December 2020, the websites have received 115,644 visits from 156 countries including the Philippines (34%), UK (24%), USA (14%), Brazil (4%), Canada (4%), and India (2%) [**E2**, **E6**]. Participants gained a fresh perspective on literary fiction (e.g. "'[The exhibition] *has completely opened my eyes to a whole new world of literature*"), felt motivated to read more (e.g. '*I will seek out interactive fiction!*'), engaged in debate (e.g. '*I'm taking away a lovely memory of a fine conversation and a richer understanding of the work*'), and established new cultural ventures (e.g. '*Going to start a book club*') [**E4**].

Events were held in venues that had not engaged their users with digital fiction before including holding the UK's first ever exhibition of digital fiction at Bank Street Arts in Sheffield in 2014 which attracted 443 visitors over 3 weeks and involved professional development training delivered by the researchers for 10 gallery staff [**E3**]. The CEO of Bank Street Arts reflects that the collaboration 'required a significant learning curve for the gallery staff' [**E9**] and provided 'the opportunity to actively and directly participate in research as a real partner' [**E2**]. This led to the increase in visitor numbers and made a significant commercial impact to the gallery, allowing it to continue operating. As Clark reflects, 'I don't think [Bank Street] would have existed without [the *WALLPAPER* exhibition]' [**E7**].

Collaboration with libraries locally and nationally also expanded the digital content of and increased access to their provision. From 2014-2017, Bell and colleagues delivered 3 professional development workshops to 15 librarians at the National Library of Wales and Sheffield City Library with 3 events subsequently codesigned and delivered to 52 children (aged 0-6). In Sheffield, this led to permanent changes to 3 programmes: the use of digital stories and resources in the monthly Bookstart Early Years (0-5s) and the annual Summer Reading Challenge (ages 0-8), and the incorporation of digital fiction in after school Code Clubs (ages 9-11) held in libraries across the city [**E2**].

3. Preventing technological obsolesce and preserving digital literary heritage

Bell's research has saved digital fiction produced in Flash from being lost. Her work shows that many important works from the 1990s/2000s were produced in Adobe Flash software [**R2**]. In December 2020, Adobe withdrew Flash from web browsers, meaning that digital fiction works made in Flash disappeared. Anticipating the devastating impact that this universal technological change would have on digital fiction, Bell led the Digital Fiction *Curios* project – collaborating with

Dreaming Methods from 2018-20 – to preserve, archive, and maintain access to Flash based fiction. Defined by the British Library as a 'playful and innovative approach to preserving digital works' [**E8**] the *Curios* provides a new methodology for preserving Flash content and, to date, has saved 3 key works from being lost. Unlike other solutions to Flash obsolescence, *Curios* provides a playful, engaging, and aesthetically rich Flash archive. Utilising Bell's findings on immersion [**R5**], the Curios project is designed to encourage more intuitive and creative engagement with the Flash archive through an immersive Virtual Reality (VR) rendering of a curiosity shop, accessible to experienced and novice users of VR. Readers' access to and engagement with the Flash fiction archive is thus as interactive, immersive, and entertaining as the Flash texts themselves. Readers also have access to interactive learning resources within the *Curios* such as analyses of the works and artists' lectures.

The Curios has been downloaded 109 times (as of 10 December 2020) [**E2**] and presented to 653 writers, curators, archivists, and software developers at 5 events internationally (e.g. the 10th New Media Writing Prize) [**E3**] including to 24 curators, archivists, and preservationists from the British Library as part of their Twentieth-First Century Curatorship series. The Digital Preservationist for the Electronic Literature Organization, which has been promoting and preserving digital fiction and poetry worldwide for over 30 years, states: "*The need for this project is urgent … [Curios] ensures that future generations will have access to this treasure trove of late 20th century and early 21st century digital literature.*" [**E2**].

5. Sources to corroborate the impact

E1.   Review of *WALLPAPER* by international gaming magazine PC Gamer.
https://www.pcgamer.com/this-indie-horror-game-is-like-a-lost-black-mirror-episode/

E2.   Testimonials for Digital Fiction / Wallpaper

E3.   Attendance Figures for all engagement events.

E4.   Reading Digital Fiction Evaluation Report, September 2019.

E5.   Reading Digital Fiction website: www.readingdigitalfiction.com

E6.   Reading Digital Fiction website engagement data.

E7.   'The Hidden Story: Understanding Knowledge Exchange Partnerships with the Creative Economy', AHRC-funded report by Kingston University and Alliance Universities
https://www.unialliance.ac.uk/wp-content/uploads/2017/12/THE-HIDDEN_STORY-REPORT_final_web.pdf

E8.   British Library Digital Scholarship Blog, 3 February 2020.