

<b>Institution:</b> Coventry University		
<b>Unit of Assessment:</b> 33		
<b>Title of case study:</b> The MAN A Collection: Influencing engagement in dance through innovative digital interfaces		
<b>Period when the underpinning research was undertaken:</b> 2010 to 31 December 2020.		
<b>Details of staff conducting the underpinning research from the submitting unit:</b>		
<b>Name(s):</b>	<b>Role(s) (e.g. job title):</b>	<b>Period(s) employed by submitting HEI:</b>
Ruth Gibson	Associate Professor	2010 to present
<b>Period when the claimed impact occurred:</b> 2014 to 31 December 2020.		
<b>Is this case study continued from a case study submitted in 2014? Y/N</b> No		

### 1. Summary of the impact (indicative maximum 100 words)

Digital technologies and mixed realities are becoming increasingly prevalent in dance and cultural settings. Gibson's research at Coventry University used practice-research methods in conjunction with mixed reality technologies in the *MAN A Collection*, to uncover new ways of perceiving human body movements through virtual and physical artefacts. This research has influenced the curatorial practices of arts and cultural organisations and venues in the UK; changed commercial interventions in the built environment; and helped facilitate engagement with new audience demographics, including new creative activities for children in a clinical setting. The research has been supported through commissions, awards and prizes.

### 2. Underpinning research (indicative maximum 500 words)

Since 2014, Gibson has developed the *MAN A Collection*, as a multi-dimensional choreography which opens up new spaces, places, and stages for immersive dance performance through augmented (AR) and virtual reality (VR). The collection provides novel ways of approaching dance content and digital applications to support engagement and relationships with audiences (R6).

From 2010 to 2013, Gibson's research, funded through an AHRC Creative Fellowship (G1), investigated performance capture and computer game worlds, to create transformative experiences derived from Skinner Releasing Dance Technique (SRT) (R1). Gibson conducted a series of one-to-one motion capture sessions with 17 dancers to visualise SRT pedagogy. Gibson developed software for an app, *MocApp*, that enabled the dancers to view and analyse their movement data (R2). Dance data from G1 was then used by Gibson to create dancer-avatars to make the *MAN A apps* using AR and VR (R2).

As part of the *Festival of Imagination* in 2014, Selfridges & Co commissioned (A1) Gibson to premiere the first *MAN A* performance - a large-scale Dazzle print in a display window in the Oxford Street store in London. Gibson developed the print to reflect a real-world setting that required testing with physical models, enabling a match with AR content and the physical environment. Using the *MAN A apps* (R2), passers-by could access the dancing animations activated by hidden markers in print and co-create their immersive interactions.

Gibson explored new ways of interpreting human body movements through AR, creating a large high contrast performance for the collection as part of Barbican's *Digital Revolution World Tour* (2015 to 2019, R1-3, A5) and through an arts-residency at Great Ormond Street Hospital for Children NHS Foundation Trust (GOSH). Gibson worked with GOSH (2016, A7, R1-2, R5) to

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create 100 miniature sets of *Huff & Puff* cards for the patient wards and two life-size sculptures for the public waiting areas. Both artefacts enabled visitors to view the dancer-avatars through the *MAN A* apps.

From 2015 to 2018, Gibson explored how VR could enhance viewers' experience of dance and developed the *MAN A* VR series (R4). VR provided an immersive and intimate experience for audiences encouraging the user to become the performer in a virtual environment and discover new ways of interacting with dance performances. This led to Gibson leading the Reality Remix project (G2) in 2018 to further examine intersections of VR and AR with dance and digital technologies.

Researching how to make movement from a static image and reflect the built environment led to Gibson's *ExxWhyZee* (A6) installation in 2017. Allied London commissioned the installation in the XYZ building in Spinningfields, Manchester to entice new tenants and engage the public with digital dance in a physical space (A6). Gibson developed a set of motion-captured choreographies using axis points in the building while under construction. These dances were then digitally translated into a bespoke version of the *MAN A* app. A large print filled the building's foyer walls, triggering dancing avatars when visitors entered the building (R6).

### 3. References to the research (indicative maximum of six references)

- R1. Gibson, R. (2012) 'Capturing stillness: visualisations of dance through motion/performance capture' in *Electronic Visualisation and the Arts EVA (EVA 2011)*. held 6-8 July 2011 at London, UK. [online] available from <<https://www.scienceopen.com/document?vid=fef71f26-525b-40dc-8736-75ab6ebe5440>> [17 December 2020], pp. 210-212, DOI: <https://doi.org/10.14236/EWIC%2FEVA2011.41>
- R2. Gibson, R. and Martelli, B. (2014). *The MAN A* apps. MocApp [online] available from <<https://spaceplace.gibsonmartelli.com/2015/02/01/401/>> and <<http://dance-tech.tv/videos/1203mocaa/>>; MocApp II [online] available from <<https://play.google.com/store/apps/details?id=com.RDD.mocapp&hl=en&gl=US>>; *MAN A* AR (Android and iOS) [online] available from <[https://play.google.com/store/apps/details?id=com.gibsonmartelli.MANA14&hl=en\\_GB&gl=US](https://play.google.com/store/apps/details?id=com.gibsonmartelli.MANA14&hl=en_GB&gl=US)> and <<https://apps.apple.com/us/app/man-a/id737679769>>; and *MAN A* VR (Android and IOS) available from <[https://play.google.com/store/apps/developer?id=Gibson/Martelli&hl=en\\_GB&gl=US](https://play.google.com/store/apps/developer?id=Gibson/Martelli&hl=en_GB&gl=US)> and <<https://apps.apple.com/us/app/man-a-vr/id1026951140>> [17 December 2020]
- R3. Gibson, R. (2015-2019). 'MAN A Edition 3' in *Barbican Digital Revolution World Tour: Digital Revolution Exhibition Catalogue*. London: Barbican International Enterprises, 176-177, ISBN: 978-0-946372-99-7
- R4. Kozel, S., Gibson, R., and Martelli, B. (2018) 'The Weird Giggle: Attending to Affect in Virtual Reality'. *Transformations: Journal of Media Culture & Technology* 31, 1-24. [online] available from <[http://www.transformationsjournal.org/wp-content/uploads/2018/06/Trans31\\_01\\_kozel.pdf](http://www.transformationsjournal.org/wp-content/uploads/2018/06/Trans31_01_kozel.pdf)> [17 December 2020]
- R5. Gibson, R. and Martelli, B. (2020) 'Art of the Accident'. in Popat, S. and Whatley, S. (eds) *Error, Ambiguity, and Creativity: A Multidisciplinary Reader*. 1<sup>st</sup> edn. London: Palgrave Macmillan, 63-84, ISBN: 978-3-030-39755-5
- R6. *MAN A* (multi-dimensional choreography) available from <https://uoa33.coventry.domains/man-a/> [22 February 2021]

### Grants

- G1. Gibson, R. (PI) (2010 to 2013) *Capturing Stillness: visualisations of dance through motion capture*. Arts and Humanities Research Council (AHRC): Fellowship in the Creative and Performing Arts, grant number: AH/H03319X/1. Total grant amount: £296,050.00. Available from <<https://gtr.ukri.org/projects?ref=AH%2FH03319X%2F1>> and <<https://www.coventry.ac.uk/research/research-directories/current-projects/2016/capturing-stillness/>> [17 December 2020]
- G2. Gibson, R. (PI) (2018) *Reality Remix*. Arts and Humanities Research Council (AHRC): Creative Economy Programme Research and Engineering and Physical Sciences Research

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Council (EPSRC): Partnership Development call for the Next Generation of Immersive Experiences, grant number: AH/R009368/1. Total grant amount: £60,321.00. Available from <<https://www.coventry.ac.uk/research/research-directories/current-projects/2018/reality-remix>> and <<https://gtr.ukri.org/projects?ref=AH%2FR009368%2F1>> [17 December 2020]

### Commissions and awards

*The MAN A Collection has received £71,000 worldwide, through commissions, awards, and prizes. Those referenced in the sections above include the following:*

- A1. Gibson, R. (2014) *Selfridges Festival of Imagination Commission*. Selfridges & Co. Total commission: £6,000.00. Available from <<http://thebwd.com/festival-of-imagination-window-displays-at-selfridges/>> [17 December 2020]
- A2. Gibson, R. (2015) *2015 Lumen Prize 2015/16 - Gold Prize Winner*. Lumen Prize. Total award: £3,000.00.
- A3. Gibson, R. (2015) *Huff & Puff*. Lumen Prize Tour, New York. Total commission: £3,000.00.
- A4. Gibson, R. (2015) *MAN A Installation at the UNION Gallery*. Arts Council: Grants for the Arts (GFA). Total award: A £6,000.00.
- A5. Gibson, R. (2015) *Digital Revolution*. The Barbican Centre, London, UK. Total commission: £6,000.00.
- A6. Gibson, R. (2016) *ExxWhyZee wall print and bespoke App*. Allied London, UK. Total commission: £6,000.00.
- A7. Gibson, R. (2016) *Huff & Puff: Commission and Residency*. Great Ormond Street Hospital, London, UK. Total Commission: £6,000.00. Available from <<https://www.gosh.nhs.uk/parents-and-visitors/gosh-arts/news/gibsonmartelli-great-ormond-street-hospital>> [17 December 2020]

The underpinning research is to be found both in written contributions (R4, R5), and in the software applications (R6, R2) and the exhibitions at which they were displayed (R3). The *MAN A* apps (R2) furthered Gibson's research into both Augmented and Virtual Reality incorporating new outdoor motion captures (R6) for the *MAN A Collection*. The scope and range of the publications, competitively awarded research grants and sector-specific awards and prizes are testament to the quality of the research.

### 4. Details of the impact (indicative maximum 750 words)

Gibson's work on the *MAN A Collection* (1) influenced the curatorial practices of arts and cultural organisations and venues in the UK; (2) changed commercial interventions in the built environment; and (3) facilitated engagement with new audience demographics, including new creative activities for children in a clinical setting.

1. The Chief Executive of the Lumen Arts Projects explained that the multifaceted *MAN A Collection* (R1-2, A2-3) led to a new XR prize category (S1). Associate Curator of the Barbican Centre's *Digital Revolution Tour* (S2) stated that *MAN A* (R1-3, A5), '*played a crucial role in showing the use of AR and motion capture as cutting edge digital technologies that create avenues for new expression*' (S2). The *MAN A Collection* has changed how the Barbican Centre approach technologically advanced exhibitions '*[the MAN A Collection] has opened up how the Barbican Centre will curate future works ... based directly on the team's experience and success with MAN A*' (S2). The Creative Manager of the *Festival of Imagination* described how the *MAN A Collection* (R1-2, A1) helped Selfridges & Co to address window display problems, and influenced change in their curatorial practices through the curation of mixed technology art pieces: '*The MAN A window was ... an important step in Selfridges & Co's use of technology in our displays. We also learnt about the curatorial practicalities ... of installing this kind of piece in a busy retail environment, which will enable us to display more AR and VR artworks in our store spaces, in the future*' (S3). The use of a window store as an AR QR marker was '*a milestone in terms of our window designs at Selfridges & Co*' (S3).
2. Allied London, property developers commissioned *MAN A's ExxWhyZee* for its XYZ building launch (A6). *ExxWhyZee* helped create an innovative, digitally endorsed brand for the building. The former Group Property Director at Allied London stated that '*the use of the App*

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*in the ExxWhyZee artwork also helped to link the physical, Dazzle prints in the building with digital connectivity and enabled Allied London clients to see the elevational floors of building. This, in turn, helped Allied London to build a brand of developing art in the built environment and create interest from potential clients' (S4). ExxWhyZee (A6) connected physical public art with digital mediums in the built environment that 'sparked new commercial opportunities for Allied London and increased the positive branding of the company'. Subsequently it gave rise to 'the commissioning of new buildings, such as the Enterprise City and Manchester Goods Yard, with the company' (S4). This PR coverage created a lot of publicity for Allied London, in local, national and property press and 'helped the company to secure four tenancy contracts (including NCC, a large computing company and Global Radio)' (S4). The Managing Director of Omni Colour used each MAN A piece that the company printed (R1-5, A1-7) as an exemplar for potential clients leading to further 3D commissions (S5), developing their printing and engineering capabilities, and advancing their printing techniques: 'a good example of skills gained in the art world becoming useful in the corporate world' (S5).*

3. The MAN A installation (R2, A4, S8) at the UNION Gallery helped facilitate engagement with new audience demographics: *'the MAN A installation attracted members of the general public to the gallery, who would not typically engage with digital art and the installation attracted a bigger and more diverse audience demographic than any of our previous exhibitions' (S6).*

The research has had impact on audience demographics in other settings. The Head of Arts at the Great Ormond Street Hospital for Children NHS Foundation Trust GOSH (A7, R1-2, R5) described Gibson's *Huff & Puff* commission as being *'particularly attractive to children on the autistic spectrum'* in helping parent and patients *'to keep (them) calm while the pre-surgery procedures were going on' (S7)*. On viewing the *Huff & Puff* sculptural pieces, a parent remarked. *'I couldn't get my daughter to leave - as [she] was having such a lovely time! Better than going to a museum!'* (S7). The Head of Arts at GOSH described the continued influence of the *Huff & Puff* pieces upon patients: *'the sculptures ... are still used by patients today' (S7).*

##### **5. Sources to corroborate the impact** (indicative maximum of 10 references)

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- S1. Chief Executive, Lumen Arts Projects (2020) *This letter expresses support for the MAN A Project – testimonial letter to Coventry University*
- S2. Associate Curator, the Barbican Centre (2020) *Impact of Ruth Gibson's MAN A Collection upon the curatorial practices of the Barbican Centre testimonial letter to Coventry University*
- S3. Creative Manager, Selfridges & Co (2020) *Impact of Ruth Gibson's MAN A Collection upon the curatorial practices of the Festival of Imagination, Selfridges & Co testimonial letter to Coventry University*
- S4. Property Director, Peel L&P and former Group Property Director, Allied London (2020) *Impact of Ruth Gibson's MAN A Collection upon the development of the XYZ Building, Spinningfields, Manchester testimonial letter to Coventry University*
- S5. Managing Director, Omni Colour (2020) *Impact of Ruth Gibson's MAN A Collection on the organisational practices and client base of Omni Colour testimonial letter to Coventry University*
- S6 Director, UNION Gallery (2020) *Impact of Ruth Gibson's MAN A Collection upon the curatorial practices of the Union Gallery testimonial letter to Coventry University*
- S7 Head of Arts, Great Ormond Street Hospital for Children NHS Foundation Trust (2020) *Impact of Ruth Gibson's MAN A Huff and Puff sculptures upon patient wellbeing at Great Ormond Street Hospital for Children NHS Foundation Trust testimonial letter to Coventry University*
- S8. Gibson, R. (2015) MAN A Catalogue, Dartmouth University Catalogue (UNION Gallery essay discusses the MAN A project in relation to the Big Bob exhibition at Jaffe Friede Gallery in the USA). Source is available upon request from the HEI.