

VINCENZO DEL GAUDIO\*

## INTERACTIVE TOOLS PERFORMANCE: BLAST THEORY BETWEEN MEDIA THEORY, PERFORMANCE STUDIES AND SOCIAL RESEARCH

### *Abstract*

This article investigates the intermediality performances which originate from the collaboration between the British collective Blast Theory and the Mixed Reality Lab of the University of Nottingham. This analysis focuses on the possibility of extracting innovative tools and methodologies from their work. Blast Theory has always studied the influence of digital media on contemporary society, and their aesthetic and social functions. Performances like *Can You See Me Now?* Or *Desert Rain* represent the attempt to produce new models of knowledge representation and transmission, based on body-to-body relationships.

### *Keywords*

Mixed reality; blast theory; digital social sciences; digital performance; game performance.

ISSN: 03928667 (print) 18277969 (digital)

DOI: 10.26350/001200\_000114

### 1. MIXED REALITIES

The British collective Blast Theory has been a reference for more than twenty years because of its experiments on the relations between performance and the digital. Blast Theory works in synergy with the University of Nottingham's Mixed Reality Lab, having produced together at least 12 works. The collaboration between the collective and the research centre is designed to investigate new social models, within an increasingly interconnected and convergent reality. The core concept structuring the group's work is that of mixed reality. As explained by Mixed Reality Lab director, Steve Benford and his colleagues<sup>1</sup>, the starting point is Milgram and Kishino's 1994 definition of mixed reality, as "a particular subclass of VR related technologies that involve the merging of real and virtual worlds"<sup>2</sup>.

In a mixed reality, offline and online elements co-exist, and they produce a continuum, allowing for various – both physical and digital – objects to be integrated into a single display. The pervasiveness of digital media renders it impossible to think of mixed reality as a space where a so-called 'real' and 'virtual' are juxtaposed. Mixed

\* Università degli Studi di Salerno – vdelgaudio@unisa.it.

<sup>1</sup> S. Benford, C. Greenhalgh, G. Reynard, C. Brown, B. Koleva, "Understanding and Constructing Shared Spaces with Mixed-Reality Boundaries", *ACM Transactions on Computer-Human Interaction*, 5, 3 (1998): 185-223.

<sup>2</sup> P. Milgram, F. Kishino, "A Taxonomy of Mixed Reality Visual Displays", *IEICE Transactions on Information*, 12, 12 (1994): 1321-1329 (1321).

reality needs to be thought as a space where digital objects have their own well-defined reality, and coexist with various other fragments of reality. As the experience of mixed realities has become increasingly pervasive, leading one of the artists of Blast Theory, Matt Adams, to state that today, due to increasingly smaller and more mobile devices – all continuously connected to the Internet – we *always* live in mixed realities<sup>3</sup>. This translates into the work of Blast Theory, who, as a collective, look into contemporary functional and perceptual models generated by the growing influence of digital media, using a hybrid methodology that articulates the logics of theatre with those of the videogame medium<sup>4</sup>.

## 2. INTERMEDIALITY PERFORMANCES AND METHODOLOGY

This article aims to analyse – combing textual analysis and participant-observation<sup>5</sup> – how the particular practice of intermediality performance<sup>6</sup>, deployed by Blast Theory and Mixed Reality Lab, produces new functional and perceptual models, and how it generates new forms of knowledge (production), within a logic of performance-arts-based research.

Blast Theory performances combine performative, urban and media spaces, and aim to communicate, and to make accessible, Blast Theory and Mixed Reality Lab analyses. This is achieved in an unconventional way, avoiding knowledge transfer models that start from scientific writing practices whose results are then vertically transferred to readers. Instead, they aim to produce embodied knowledge<sup>7</sup>. Embodied knowledge is based on a movement away from the page, towards the body, allowing knowledge to settle in the body. This body is always at the centre of vectors of forces, it is always a cyborg body with technological grafts of various types<sup>8</sup>, which allows the body to become the ground and substrate on which to produce and reproduce lore. In Blast Theory's work, mixed reality is articulated as a pattern for understanding the real, and as a space for the analysis of the production and communication of knowledge related to digital media<sup>9</sup>, and how these digital media affect social relationships. Following the

<sup>3</sup> Blast Theory and Mixed Reality Lab in Conversation, <https://www.blasttheory.co.uk/blast-theory-and-mixed-reality-lab-in-conversation/>, accessed October 1, 2020.

<sup>4</sup> See D. Jayemanne, *Performativity in Art, Literature, and Videogames*, London-New York: Palgrave Macmillan, 2017; I. Bogost, *Who Viewed How to Do Things with Videogames*, Minneapolis: University of Minnesota Press, 2011.

<sup>5</sup> The participant-observation started from data provided by Blast Theory and Mixed Reality Lab. I participated into two performances: *The Machine to See With* and *A Cluster of 17 Cases*.

<sup>6</sup> By intermediality performance, I refer to theatrical and performative phenomena that are produced at the intersection between theatre and digital media, and which create forms of *refreshed perception*. See C. Kattenbelt, "Intermediality in Theatre and Performance: Definitions, Perceptions and Medial Relationships", *Cultura, Lenguajey Representación/Culture, Language and Representation*, VI (2008): 19-29. These performances consist of different gradations of liveness and indeed question the difference between live event and mediated event.

<sup>7</sup> By *embodied knowledge* I mean that particular model of knowledge in which the medium and the support match the human body. On this point, see S. Broadhurst, J. Machon, eds., *Performance and Technology Practices of Virtual Embodiment and Interactivity*, London-New York: Palgrave Macmillan, 2007; L. Jarvis, *Immersive Embodiment: Theatres of Mislocalized Sensation*, London: Palgrave Macmillan, 2019.

<sup>8</sup> See J. Parker-Starbuck, *Cyborg Theater: Corporeal / Technological Interaction in Multimedia Performance*, London-New York: Palgrave Macmillan, 2011; A. Caronia, *From the Cyborg to the Posthuman. Biopolitics of the Artificial Body*, Milan: Meltemi, 2020.

<sup>9</sup> See S. Benford, G. Giannachi, *Performing Mixed Reality*, Cambridge: MIT Press, 2011.

insights of Patricia Leavy, Blast Theory's work is seen to be based on a particular way of transferring knowledge:

Importantly, performances constitute an exchange or transfer between the audience and performer(s) (this exchange is mediated in the case of films or scripts). The "exchange" may involve a complex negotiation of meanings. This interaction between the performer and audience also varies depending on the environment and mood<sup>10</sup>.

The work on mixed reality is based on a synergy of the production, communication and consumption of knowledge – "body to body"<sup>11</sup> – which works precisely by starting from the communication between bodies. These bodies are always considered in close relationship with digital media, in order to create a veritable *digital performance social science*<sup>12</sup>.

The mixed reality performances are based on four core elements:

- 1) performance as space;
- 2) time;
- 3) interaction; and
- 4) performance roles<sup>13</sup>.

These four elements are decisive to bring about an open form of performance in which its various elements negotiate the meanings of the work and contribute to its success. The spectator/user is attributed a central role, as s/he – according to his/her choices – sees both a narration and a process of meaning production. The models of mixed reality performances are based on a process of the incarnation of knowledge and experience, that place the individual spectator/user at the centre of the process, articulating him/her as a fundamental element for the success of the performance. This again means that – although there is a sort of plot and, above all, a series of rules that guide the choices of the user – what is produced in mixed reality performances is the result of interaction. Therefore, these performances are often not predictable, at least not structurally.

<sup>10</sup> P. Leavy, *Methods Meet Arts. Arts-Based Research*, III ed., New York-London: The Guildford Press, 2020, 183.

<sup>11</sup> On this point, the reflections of Rebecca Schneider and Diana Taylor are important. They think that the performances are based on a different production and transmission of knowledge that causes different modes of documentation. According to Rebecca Schneider (referring to archivists Mary Edsall and Catherine Johnson), "the problems of preserving performance, declaring that the practices of 'body to body transmission', such as dance and gesture, meant that 'you lose a lot of history'. Such statements assume that memory cannot be housed in a body and remain, and thus that oral storytelling, live recitation, repeated gesture, and ritual enactment are not practices of telling or writing history."; R. Schneider, "Archives Performance Remains", *Performance Research: A Journal of the Performing Arts*, 6, 2 (2004): 100-108 (101). Diana Taylor distinguishes between the repertoire and the archive, emphasizing that the difference "does not lie between the written and spoken word, but between the 'archive' of supposedly enduring materials (i.e., texts, documents, buildings, bones) and the more ephemeral 'repertoire' of embodied practice/knowledge (i.e., spoken language, dance, sports, ritual)". See D. Taylor, *The Archive and the Repertoire: Performing Cultural Memory in the Americas*, Durham-London: Duke University Press, 2003, 19.

<sup>12</sup> On this point, see M. Gergen, K. Gergen, "Performative Social Science and Psychology", *Forum: Qualitative Social Research*, 12, 1 (2011): Art. 11; K. Jones, "Seminar Performative Social Science: What It Is. What It Isn't" [script] from [http://www.academia.edu/4769877/Performative\\_SocSci](http://www.academia.edu/4769877/Performative_SocSci), accessed October 1, 2020; K. Jones, "Connecting Research with Communities through Performative Social Science", *Qualitative Report*, 17, 18 (2012): 1-8.

<sup>13</sup> Benford, Giannachi, *Performing Mixed Reality*, 15.

## 3. PERFORMING GAMES

The performances produced by Blast Theory and Mixed Reality Lab are based on a particular blend of digital technologies and performance, and the videogame is its central medium. Precisely because they focus on interaction, and in particular on the user's choices, the performances work as particular versions of live videogames. Keeping Gonzalo Frasca's famous definition of videogames, as games mediated by information technology, in mind<sup>14</sup>, Blast Theory performances function as videogames, with production spaces where – thanks to digital technologies – users can intervene in the narration. The performance, similar to videogames, is also designed for single displays. The difference can be found in the concept of being-live or liveness<sup>15</sup>. The performances of Blast Theory have a different usage of time, in comparison to videogames. Time is used in a series of different variations: *Story Time*, which defines the time of the story, *Plot Time*, which refers to the time of the narrative structure, *Schedule Time*, which refers to the broadcasting of the story, *Interaction Time*, the interaction time of the participants, *Perceived Time*, the time perceived by individual participants, which, however, is based on the fact that the experience is produced in a shared time and in a mixed space. Videogames share with these performances some of their temporal configurations, but the former are often based on a time that is determined by the digital environments, especially in the case of online games. This particular usage of time produces a tool for the mixed reality performances of Blast Theory to produce knowledge: knowledge and its communication are always situated in time; this time is the present where participants take part in the game and contribute to the performance's realization through their choices<sup>16</sup>.

Another reason why these performances are related to the videogame medium is the particular connection of interaction with narration. Blast Theory performances utilize the gamification model, or, in other words, the particular way of structuring narrations into levels, that spectators/users must (attempt to) pass. They push the spectator/user to take a very specific position with respect to the narration. Above all, the choices of the spectator/user condition the development of the performance itself. These performances thus create *game capital* – to use Mia Consalvo's concept<sup>17</sup> – fulfilling two functions:

1) communicating (in an unconventional way) the mixed reality research, by both Blast Theory and Mixed Reality Lab;

<sup>14</sup> G. Frasca, "Simulation versus Narrative. Introduction to Ludology", in M.J.P. Wolf, B. Perron, eds., *The Video Game Theory Reader*, New York-London, Routledge, 2013, 221-235.

<sup>15</sup> See: P. Auslander, *Liveness: Performance in a Mediatized Culture*, London-New York, Routledge, 1999; N. Couldry, "Liveness, 'Reality', and the Mediated Habitus from Television to the Mobile Phone", *Communication Review*, 7, 4 (2004): 353-361; A. Cristell, *Liveness and Recording in the Media*, London-New York, Routledge, 2012; P. Auslander, K. Van Es, M. Hartmann, "A Dialogue about Liveness", in M. Hartmann, E. Prommer, K. Deckner, S. Görland, eds., *Mediated Time. Perspective on Time in Digital Age*, London-New York: Palgrave Macmillan, 2019, 275-296; L. Gemini "Liveness: le logiche mediali nella comunicazione dal vivo", *Sociologia della Comunicazione*, 51 (2016): 43-63; V. Del Gaudio, "Liveness: presenza, immagine digitale e falsificazione", in A. Rabbito, ed., *La cultura del falso: inganni, illusioni e fake news*, Milano: Meltemi, 2020, 437-447.

<sup>16</sup> See M. Bell, M. Chalmers, L. Barkhuus, M. Hall, S. Sherwood, P. Tennent, B. Brown, D. Rowland, S. Benford, M. Capra, A. Hampshire, "Interweaving Mobile Games with Everyday Life", *Proceedings – Games and Performances*, 2016: 417-426; S. Benford, R. Anastasi, M. Flintham, A. Drozd, A. Crabtree, C. Greenhalgh, "Coping with Uncertainty in a Location-Based Game", *IEEE Pervasive Computing*, 2, 3 (2003): 34-41.

<sup>17</sup> Mia Consalvo defines the concept of game capital as follows: "I believe instead that gaming capital captures the dynamism of gameplay as well as the evolving game and paratextual industry. [...] That term is a reworking of Pierre Bourdieu's 'cultural capital,' which described a system of preferences and dispositions that ultimately served to classify groups by class". M. Consalvo, *Cheating: Gaining Advantage in Videogames*, Cambridge-London: MIT Press, 2007, 4.

2) producing shared knowledge through the choices of spectators/users, which implies are cognition of the socio-media environment in which one is immersed on a daily basis and a comprehension of the mechanisms that the conscious use of digital media imply.

Finally, the relationship between the videogame medium, performance and knowledge production is also articulated through the possibility that the viewer can relive some pivotal experiences and enter the story to have first-hand experiences of some often-traumatic events such as the Gulf War (as in the performance *Desert Rain*). The Blast Theory performances fit in a strategy of the production and transmission of knowledge, in a playful form. This knowledge is the result of academic research and performative tools, that – combined – create embodied knowledge, based on body-to-body transmission practices. These practices simultaneously take into account that contemporary bodies are increasingly entangled with digital technologies that not only shape them, but that also amplify their functions and their ways of perception.

The mixed reality performances are devised and produced as narrative assemblages that entertain a particular relationship with urban spaces and with digital environments, and that are based on forms of gamification, in order to structure knowledge in levels that need to be passed. This is illustrated by the 2016 performance *Operation Black Antler*, where the spectator/user is asked to become a spy and enter a club where s/he does not know who is really involved in the game and who is not. Assuming another identity enables the spectator/user to experience the practices of identity production, both offline and online, activating forms of sociological knowledge that are then personified in the bodies of the participants.

#### 4. PERFORMING KNOWLEDGE

Some of the Blast Theory performances can be used as paradigmatic cases to focus on the knowledge production process that we have briefly described above. In 1999, Blast Theory staged the aforementioned *Desert Rain* in which six players are catapulted into a desert. The purpose of the performance is to produce a form of direct and embodied knowledge about the first Gulf War, that had been fought a few years before. As Rachel Clarke noted, *Desert Rain* is based on a triple mapping of the real – visual, physical, virtual<sup>18</sup> – which in turn puts the viewer in a position to decide what to do in a hostile environment, all alone. In this virtual desert the spectator/user moves between the real images of the Gulf War and the fictional ones produced by Hollywood: at their arrival, the six participants enter an anteroom where they are given a magnetic card with the identity of a missing person, who the participants must find. Participants need to communicate with each other in order to complete their mission in 30 minutes, in a virtual environment which is projected on a water spray, eventually ending up in an old hotel.

*Desert Rain* inaugurated the collaboration between Blast Theory and Mixed Reality Lab, and it is based on Baudrillard's assertion that the Gulf War never took place<sup>19</sup>. The performance traces and crosses the boundaries between 'real' and 'virtual', categories that in those years were often thought of in oppositional term. Blast Theory is disrupting that juxtaposition, in order to propose the principle of mixed reality: "While

<sup>18</sup> R. Clarke, "Reigning Territorial Plains: Blast Theory's 'Desert Rain'", *Performance Research: A Journal of the Performing Arts*, 6, 2 (2014): 43-50.

<sup>19</sup> J. Baudrillard, *La guerre du Golfe n'a pas eu lieu*, Paris: Galilée, 1991.

these ideas form the backdrop to *Desert Rain* the piece is not intended to be a demonstration of this theory merely to accept its significance in informing our view of the relationship of the real to the virtual and especially in its assertion that the virtual has a daily presence in our lives<sup>20</sup>. The aim is to allow participants to experience a world in which 'real' and 'virtual' are firmly interconnected, with digital and physical environments that coexist and influence each other. In 2001, Blast Theory produced another important travelling performance which was staged in different cities around the world: *Can You See Me Now?* In this performance, the city and the urban fabric are mapped with early GPS systems. The spectators/users, who are physically present in the city, experience a particular relationship with those who play remotely. *Can You See Me Now?* is a location-based chase game in which the participants must (try to) escape from runners. The aim is to give participants an experience of navigating contemporary cities and of their growing media coverage<sup>21</sup>. As the creators themselves explained, apart from being a performance, *Can You See Me Now?* creates new tools for the study of social relations through artistic practice:

In studying CYSMN we observed the activities of runners on the streets, online players, and technical crew in the control room, taking field notes and also capturing their activities on video for subsequent analysis. While it was relatively straightforward to gain access to the technical crew and the runners, studying the public players proved to be more of a problem as they could access the game from anywhere over the Internet and so were often physically inaccessible<sup>22</sup>.

This performance is a double-entry model of knowledge, creating embodied digital knowledge and at the same time producing data used again for further developing research methodologies for the study of mixed reality. After a long series of other performances, equally important for articulating academic-scientific research and artistic horizons, in 2010, Blast Theory and Mixed Reality Lab staged the *A Machine to See With* performance. This performance was linked to the cinematic imagery commissioned by the Sundance Film Festival, the Zero One Festival in San Jose and the Banff Center for New Media. Participants use their mobile phone to interact with an electronic system that guide them through the city. They are asked to observe particular details of the environment, and, once they arrive at a huge multi-floor car park, they are asked to do a robbery, together with another participant (equally unaware). After a complex and daring series of events, participants are then asked to donate part of the booty to an unknown person, in the real world. Once again, the mixed reality concept allows for a reflection about the boundaries between physical and digital environments. The performance renders the gap between embodiment and digital performativity visible, once the pervasiveness of digital media becomes evident. In this way, it is possible to study the logics of socialization and production of the social game in an environment that is open and protected at the same time. It is open because

<sup>20</sup> Blast Theory, *Desert Rain*, <https://www.blasttheory.co.uk/projects/desert-rain/>, accessed October 1, 2020.

<sup>21</sup> See S. Bredford, G. Giannachi, *Performing Mixed Reality*, 2011; D. Rowland *et al.*, "On the Streets with Blast Theory and the MRL1: 'Can You See Me Now' and 'Uncle Roy - All Around You'", *Proceedings of Mobile Entertainment: User-Centered Perspectives*, edited by K. Moore and J. Rutter, Manchester: ESRC, 2004, 115-124.

<sup>22</sup> S. Benfort *et al.*, "Can You See Me Now?", *ACM Transactions on Computer-Human Interaction*, 13, 1 (2006): 100-133 (107).

it is always a consequence of the possibility that the participant feedback changes the hinges of the performance<sup>23</sup>. It is protected because it finds its positioning within the performative-theatrical phenomenon, whose basis is the suspension of the everyday perception of the world. The performance also reflects on the concept of interaction that is structured in three different ways:

- 1) interaction between the attendees and the information system;
- 2) interaction between the different participants, each one unaware of the other one's actions;
- 3) interaction between participants and the public. This allows to put an artistic methodology for data collection, based on a sharing logic, in place, because these data are discussed by the members of Blast Theory and by the participants in feedback sessions. *The Machine to See With* stimulates participants to rethink their bodies within the urban space in order to pay more attention to the growing presence of mediation. The cinematographic references and the cameras that always follow the game also produce an awareness with the participants about the logic of control inherent to digital media, and, at the same time, about the possibilities that they have to undermine those very same tools of control.

The last performance that I want to briefly discuss, as illustration of the cognitive models mobilized by Blast Theory and Mixed Reality Lab, is the recent *A Cluster of 17 Cases*, the first performance to originate from a residency at the World Health Organization in Geneva, in 2017. The starting point are seventeen people who, in 2003, stayed in the same hotel, and from there, spread SARS throughout the world:

Comprising a vitrine housing a scale model, you are invited to use audio handsets to listen to two accounts of the SARS outbreak. The first is a fictional first person account based on the details of those who stayed at the hotel that night. The second plays audio of an interview with Dr. Mike Ryan, Operational Coordinator for the World Health Organization's SARS response in 2003, who shared his insights into dealing with uncertainty and the challenges of declaring a global alert in the face of limited information<sup>24</sup>.

The performance investigates the spread of viruses, by relating them to the logic of contagion typical for digital media<sup>25</sup>, allowing for the distribution of content and form. In light of what has happened, in the meanwhile, with the recent COVID-19 pandemic, this performance receives an almost prophetic meaning with respect to the need of building shared knowledge, whose production and dissemination logics need to be increasingly open. The performance also shows that artistic and arts-based research is fundamental for the development of (methodologies for)academic-scientific research and for its diffusion.

<sup>23</sup> The references to the drama principle of Blast Theory are evident, in particular in the design work of the performance by Matt Adams and Nick Tandavanitj. See M. Pereira Dias, "A Machine to See with (and Reflect upon): Interview with Blast Theory Artists Matt Adams and Nick Tandavanitj", *Liminalities: A Journal of Performance Studies*, 8, 1 (2012): 1-13.

<sup>24</sup> *Blast Theory, a Cluster of 17 Cases*, <https://www.blasttheory.co.uk/blast-theory-17-cases/>, accessed October 1, 2020.

<sup>25</sup> See S. Krämer, *Medium, Bote, Übertragung: Kleine Metaphysik der Medialität*, Frankfurt am Main: Suhrkamp, 2008; J. Parikka, *Digital Contagions: A Media Archaeology of Computer Viruses*, New York-London: Peter Lang, 2008; G. Hall, *Pirate Philosophy: For Digital Posthumanities*, Cambridge, MA: MIT Press, 2016.

## 5. IN CONCLUSION

Through the collaboration between Blast Theory and Mixed Reality Lab, it is possible to consider an arts-based production of knowledge unfolding in at least four fundamental practices:

- 1) academic-scientific research as an engine of artistic research;
- 2) artistic research as a space for the collection and questioning of empirical data;
- 3) artistic performances as a space for diffusion and dissemination of academic research;
- 4) performative space as a space for the production of embodied and actual knowledge.

In the work of Blast Theory and Mixed Reality Lab, these four elements coexist, even if this coexistence occurs in different forms and gradations, depending on the performance. These elements can also be thought individually, in relation to both the aims of academic research and those of artistic research. In other words, Blast Theory's work shows how it is possible to investigate the media horizon and the process of medialization, starting from a combined strategy that builds tools and methodologies both for research and for artistic practice.