British Journal for Military History

Volume 10, Issue 3, November 2024

The virtual and the real; war films, video games and the Imperial War Museum

Ian Kikuchi

ISSN: 2057-0422

Date of Publication: 8 November 2024

Citation: Ian Kikuchi, 'The virtual and the real; war films, video games and the Imperial War Museum', *British Journal for Military History*, 10.3 (2024), pp. 191-212.

www.bjmh.org.uk

The BJMH is produced with the support of Goldsmiths UNIVERSITY OF LONDON

The virtual and the real; war films, video games and the Imperial War Museum

IAN KIKUCHI*
Imperial War Museums, UK
Email: ikikuchi@iwm.org.uk

ABSTRACT
In 2022, the Imperial War Museum (IWM) in London opened War Games, an exhibition that explored the stories of war and conflict told in a diverse selection of video games from the 1980s to the present. This paper expands upon some of the exhibition's themes; video games' shared history with war, and with other screen-based media, and the tensions that exist in any attempt to render the experience of war on screen. In discussing the games featured in IWM's exhibition, this paper seeks to reflect the diversity of games' approaches to war, and to advocate scholars' continuing engagement with a medium capable of shaping and reflecting our feelings about conflict and its aftermath.

Introduction

A man crouches in a crowded trench. With artillery fire screaming overhead, a whistle pierces the din. As his comrades leap over the parapet into no man's land, he feels compelled to join the forward rush. Picking his way through a tangled thicket of barbed wire, he plunges into a flooded shell hole as enemy machine gun fire scythes across the battlefield. Flares dance overhead, the ground erupts with shell bursts, and all around the man's comrades fall, falter, and stagger on.

This vision of the First World War's Western Front would be so familiar to generations of audiences – of films, books, poems, journalism, photography, novels, television programmes, and graphic novels – as to be clichéd. But the scene above comes not from any of these media, but from a video game; *11-11: Memories Retold,* developed by Aardman Animations and DigixArt. The game put players in the shoes of two soldier characters – one a Canadian photographer, the other a German engineer – whose fates entwine in the course of the Great War.

*Ian Kikuchi is Senior Curator (Historian) at Imperial War Museums, UK.
DOI: 10.25602/GOLD.bjmh.v10i3.1836

Released precisely one hundred years after the 11 November armistice which ended the fighting in France and Belgium in 1918, the 2018 launch of *11-11: Memories Retold* was marked with a press event in London at the Imperial War Museum (IWM), Britain's national museum of war and conflict. Founded in 1917 with a mission to record the war effort and sacrifice of Britain and its empire in the First World War, the museum's remit would later expand to include all of Britain's wars from 1914 to the present day.[1]

For the Imperial War Museum, hosting this game launch reflected its long association with the history and memory of the First World War, and its interest in the history of war on screen. In 1922, the recently founded museum accepted into its archive the documentary film *The Battle of the Somme*. The film was a record of the 1916 battle, as fought by the British Army in France, and captured on film by two War Office cameramen in late June and early July of that year. Released the following month as the battle continued in France, the film attracted enthusiastic audiences of unprecedented size, keen to witness for themselves the film's spectacular scenes of combat and carnage. In accepting the film into its care, and resolving to preserve, catalogue and make available not only *The Battle of the Somme* but also numerous other films of the First World War, the Imperial War Museum established itself as one of the world's first organised film archives.[2]

The Battle of the Somme was not the first war film, but its success offers a landmark moment in the popular consumption of war on screen. In 2005, in advance of the film's ninetieth anniversary, *The Battle of the Somme* was inscribed on UNESCO's Memory of the World Register for global documentary heritage, and the following year IWM completed a painstaking digital restoration of the title's surviving film elements.[3]

A century after the release of *The Battle of the Somme*, in 2016, the Imperial War Museum mounted a special exhibition on war films. Featuring original script notes, concept art, costumes, filming models and other memorabilia, from films ranging from Stanley Kubrick's *Paths of Glory* to Francis Ford Coppola's *Apocalypse Now*, and from David Lean's *Lawrence of Arabia* to Paul Katis' *Kajaki*, the exhibition looked at how war

[1]On the early history of IWM see, for instance Gaynor Kavanagh, 'Museum as Memorial: The Origins of the Imperial War Museum', *Journal of Contemporary History*, vol. 23, no. 1 (January 1988), pp. 77-97. https://www.jstor.org/stable/260869 Accessed 25 March 2024

[2]Roger Smither and David Walsh, 'Unknown Pioneer: Edward Foxen Cooper and the Imperial War Museum Film Archive, 1919-1934', *Film History*, vol. 12 no. 2 (2000), pp. 187-203 https://www.jstor.org/stable/3815371 Accessed 25 March 2024

[3]*The Battle of the Somme* would also be a vital source of footage for *They Shall Not Grow Old* (2018), directed by Peter Jackson and commissioned by IWM.

films had represented a hundred years of conflict from the battle of the Somme to the present.[4]

War Games: Real conflicts, Virtual Worlds

As an exhibition about war in popular culture, IWM's war films exhibition also prompted, in this author, an idea for a future exhibition. Having grown up playing video games, and knowing how frequently they took wars, both historical and imagined, as their subject matter, it seemed clear that an exploration of video games' relationship with war and conflict might make for a stimulating exhibition. In 2022, a century after accepting *The Battle of the Somme* into its film archive, the Imperial War Museum opened *War Games*, its first exhibition about war in video games.

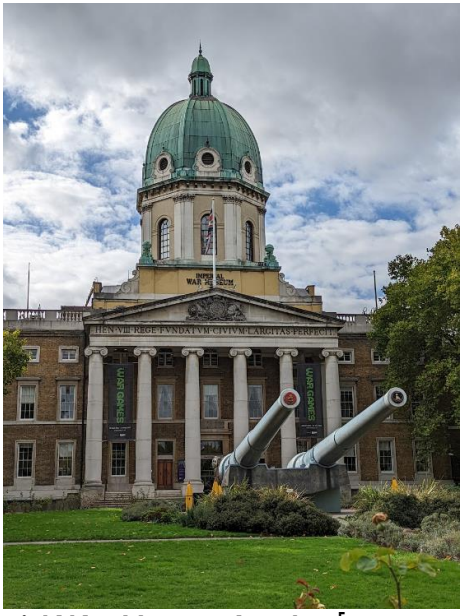

Figure 1: The Imperial War Museum London.[5]

Opening in September 2022, *War Games* sought to look at the stories that video games tell about war and conflict, and how those stories are told. In its final form, the exhibition featured twelve titles ranging in time from 1980 to 2022, in genres including

[4]Mark Brown, 'The movies go to war: museum explores real to reel conflict', *The Guardian*, 29 June 2016 https://www.theguardian.com/artanddesign/2016/jun/29/the-movies-go-to-war-museum-explores-real-to-reel-conflict. Accessed 29 January 2024

[5]Photograph © author.

first-person shooter, strategy, text adventure, interactive narrative and military simulator. With the help of a panel of academic and practitioner experts, the exhibition also addressed broad questions, including the roots of our urge to play video games, and the ability – or otherwise – of video games to express truths about war.

It should be noted that exhibitions are a highly contingent form of scholarship. They are shaped by all manner of choices, made by their curators and all who contribute to an exhibition's development. Some of these choices are made freely, for instance when choosing among equally suitable exhibits. Others are forced by factors beyond their authors' control, such as the time available for development, the budget allocated to a show, or the physical dimensions and architectural character of an exhibition space. In its final form, *War Games* comprised nine contiguous rooms, styled as 'Levels' forming the exhibition proper, and a further tenth room referred to internally as the retro games zone. The first three levels formed an introductory chapter, introducing some of the exhibition's themes, and encouraging the visitor to think about what they would go on to see.

In Level 1, the exhibition introduced its themes and displayed a large audiovisual projection containing footage from the video games featured in the exhibition, intercut with archival film and video images from various historical conflicts. In Level 2, visitors encountered a number of board games from the museum's collection. One, a chess set made by a British officer who died in Japanese captivity during the Second World War, spoke to our urge to play games even in extreme circumstances, and the psychological and social benefits expressed in the making of game pieces, and in play. Elsewhere, a pair of snakes-and-ladders games – one themed around a British army officer's career advancement in the First World War, and the other about night bombing raids against Nazi Germany during the Second – showed how games can share their mechanics, even while applying them to different subject matter, and encouraged visitors to think about the choices designers make in creating their games, and the ways games leverage contemporary events. In Level 3, the visitor met a range of academic and practitioner expert 'talking heads', discussing broad questions, including our motivation to play, the unique characteristics of video games over other forms of cultural representation, and why war has proved an enduringly popular subject for video games.

From Levels 4 to 8, the exhibition discussed a number of video games as case studies of particular themes. Video games build virtual worlds in which their stories play out, and Level 4 examined the 2019 first-person shooter game *Call of Duty: Modern Warfare*, as a case study in art, sound and level design, and the military simulator game *Arma 3*

as a study in player agency and multiplayer design.[6] These case studies, and those that followed in later levels, presented game footage alongside footage of interviews with each game's developers.

In developing the exhibition, colleagues and I were frequently struck by the tension that exists in video games – but arguably in all cultural representations of war on screen – between the virtual and the real. Filmmakers, photographers and video game developers who take war as their subject matter strive for their work to capture something true about the subject, even while the tools of their respective craft transform reality into some facsimile of it.

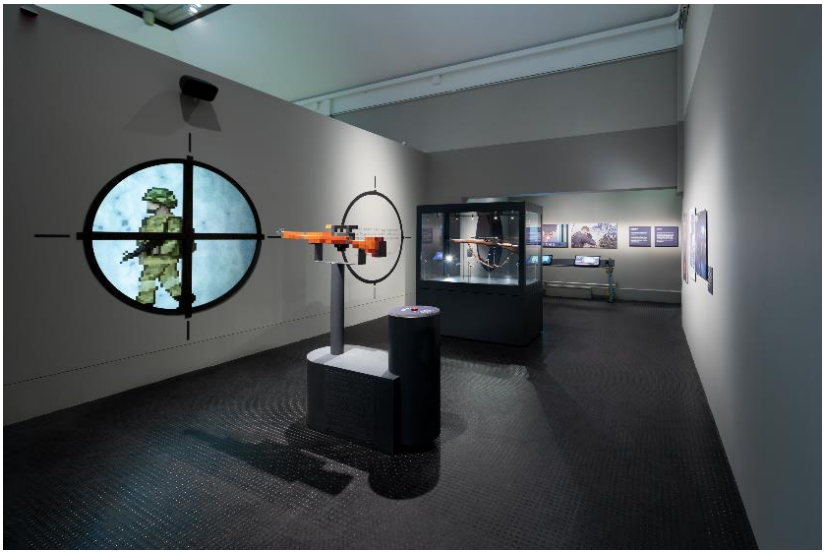

Figure 2: View of Level 5 of IWM's War Games exhibition.[7]

This idea was explored in part in Level 5, in which the exhibition turned to examine the shooter genre. In the third-person shooter *Sniper Elite 5,* the player takes the role of a secret agent and marksman working for the British Special Operations Executive

[6]In 'first-person shooter' games, the player views the game world as if through the eyes of their player character, and gameplay revolves around combat with firearms and other ranged weapons. First-person shooters typically challenge a player's reflexes and hand-eye co-ordination, and emphasise fast-paced action.

[7]Photograph © Imperial War Museums.

in the Second World War.[8] In a game built around long-range shooting, *Sniper Elite* prizes detailed and realistic models of the rifles and other weapons used by its protagonist. In the exhibition, with a British sniper rifle of the Second World War on display in a showcase, the developers of the game discuss how they go about turning the real object – made of wood and steel – into a virtual object, made of pixels and polygons, their creative process encompassing 3D modelling, texturing, animation, sound recording and game design. On a monitor nearby, celebrated game designer John Romero discussed his 1991 first-person shooter *Wolfenstein 3D*. The game, which casts players as an American secret agent captured by the Nazis, popularised the first-person shooter genre and set a pattern – fast and smooth three-dimensional graphics, powerful sound effects, and violent action – that the genre continues to manifest to the present.

As the visitor exited Level 5, they passed into a hall containing, at its centre, a second appearance of the 'talking heads' seen earlier, now discussing games' representation of war, and discussing such questions as games' ability – or otherwise – to tell true stories, or to allow players to empathise with people's lived experiences of conflict.

Arrayed around this audiovisual piece, stood three levels. Each level contained a themed pair of case study games. In Level 6, the strategy game *Through the Darkest of Times,* in which players run a cell of anti-Nazi dissidents, and the Iraq War first-person shooter *Six Days in Fallujah*, were presented to discuss the ability of games to depict historical realities. In Level 7, civilian survival game *This War of Mine* and refugee text adventure *Bury Me, My Love* offer examples of games building empathy with the plight of civilians affected by conflict. In Level 8 we find the *11-11: Memories Retold*, previously described, and the artillery tactics game *Worms WMD*, exploring how video games express wider cultural trends in our memory of war and conflict.

By Level 9, visitors had become immersed in the fictional worlds of video games. Preparing them to return to the realities of war and conflict documented in IWM's permanent historical exhibitions, the final room of the exhibition proper looked at the increasing use of video games and simulation in military training and recruitment. Contrasting Atari's 1980 arcade game *Battlezone*, in which players drive a tank locked in battle with enemy vehicles, and Bohemia Interactive Simulations' *Virtual Battlespace 4*, a powerful military simulator currently widely used by western militaries, the level explores the use of gaming and simulation, and the increasing crossover between military and entertainment technology. In a telling example, exhibits in this level

[8]In 'third-person' games the player views the game world from a perspective external to their player character, and typically lay more emphasis on exploring and traversing the game environment than first-person games.

included a Microsoft Xbox game pad, previously used to operate a Desert Hawk drone over the British Army's Camp Bastion base in Afghanistan.

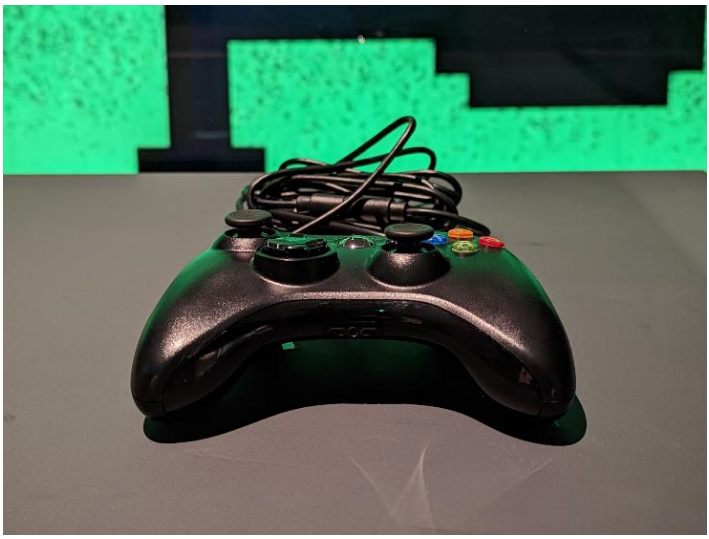

Figure 3: An Xbox 360 game controller used at Camp Bastion, Afghanistan.[9]

War & Video Games: A Shared History

IWM's War Games exhibition explored how war manifests itself on screen through video games. Games about war and conflict express some of the dynamics inherent in the depiction of war on screen, and perhaps more than other media, war and video games share a history. As a medium which has evolved with, and been dependent upon, the power of computers to process ever more complex programmes, the earliest video game precursors appear in the years following the development of the first digital computers during the Second World War. In Britain, a pioneering digital electronic computer named 'Colossus' is remembered for its work in cryptanalysis, helping to break Nazi Germany's Lorenz cipher. In the United States, the US Army's Ordnance Corps funded the development of ENIAC, a computer whose tasks included artillery trajectory calculations and work on the first US thermonuclear bomb. Almost immediately, computer scientists saw the potential for computers' processing power to be put to use playing games. Among them was Alan Turing, a mathematician hailed

[9]An Xbox 360 game controller, previously used to operate a British Army drone at Camp Bastion in Afghanistan, on display in IWM's exhibition War Games. Photo © Ian Kikuchi

for his wartime cryptanalysis and widely regarded as the father of computer science. In 1948, with mathematician David Champernowne, Turing wrote a chess-playing algorithm named Turochamp. Though never run as a computer programme before Turing's death in 1954, when implemented by hand Turochamp proved capable of executing an entire game of chess.[10][11]

A few years after Turing's death, another former wartime scientist created an apparatus that would later see him dubbed the grandfather of video games. In 1958 Professor William Higinbotham was a scientist on the staff of the US Department of Energy's Brookhaven National Laboratory in upstate New York. Born in 1910, Higinbotham worked on wartime radar systems before joining the Manhattan Project, designing the electronics for the first atomic bomb. In July 1945, Higinbotham witnessed the first nuclear explosion at Trinity, New Mexico, and became a founder member of the Federation of Atomic Scientists, which opposed nuclear proliferation. For his laboratory's 1958 public open day, Higinbotham designed a simple game that would demonstrate the power of his section's new electronic computers. The result was *Tennis For Two*, a simple tennis game in which a 'ball' – a point of light – bounced back and forth on a cathode ray tube screen, while players controlled the ball's speed and angle with a handheld control box. The game was enormously popular with visitors to Higinbotham's lab.

Over the following decades, sustained investment in electronics and computer sciences, much of it funded by national defence budgets, returned progressive leaps in processing power and the sophistication of computer programmes. In the early 1960s, a group of students at the Massachusetts Institute of Technology created *Space War!* a space combat game that quickly spread through US academia. In 1965, the British Radar Research Establishment – responding to the need for military air traffic controllers, directing ever faster jet aircraft, to be able to interact more quickly with their computers – created the first finger-operated electronic touchscreen.[12] Contemporary smartphone games like *Angry Birds*, *Candy Crush* or *Pokémon Go,* which all depend on a touchscreen interface, have therefore a surprising trace of the Cold War in their DNA. In the twenty years that followed, video games would start to appear first in arcade machines, and then in home consoles and microcomputers.

[10]Jack Copeland, 'Chess' in Jack Copeland ed. *The Essential Turing: Seminal Writings in Computing, Logic, Philosophy, Artificial Intelligence, and Artificial Life: Plus The Secrets of Enigma,* (Oxford: Oxford University Press, 2004) pp. 562-575

[11]The author contacted the families of both Turing and Champernowne in the hope of borrowing some chess-related artefacts for IWM's exhibition, but sadly no relevant material survives.

[12]Malvern Radar and Technology History Society '1965 – The Touchscreen' https://mraths.org.uk/?page_id=531 Accessed 18 January 2024

An intersection of war and video games' shared history lies in their use of screens. While the First World War had appeared on cinema screens, the Second World War had itself been fought on screens, as radar operators on the ground, in the air, and at sea peered into the phosphorescent glow of cathode ray tubes. The development of radar, a technology that would shape the conduct of the war by air and sea, would also give rise to a generation of engineers and scientists alive to the possibilities presented by electronics. In 1947, two physicists at DuMont Laboratories in New Jersey, USA patented the 'Cathode ray tube amusement device', a simple electronic game in which players imagined a focused point of light arcing across an oscilloscope to be an anti-aircraft artillery shell in flight. Directing this point of light, the player would aim to have the beam defocus, as if exploding, within the bounds of an outline of an aeroplane drawn on a transparent sheet overlaying the screen. Though not really reckonable as a video game – the game did not use a digital computer or output video graphics – the device pointed both to the possibility of screen-based electronic entertainment, and the enduring, perhaps even instinctive, appeal of games based around target shooting.

The Pleasure of Shooting

As a screen-based entertainment, target shooting – a sport and skill with obvious military application – has a surprisingly long history. As Michael Cowan has noted, in European cities in the years before the First World War, so-called 'cinematic shooting galleries' were a popular entertainment.[13] These shooting galleries combined the existing popularity of small-bore rifle ranges as found at funfairs or amusement parks – manufacturing advances having cut the cost of rifles and ammunition to the point that they became viable playthings – with the emergent popularity of cinema. Various systems existed, but some allowed participants to fire live ammunition at a paper screen, onto which were projected moving target images, such as hostile troops on manoeuvres, or wildlife on African safaris. A mechanical relay activated by the sound of a player's gunshot would freeze the film projector. This freeze-frame would allow another light source, mounted behind the screen, to shine through the bullet hole of the player's last shot, allowing them to judge whether they'd hit their target. Cowan notes that in offering the interactivity of this freeze-frame, these cinematic shooting galleries can be considered as embryonic precursors to today's interactive shooter video games.

Besides their entertainment value, these interactive cinematic shooting galleries were

[13]Michael Cowan, 'Interactive media and imperial subjects: Excavating the cinematic shooting gallery', *NECSUS. European Journal of Media Studies*. Vol. 7 No. 1, (2018) pp. 17-44 https://necsus-ejms.org/interactive-media-and-imperial-subjects-excavating-the-cinematic-shooting-gallery/. Accessed 25 March 2024

also seen as having a potentially useful training purpose. In confronting the player with hostile targets whether human or animal, these galleries were said to offer useful training, both in the physical skills of shooting a moving target, and in the mental and emotional self-control essential to accurate shooting under pressure.

The notion of the training value of shooting entertainments translates directly to the video game era. In 1980, Atari released *Battlezone*, an arcade game in which the player drives a tank in a barren landscape, engaging and destroying other tanks with cannon fire. With remarkable 3D vector graphics, the game was the first 3D first-person shooter. It also attracted the attention of the US Army, who saw potential in the system for training gunners serving in their new Bradley armoured vehicles. While only ever developed as a prototype known as *The Bradley Trainer*, the prototype's existence pointed to the future application of simulator-based or game-based military training.[14]

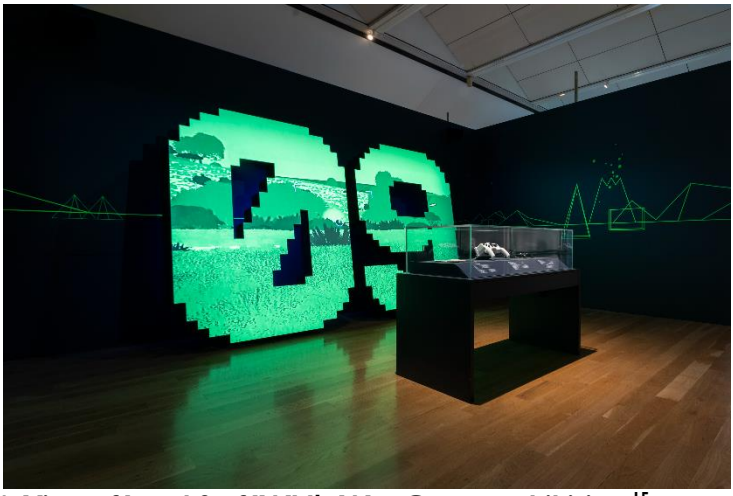

Figure 4: View of Level 9 of IWM's War Games exhibition.[15]

In Level 9 of IWM's *War Games* exhibition, Atari's *Battlezone* was juxtaposed with the current state of the art in virtual military training. *Virtual Battlespace 4* is a military

[14]Tony Temple, 'Bradley Trainer: Atari's Top Secret Military Project' *The Arcade Blogger*, 28 October 2016 https://arcadeblogger.com/2016/10/28/bradley-trainer-ataris-top-secret-military-project/. Accessed 29 January 2024

[15]Footage from *Virtual Battlespace 4* is projected on the screen. Photo © Imperial War Museums

simulation developed by Bohemia Interactive Simulations (BI Sim). The software is capable of generating a virtual environment from any point on Earth, with accurate topography, vegetation and weather, and is able to populate that environment with simulated military forces of all kinds, under the control either of human participants or the computer. While such 'synthetic environment' training cannot replace realistic physical training, simulator-based training offers some significant advantages. Virtual ammunition and expensive high-tech ordnance can be freely expended. Heavy equipment can be exercised without incurring wear and tear, and a virtual environment allows detailed 'after action' analysis. With some irony, it can even be argued that virtual training – in which participants can dispense with the safety margins necessary for the use of live ammunition – may offer more realism than 'safe' physical training.

The Sharp End: The Search For Realism

While a realistic virtual environment feels like a contradiction, realism has proved to be a shared goal of depictions of war on screen. Whether in the virtual worlds built by video games, or in the construction of filmic or cinematic worlds in film and television, audiences and creators have demonstrated a compulsive desire for these media to take them to war's 'sharp end'. We can clearly see this impulse at work in the 1916 film *The Battle of the Somme*. In some of the film's most memorable sequences, filmed by cameraman Geoffrey Malins, troops of the British Army's 1 Lancashire Fusiliers are seen sheltering in a sunken lane (Figure 5 Left). Within minutes of being filmed, these men advanced into no man's land and were cut to pieces by machine gun fire. Also shown is the spectacular explosion of the Hawthorn Ridge mine, and footage of troops advancing under fire across open ground to capture the crater.

Yet even these actuality shots, showing real events and real troops in deadly peril, seem not to have satisfied the filmmakers' desire to show their audience the moment British troops went 'over the top'. Accordingly, they staged a sequence in which British soldiers leap from their trench and step through barbed wire before disappearing into a bank of smoke (Figure 5 Right). In the century since they were taken, at a mortar training school in northern France, these shots have been used innumerable times in film and television productions, often representing the Western Front as a whole, and frequently being loaded with connotations about the futility of the fighting.[16] Ironically, in creating an image which powerfully satisfied his audience's desire to witness a crucial

[16]Alastair Fraser, Andrew Robertshaw and Steve Roberts, *Ghosts on the Somme: Filming the Battle, June-July 1916,* (Barnsley, Pen and Sword: 2009), 'Chapter Ten: The Fake Footage' pp. 163-171.

moment, the filmmakers inadvertently overshadowed more significant shots showing real troops engaged in life-and-death combat.[17]

Figure 5: Lancashire Fusiliers from *The Battle of the Somme* (1916).[18]

This section of *The Battle of the Somme* demonstrates a number of preoccupations shared by both video games and film in depicting war on screen. Firstly, an overwhelming urge to 'go forward'; that is, to take viewers and players to wherever the action is most visceral, wherever the combat is most intense. In the case of a First World War game like *11-11: Memories Retold*, it is difficult to imagine a game resisting the urge to send their player 'over the top'. In the making of *The Battle of the* Somme, to capture his shots of the Lancashire Fusiliers, Malins carried his bulky wooden camera and tripod along a low, narrow, and crowded underground tunnel, before forcing a path back the way he had come to shoot the explosion of the Hawthorn Ridge mine. This movement must have been laborious and stressful, but it demonstrates an impulse shared among many news cameramen and photographers; the consuming desire to be in the right place at the right time. A cameraman's urge to go forward can only be satisfied to the extent their equipment permits it. On the Somme, Malins was operating at the limit of his equipment's mobility. In following years, cameras became smaller and lighter, facilitating the more dynamic style of filmmaking seen in the combat photography of, for instance, the Second World War.

[17]See also Roger Smither, 'A wonderful idea of the fighting': The question of fakes in 'The Battle of the Somme', *Historical Journal of Film, Radio & Television*, vol. 13, no. 2 (June1993) pp. 149-168 https://www.tandfonline.com/doi/abs/10.1080/01439689300260181 Accessed 25 March 2024

[18]Left - Lancashire Fusiliers wait to attack on 1 July 1916, in a still from *The Battle of the Somme*; Right - still from a film sequence staged for inclusion in the film. Courtesy Imperial War Museums FLM 1672 / Q 70169.

Perspective: Immediacy and Veracity

The mobility of the camera has become a key visual aesthetic; with film cameras giving way to video cameras, to camcorders, and then to digital cameras, and with cameras shrinking to sizes that permit them to be routinely mounted to individual soldiers' helmets or body armour, we have become accustomed to images that ostensibly place us directly in the shoes of participants. It is striking that this first-person perspective, commonplace in video games since the early 1990s, is relatively rarely seen in cinematic filmmaking. Indeed, the first-person perspective is perhaps more often seen in footage filmed on bystanders' smartphones in response to spontaneous events, or in footage taken by public officials – notably police officers – using body-worn cameras. As with first-person perspective video games, and with the spontaneity of such images, we tend to identify ourselves with the camera's perspective, leading us to associate handheld or body-worn video footage with immediacy and veracity.

The availability and mobility of such cameras, and the ability of digital cameras to store large amounts of imagery on small memory cards, has allowed new styles of filming to emerge. Less hampered by the restrictions of a reel of film or a cassette of tape, filmmakers allowed their cameras to roll more freely, at times capturing spontaneous events. One striking example is seen in Tim Hetherington and Sebastian Junger's film *Restrepo,* a documentary filmed in 2007 while accompanying a platoon of the US Army's 503rd Infantry Regiment during a combat deployment to an outpost in the Korengal valley, in eastern Afghanistan. In the film's opening scene, filmed from the back of a US Army Humvee, an exploding roadside bomb jolts the camera, and a chaotic firefight breaks out.[19]

The Closed Door: Fear & Anticipation

Just as cameramen and photographers prize the ability to be 'on the ground', so game developers have sought to put their players in the midst of combat action. In *Six Days in Fallujah*, players take the role of an American infantryman fighting in the 2004 second battle of Fallujah in central Iraq. The battle witnessed intense urban fighting, frequently at close quarters, pitting American and Iraqi government forces against insurgent forces led by Abu Musab al Zarqawi's Al Qaeda in Iraq militant group. Speaking to IWM, game developer Peter Tamte emphasised the image of the closed door. Speaking with US servicemen about their experiences of the battle, with frequent house-to-house fighting, many emphasised to Tamte the fear they came to associate with closed doors. Beyond a closed door, a soldier might encounter an insurgent ambush, a booby trap, or an empty room, but they would never know which, their fear and

[19]Hetherington was killed while covering the Libyan revolution in 2011. His archive was acquired by IWM in 2017.

apprehension peaking as each door swung open. For Tamte, this fear of the unknown became an emotional keynote.[20]

In developing their game, Tamte initially intended to build a geographically accurate virtual model of the city of Fallujah. As development progressed, however, Tamte and his colleagues recognised that while an accurate model of Fallujah's real geography might offer some advantages in formal realism, it also presented a perennial video game design problem; a fixed level layout enabled players to become familiar with it, and to anticipate enemy attacks. This familiarity robbed doorways of their fearful foreboding, and undermined the sense of lethal jeopardy that was key to the game's affective experience. Instead, developers implemented a procedural generation system. In video games, procedural generation refers to the use of developer-made content and algorithms, alongside the computer's ability to generate randomness, to produce objects, levels, environments, graphics textures and other content. The best-known contemporary uses of procedural generation include the planets and star systems of science fiction games such as *Elite: Dangerous* and *No Man's Sky*, and the blocky, pixelated landscape in *Minecraft*. In *Six Days in Fallujah*, procedural generation redraws the map, rearranging streets, buildings and even the layout of individual rooms, each time the game is loaded. By making it impossible for players to memorise the game's layouts, procedural generation helps to restore the uncertainty, and so the apprehension, felt by players as they approach a closed door. Combined with other design choices such as the high lethality of enemy fire, this system sought to express something true about the experience of house-to-house fighting in Fallujah; the constant risk of an instantaneous eruption of deadly violence at point-blank range.

One can question whether video games are capable of truly reflecting any aspect of reality but the use of procedural generation in *Six Days in Fallujah* returns us to a fundamental difficulty of depicting war on screen. Insofar as the game's environments are procedurally generated, and not based directly on the actual geography of the Iraqi city, the depiction of the city is therefore unrealistic, notwithstanding this unrealism being in the service of evoking a realistic emotional state in the player. It's striking to consider the echo here of *The Battle of the Somme*, which a century earlier had deployed staged footage in order to complete, for its audience, the realism of the film's emotional arc.

The Sanctity of Bereavement

Six Days in Fallujah also points us to another recurring theme in the depiction of war on screen; the sensitivity that surrounds the rendition of military action as entertainment. *Six Days* was announced in 2009 while the Iraq War was still ongoing. Brought to the attention of family members whose relatives had been killed while

[20]Interview with IWM 2022.

serving with western military forces in Iraq, the announcement of the game aroused indignant condemnation. Reg Keys, whose son, military policeman Lance Corporal Thomas Keys, was killed in 2003 when a hostile crowd of Iraqi civilians stormed a police station in which he and other members of his unit were sheltering, remarked to the *Daily Mail*,

> Considering the enormous loss of life in the Iraq War, glorifying it in a video game demonstrates very poor judgement and bad taste. It is particularly crass when you consider what actually happened in Fallujah. These horrific events should be confined to the annals of history, not trivialised and rendered for thrill-seekers to play out, over and over again, for ever more.[21]

Retired British Colonel Tim Collins OBE, a figure known for his widely reported 2003 eve-of-battle speech to 1 Royal Irish Regiment, was also critical of the game. Faced with controversy in the UK and, even more intensely, in the United States, *Six Days*' Japanese publisher abandoned the game, cancelling its release. *Six Days in Fallujah* would eventually be re-announced in 2021 and released in 2022.

It is natural to empathise with Reg Keys and others who felt that a shooter video game based on real events in an ongoing war was in poor taste. Keys' criticism carries all the more weight because he speaks with the authority of a bereaved father. Yet concern that war entertainment media risked harming bereaved families is hardly a recent issue. When *The Battle of the Somme* was released in August 1916, the battle in France had been ongoing for more than a month, and tens of thousands of British soldiers had been killed and wounded. Writing to the *Times* newspaper Hensley Henson, the Dean of Durham cathedral, considered the film to be 'an entertainment which wounds the heart and violates the very sanctity of bereavement'.[22] Even allowing for Henson's reputation as a controversialist, there seems to be no reason to doubt that he was articulating a feeling that many of the war's bereaved might have endorsed. Similarly, at least one cinema exhibitor declined to show the film, despite its enormous popularity, instead displaying a sign reading 'We are not showing *The Battle of the*

[21]Daily Mail Reporter 'Iraq War video game branded 'crass and insensitive' by father of Red Cap killed in action' *Daily Mail*, 7 April 2009 https://www.dailymail.co.uk/news/article-1168235/Iraq-War-video-game-branded-crass-insensitive-father-Red-Cap-killed-action.html Accessed 17 January 2024

[22]H. Hensley Henson, 'A Contrast And A Protest' *The Times*, 1 September 1916, p. 7. The Times Digital Archive. https://link.gale.com/apps/doc/CS118687521/TTDA?u=iwm&sid=bookmark-TTDA&xid=9fe5dcaa Accessed 29 January 2024.

Somme. This is a place of amusement, not a chamber of horrors'.[23] It can be difficult for twenty-first-century audiences, accustomed to news cameras showing us bloody violence within hours of its occurrence, to appreciate just how shocking *The Battle of the Somme*'s imagery could be.

Henson's description of *The Battle of the Somme* as 'entertainment' also draws our attention to an important point of distinction between media that are unambiguously produced and marketed as entertainment – which would include most video games – and those media that might be described as 'documentary'. A century after Scottish filmmaker John Grierson coined the term 'documentary film', we are now familiar with the factual and at least notionally truthful aesthetics of documentary film. We are accustomed to documentarians claiming that their work has a vital message to convey on an important issue of the day. In this, documentary makers would typically deny that their work was 'entertainment', a term laden with connotations of frivolity and triviality. And yet, the continuing appearance of documentary films alongside all manner of other entertainment, whether in cinemas, on television, or via online video streaming services, the identical mode of consumption of all screen-based media, and the need for even the most high-minded of documentaries to attract an audience, inevitably leads to a tension between the documentary aesthetic and the more nakedly commercial imperatives of entertainment.

Towards A Documentary Aesthetic

Just as documentary film grew out of a medium deeply rooted in popular entertainment, we can also see video games beginning to discover the potential of the documentary aesthetic, and its capacity for holding an audience's attention through thoughtful engagement with an urgent issue of the day. In 2017 French independent developer The Pixel Hunt's released *Bury Me, My Love*. Designed for play on smartphones, *Bury Me, My Love* is an interactive narrative that casts the player as Majd, a Syrian man living in Damascus as his wife, Nour, attempts to flee the Syrian civil war to safety in Europe. The game plays out as if in a messaging app, with messages from Nour popping up throughout the day to ask for the player's advice, support, and encouragement. The player's interaction with Nour is limited only to responding to her messages through a selection of written answers, or of emojis. Even so, the game quickly develops a gripping sense of jeopardy, as Nour faces hazards ranging from roadblocks and hostile border guards, to extortion at the hands of taxi drivers or people smugglers, and dangerous river or sea crossings. Depending on how the player chooses to respond to Nour's messages, the relationship between Majd and Nour

[23]Roger Smither, '"Watch the Picture Carefully, and See If You Can Identify Anyone": Recognition in Factual Film of the First World War Period', *Film History*, vol. 14, no. 3/4 (2002), pp. 390-404. https://www.jstor.org/stable/3815439. Accessed 25 March 2024

subtly changes over time, and her story can end in numerous different ways. Nour might reach safety and security in a European country or find herself trapped in a refugee camp on the Syrian border. She may even die, of drowning or cold, while attempting to cross one of Europe's border rivers or seas. However the story ends, the ending is delivered as a voice-acted voicemail message. When I played *Bury Me, My Love* Nour died of hypothermia after failing to cross the River Evros on the Greek-Turkish border. Hearing Nour's shivering voice tail off as she told me how very cold and very tired she was, remains a lingeringly memorable gaming moment, and one that points to the capacity for the narratives of fictional video games to offer experiences that build our empathy for real people affected by war and conflict.

Speaking to IWM, Pixel Hunt founder Florent Maurin described how, around 2015, coverage in French newspapers had drawn his attention to the hazardous journeys being made by Syrian refugees attempting to reach safety in Europe. Desiring to make games about real world issues, Maurin seized upon the way that smartphones enabled refugees to stay in touch with their families, and also functioned as an essential tool to navigate the innumerable geographical and political-bureaucratic obstacles on their way to safety. Maurin realised that the private conversations we have via our messaging apps are intimate and intensely personal, and using a messaging app as the vessel for a game about refugee experiences offered an authentic frame in which to tell these stories, and through which players could empathise with the experience.[24] Speaking elsewhere, Maurin has described his ambitions for 'reality-inspired' games, that is to say, games that shared some of their ethical framework with journalism or documentary-making. For Maurin, such games would emphasise the reality of their settings, would be built upon robust research and documentation, and would be particularly informed by interviews with people with first-hand experience. In a break from traditional game design, such 'documentary' games would be much less player-centric than most video games.[25]

As a smartphone game *Bury Me, My Love* reminds us of the ubiquity of screens in modern life, even for those making perilous journeys as a refugee. When *The Battle of the Somme* film was released, the consumption of images war on screen was limited to cinemas or to other, sometimes improvised, screening spaces. With the proliferation of television after the Second World War – a conflict dazzlingly depicted in combat cinematography and newsreel and feature film propaganda – the Vietnam War would be widely considered the first 'television war', with television images becoming the primary medium for moving-image reportage. Today, much of our consumption of war and conflict imagery reaches us via our phones; when Russian

[24]Interview with IWM 2022.
[25]GDC 'Exploring helplessness in Games with Bury Me, My Love', 22 October 2018 https://www.youtube.com/watch?v=yDzsSvFZhJ8. Accessed 18 December 2023.

forces invaded Ukraine in February 2022, an enormous volume of images of the fighting would appear on social media.

Disempowerment & Satire

Shortly before the Russian invasion, the author spoke with developers at Polish game company 11 bit studios. In 2014, they released *This War of Mine*, a survival game in which players attempt to sustain a small group of civilian survivors living under siege in a ruined city. Inspired by magazine coverage of the siege of the Sarajevo during the Bosnian War of the 1990s and drawing also on the developers' family memories of the German occupation of Poland, *This War of Mine* offered an intensely bleak look at the difficulties and moral compromises of life under brutal occupation. Much as *Bury Me, My Love* adopted a less player-centric experience than most games, in the same way *This War of Mine* disempowered the player through the sheer difficulty of keeping their survivors safe and healthy. In doing so, *This War of Mine* subverts the tendency of video games to cast their players as either superheroic soldiers or all-conquering commanders, and reminds us that, if we were to find ourselves plunged into war tomorrow, most of us would be civilians. This subversion destroys the escapist power fantasy that underpins many war-themed video games and permits *This War of Mine* to be read as an anti-war text.

Not all anti-war games are immediately recognised as such. Running alongside IWM's War Games exhibition was a selection of playable retro video games from systems ranging in time from the Atari 2600 of the early 1980s to the first generation of Sony PlayStation from the early 2000s. Among the games on display was *Cannon Fodder*, a 1993 action game by celebrated British developer Sensible Software (Figure 6). Originally developed for the Commodore Amiga personal computer, *Cannon Fodder* tasked players with leading a small squad of soldiers through a series of battles. While the concept might sound familiar, *Cannon Fodder's* execution created a powerful piece of anti-war satire. Before every level, the player would see new recruits lining up to wait their turn to fight. Though only fourteen pixels tall, every soldier was named, capable of promotion, and their death in battle would be marked between levels with the appearance of a headstone on a hillside overlooking the line of waiting recruits. As the game progressed this hill would come to be covered in grave markers; a constant, even oppressive, reminder to the player of their failure to keep their named recruits alive. Together with the use of a scoreboard tally of 'home' and 'away' deaths to represent the player's 'score', this interlevel screen strongly evoked the 1969 satirical British war film *Oh! What a Lovely War*.[26]

[26]Speaking to the author, developer Jon Hare denied a specific intention to evoke *Oh! What a Lovely War*. The fact that the impression is nonetheless strongly given perhaps denotes how influential, or how widespread, that film's satirical depiction of the war had become. On the initial audience reaction to *Oh! What a Lovely War* see Dan

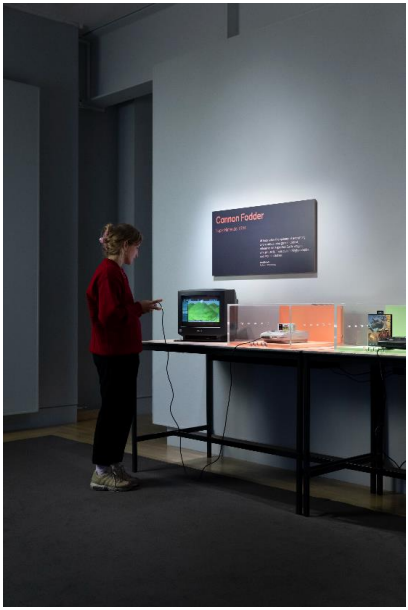

Figure 6: A visitor plays *Cannon Fodder* in IWM's War Games exhibition.[27]

Despite the game's obvious satirical intent, starting with the title, the release of *Cannon Fodder* elicited a notable controversy. The game's use of a red poppy, and the strapline 'War has never been so much fun' attracted the ire of the *Daily Star* newspaper, which duly stoked outrage by inviting adverse comment from such keen gamers as the Royal British Legion and Viscount Montgomery, the son of Field Marshal Bernard Montgomery.[28] Speaking to the author, *Cannon Fodder* developer Jon Hare described how he and his colleagues were conscious of developing games for an intelligent British video gaming audience who would understand the satirical intent behind the game's mechanics and presentation. Speaking of his own inspiration, Hare described himself, having been born in 1966, as a member of the post-war generation, and noted the influence on him of British television war comedies including *Dad's Army,* first broadcast 1968-1977, and *Blackadder Goes Forth,* 1989. It is striking to note the difference; by the early 1990s both of these series were celebrated parts of the pantheon of British television comedy, and neither the gentle ridicule of the former

Todman, *The Great War: Myth and Memory*, (London: Hambledon Continuum, 2005) p. 64.

[27]Photo © Imperial War Museums.

[28]Jonathan Guy, 'Poppy Game Insult To Our War Dead' *Daily Star,* 26 October 1993

nor the bitter sarcasm of the latter seem to have prevented critics or general audiences from seeing them as ultimately respectful depictions of their subject matter.[29] To see war subjected to the same satirical treatment in video games however, seems to have been too much to bear for outrage-baiting tabloid journalists.

Convergence: Hollywood & Video Games

In looking at *Cannon Fodder*, we can see how video games draw upon or are inspired by depictions of war in other media. Historian Dan LeMahieu has noted how the media of the early twentieth century exhibited a marked tendency to 'converge', that is to say, that newspapers became more imitative of speech in their language as their audiences broadened, while also making greater use of photography to illustrate their journalism. Similarly with the advent of sound film in the late 1920s cinema newsreels became more akin to the tabloid press in their use of language.[30] In another game featured in IWM's retro games zone, we may be able to detect similar trends in the media of the late twentieth century.

In summer 1998 Steven Spielberg's epic war film *Saving Private Ryan* was released in cinemas. One of the most influential war films ever made, the film reflected Spielberg's abiding interest in the Second World War. Spielberg's ambitions for communicating the Second World War were not limited, however, to the silver screens of the world's cinemas; he also envisioned telling war stories through video games. While producing *Saving Private Ryan* Spielberg conceived a video game that might explore the war for video game-playing audiences too young to see *Saving Private Ryan* in cinemas.[31] The result was DreamWorks Interactive's 1999 first-person shooter *Medal of Honor*.[32] Though *Medal of Honor*'s origins were relatively unusual, being conceived alongside a major film project, it neatly reflects the increasingly close relationship between video games and film. For many years video games have expounded their narrative through the use of 'cutscenes' or short animated sequences between levels. As video game hardware has become more capable, and video games' narrative ambitions have grown, these cutscenes have increasingly come to resemble short movie scenes, with fully animated 3D characters, voiced by professional actors, and with cinematic scene blocking and camera movement. Video games increasingly aspire to emulate the spectacular and lifelike visuals of big-budget motion pictures, while their interactivity

[29]Todman, *Great War: Myth and Memory*, p. 146

[30]Dan Lloyd LeMahieu, *A Culture for Democracy: Mass communication and the Cultivated Mind in Britain Between the Wars,* (Oxford: Clarendon Press, 1988) p. 231-232.

[31]Edge Staff 'The Making Of…Medal of Honor' *Gamesradar*, 30 March 2015. https://www.gamesradar.com/making-medal-honor/. Accessed 16 February 2024.

[32]In small ways, *Medal of Honor* nods to IWM; the game's menu screen evokes the Cabinet War Rooms, now run as a museum by IWM, and one in-game mission references IWM's museum ship HMS Belfast.

fosters a degree of audience participation and engagement of kind impossible within the bounds of traditional filmmaking. In the case of *Medal of Honor,* while owing a debt to earlier titles such as *Wolfenstein 3D,* the game would prove a critical and commercial success, spawning sixteen sequels on numerous platforms, as well as an enormously successful competitor franchise, *Call of Duty.*

Call of Duty has become one of video gaming's biggest games series, typifying the big-budget, all-action blockbuster. It is striking that these adjectives would usually be associated with Hollywood movies, and their application to video games perhaps reflects a shift in cultural power. More tangibly, the *Call of Duty* franchise is one of several to have become gigantically lucrative. Its 2019 instalment, *Call of Duty: Modern Warfare,* which appeared in IWM's War Games exhibition as a case study in art and sound design, reportedly earned in excess of $600 million in its first three days on sale.[33] In this, it exemplifies the growth of the video game market such that, worldwide, video game revenue now surpasses that of the film and music industries combined.[34]

Games like *Call of Duty* are not simulations. They are unapologetic entertainment, typically preferring to offer their players spectacular set-pieces and an often rollercoaster-like combat experience, buttressed by such gameplay conventions as the player character's superhuman ability to absorb gunfire. Yet even so, there remains a degree to which such games do offer an at least recognisably realistic depiction of war. During the author's research for IWM's War Games exhibition, one officer serving with a British infantry battalion remarked to him that, disembarking from a helicopter under fire in Afghanistan, the officer once found himself thinking 'this is just like *Call of Duty*!'[35]

This officer's remark brings us to one final aspect of the relationship between war on screen and video games. Films and video games offer artful interpretations of war and conflict, and we consume them for our entertainment and diversion. Both can range from brash, bombastic entertainment to pained, thoughtful reflections. Yet both ends of this spectrum, whether manifested in video games or films, can shape our

[33]Paul Tassi, "'Call of Duty: Modern Warfare" Sales Top $600 Million In Three Days', *Forbes,* 30 October 2019. https://www.forbes.com/sites/paultassi/2019/10/30/call-of-duty-modern-warfare-sales-top-600-million-in-three-days/?sh=3e3272f17956. Accessed 29 January 2024.

[34]Krishnan Arora, 'The Gaming Industry: A Behemoth With Unprecedented Global Reach', *Forbes,* 17 November 2023 https://www.forbes.com/sites/forbesagencycouncil/2023/11/17/the-gaming-industry-a-behemoth-with-unprecedented-global-reach/?sh=135c335e512f. Accessed 29 January 2024.

[35]Conversation with the author, 2020.

perception of what war is, and what war means. Alongside our consumption of television news and drama, and other war-related reportage online or elsewhere, film and video games form part of our media consumption of war and conflict. They become part of the framework within which we understand war, both historical and contemporary. The Imperial War Museum's War Games exhibition attempted to discuss these and other issues, but inevitably could only cover a small number of the thousands of games that now comprise the corpus of video games. Much remains to be done by scholars of video games, of media, and of war, to define the place occupied by video games in the public understanding of war and conflict, and their interaction with other depictions of war on screen.