
Epilogue

This book explored how contemporary technoculture has transformed the relation between animation and documentary. Whereas the discussion started from the point that animated documentary's reception was complex due to a perceived gap between the on-screen animated world and the physical surroundings of the viewer, this should now be reconsidered. My analysis of the rising visibility of animation in non-fiction and shifting documentary conventions (Chapter 1), animation techniques and their potential status as document and/or evidence (Chapter 2), and ubiquitous screen culture (Chapter 3) illustrates that viewer reception of animation as credible is gradually changing. As we have seen in contemporary mixed realities, the animated and physical worlds are converging, so using animation as documentary is not only reasonable and valid, but also essential.

In Chapters 4 to 6, I identified three kinds of virtual documentaries that use animation and blur the boundaries between contemporary mixed realities: documenting animated virtual game realities; the in-game depiction of non-game physical realities wherein the two converge; and the use of virtual aesthetics, such as interactivity and real-time animated visualisation, to depict physical events, as in documentary games and VR simulations. Taken together, these illustrate the immense influence of wider technocultural characteristics on changes in documentary production and reception, and the varied potential ramifications of this phenomenon one must be aware of, as discussed in Chapters 7 and 8.

A recurring theme throughout the book is that realism, as a believable articulation of actuality, is no longer necessarily linked to visual realism/mimesis. Instead, there are cultural reasons why non-photorealistic animation can and should be used to depict realities that are not physical (and therefore would only be limited by photographic and photorealistic imagery), as well as technological developments that support the use of animation to depict contemporary mixed and virtual realities. These include real-time visualisations of user input and/or immersion that supplement non-photorealistic imagery with various other reality effects meant to contribute to a work's credibility.

Here I will focus on a recent thought-provoking animated documentary

that reflects several of the central issues covered by this book. *Another Planet* (2017),¹ introduced in Chapter 5, brings together different CG animated simulations of the Auschwitz-Birkenau concentration camp that aim to simulate the camp authentically despite their non-photorealistic appearance and constructed nature, and recover something of the historical events by offering new insights and interactive experiences for viewers. *Another Planet* follows the creators of these different simulations of Auschwitz-Birkenau, which include: a German prosecution office whose 360-degree investigative simulation is meant for forensic purposes in the trial of a ninety-four-year-old defendant; an Israeli historian and German architect who have been surveying the camp for fifteen years in an attempt to create an accurate black and white architectural reconstruction for museum and education purposes; a flight simulation scenario created by Israeli high school students for the purpose of virtually re-enacting the 2003 Israeli Air Force flight over the camp; an Israeli software developer whose belief in reincarnation has inspired him to attempt to re-create his past life experiences as a Sonderkommando during the holocaust in an online role-playing game, *Prisoner Revolt*;² and a Polish graphic designer who created a photorealistic VR experience of the camp for ‘maximum realism’.

The film’s montage moves between the different simulations while interviewing the creators, who often appear as avatars, about their reasons for virtually reconstructing the camp. They all discuss the goal of realism, attempting to provide an experience that is as close as possible to the ‘real thing’: ‘Gradually, a deeper layer of the film is revealed: the obsession with reconstructing the “Other Planet” – or the insatiable urge to document and enrich the historical and cultural memory of the Holocaust.’³ However, the film is not about the holocaust. Rather, it is an exploration of contemporary non-fiction representation in digital culture. In an era when many animated documentaries function as eye candy that merely visualises the soundtrack, *Another Planet* emphasises discrepancies in representation and consequently forces viewers to question the limits of what can be shown, what is said to be shown versus what can actually be seen, and what kind of truth claims can be made through animated depictions of non-fiction. What is the role and significance of animation as a representational choice within this documentary and the virtual simulations it depicts, and how does this correspond with the main themes of this book?

Although the book has raised ontological questions about the nature of contemporaneity and ‘the real’, it is mainly concerned with the issue of visibility, that is, the relation of animation to documentary aesthetics. Contemplating animated documentaries in today’s technological settings and the changing role of animation as a contemporary visual language leads

back to the three key areas detailed in the introduction, in which the impact of animation on documentary discourse can be most clearly observed and will be demonstrated through the analysis of *Another Planet*. The three main themes, corresponding to the three parts of the book, are: (1) the evidentiary status of animation as documentary imagery, which contemplates animation's truth-value and believability in relation to photography and photorealism/mimesis; this requires an understanding of what animation has become and how it is being used. Redefining animation from a documentary perspective demonstrates just how far animation has come since its earlier uses, techniques and association with fiction; (2) the virtualisation of culture and virtual documentaries, which examines present developments in technoculture and focuses on how these changes have influenced our understanding of evidence, documentation and new uses of animation in documentary. This includes the relation between animation and the augmentation of reality through technology and virtualisation, and the subsequent need for documentary visualisations that capture this enhanced reality; and (3) disputing the aesthetics of 'the real', which questions how animation in documentary relates to issues of believability, and varied notions of realism. Since realism is linked to credibility but also relates to viewers' understanding of reality as shaped by documentary representation, this has varied ethical, epistemological and political ramifications.

THE EVIDENTIARY STATUS OF NON-PHOTOREALISTIC ANIMATION AS DOCUMENTARY IMAGERY

Another Planet uses animation in several multi-layered ways, redefining animation's relation to documents and documentary representation and reflecting upon the role of visual mimesis in representations attempting realism. First, the film begins with the quote 'I remind you to record video, not stills'. Although this raises expectations of photographic footage, viewers are presented with an animated depiction of an Israeli military aircraft. The supposedly contradictory allusion to photography juxtaposed with obviously constructed animated imagery creates uncertainty from the start and corresponds to the recurring comparison between animation and photography in documentary.⁴ Thus the best way to capture and commemorate an event immediately becomes the focus of the film, leading us to ask what is the best or most believable visual language to be used. This raises many questions about authenticity of representation and changing assumptions about documentary aesthetics and visual realism.

Each simulation covered in the film was created for different reasons and uses diverse representational choices. Nonetheless, each of the creators

interviewed discusses his or her particular goal of realism, attempting to provide an experience that is as close as possible to the ‘real thing’. The Bavarian investigator interviewed in the forensic model, for example, claims that it is ‘even more precise than Google Earth’, whereas the architectural digital model is described by its creators as ‘not approximate. It’s exact . . . we are covered in terms of historical precision.’ Similarly, the creator of the Prisoner Revolt game explains that the sign at the camp entrance is ‘based on an original image. Same font, same sign’, whereas the VR model is labelled by its creator as ‘one of the most accurate reconstructions’. Interestingly, all of the simulations are animated, none of them resemble photorealism, and all are obviously constructed imagery, yet the creators all claim authenticity through visual means. However, it is that very claim that results in a foregrounding of the endless gaps and inaccuracies in the film, and the *inability* to represent what is supposedly being, or claimed to be, shown. The result of these claims to visual realism is an emphasis on the *lack* of visual mimesis, highlighting the contradiction involved and the consequent questioning of what realism is when it is referred to so inconsistently.

Second, *Another Planet* demonstrates how animation has changed as a representational language in digital culture. As virtual interactive platforms flourish, the use of animation grows and transforms. In current virtualised computer culture, images are used as a symbolic language that renders visible abstract data or processes with which we engage and act upon. Many aspects of contemporary digital virtual culture appear only on screen and, therefore, require representation that enables real-time dynamic visualisation of user



Figure E.1 *Another Planet*, an animated documentary by Amir Yatziv, 2017.

input. Animation is perfect for this role and, as such, features widely online. If I am active in a virtual space, my representation in-screen, whether by cursor/mouse or highly stylised avatar, is an animated reference that embodies my physical actions and input.⁵ Thus, animation is a central visual language in contemporary digital culture, and specifically in interactive media, which takes on interesting significance in documentary studies.

As explained in Chapter 5, in *Another Planet*, the use of animation is two-fold: it is *both* the visual language used in *each* simulation as part of the inherent appearance of the referent (the virtual and interactive simulation online); and it is also the cinematic representational choice (this is an animated documentary *about* these simulations). It is the virtual platform's façade/GUI but also, and differently, the film's representational choice. It is both *documenting* animation and *documentary* animation. As a documentary, *Another Planet* uses animation as equated with photography (which captures the visual appearance of physical referents), only in this case the animation captures the virtual rather than the physical occurrences depicted. The final credits even state that *Another Planet* was 'filmed' in the following virtual locations, emphasising the blurred boundaries that now exist between animation and photography and what *can* be photographed. Thus, the uses of animation in this film demonstrate animation's new role as document in today's virtual culture.

The centrality of animation in virtualised culture, as a sign that indicates the physical movements and input of users, cements its central representational role in the arena of human-computer interactions. Interestingly, animation as a contemporary index as trace relies on the physical but does not necessarily resemble the referent since it acts as a trace of one's physical actions but does not necessarily look anything like them, as in the case of a game avatar or cursor. Honess Roe proposes that iconicity may take the place of the indexical; she describes an epistemological blurring of icon and index, whereby 'we do perhaps still take the iconic as evidence of witnessable events, illustrated by the use of animation in forensic contexts'.⁶ I would, however, emphasise that although recognisability of a sign is important, in animated indices of virtual platforms the trace of movement of the user remains but the image may appear more like an arbitrary symbol than any recognisable icon, since the user's online appearance may vary greatly.⁷

Maintaining the importance of the index as a basis for documents, and thus documentaries, engenders what I refer to as a *post-photographic* mentality. I do not mean this in the sense of a post-photographic era when digital production methods and a growing awareness of potential image manipulation have established digital photography as a new medium. Rather, that in this post-photographic aesthetic, the logic of the photographic based on indexical trace is maintained, though not the photographic aesthetics that rely on

resemblance. Honess Roe, whose work I found inspiring, seems to propose a 'pre-photographic' logic whereby what is similar in appearance to the referent is considered sufficient, an observation that views animated documentary in a manner that echoes the attitude to drawing and modes of visualisation that predate photography.⁸ Here, the emergence of a post-photographic logic is emphasised since the elements that made photography credible – specifically, its analogue relation as trace of the physical – are maintained, while the aesthetics of photography are modified. This explains the significance of animation as physical trace in a documentary theory based on indexicality. It also allows for visual changes that embrace the symbolic in an increasingly virtualised culture that is less reliant on the appearance of the physical, since presence now also refers to in-screen actions symbolised by myriad, stylised referents.

In other words, as the virtual becomes another aspect of contemporary mixed realities that now include both the physical and the virtual, new aesthetics of documentary that exceed the capacity of photography (that relies on and resembles material reality) are increasingly necessary.⁹ It is not that new animation techniques replace photography; rather, the two converge and contemporary animation must be consequently redefined since it maintains aspects of photography's perceived evidentiary value, that is, indexicality as a link to the physical, while introducing new aesthetics that break with photorealism.

The ongoing discussion surrounding the definition of animation is an integral characteristic of the field itself, a growing and dynamic area of theoretical and technical knowledge. Nichols's distinction between documentary and fiction asserts that documentary addresses '*the* world in which we live rather than *a* world imagined by the filmmaker'.¹⁰ As explained in Chapter 2, this corresponds with Wells's definition of animation, which also differentiates between the animated world and that of the viewer. In his attempt to define the key properties of animation, Wells points to those specific characteristics of animation that express its separateness from the lived physical world of the viewer.¹¹ However, today's technologies demand a reconsideration of key binaries, including the opposition between live action and animation, and between the worlds of the physical and the animated. In brief, this book demonstrates that a redefinition of animation is needed following technological developments, virtualisation and changes in animation's usage, most tellingly in relation to real-time animation in virtual settings, as summarised in Table E.1.

These changes in animation production and theorisation are the basis for the shift from animated documentaries to documentary animation introduced in Chapter 4. To clarify, I use 'animated documentaries' as a more

Table E.1 Comparison of animation in the past with animation today.

Animation in the past	Documentary capture animation today (capture of virtual and mixed realities)
Associated with fiction	Animated realities become part of the contemporary real, which includes the physical and digitally virtual
Lengthy production process	Real-time animation provides immediate visualisation
Visualising the animator's subjectivity	Visualisation of code
Marker of absence	An indication of presence and interactivity by representing users' actions
A physically non-indexical visual language that breaks the link with the physical referent ^a	A deictic index as well as an indexical trace of the physical referent

Note: ^aThis does not include theorisations of animation that focus on the creator's traces in the animation but refers to an indexical link to the referent portrayed.

general term that can include animated depictions of physical events as well as any other hybrid form of animation used in documentary. I specifically refer to 'documentary capture animation' as a direct recording of animated realities that have no other visual appearance, such as virtual environments. Thus it is a direct rather than visually interpreted or stylised representation of events that would otherwise appear in a different form. The capturing of events in virtual animated realities produces an entirely new form of animated documentary; and this new form differs from the subjective and fantastical interpretations of events that have formed the focus of existing research into animated documentaries. Whereas past assumptions about, and theorisations of, animation may have challenged its use in documentary contexts, 'documentary capture animation' reshapes these conventions.

THE RELATIONSHIP OF ANIMATION TO TECHNOCULTURE

The merging of physical and virtual realities leads to an augmented view and experience of reality that exceed the merely physical.¹² Enhanced reality is enabled by technology and has become ubiquitous due to personal portable screens and Wi-Fi. These new experiences of contemporary reality must be translated into new and suitable documentary aesthetics. The impact of advanced technology on daily life is such that transcending the limitations of photography in documentary is an inevitable necessity.¹³ It is vital for the documentary to remain a relevant and 'realistic' depiction of contemporary realities for two reasons: first, the need for documentary aesthetics which can capture realities that are non-physical; and second, the need for aesthetics

which can visually represent the augmented experience of the physical that has emerged from contemporary omnipresent technology. Portable smart technology has become an extension of the self and a portal to other realms, enabling users to 'be' in the physical and virtual worlds simultaneously. Excluding animation from contemporary documentaries would result in their failure to represent these mixed realities. Furthermore, as discussed in Chapters 5 and 6 through the case studies of *Another Planet* and interactive animated documentaries, virtual simulations are increasingly used to represent and even explore physical spaces, reflecting the changing the relationship between the two realms.

Another reason animation is needed is that smart technology increasingly provides augmented views of physical realities. Thus, it is essential to find new means of representing realities that transcend the limitations of photography as the traditional documentary aesthetic; especially as photography only captures partial aspects of contemporary experience. Get Taxi, like Uber, is a useful example of the ubiquitous use of virtual aesthetics to depict physical realities. First developed for military training and communications, real-time 3D computer graphics technology now pervades and guides our lives.¹⁴ The animated, non-physical space on screen merges with the physical world of the user, which is tracked in real time on screen and concludes when the animated icon that users follow as they wait for the cab turns into a real-life taxi. 'Now that you have more X-Ray Vision than Superman, you can kick back and get up only when your taxi pulls up' is how the Get Taxi's app describes its services.¹⁵ The allusion to enhanced or non-human vision this system incorporates echoes this book's engagement with the way technology shapes vision, representation and consequently also conceptions of realism.

Thanks to smart personal technology, reality extends beyond one's immediate vicinity, or what is perceivable 'organically', and includes a fuller augmented view and/or understanding of reality. To quote Fred Ritchin, 'today . . . we have multiple visions through machines . . . each eye watches a different world'.¹⁶ Examples presented throughout the book (such as augmented reality apps and wearable technology) emphasise the constant split between human vision of the physical world on the one hand, and a mediated visual interpretation on the other. The latter enhances one's ability to see and construe the world, combining the technologically mediated with the physical world we inhabit. This augmented experiencing of reality can best be conveyed visually in documentary form by animation's capacity to portray reality as multi-layered, beyond what can be directly perceived or photographed. As today's mixed realities continue to converge, I believe AR will become increasingly prevalent, as will the documentary of future realities in which animation – alongside (and often in equal measure to) the physical – adds

layers to what we see and experience. Thus, we will see a growing need for animation in documentary contexts.

Finally, in an era defined by a vast proliferation of data, animation enables the incorporation in documentaries of non-physical aspects based on information that photography cannot capture and users cannot access. In an era of 'big data', it comes as no surprise that documentaries, which aim to reflect, question and shape reality, already make extensive use of animation, dynamic diagrams and data visualisation in the form of instructive films and graphs. These visualisations are needed as simplified summaries of the vast amounts of data that have become part of the way we consume information. These remix the techniques and methods of representation and expression of other media into what Lev Manovich calls a 'meta-medium' that combines 'cinematography, animation, computer animation, special effects, graphic design, and typography'.¹⁷ In the field of forensic animation, such as in the work by Forensic Architecture for example, data demonstration can explore and uncover otherwise imperceptible patterns and evidence, and illustrate what-if scenarios, testing competing hypotheses and possibly exposing inconsistencies and discrepancies in the evidence being examined. This is closely related to the way animation is used to construct broader views of realities, which incorporate several layers of information that would be imperceptible in an unmediated or direct representation. Thus depictions of realities that include the physical as well as the technologically augmented require documentary visualisations exceeding both human perception and photography. The way technology influences the experience of realities impacts the documentary strategies used for representation; this helps to explain the influence of animation on documentary practice more generally. In other words, animation enables the expansion of both reality and documentary aesthetics simultaneously.

DISPUTING THE AESTHETICS OF THE REAL

Any discussion of believable documentary aesthetics raises questions about the relation between the actual, or real, and its representation. This entails a consideration of realism, as the believable representation of what constitutes reality – a central theme in documentary theory – and requires us to reflect on the composition of both 'the real' and its document (or a link to the reality portrayed) to evoke a sense of truth-value and credibility. In my analysis of the existing discourse on realism – which is characterised by ongoing tension between reliance on mimesis versus the unending search for new forms of representation to articulate 'the real' – I focused on what could evoke believability for the viewer, regardless of formal qualities (Chapters 1 to 2).

By grounding this project in the technocultural context of current visual culture, it is clear that growing reliance on technology, and on mediated, augmented and machine vision, results in 'synthetic' images to which viewers become increasingly accustomed; these include many 'non-human' views of the world. This multiplicity of viewpoints and aesthetics that represent reality leads to a distancing away from mimesis and towards shifting criteria of realism which, in turn, make way for new documentary aesthetics like animation. Thus, animation is no longer tied to photography as its counterpart as it once was, but is rather open to myriad other emerging representational forms. Moreover, by using new imaging technologies, contemporary animation changes the relation between technological tools and human animators. Not only does it refer to new technologies of image production, it links the stylisation of animation to machine aesthetics rather than to the omnipotent animator as artist/designer; this takes our understanding of animation in new directions and offers potential openings for future research.¹⁸

If realistic imagery is no longer necessarily tied to mimesis, what contributes to the sense of realism in representation? Animation's realism has been theorised before but analysing the topic in light of today's technological culture sheds new light.¹⁹ This book has illustrated how animation can be deemed realistic in an era of technological augmentation of human perception that changes how 'the real' may appear visually (Chapter 1): as a more direct and less interpretive visual language when used in documentaries of virtual rather than physical realities (Chapter 4); as a dynamic visual language responsive to real-time user input that heightens vividness in interactive documentaries, such as documentary games and VR (Chapter 6);²⁰ as a defamiliarising representational mechanism that can both de-sensitise and re-sensitise viewers – this has major implications for documentary aesthetics that aim for a political sense of realism as shapers of realities (Chapters 7 to 8). The many faces of animation's relation to realism contribute to the discussion of animation as a documentary aesthetic.

Animated documentaries such as *Another Planet* contribute to these debates by emphasising the potential power of animation while also reflecting upon what the best or most acceptable form of representation is for documentary and commemoration, and who has the authority to decide. *Another Planet* highlights the fact that realism as the believable articulation of reality (and what is deemed culturally acceptable, for that matter) has evolved and been regularly reincarnated, permanently mutating and questioned. For example, the architect and historian who created the architectural model of the camp for education and museum purposes explain their decision to use black and white imagery: 'Auschwitz was not black and white . . . but the museum was concerned it would be like some comic book.' For people familiar with the

remarkable evolution of comics and graphic novels, such as *Maus* by Art Spiegelman or *Palestine* by Joe Sacco, this seems a strange stance.²¹ However, this book has similarly illustrated the transformation and contradictory reception of animation, demonstrating that despite animation's varied history, exponential rise and wide-ranging content, something of its assumed link to fiction, childhood, humour and light-heartedness persists. As quoted in the introduction, Keith Maitland, the creator of *Tower*,²² described his hesitation about reaching out to survivors with the idea of portraying their trauma in animated form.²³ This book also demonstrates how varied contemporary media that engage with documentary such as virtual simulations or varied forms of interactive documentary such as VR and games are also continuously evolving.

Another Planet engages with these issues by questioning what is deemed an 'acceptable' form of digital memory construction and why? In a parallel way to comics and animation, the film raises similar questions about games, seen as different from 'serious' re-enactments, and questions the validity of this judgement. By including *Prisoner Revolt*, a pixelated computer game reminiscent of early first-person shooter games such as *Doom* from 1993, which intentionally portrays the prisoners' revolt in the camp in a gory and disturbing way, the film touches upon the evolving field of games, which is also a salient characteristic of digital culture. Once seen as mere entertainment for children and adolescents, the gaming industry today is the largest among all media, spanning all age groups and content, and engendering endless spheres of academic research. Nonetheless, as the film notes, the *only* re-enactment to be attacked by the Anti-Defamation League was the game. Were the League's criteria for appropriateness the source of the representation, its visual style, the violence depicted, or perhaps the traditional view of games as entertainment and thus considered disrespectful in this case? The latter would certainly disregard the major transformation of the serious game industry and the topics it now tackles. Is a forensic model built by the German police so different from a game exploring actual historical events? Who decides what a tolerable and respectful representation is, and what the criteria are for defining it as such? Is it the source that created the game, in this case the Bavarian police, or is it a matter of visual choices such as pixelated versus more realistic animation? Are these valid criteria? As technologies change and new modes of representation develop, these are important questions to explore.

As discussed in Chapter 8, realism is constantly in flux and we need to remember that, despite a desire for transparency, all we ever have access to is representation. *Another Planet* eliminates any illusion of transparency by celebrating the discrepancies of representation, reminding viewers that no representation is transparent or direct but always constructed. *That* is the

potential power of animation as a documentary aesthetic that encourages self-reflexive and critical viewing. For example, in *Another Planet's* seemingly most 'serious' simulations, created by the German police and used in the legal system, the prosecutor describes the trial of a ninety-four-year-old man suspected of collaborating with the Nazis. He had worked in the kitchen, and claims that he did not know what took place in the camp. The simulation was therefore used to ascertain what he could have seen from the kitchen, using the model to check angles of perception and reach a conclusion about what would have been visible. However, as the police investigator describes the investigation into what could be seen from *within* the kitchen, viewers of the film are shown an old man outside of the kitchen *looking in*, thus contradicting the point of the case about what he could see looking *out*. This image questions what we are shown and what we are told versus what we can *really* see? Is the image of a man looking *in* when he should be seen looking *out* a metaphor for the viewers (and the entire legal system), trying to gain insight into something to which we have no access, and thus being reminded of our limited ability to really see or know? By emphasising inconsistencies, the film not only presents the historical simulations but *re*-presents them in a way that questions representation, the construction of memory and truth claims more widely.

The film ends with the creator of the architectural model looking at his avatar and saying that his avatar for the film's interview looks nothing like him (see book cover image). He concludes with 'Do whatever you want', leaving the viewer wondering how much creative freedom Amir Yatziv, the filmmaker, allowed himself, and for what purpose. In fact, what remains unclear throughout the film is the relationship between the virtual platforms as they were generated by their makers, and the way in which Yatziv, the film's creator, uses them for his own purposes. The unclear gaps are generated by, for example, the use of the camp's simulations as ready-made sets open to alterations and opportunities for virtual puppeteering of avatars created externally. In other words, since these are virtual models of the camp meant to enable open-ended exploration for personalised experiences, the filmmaker stretches the boundaries of clear representation by combining conventional documentary strategies such as interviews with more creative approaches to exploring the limits of the virtual camps through his own reconstruction of events within them, for example, using a music video in the pixelated Minecraft version of the camp. What, then, is captured, what is constructed, and what role do these virtual reconstructions and animated representations play in cementing memories for simulation users and viewers of the film (and of the holocaust itself)? The changing cultural roles of animation and its multiple layers in the film act as a reflection about representation

more widely. Ending on this note raises more questions than answers, but this is the point of the film. By creating deliberate misrepresentations that make the viewer think, the film questions the role of visual evidence and highlights the viewer's ability both to notice such discrepancies and to take responsibility for contemplating them further. This lays emphasis on the viewer's role, which brings me to the importance of such work and analysis in the post-truth era.

In an era of truthiness where notions of what is true are based on emotion and persuasion more than fact and evidence, the viewer is central. By emphasising the viewer and the shifting roles of animation, films such as *Another Planet* remind us that critical viewing remains vital in order to notice and question information representation and create counter-narratives to what may be deemed as 'truth' by seemingly authoritative sources. Such films allow us to explore the questions that animation raises in relation to visual signification, viewer reception and new forms of aesthetic and political realism, and what some of the implications may be of this paradigmatic shift in visual culture. This is especially important to consider now, as the roles, uses and visibility of animation change and proliferate in digital culture.

WHERE TO FROM HERE?

As animation is increasingly incorporated into non-fiction, during the period covered by this book, the effect on viewers is complex and multi-layered. The unsettling effects of animated documentaries as masks and crystal images have positive spectatorial impact that can lead to defamiliarisation, re-sensitisation and more critical viewing.²⁴ The contemporary viewer is thus constantly reminded of the mediated nature of information, and of the need to actively consider the problematics of transparency and analysis presented as 'truth'. However, once animation becomes a familiar documentary aesthetic it will lose its potency as an aesthetic that disrupts, raises questions, and mitigates against apathetic viewing, and may return full circle to being associated with fabrication. But until that happens, animation will occupy a contradictory position: although there are now many reasons to accept it as no longer fiction, to maintain its advantages as a documentary visual language that creates alienation, something of the old paradigm must be preserved. If animation were accepted without question, it would be the perfect visual language for disinformation, able to construct any image to then be uncritically accepted as true.²⁵ Wider, more mundane use of animation and the ubiquity of screens may boost desensitised documentary viewing, and the distancing effect of animated depiction that no longer shocks and re-sensitises may lead to ever-greater indifference *vis-à-vis* the depiction of atrocities.



Figure E.2 Screenshot from *Black Mirror*, ‘Fifteen Million Merits’ episode, created by Charlie Brooker, 2011.

Some of these concerns are reflected in the dystopian futuristic British television drama series *Black Mirror* (2011–present),²⁶ created by Charlie Brooker, who has described the series as being, ‘all about the way we live now – and the way we might be living in 10 minutes’ time if we’re clumsy’.²⁷ The ‘Fifteen Million Merits’ episode from 2011 describes a society’s insatiable thirst for distraction and depicts a world in which almost everything is mediated by animation. Animation is used in this dystopian culture as spectacle, a way to dumb down daily existence through continuous simulations. It depicts what remains of public spaces in which alienated subjects, who are physically shut in cells made of screens, participate only as animated avatars that are individualised through animated merchandise bought with actual currency, or ‘merits’. Although this may seem extreme, it is easy to see the resemblance to our own already highly technologised culture characterised by omnipresent attention-capturing animation, lonely alienated people who spend most of their time alone facing screens, interacting only virtually with others, and increasingly represented by avatars.

The global lockdowns following the outbreak of the coronavirus pandemic in late 2019 clarified just how accurate this situation has become. During lockdown many people experienced the centrality of in-screen existence, as screens became vital portals for different experiences when physical space and actions were restricted. In May 2020, for example, since physical attendance at a graduation ceremony became impossible, University of California (Berkeley) students built the virtual Blockeley University in the

popular Minecraft video game where more than 100 buildings have been meticulously reinvented. It is in this animated online version of their university that hundreds of graduates held a virtual ceremony that included a speech by the Chancellor and Vice Chancellor along with the conferring of degrees, followed by a two-day Blockeley Music Festival, all livestreamed on Twitch.²⁸ The captured Twitch footage acts as a document of the event, combining live-action with animation.²⁹ Similarly, although the online chat services of Zoom (Zoom Video Communications, Inc.) skyrocketed in popularity during the COVID-19 lockdowns, many users felt that the limited options of Zoom led to frustration since professional, personal and entertainment meetings all became unbearably similar in atmosphere. As a result, gaming environments and virtual reality have become strong alternatives to video calls whereby people can feel they are sharing the same space together. These VR spaces can be designed in endless ways for countless atmospheres and events, ranging from socialising to medical simulation training and team collaboration, all using diverse visualisations and avatars.³⁰ These recent examples demonstrate the growing use and visibility of animated platforms and game worlds for the creation of wide-ranging actual events and actions that may have been experienced in the physical world in the past but have now transformed into mixed reality experiences, visualised in varied animated styles.

As in *Black Mirror*, in Ari Folman's partly animated film *The Congress* (2013),³¹ new technology enables people to transform themselves into animated avatars. While they are enjoying themselves in this mutable illusory state, the world is deteriorating around them. This sense of distance and desensitised viewing already exists and may be altered momentarily by new visualisations of information as with masking or crystal images. As animation becomes increasingly widespread and conventionalised, however, will an ever-greater apathy develop? Will apathy increase because any content can be easily disregarded as false as a result of visual signifiers' unclear criteria for truth-value, and the fact that people are not even depicted as human but rather in a variety of animated forms?

There are clearly many reasons for animation's growing visibility and credibility in contemporary non-fiction and documentary, though its changing uses and reception have many potential implications worth considering. What is important to clarify is that in an era when photorealism has lost the privilege of veracity, animation that does not attempt photorealism achieves validity; when what appears real is not necessarily so, mimesis is simply no longer a preferable aesthetic for truth claims. In an uber-visual culture where viewers have become so accustomed to relying on visual information, what happens when all criteria for an image's veracity is destabilised and lost? This is an entirely new paradigm that must be considered. Once mimesis becomes

destabilised in the discourse on visual realism, form is no longer fixed. In the current digital media sphere of post-truth, knowing is replaced by believing and reliable truth criteria are unclear. This opens up the field to new theorisations of, and experimentation, with signifiers and representations of the past. If photography can be manipulated and if animation is now becoming an increasingly believable mode of delivery for non-fictional content, despite its unlimited stylisations, one must ask whether viewers will potentially believe nothing or everything and if these binaries can be challenged.

In an era when viewers are so accustomed to visual messages—either as a result of omnipresent screens, ubiquitous advertising or masses of data commonly simplified into digestible visual nuggets—the ability to internalise visual information may be on the rise, but the sheer quantity of such messages accompanied by the fast-paced nature of contemporary life means that viewers may lack the complex tools needed for visual literacy or the willingness to decipher the complexity of how visual signs are designed to convey a particular meaning. The rapid reading of visual messages combined with the lack of patience for serious analysis leaves viewers prone to potential misinformation. Interestingly, since both verbal descriptions and photorealistic images are widely doubted, it is the *non*-photorealistic images that are potentially, and frighteningly, more open to misinformation, for a number of reasons: (1) people pick up messages quickly, but (2) they do not necessarily have the tools and visual literacy (or even the patience) to deconstruct them and the nuances they embody; additionally, (3) viewers may become so accustomed to non-photorealistic imagery that its constructed nature may stop playing a part in its interpretation, as is becoming the case when major news sources use animated visuals in re-enactments or as explanatory graphics.

This becomes even more complicated when additional factors, such as machine vision and machine recognition, enter the visual realm. Following the discussion in Chapter 1 about machine vision through which images created, captured and categorised by machines are increasingly visible in contemporary visual culture and non-fiction imagery, we must ask where that leaves human viewers' ability to make sense of them? We are increasingly offered imagery intended to provide proof and inform, but increasingly this imagery eschews any simulation of human perception. Since realism is the believable articulation of reality, what, then, is the most credible form of imaging to evoke a sense of truth-value? Viewers have no way of knowing whether an image, which looks completely different from how it would appear to a human, has been manipulated, or even what exactly it is they are seeing. So, is it reliable? These are huge questions that go beyond animation and thus future directions of research would benefit from the related study

of technology's impact on visual culture and the consequent epistemological value of non-fiction imagery.

To read an image closely and make sense of the subtleties being portrayed, understanding the nuances of the visual message represented, one must be able to analyse imagery in an informed manner. This is not to be taken for granted. For these reasons, art history and visual fields of research have become a new and important lens through which to analyse and reflect upon the contemporary. Unlike other fields that increasingly use images to transfer information (such as the sciences), art history can critically reflect upon images – more so than other disciplines, because no image can be read if one has not read other images before.³² Enhanced skills of visual analysis are crucial for contemporary consumers of information, especially in an age characterised by media disinformation and evolving aesthetics of representation.

To conclude, in Chapter 2 I explained that the definition of animation has expanded over time and now indicates different aspects of 'life forces', including 'awakening' and 'intensifying'.³³ Animation has two meanings, therefore, a theological one pertaining to the bestowing of life, and a secular one that refers to movement and change. This brings me to the title of this book, *Animating Truth*. First of all, documentary depictions have the potential to shape and influence the reality and 'truth' in question, intensifying or 'giving it life' in a certain way, not to mention potentially causing an 'awakening' or awareness in viewers. Second, to some readers the 'animated truth' concept may itself seem intuitively oxymoronic, alluding to the still unclear and persisting association of animation with the fictional and magical, aspects of animation's cultural reception that are central to this book's analysis.

Third, in an era of fake news preoccupied with the unstable notion of truth, the idea of 'animated truth' conveys movement, or a dynamic notion of truth that is constantly shifting. Since metamorphosis is a central characteristic of animation whereby images often morph into one another, emphasising movement and a constant sense of becoming,³⁴ using animation to contemplate today's shifting notions of truth in animated documentaries makes perfect sense, especially in works that go beyond mere visualisation of the soundtrack by adding complexity through the visual layers that animation facilitates. Animated documentaries such as Michèle Cournoyer's *The Hat* (1999)³⁵ and Ruth Lingford's 2017 *Trump Dreams*³⁶ in which the images constantly mutate, use the visual characteristics of animation to question the stability of meaning, a significant metaphor for the fluidity of what is considered truth claims in the post-truth era and the dangers this encompasses.

In this sense animation is a perfect visual tool with which to engage with the slippery nature of today's truth claims. Animation is a most befitting



Figure E.3 *Trump Dreams* by Ruth Lingford, 2017.

visual aesthetic that shares certain features with this constant dynamic and transformative meaning and the consequent need for heightened awareness and epistemological questioning. The notion of animated truth as a dynamic truth, always in motion and constantly changing, relates both to the deictic index that can potentially signify multiple referents simultaneously, avoiding any fixed meaning, and to the title of this book. The emphasis on movement and change thus seems an appropriate note on which to end. So, what is the truth-value of animation as documentary imagery in today's networked digital era? Is it like being innocent until proven guilty, or true until proven false, or should it be perceived as false until proven true? In today's viewing culture, the viewer is arbiter of a representation's truth-value so ultimately it is all up to you. What do you think, is it 'true enough'?

NOTES

1. *Another Planet*, film, directed by Amir Yatziv's (Israel: Amir Yatziv and Jonathan Doweck, 2017).
2. The Sonderkommando were work units often comprised of Jewish prisoners who were forced to help dispose of victims' bodies in the Nazi camps.
3. See <https://www.torchfilms.com/products/another-planet>, accessed 4 August 2020.
4. For different views on the comparison and convergence of animation and photography see, for example, Paul Wells (*Basics Animation*, p. 12); Lev Manovich ('Post-media Aesthetics', p. 295 and *Software Takes Command*, p. 294); Alan

Cholodenko ('"First Principles" of Animation', p. 99); Tom Gunning ('Animating the Instant').

5. For example, in games, player/users interact with and manipulate items on screen through varied interfaces via gesture recognition. The mouse and all touch screens also embody animated traces of physical actions as the user's finger drags icons across the screen. This is also true of the mouse, which is activated by the user's movement and translated into a moving icon visible on screen. The touch screen is merely a more-up-to-date example that illustrates the trace of movement more directly.
6. Honess Roe, 'Animating Documentary', p. 142.
7. Resemblance based on movement is, of course, maintained in the indexical trace but as imagery it is closer to the symbol than to the icon, which is associated with resemblance in appearance to the referent.
8. Honess Roe, 'Animating Documentary', p. 142.
9. It is important to clarify that I am not discussing techniques such as cel animation or experimental film whereby the relationship between the photographic aspect and the capture of physical referents may vary. Instead I refer to the manner in which photography was used in the more traditional sense within documentary contexts as a counterpart to the recent rise of non-photorealistic animation as documentary imagery.
10. Nichols, *Introduction to Documentary*, p. xi. Emphasis in the original.
11. Wells defines animation as existing 'in a recorded state of being', 'exactly as its creator committed to creating it'. He questions whether animation can exist in the same time and space as its viewers, or if it is relegated to another dimension, 'a dimension of "projected" time and space that one might perceive as "other-timeness" and "other-spaceness" existing parallel to our "real-timeness" and "real-spaceness"': Wells, 'Frame of Reference', p. 24.
12. I do not mean augmented reality in the sense of specific AR technologies, but more a general enhancement of what reality is when it expands beyond the physical, owing to what is made possible through contemporary personal technologies.
13. In her research into the subjective additions that animation makes to documentary, Honess Roe concludes by discussing the *desire* to transcend the limitations of photographic media in documentary. Although I clearly agree, it is important to emphasise that by analysing contemporary technoculture what becomes evident is that such an expectation is not limited to documentaries; it permeates the *actuality* of life in the early twenty-first century and therefore becomes an objective *necessity* rather than a subjective 'desire'. See Honess Roe, 'Animating Documentary', pp. 89–90.
14. For more information on the military origins of these technologies, see Manovich, 'Navigable Space'.
15. See www.gettaxi.com, accessed 12 December 2013.
16. Ritchin, *After Photography*, p. 171.
17. Manovich, 'After Effects', p. 68.

18. See my forthcoming article in *Journal of Visual Culture* in the special issue on Robot Visions.
19. In his examination of what is considered realistic in animated depictions, Stephen Rowley asserts that realism can be described in multiple ways, including visual realism, aural realism, realism of motion, narrative and character realism and social realism. See Rowley, 'Life Reproduced in Drawings', pp. 70–1. Similarly, Gunning argues that 'the index may not be the best way, and certainly should not be the only way, to approach the issue of cinematic realism'. He stresses motion as a form of realism, which is central to any discussion of animation which obviously relies on movement. See Gunning, 'Moving Away from the Index', p. 31. Gunning also quotes Christian Metz's description of a sense of realism through moving imagery as the ability 'to inject the reality of motion into the unreality of the image and thus to render the world of imagination more real than it had ever been'. See Metz, 'On the Impression', p. 15.
20. The work of Charles Hill on the concept of vividness, as well as Lúcia Nagib and Cecília Mello's work on varied reality effects, led me to acknowledge the importance of witnessing an authenticating device that promotes documentary status by simulating presence and directness for the viewer. As long as a sense of presence is established through immediacy and a link to one's physical presence, the imagery used can take on many forms.
21. Spiegelman, *Maus*; Sacco, *Palestine Collection*; Chute, *Disaster Drawn*; Chute, *Why Comics?*; and the Critical Approaches to Comics Artists Series, edited by David M. Ball, published by University Press of Mississippi.
22. *Tower*, film, directed by Keith Maitland (USA: Go-Valley and ITVS, 2016).
23. Ebiri, 'Keith Maitland'.
24. On the one hand, documentaries are more popular than ever, but on the other, they are less trusted in a contemporary culture increasingly characterised by suspicion of the visual. This uncertainty *vis-à-vis* non-fictional representations generates a need for new forms of representation that directly acknowledge this present state of affairs, as does animation as a form of masking. This is discussed in Chapter 8.
25. It is important to emphasise that this potential deceitfulness is one of many possible uses of animation and *not* an inherent characteristic of animation.
26. *Black Mirror*, TV show, created by Charlie Brooker (UK: Zeppotron and House of Tomorrow, 2011–present).
27. Brooker, 'Dark Side'.
28. Kell, 'Unforgotten: COVID-19 Era Grads'.
29. See <https://www.youtube.com/watch?v=J9vpoJ1u26o>, accessed 30 June 2020.
30. For a list of companies offering tools and platforms see Rogers, 'Coronavirus Has Made WFH the New Normal'.
31. *The Congress*, film, directed by Ari Folman (France, Israel, Belgium, Poland, Luxembourg and Germany: Pandora Filmproduktion, 2013).
32. For more information see Oliver Grau and Thomas Veigl, 'Introduction: Imagery'; Elkins, 'Visual Practices'.

33. This is a partial list. For an elaborated account of the term's etymology and lexicology, see Crafton, 'Veiled Genealogies', pp. 97–8.
34. See Husbands and Ruddell, 'Approaching Animation', pp. 8–9. Nick Miller addressed the issue of metamorphosis in his 2019 Society for Animation Studies annual conference 'Animating the Literary Imagination: Visual and Verbal Metamorphosis' presentation on 20 June 2019 as part of the SAS annual conference, Lisbon, 17–21 June 2019.
35. *The Hat*, film, directed by Michèle Cournoyer (Canada: National Film Board of Canada, 2010).
36. *Trump Dreams*, film, directed by Ruth Lingford (UK: Ruth Lingford, 2017).