# Frames and Simulated Documents: Indexicality in Documentary Videogames

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## Abstract

Traffic Games' controversial 2003 documentary videogame *JFK Reloaded*—based on the assassination of JFK—has always fallen back in defense on its "documentary" status– specifically, that the core simulation at the heart of the gameplay, and supporting game elements such as vantage points, are based meticulously on real Warren Commission data. I will argue a strong indexical relation in JFKR lies between the game and the documents—not the historic act itself. As such, the game's primary strength as a documentary work is in re-engaging the archive, rather than simulating history.

## Author Keywords

Documentary videogames, indexicality, JFK Reloaded, simulation, docugames

> *"I would love to see computer, faced with the problems of probabilities of the assassination taking place the way it did, with all these strange incidents which to place before and are continuing to take place after the assassination."*
> Penn Jones, *Rush to Judgment* (1967 documentary)[1]

> *DALLAS, TEXAS*
> *12:30 pm, November 22, 1963.*
> *The Texas School Book Depository, sixth floor.*
> *The weather is fine.*
> *You have a rifle.*
> *JFK Reloaded (2003 Traffic Games)*

Often the most well known documentary videogames are the most controversial. *JFK Reloaded*—a game based on the assassination of American president John F. Kennedy—is one of the better known examples. When it rose to public attention in 2004, the game added fuel to a growing outcry over violence and inappropriate content in videogames. It was explicitly condemned by the Kennedy family—and even used to signify the moral vacuum of digital games in an episode of the television series *Law and Order*[2]. *JFKR* has always fallen back in defense on its "documentary" status– specifically, that the core simulation at the heart of the gameplay, and supporting game elements such as vantage points, are based meticulously on real Warren Commission data. The player's goal is to "instantiate" the assassination, with their success measured against the data from the historical record. *JFKR* provides an interesting case in the use of simulations both as "indexical" documents and as rhetorical frames in documentary

videogames, particularly in cases involving complex and/or physical processes. The game also provides a vivid illustration of what can and cannot be simulated within a digital game, and the limitations of simulation in understanding aspects of the historical world. I will argue a strong indexical relation in *JFKR* lies between the game and the documents, not the historic act of the assassination itself. As such, the game's primary strength as a documentary work is in re-engaging the archive, rather than simulating history.

What makes a documentary game? Part of the trouble in conceptualizing this genre within games is that documentary itself is a fuzzy category that seems to defy fixed definition. In fact, debates over the documentary status of animation, reality TV, and certain films are common. John Grierson was the first to plant a flag claiming the genre, defining it as "the creative treatment of actuality" (1966). Documentary critics and theorists have noted the inherent paradox in this definition. To paraphrase Brian Winston (1995), they question what *actuality* really remains following *creative treatment*. However, Grierson's position has always been less about creating a binary flip switch between documentary and fiction, and more about assessing the *documentary quality* of a given work. In contemporary theory, Bill Nichols suggests the fundamental charge of documentary is to stimulate and/or satisfy a desire to know about the world (an *epistephelia*)(1992). Documentary status is conferred through a mix of elements: specifically that a film is identified as a documentary in its production (how it is made, the filming conventions it employs, the claims of its filmmaker) and/or reception (including the phenomenological orientation of the audience, its positioning in film festivals, etc.)(1992).

But why choose the name "documentary," a term so deeply implicated in recording technologies such as film, over the less-contentious, more inclusive, term "non-fiction"? For one, calling videogames such as *JFK Reloaded* documentary makes it easier to establish expectations. For all the baggage that comes with the documentary label, there are still conditions of reception to work with (and/or subvert) that are established through the naming of such a genre. Second, it is useful to distinguish works such as *JFKR* from educational and "serious" games (as Grierson was attempting to do by defining documentary against other non-fiction films like newsreels, travelogues and training films), so as to distinguish works that approach the presentation of reality from an expressive and artful (rather than primarily instrumental) position. These works have different goals and expectations and a different space within culture. Finally, determining how the documentary drive manifests itself within both computational multimedia and the specific form that is the game, is in itself worthwhile. It makes visible our continuing desire to capture and make meaningful aspects of "real" experience, if only ever as an ideal.

Tracy Fullerton launches her examination of documentary videogames noting documentary quality is not inherent in recording media such as film or video, but is a result of the socially negotiation of a work's believability, and a phenomenological artifact of our understanding of how it came to be (2008). This suggests documentary is media independent, insofar as a medium is capable of maintaining these qualities. Joost Raessens addresses games' documentary status against three main arguments: that they deviate from reality; that they are ontologically dissimilar with respect to indexicality; and that they deviate from linear histories. In addressing the first point, Raessens argues that most deviation from reality found in documentary videogames falls within the boundaries of "creative treatment" of actuality, and as such can be accommodated within Grierson's foundational definition. He further argues documentary theory

has shift away from a primary or exclusive focus on the indexicality of the documentary image; towards the viewer's role in the reception of the work. Documentaries are received as such because they present a "documentarizing lecture" rather than a fictive one (2006). According to Raessens, games such as *JFK Reloaded* are warranted by material on their websites and in creator's interviews, explicitly marking them as documentary. In other words, they self-identify. Finally, Raessens suggests poststructuralist historiography problematizes notions of objectivity and authority in any event—away from dominant unified narratives. Poststructuralist documentary practice has moved away from objective historical reality while still presenting more than just subjective impressions, and it is in this grey space we can conceptualize documentary games.

By shifting the notion of documentary away from the inherent properties of recording technology, objectivity, and authority, and by framing it as a matter of social negotiation (or perhaps education), we are able to avoid many of the sticking points that seem like barriers to these games being perceived as documentary. In fact, I have made such a move in previous writing (Bogost & Poremba, 2007). Yet there is a difference between being able to make an arguable claim and being able to make a robust claim that will be socially recognized as true. As such, documentary videogame research cannot ignore the prominent role of concepts such as indexicality in defining documentary. Documentary film not only maintains a tie to the world beyond the film; this tie is of a certain quality[3]. This is not to say that approaching documentary from a position of individual reception or phenomenological stance is a mistake. It is only to say that such positions still need to be defended against a broader cultural understanding of documentary[4]. If players are to identify a game as documentary, gamemakers and researchers must present a stronger case than "arguably, this game could be seen as documentary."

**Indexicality and the Digital**

Raessens quick dismissal of the role of the index[5] in contemporary documentary warrants further consideration. Film documentaries have traditionally relied heavily on the power of an indexical relation between their recorded images and the world. Indexicality has two common configurations: pure indication (pointing to "that there"), and a more causal understanding of seeing through an image to the referent in the world to which it is bound. It can also be conceived both technically– as a literal, physical link between object and image; and broadly—as compelling evidence for the existence of a referent. In documentary film, an understanding of a necessary co-presence between a recording device and the object proves the past existence of said object, and offers it to our current observation[6]. This is often presented as a physical link created by the light bouncing off the profilmic object, yielding the trace of the recorded image. The complication (or even subversion) of this relationship is one of the challenges in conceiving any non-film based documentary, including documentary videogames.

Digitization has problematized the notion of a direct link between an exterior reality and a recorded image, prompting Lev Manovich's oft-cited claim that all film is now best understood (non-indexically) as a form of painting (2001). George Legrady has argued a digital photograph is actually a simulation based on captured data simply designed to look like the product of a traditional indexical camera. In fact, that data could look like anything (a visualization, a number

set etc.)(2001). A number of documentary theorists (including Nichols, Winston, and Dai Vaughn) have expressed concern over this "death of indexicality" and its presumed catastrophic effect on documentary as currently conceived. This is one of the factors in what Raessens observes to be the softening of indexical conceptualization in documentary.

Yet, the digital documentary has not given up the question of a privileged indexical relationship with the world. As Vaughn further observes, a loss of the "real" in documentary due to digital recording has yet to seep down to the level of public perception and practice (1999), and, like other postmodern conceptions such as distributed agency, may yet find great difficulty in doing so. Phillip Rosen comments if pure data truly meant the obliteration of referential origins, the data would lack informational value in the complex scenarios in which it is used (as in, for example, surveillance), which is clearly not the case (2001). He argues documentary indexicality is not about a perceived physical link at all, but causality. What is "real" either holds up, or collapses into fiction and becomes a non-issue (1993). Hélio Godoy goes even farther by arguing the digital is never not material (2007). This is logically impossible, as numbers simply are not *things* in that way. There is no dematerialization in the digitization process except when we describe it. In other words, this entire line of debate confuses language with material reality.

While the move towards an understanding of digital indexicality is promising, it is important to keep in mind most documentary theorists are still using the relationship between a light-sensing camera and its object as their point of reference. That caveat aside, given the active nature of this debate, it would be presumptuous to pronounce the question of indexicality in documentary film dead, in order to avoid questions of indexicality in documentary videogames. This does mean that the question of indexicality remains an open one for digital games to address: whether this is by incorporating recorded media (as is common with animated documentary); by crafting a case for an alternative indexical stature (such as evidentiary value); or by finding alternate means of legitimation. While an indexical link can be presumed in filmic documentary, it must be *crafted* within                                        documentary                                        games.


## Simulation as index

The indexicality of recording media boasts a reliance on a non-human (and thus a perceived non-subjective) mechanical process, and a traditional framing of the cinematic apparatus as a scientific instrument. Brian Winston notes early efforts to bolster the scientific status of the camera-instrument continues to condition reception today, cultivating the view that the camera never lies, and that it produces analogues of nature similar to other scientific instruments[7] (like the thermometer, scale, etc.)(1993). The ballistics simulation at the heart of *JFKR* has a lot in common, in this sense, with the recorded document, continuing the desire of disentanglement of human intervention from historical authenticity. Here, computational simulation provides the ideal "instrumentality of a nonliving agent" (Moran, 1999), which, in documentary film, is provided by the camera. But more significantly, the apparent removal of human intervention creates a kind of conceptual indexicality, an event necessarily resulting from the simulated processes being presented. Still, the strength of this argument is constrained by the nature of the processes being simulated.

Braxton Soderman suggests viewing indexicality in terms of the algorithm instead of trying to extend a tenuous (conceptual) indexical link to possible events in the world. He is particularly critical of Mark J. P. Wolf's proposition for simulations as "subjunctive documentary," arguing such a conception confuses the index with icons (only bearing a behavioral or conceptual resemblance to the world). Soderman suggests assigning indexicality to algorithms would provide a route for examining the ideological influence of algorithms, more inclined and prepared to analyze/deconstruct the particular work of computer programs (in other words, NOT seeing through to the world)(2007). Fullerton echoes this position, and perhaps brings it closer to Wolf's, when she reminds us simulations cannot be understood solely through output (2008), as they inevitably lead us back to the algorithm. If we are to look at *JFKR* in this light, then surely it would be the process of repeatedly taking our shots at Kennedy, and being judged up against the record (the record warranting our algorithm; the algorithm necessitating our results), that speaks. The algorithm itself would be the core of the experience, our bridge between past and present, not its representations.

*JFKR* technically consists of two simulations[8]: a physics simulation based on forensic data, and an event simulation containing the shooter, JFK, etc. Fullerton suggests simulation carries evidentiary weight, enough perhaps to establish indexical status. Both Fullerton and Wolf have noted forensic simulations have gone from being seen as suspect and prejudicial, to being legally admissible as substantive evidence, providing a "probative illustration of actual events" (Fullerton 2008; Wolf 1999). As judges and juries have become more familiar with them (i.e. as procedural literacy has increased), rules of evidence and admissibility have changed. Wolf notes judges must now remind jurors, swayed by faith in the mathematical/scientific authority of these models, of their unreal nature. He stresses the need to recognize that a point of view comes from the programs, theories, and assumptions controlling the simulation; and that its extraction (lack of situatedness) comes from any given event. Fullerton goes on to posit that in the future, we may embrace simulations that model aspects of history behaviorally so as to constitute evidence.

However, it is important to acknowledge that some things are more "real" when simulated than others, and that simulations have more value in some contexts over others. For example, the ballistics simulation in *JFK Reloaded* can be highly accurate, presuming the accuracy of the core data—laws of physics are easy to formalize mathematically, and such laws affect human experience so consistently they can be de-situated in most cases, without having to reconsider whether or not they will work in the same way. Semi-formal human systems (economics, bureaucracies), are less predictable. It is possible to define some elements and ideal conditions fairly easily, but because they involve human interpretation of rules (say, a person who decides whether to fill out form A or B), they cannot be entirely formalized. A game designer might model the ideal security procedures used to protect a president, but they can only guess how those procedures will be interpreted and instantiated in practice. Social systems[9] are messy. They are often completely embedded, relying in large part on contextual meaning making and situated action. Arguably, anything that involves human interpretation is fluid, and not truly simulable[10]. Furthermore, even fully physical processes can be simulated without relating to performance. So, for example, although Oswald's shots can be detailed in equations, Oswald certainly did not need to follow those equations in order to shoot Kennedy. It is possible to model information that has great descriptive value (it happened that way in the past), but poor predictive value (having little bearing on how something might happen in the future). So the "truth value" of a simulation can

vary depending both on the nature of the thing being simulated, one's interpretation of what that simulation means, and what claims are being made through the use of the simulation. As such, one must be critically aware and cautious of claims that games and simulations document the *real* systems behind such events.

An understanding of the use and complexity of simulations should come into play in any analysis of the larger simulational frame in *JFKR* (the simulation comprised of the assassination experience, of which the ballistics simulation is one part). For example, Ian Bogost draws attention to the performative nature of assassination itself, noting how it provides insight into the spectacular quality of assassination. He suggests that, as the game allows for the discovery of alternative scenarios and strategies[11] players can make factual inferences about Oswald's decision-making process in taking the shots that he did, and conclude that the shock value of the chosen shots is significant in this assassination (2007). This observation is problematic given the indexical value of this sort of simulation, and the presumed value of straying beyond the experience it defines (the shooting of JFK). Assumptions about alternative strategies may make sense within the microworld governed by game physics and mild AI, without holding true for the original, embedded situation. As mentioned earlier, the security procedures followed by Kennedy's staff, and the behaviour of Kennedy himself are not only not modeled; they are not possible to simulate in this way. One can state with confidence what they did do, but not what they might have done. This is not a problem if game designers and players are exploring a range of possibilities, but becomes so if they are using this information to make conclusions, particularly if they are treating these simulation outcomes as bearing a causal, indexical relationship to the data drawn from the historical record. In this case, the nature of the human interpretation implicit in this event makes for a very weak claim for indexicality, however conceived.

## Games as documentary frames

So how can we better understand the larger event simulation in *JFK Reloaded*? Nichols observes that we process documentary as both evidence from what he calls the "historical world," as well as "the serial steps in the formation of a distinct, textually specific way of seeing or thinking" (1992). Rosen likewise notes documentary holds a "social position as a synthesizer of reality against the unorganized, unmediated index" (2001). In contemporary culture, the profusion (and perhaps diffusion) of indexical signs makes documentary (and other forms of framemaking) more pertinent. This is perhaps one of the contributing factors to videogames' emergence as documentary frames. Raessens suggests that in documentary games like *JFKR*, "players enact experiences of rupture that separated the past and present in a traumatic way. These experiences are paradoxical in a sublime way in the sense that they, as experiences that transcend the individual level, involve and unite both the loss and pain of the trauma and, at the same time, the satisfaction of overcoming these feelings in terms of precognitive historical insights" (2006). The game presents a particular contact point between past and present moments. This contact is central to much documentary theory and, as Rosen has noted, it has been conceptualized in a number of ways: hermeneutically; as logical inference; as empathetic understanding; as the discursive organization of documents; and as (Ankersmit's) sublime historical experience (2007). The event simulation in *JFKR* does not play a role in establishing indexicality within the

game, but instead serves as a meaning-guiding frame, perhaps initiating the kind of contact suggested                          by                          Nichols                          and                          Rosen.

To some extent, a game like *JFK Reloaded* illustrates the challenges of the second-order design[12] that are present in all games, in the sense that you cannot stop players from resisting such a documentary experience, "fooling around," playing with the physics and ignoring the context, and otherwise using the game "disrespectfully." However, the game design does suggest a real intention to frame its core documents in an accurate and justifiable way. Take for example the scoring system: the target for first shot is the ground; ballistic "fudge factor" of 1.25 seconds; no accuracy bonus awarded (as bullet was never found), and there is no ricochet point. Upgrade 1.02 contains accuracy corrections to the data model that corrects minor errors in the way this first shot was implemented in the ballistics simulation. These design and upgrade decisions would indicate a commitment to historical fidelity over a more generic gameplay.

The game also presents ideas for interface design integrating primary (and traditionally indexical) documents. Although the original material is not shown (like it is in a game like *Brothers in Arms: Road to Hill 30*), viewing positions such as "Watching JFK's Limo from [Maria] Muchmore's 1st location" are built from these related documents and images in the Warren Commission files[13]. As such, players can engage these documents to get a better view of their outcome, and potentially use them as success cues. In fact, Fullerton does this exact thing: "What it really means is negotiating my own personal memory of something I have seen hundreds of times in the past: the home movie footage shot by Abraham Zapruder. I know *when* to shoot, and *what* I should hit with each shot, primarily because I have seen the event happen so many times in clips from this footage" (2008). This suggests where *JFKR* really succeeds is in engaging players with documents, rather than in the assassination itself.

In *JFK Reloaded*, players are viewing not from an (artificial) objective position, but from an (artificial) subjective or embedded position. Perhaps as a result, Bogost and Fullerton both read the game as a simulation of Oswald; in effect, a mental state simulation. States Bogost: "Without a doubt, it is disquieting to take on the historical role of Lee Harvey Oswald, seeing through his eyes in the rifle sight. But such an experience offers new insights into the political context for the historical event itself." He notes the "chilling feeling of the assassin's psychopathy, and the "precision and depersonalization of the action *further emphasizing the simulation of the psychopath-assassin*" (Bogost 2007; my emphasis). Fullerton approaches the game from a similar direction, noting how "deeply disturbing it is to play this particular role" (2008). However, we might question the need to pretend you *are* the character to this end. This goes beyond mere speculative role play connected to the documents, towards an interiority that is given weak evidentiary backing outside of videogame genre conventions. The game proper does not in fact name the "Oswald" position at all, nor does it go to any length to establish character cues to this effect. The help page does state that you are "*taking the role of* Lee Harvey Oswald" (emphasis mine)—not that you *are* Lee Harvey Oswald[14]. An alternate reading could be that players are not "role-playing" Oswald at all, in the fantasy sense used by Bogost and Fullerton. Instead, by engaging the historical record, the game places the player in a role similar to that of a forensic investigator.

When players "see through to the world" in *JFK Reloaded*, what do they see? Perhaps the indexical value of the simulations in *JFK Reloaded* is not the real life event at all, but the Warren Commission (and related) documents to which there is that strong indexical link exceeding analogy. Is *JFK Reloaded* a documentary about this data set and the controversies surrounding it, including the ballistics information, the camera viewpoints, our reliance on an iconic relationship between the game representation and cultural knowledge of the event? And if this is so, why not understand the "Oswald" role as the equivalent of a forensic investigator,[15] as opposed to a role-play character? Chill of psychopathic detachment…or chill of the scientific detachment society demands to make sense of events?[16] If *JFKR* is indexical at all, referring to the world, it is to the documents that it is more boldly tied, not the world beyond them. It is an argumentative frame for, and a testament to the reality of, the documents central to the game's production.


## Conclusion


This analysis is not intended to skirt public concerns about games like *JFK Reloaded*. The game has ethical implications for documentary game design as a whole. This is so particularly if *JFKR* is considered in the context of arepresentational rule following, the potential for games to decouple representation and action, and/or player accounts of seeming "insensitivity" to the larger meaning of game actions. Still, using a game structure as a meaning-building frame proves an interesting way of dealing with a relatively fixed historic outcome, but as a multi-form "truth." The game (thankfully) fails to make a strong documentary claim as an assassin simulator, but succeeds as an engagement with forensic documents. While these are arguably some of the most well-traveled forensic documents in human history, this does not mean similar techniques cannot succeed in engaging lesser known archives. As it fades from direct personal memory, the JFK assassination itself has largely passed beyond emotional impact and now largely focuses on technics of conspiracy theory and the rhetoric of a "who done it" mystery narrative. It moves now from "where were you?" to "who do you believe?". It is in this cultural milieu that *JFKR* finds its place.

Games such as *JFK Reloaded* are easy to dismiss. However, when critics and gamemakers do so, they fail to learn from the multiple failures and successes of such games. One important observation that can be taken from *JFKR* is the disjuncture between the mechanics and the emotions of an event. Clearly, the mathematical, clinical re-enactment of such a deeply emotional event has caused a great deal of public concern. The irony here is that people DO pour over the technical details of the assassination in search for truth, healing, and rationality. In a way, a documentary game such as *JFK Reloaded* is a poetic fit to, and perhaps critique of, this mindset.

While there exists a fear that the formalism of computing inherent to digital games (and by extension to documentary games) reinforces a logical, rationalist way of viewing the "real" world, *JFK Reloaded* presents a reason to be optimistic. In film documentary, which faces the challenge of depicting internality and all other things non-visible, this restriction ends up being a rich realm for creative exploration. As Errol Morris is fond of noting, there is no such thing as a "veritas lens" providing a magical truthful picture in film documentary. Likewise, there is no veritas engine driving truth in digital games. Michael T. Black argues that while a Cartesian view

of simulation is technical, in the sense of "How do we play the game?," the artist view that preceded it was political, asking instead "Is this the game we want and ought to play?" Black's challenge is particularly salient for documentary games: "How [can we] use simulation to evoke and challenge: not only the rules embedded in our psyches by our inherited culture but even the basic models that generate our presumption that there must be such rules" (1993). A closer, critical reading of *JFKR* can foreground the way formal structures can be used to frame certain kinds of actuality, and in the end, can also be used to critique such structures and worldviews. What is key to the documentary game is this framing. The formal structure of the game can serve as a means of commentary and meaning making for its constitutive documents: an experience of those digital documents best conveyed in a procedural, playful form.

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[1] As cited in Bruzzi (2000).

[2] A barometer of cultural penetration if there ever was one.

[3] So, for example, Michael Renov maintains a documentary film presents a relationship to the real *exceeding analogy* (Bruzzi 2000).

[4] Due to indexical status alone, you can view any film as documentary (as Nichols [1992] or Sobchack [1999] note), which problematizes an approach based *solely* on viewer perception or successful rhetorical argument.

[5] In Peircean semiotics, an index is one of three types of signs (the others being symbols and icons). The index bears a causal relation to the world, like a shadow. It indicates the necessary presence of the object that makes it.

[6] In fact, as Garnet Butchart (2006) argues, this is all we can *ever* say, for certain, is true in documentary.

[7] Like the thermometer, we don't have to know quite how it works (in terms of the scientific principles guaranteeing its "truth"), we just have to read the instrument, and understand the data (Winston, 1993).

[8] Film simulates the act of seeing, but not just seeing: likewise, simulations retain elements that are intrinsic to the simulation itself.

[9] Into which you could include mental processes, as arguably the way we make even private meaning is socially defined.

[10] This can be seen in the poor track record of human simulation in urban planning and some forms of artificial intelligence.

[11] Bogost specifically cites one point early on, that by taking out the driver the player can get a clear shot of Kennedy when the security detail scrambles.

[12] The design of the conditions of experience, rather than the direct design of experience itself.

[13] Even given the reconstruction of witness vantage points, *JFK Reloaded* never quite manages the *phenomenological shift* accomplished by *Brothers in Arms: Road to Hill 30*. Paul Ward describes this as a shift in modality, to sober discourse, prompting the viewer/player into a way of viewing "as real" (2005).

[14] The help instructions further distance you from Oswald later in the passage, clearly separating the positions of "Lee Harvey Oswald" and "you."

[15] These kinds of CSI recreations aren't commonly perceived as "sick" or "tasteless"—they are simply part of the process of trying to understand the event based on the evidence.

[16] One could suggest the off-colour jokes that often come into play in forensic work are not a signal of dehumanization, but a release that re-establishes humanity. The joke serves this function because it always conversely reminds us this is not a joke that should be told.