

## Feeling and Playing the News: Conceptualizing Advances in Immersive and Gamified Journalism

*Ressentir et jouer l'actualité. Conceptualiser les progrès du journalisme immersif et ludique*

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## FEELING AND PLAYING THE NEWS: CONCEPTUALIZING ADVANCES IN IMMERSIVE AND GAMIFIED JOURNALISM

**Abstract:** This study examines journalistic principles, user experience, and representation of marginalized subjects in industry-leading immersive and gamified digital journalism. Through critical analysis of technology, industry, and culture, findings indicate a wide range of interactive and immersive formats leveraging game mechanics and aesthetics can enhance the core democratizing function of journalism to expose policy, power, ideology, and self-interest which is otherwise less apparent in traditional news stories. The future viability of interactives and news experiences is mitigated by financial, technological, and ethical challenges facing journalistic production practice with these emerging media tools and platforms. Gamified and immersive media variously meet these challenges, in some cases extending and advancing certain core principles of journalism, particularly advocacy on behalf of marginalized and oppressed groups.

**Keywords :** digital journalism, gamification, immersive media, multimedia storytelling, interactive documentaries, documentary games, advocacy journalism.

### **Ressentir et jouer l'actualité.**

#### **Conceptualiser les progrès du journalisme immersif et ludique**

**Résumé.** – Cette étude examine les principes journalistiques, l'expérience utilisateur et la représentation des sujets marginalisés dans le journalisme numérique immersif et ludique. Suite à une analyse critique de la technologie, de l'industrie et de la culture, les résultats indiquent qu'un large éventail de formats interactifs et immersifs tirant parti de la mécanique et de l'esthétique des jeux peut renforcer la fonction démocratisante fondamentale du journalisme en exposant la politique, le pouvoir, l'idéologie et le développement personnel qui sont autrement moins apparents dans les reportages traditionnels. La viabilité future des expériences d'information interactives est atténuée par les défis financiers, technologiques et éthiques auxquels sont confrontées les pratiques de production journalistique avec ces outils et plateformes médiatiques émergentes. Les médias ludiques et immersifs relèvent diversement ces défis, dans certains cas en étendant et en faisant progresser certains principes fondamentaux du journalisme, en particulier la défense des intérêts des groupes marginalisés et opprimés.

**Mots clés.** – journalisme numérique, gamification, médias immersifs, narration multimédia, documentaires interactifs, jeux documentaires, journalisme de plaidoyer

As the elements of gaming logics, culture, and technology increasingly shape the production of news-related media, a growing body of critics and scholars operating at the nexus of digital journalism and game studies have turned their attention to the ways in which digital games and interactives can function as journalism (Vos and Perreault, 2020; Plewe and Fürsich, 2018; Sou, 2018; Meier, 2018). As with the skepticism that met the introduction of photography to reporting in the twentieth century, previously the question arose as to whether immersive and gamified interactives can perform as journalism. News organizations currently tend to consider not whether, but how to better combine journalism and game design, according to a London School of Economics industry report on best production practices for the gamification of journalism (Thulin, 2022). With the advent of the Metaverse and immersive media technologies, it has become increasingly evident that “the future of news is not an article” as the *New York Times* Research and Development Lab claimed, especially one delimited by traditional print conventions (Lloyd, 2015). As with podcasting, media forms associated with entertainment and fiction can now add more powerful meaning to news than traditional formats allow.

The term “newsgames” alludes to infographics, documentary, and immersive interactives that function as journalism. The use of quizzes and interactives to attract an on-line news audience began with *BuzzFeed* in 2008. The market for gamified journalism and newsgames soared within the next six years. *Slate*’s 2014 *Name Generator* became the most popular interactive in its history, and the *New York Times*’s dialogue quiz was its third most popular piece that year (Lichterman, 2015). Designed in response to actual events, they often deal with larger social, political, and economic issues. For example, *Rebuilding Haiti* demonstrates the difficulty of financial planning in the wake of a major earthquake. Developer Florent Maurin deliberately made the challenge insurmountable to prompt a deeper critical understanding of the economic and infrastructural challenges of the developing nation in the face of such a crisis. F. Maurin’s intent was to impress upon the user that “reality is far more complex than they may believe,” shattering the notion that digital games should always be winnable. “One philosophy of newsgames,” he explained, “that can be summed up in a single sentence: I lose, therefore I think” (Reid, 2014). Newsgames are thus persuasive in nature and seek a wide audience in service to the public interest. Unlike console gaming, the Internet and digital journalism are direct extensions of newsgames. As both stand-alone products and a supplement to traditional news, newsgames offer the context and analysis to probe beneath headlines. The persuasive intimacy of the gaming experience is often enabled through an avatar based on a real, rather than fictional subject that carries social and psychological implications, especially through a heightened sense of empathy that can be a catalyst for political change (Sou, 2018; Dowling, 2021).

This study argues that this wide range of interactive and immersive formats leveraging game mechanics and aesthetics can enhance the core democratizing function of journalism to expose policy, power, ideology, and self-interest which is otherwise less apparent in traditional news stories. Newsgames thrive on procedural rhetoric that simulates how things work through models (or systems) that users can interact with (Bogost, Ferrari and Schweizer, 2010). Narrative journalism—especially with *aspirations to civic duty*—is enhanced by gaming according to the principle that the human mind is not inclined to function like a fact-memorization machine, but instead operates according to affective association that draws on empathy (Zeman, 2017: 219). Such games, which draw users into systems as a means of building empathy, have advanced interactive journalism since the early 2010s. The following two sections review the literature on gamification for journalism and provide a critical overview of milestone accomplishments in independent and legacy media. Consideration then turns toward the industrial situation of journalism’s ludic and experiential turn, which leads to an assessment of the rewards and liabilities of the user experience in immersive and gamified spaces. The conclusion considers the future viability of interactives and news experiences despite financial, technological, and ethical challenges facing journalistic production practice with these emerging media tools and platforms. Critical discourse dismissive of gamification’s future typically bears superficial knowledge of the significant accomplishments already achieved in industries and products driving advances in these forms of digital journalism.

## Research on Gamified Journalism

The first substantial study of the gamification of journalism appeared in Ian Bogost Simon Ferrari and Bobby Schweizer’s (2010) *Newsgames: Journalism at Play*. This pioneering study examining early forms of news interactives and open world games lay the groundwork for the next decade of scholarship on this subfield in media communication at the intersection of digital journalism and game studies. Following 2010, the evolutionary trajectory of interactives and immersive gamified production escalated dramatically in quantity and quality. In *The Gamification of Digital Journalism: Innovation in Digital Journalism*, I critically analyze the development of gamification as a cultural form from mobile gaming to interactive documentaries (i-docs), detailing its media, technology, and audience (Dowling, 2021). The core definition of gamification informing this research is the use of game aesthetics and mechanics for persuasive communication in real-world contexts for non-game purposes (Monnier *et al.*, 2023). Games can carry news functions and news can appear in interactive gamified formats. Findings suggest a positive effect on motivation and performance in identifying misinformation and enhancing media literacy skills such as fact checking (Mantzaris, 2018). This finding is corroborated by research

on the educational effectiveness of serious games—produced for and used in a variety of nonentertainment settings for training and education—indicating a positive impact on skill acquisition and higher acquisition, retention, and transfer of knowledge (Sitzmann and Ely, 2010; Wouters and Oostendorp, 2013; Lamb *et al.*, 2018).

For example, The Pulitzer Prize-winning non-profit organization PolitiFact produced the mobile game *PolitTruth*, as a means of educating online news consumers “to better discern sources of information while gathering beneficial statistics on public misconceptions.” PolitiFact states that “by tapping into our competitive nature, we hope to expand political consciousness” (Cinq-Mars Media, 2020). The claim is supported by findings in neuroscience indicating that games can be harnessed for engaging users. This occurs through experience systems, short/long term goals, reward for effort, rapid/frequent/clear feedback, uncertainty, and social status. Beyond a simple system of Pavlovian stimulus and reward, gamification offers the opportunity for creating meaning, mastery and autonomy in digital experiences and interactives (Deterding, 2013; Sailer *et al.*, 2017). Crowd checking and community building are fostered through gamified forms leveraged not only by non-profit organizations such as First Draft, the project developed by Google News Lab to fight dis- and misinformation, and PolitiFact, but also by specialists in investigative reporting such as *The Intercept* and *ProPublica*.

Although gamification by brands to instrumentalize consumer behavior has been demonized by critics (Bogost, 2011; Detering, 2013; Juul, 2011), its tactics in the hands of news reporters, advocates, and documentarians has generally been lauded (Meier, 2018; Plewe and Fürsich, 2018). The more successful commercial approaches of building companies and applications on gamification hype has drawn the harshest criticism. However, such criticism is driven more by personal opinion than systematic empirical or experimental research evidence (Landers *et al.*, 2018). Tim Vos and Gregory Peerrault (2020) note that discourse on gamification of journalism depends on audience attention to provide consequential, valuable information to enact its normative values such as offering a means of civic participation, holding power to account, and giving voice to the voiceless. Whereas some journalists view gamification as potentially exploitative, they characterize their own practice as an opportunity to engage users more deeply “toward a realm with pro-social benefits” with “serious social purposes” (Vos and Perreault, 2020: 483). Insofar as audience engagement remains vital to journalism’s role and thus its claim to social legitimacy (Holton *et al.*, 2016; Lawrence *et al.* 2018), and that journalism’s core function is to make a difference in readers’ lives through reporting that encourages critical thinking and mindful action about public affairs (Kovach and Rosenstiel, 2021), “the discourse about gamification settled on a script that only added to this belief” (Vos and Perreault, 2020: 483). Since interactivity is the core function characterizing gamification, its application to journalism

thus enhanced this premium on civic engagement. The independent (indie) game industry is currently spearheading changes in this sector by reimagining news consumption as less passive and more experiential (Pavlik, 2019).

## Independent and Legacy Media Innovation

As gaming culture diversified with the rise of women and ethnically diverse players during the early 2010s, demand for a wider variety of game content beyond hypermasculine first-person shooters and fantasy genres proportionally increased (Dowling, 2021). An influx of female developers was particularly instrumental in leveraging advocacy functions for games, thus blurring the boundary between entertainment and serious games. Free from the strictures of corporate control, these developers pioneered the introduction of documentary and news games. Among their innovations was the introduction of gender-inclusive games based on actual events with the intent of enhancing the user's wellbeing. Games for Change, Serious Games Interactive, Persuasive Games, and IndieCade<sup>1</sup> brought digital and gaming culture—previously understood strictly as a diversion and escapist pastime—directly into the political arena. Strategic integration of games is used by both media and non-media brands for promotional purposes. Among the former, news organizations have invested in producing games to promote digitally published articles and documentary films as with *Pirate Fishing* (2008) and *#Hacked* (2016) by *Al Jazeera*. *WSJ Custom Studios*, rebranded as *The Trust*, is the content marketing brand studio run by the *Wall Street Journal* whose commissions include *Narcos: Cartel Wars* (2016) for Netflix, a multimedia feature with gamified elements. In addition to these products, *The Uber Game* (2017) by the *Financial Times* illustrates the importance of a journalistic foundation of thorough reporting and research supporting game content (Dowling, 2021).

Games for Change titles are now joined by mainstream commercial media in leveraging the medium of video games for advocacy journalism, which constitutes a potent form for activist agendas. *Glasgow to London in a Wheelchair* (2014), published by *Buzzfeed*, and *Endgame Syria* (2012) are games that perform as advocacy journalism, delivering greater user autonomy through interactive and navigable representations of the plights of their subjects (Thulin, 2022). These supplements or alternatives to traditional news entail transparency regarding intention of content or risk functioning as propaganda. Open world

<sup>1</sup> Games for Change hosts events and supports initiatives to foster the creation and distribution of social impact games. Serious Games Interactive specializes in the research-based development of games and virtual experiences designed for learning and enhanced understandings of the world. Persuasive Games are defined as games deliberately designed as a rhetorical form to explore issues and/or advocate for action. IndieCade organizes a series of international events to showcase the advances in independent game development.

game narratives feature a much larger canvas for storytelling, opening the genre to nonfiction literature, such as that set in the vast woodland of *Walden: A Game* (2017) based on Henry David Thoreau's environmentalist masterpiece. Literary and journalistic nonfiction is ideally suited to open world nonfiction narrative games, which align with slow journalism's core principles in a way that shapes both design and user experience (Dowling, 2021).

Documentary games are typically set in open world virtual environments in which geography becomes integral to the narrative. For example, *We Are Chicago* (2017) by indie developer Culture Shock Games is based on reporting and interviews with the residents of Englewood, a community plagued by Chicago's highest crime and murder rates. Also by an indie developer, *Revolution 1979: Black Friday* (2016) by iNK Stories explores the world of the Islamic revolution in Iran from the vantage point of a photojournalist. The game features archival footage from the developer's relatives who experienced the revolution firsthand. Both represent major innovations in not only the use of culturally diverse protagonists and characters, but also in the nuanced depiction of ethnic communities through narrative documentary journalism. These games subvert the conventional valorization of violence in first-person shooters by exploring the motivations, intent, and effect of violence from multiple vantage points including victims, perpetrators, and bystanders (Dowling, 2020). Each exposes competing ideologies at play, which are implied but rarely made explicit in conventional news coverage. Made in collaboration with the Inuit Tribal Council, *Never Alone* (2015) is another important documentary game offering a nuanced treatment of an otherwise stereotyped and marginalized culture, in this case through interviews with tribal elders and other footage unlocked through gameplay.

Open world games in VR formats can operate in conjunction with consciousness and learning, especially for activist and human rights advocacy journalism. Such games include *A Day in the Life of a Refugee* (2017), which debuted at the UN World Economic Forum in Davos, and *Stasi Hearts: Manipulated Confessions* (2015), a production of Deutschlandradio Kultur and Vragments. Critical attention now centers on whether games about refugees and migrants can embody the ideal of the ultimate empathy machine, according to VR journalist Chris Milk (2015). Independent studios, often in collaboration with humanitarian and news organizations, are producing a growing list of titles in this genre. The range of visual aesthetics and graphic design spans from the pixelated retro game *Razor Wire* (2018) and the social-media-inspired mobile game *Bury Me, My Love* (2019) to the immersive mixed-reality experience *A Breathtaking Journey* (2020; Dowling, 2021).



## Industrially Situating Experiential and Ludic Journalism

Each of these developments in immersive and gamified genres, which bear increasing social and political significance, are shaped by their unique intersection with multiple aspects of the digital media industry. User familiarity and adoption plays a key role in the market reach of these products. Even with extremely successful VR games such as *Pistol Whip* (2019), the typical early adopters of this new technology are limited in number given the friction associated with heavy headsets and the walled garden nature of Steam and Meta. Dismal sales of the PlayStation VR headset in 2023 underscore that technology rather than poor content is the reason for the lack of market penetration of the wearables that are still off-putting to most audiences. Even Apple seemed to be pausing release of their device after the bleak PlayStation headset sales numbers came out. The eventual release of Apple Vision Pro, the company's first spatial computer, did not reach mainstream media consumers due to the product's \$3 500 price. 360 video or full walkaround saw an initial rush of journalism organizations applying this technology mostly because it was familiar in nature, required the same video editing skills already available in newsrooms, and solved distribution problems since 360 video playback plug-ins worked on websites (Mabrook and Singer, 2019). However, 360 video companies, such as Jaunt, that received millions of dollars have failed due to cost and complexity of creating game engine real time content. A contributing factor to the lack of adoption is that younger audiences are accustomed to having the ability to move through space—as in Minecraft, Roblox, Fortnite and others—and 360 video has an altogether different feel.

Despite these limitations in mainstream adoption, the industry has seen an increase in investment in the development of mixed reality (MR) products. Also referred to as holographic experiences, MR combines virtual objects with the real world by anchoring digital environments in the user's physical setting. As the most recent innovation in reality technologies, MR remediates elements of its older predecessors, virtual reality (VR) and augmented reality (AR), combining the interactivity of the former with the pairing of real and digital objects of the latter. As MR is a new format driven by emerging technology, its primary uses and cultural definitions are still very much in flux (Baía and Coelho, 2018). In addition to the games, there exists a range of other innovative uses. *HoloTour* (2016), also by HoloLens, enables tourists to view the monuments and ruins they visit through head-mounted displays (HMD) that provide explanatory digital information. For example, Real footage of the Forum in Rome is animated with interactive virtual data detailing its multiple archeological dimensions. This delivery of nonfictional data through highly engaging MR suggests the medium's potential for newsgames.

The intense sense of presence in VR is particularly conducive to place-based reporting that re-creates news events for immersive exploration. Nonny de la Peña (2017: 206) identifies “behavioral realism” as the core objective of her award-winning news experiences. Immersive journalism produced by N. de la Peña’s Emblematic Group uses “virtual reality and 3D environments, built in a gaming platform, to convey the sights, sounds, and feelings of news” (McCartney, 2011). VR journalism places the user on the news scene in the various roles of witness and citizen journalist to experience and interact with events firsthand. Research shows that users consistently feel moved by news they experience on immersive VR, AR, and MR platforms (Maschio, 2017). Behavioral realism in VR journalism combines primary source evidence and immersive media technology. In nonfictional environments, play can raise political awareness, effectively refuting common stereotypes of video gameplay as escapist entertainment with no civic or political relevance (Crossroads Foundation, 2019).

In the attention economy of the digital ecosystem (Webster, 2016), VR has the potential to maintain user attention for extended periods with no distractions. VR is unique in that attention can be quantified through data points of hand and eye tracking in addition to a myriad of nuanced gestures and interactions, in effect offering the most vivid rendition of user consciousness in media history. As Leighton Evans (2019: 40) points out, “data on gaze can inform about the effectiveness of particular advertising and can quantify ‘attention’ in a new manner that is not even possible in the data harvesting environments of digital media.”

## User Experience in Immersive and Gamified Spaces

Given the distilled and focused attention of the user in a fully self-contained digital space, sealed off from external distractions, the capacity for manipulation in these environments is profound. In this vein, Jerome Lanier (2017: 62) has described VR as a perfect digital Skinner box, an ideal environment for conditioning human behavior. The medium’s affordances of complete captivity in an isolation chamber, and learning through physical movement, are particularly conducive to this purpose. This dark luddite view posits VR as the functional equivalent of B.F. Skinner’s operant conditioning chamber used in the mid-twentieth century for experimentation on how reward and punishment affect behavior. In VR, headsets captivate attention more completely than in other immersive media forms, whether digital longform news packages or audio-only podcasts, which allow for the entrance of ambient and external sights and sounds in the former, and the full range of vision in the latter. Digital longform journalism has evolved toward increasingly distraction-free cognitive containers in app-like environments (Dowling, 2017). Meta has promoted Horizon as a

liberating digital space operating outside the app economy, one offering greater user freedom to roam vast simulated environments with one's social network. Yet such freedom may be construed as a fool's paradise. Viewed from this perspective, HMD's function as "isolation chambers for sight, hearing, and haptic senses" thus exposing deeper, more intimate, and comprehensive personal data than any major social media platform (Evans, 2019: 40).

Despite these misgivings to the financial motives of large technological corporations, VR's powers of simulation can be harnessed for socially progressive journalism. For example, interactive documentaries that circulate online function as self-contained applications in which the user is immersed in distraction-free digital space shielded from the myriad competing interests on the open web in the attention economy. In the hands of a conscientious, principled journalistic producer, VR's capacity to function as a cognitive container may be an asset rather than a liability. In this manner, VR can build upon the narrative literary devices of multimedia features (Jacobson *et al.*, 2016), particularly character development and the setting's atmosphere in ways that enhance concentration and a sense of presence. "Once the headset goes on, there are no external distractions," according to Roger Ross Williams, the Oscar-winning director of *Traveling While Black* (Kita-Powell, 2019). "When you experience this documentary, it's all around you and you can't escape it," he explained of the work exhibited in Immersive Arcade Experiences at the 2019 Games for Change XR Summit, known as the "the Cannes of video games" (*Ibid.*, 2019). In this way, the medium is ideally suited to his project of demonstrating how "we can't escape our blackness or the reality of being Black in America," which is "an immersive feeling that could only be experienced through VR" (*Ibid.*, 2019).

The ethic of media representation of marginalized groups—whose experience is distorted or absent from mainstream news (Palau-Sampio, 2019; Kim *et al.*, 2011)—is central to the advocacy aim of immersive journalism dedicated to social justice and human rights reporting. Documentary and serious games add a provocative component to the empathic appeal of immersive VR storytelling originally established by N. de la Peña. This is particularly evident in the challenging decisions users face in gameplay simulating the dilemmas of migrants and refugees (Plewe and Fürsich, 2018). Rather than falling prey to what Douglas Rushkoff (2010: 158) describes as the Facebook model of "optimizing humans for machinery," principled VR journalism leverages immersive game design to optimize machinery for humans.

The restraint of digital technology to maintain human-friendly media has been occurring at least since CBS news refused to report Univac computer's prediction of a landslide victory of Eisenhower over Stevenson in the 1952 U.S. presidential election. Producers feared the unequivocal nature of the prediction, which proved accurate, would interfere with democracy by artificially violating the organic voting process. More recently, OpenAI delayed the release of its AI writer, GPT-2, because it was too powerful as a writing tool.

According to the company's chief technology officer, it had not been adequately taught "to love humanity" (Seabrook, 2019). Since ChatGPT's November 2022 release, media critics and scholars have debated whether it was adequately taught to love humanity. In another instance, AR technology producers at Microsoft narrowed the display on HoloLens headsets to limit the intensity of the experience, and thus avert the liability of inflicting unintended harm and VR sickness on users. For N. de la Peña (2017: 210), averting the uncanny valley (instances where verisimilitude of avatars bearing too close a resemblance to human beings arouses revulsion or unease) entails the awareness that "many different levels of modelling and animation," including those that intentionally dilute verisimilitude, "are acceptable if the focus is on behavioral realism."

Behavioral realism's centrality to the UN-sponsored *A Day in the Life of a Refugee* bears on the ethics of appropriating the experience of the suffering and marginalized for the entertainment of privileged digital media consumers. It is of course inappropriate and disrespectful "for rich and powerful people to experience being disenfranchised in a way that is entertaining, flippant, or gratuitous," as the producers asserted (Crossroads Foundation, 2019). The aim instead was to challenge players to consider whether they "ought to do more to help" (Crossroads Foundation, 2019). The notion of play in *A Day in the Life of a Refugee* is recast as roleplaying. Role playing can raise awareness of humanitarian crises at national borders, particularly among those in powerful positions in "diplomatic circles, business empires, or other spheres of influence" (Crossroads Foundation, 2019). The World Economic Forum has been vital to the support and production of playable VR journalism such as the award-winning *Project Syria* (2013), a piece that positions viewers at key vantage points during the bombing of Aleppo and following scenes through a positionally-tracked VR simulation of the horrifying condition faced by refugees struggling to survive (de la Peña, 2017: 211–212).

One of the advantages of representing human vulnerability in immersive VR games is that it allows for sophisticated, contextualized renderings of the subject's experience. "Public representations tend to strip refugee issues of their context as they mobilize apolitical and ahistorical narratives about why people leave their countries," including the dilemmas faced in transit and upon arrival in foreign nations (Sou, 2018: 512). Limitations in communicating context are mostly attributable to the constraints of media affordances in static images, 140-character tweets, 500-word newspaper articles, and 90-minute feature films (*ibid.*: 512), which cannot approximate the range and depth of the rich storytelling allowed by VR games.

Despite such strengths, "there is a line of journalists that would see the use of games in journalism as a threat to creative journalism, selling the core values of journalism to entertainment media" (de la Peña, 2017: 363). An anti-game bias bleeds into the discourse on VR and interactive documentary genres (Vos and Perrault, 2020). However, games can serve as a boon rather

than a threat to creative journalism, particularly in their capacity to generate dialogue and spark public action. In the context of VR and immersive media, games become particularly powerful in this regard, as they enable learners to acquire knowledge 60% faster than through traditional media (Szilak, 2019; Shin and Biocca, 2018). VR is uniquely equipped to transmit mirror neurons (discovered in 1992) that express complex cognitive and affective states with our bodies, resulting in a kind of “emotional contagion” (Szilak, 2019). Unlike many of the dubious parasocial relationships nurtured by the mainstream Hollywood fiction film industry, the emotional contagion of VR journalism games generates dialogue and action.

The parasocial “trying on” of alternative identities can provide “a means of exploring the social locations and experiences of marginalized others,” especially in the construction of racial identity and strong female protagonists (Sou, 2018: 515). The mobile game *Bury Me, My Love* (translated from *take care; you better not predecease me* in Arabic) immerses players into the experience of a marginalized population, particularly through the reality-based journey of a Syrian refugee migrant. Rather than recreating a visually ornate storyworld to simulate that experience, F. Maurin and his team of developers of Pixel Hunt designed the game from the perspective of the migrant’s loved one, as told through this digital correspondence in a recreated version of a WhatsApp interface. Players are recommended to experience the game on their phones to better approximate the communication between the migrant woman Nour and her husband Majd at home. Gameplay advances the narrative via the communication with Nour, who faces desperate and life-threatening circumstances that the player must guide her through from the perspective of Majd (Maurin, 2017). The game effectively reverses “the narrative of submission so often associated with Arab women” (Guerrini, 2018).

*Bury Me, My Love* was originally inspired by Lucie Soullier’s *Le Monde* article, “The Journey of a Syrian Migrant as Told by her *WhatsApp* Messages.”<sup>2</sup> An experience told through a record of social media correspondence is impressive in print, but takes on an entirely new feel when such messages are activated on one’s own phone in the role of Majd. The character and player thus become one through the correspondence with Nour. As developer F. Maurin (2021) noted, “using interfaces people are already used to is powerful,” particularly in temporal manipulation “to create a close bond between characters.” The real-world significance of the topic led F. Maurin to strip agency from the game, because the question of winning is irrelevant in his view. The forced conclusions metaphorically convey the lack of agency faced by migrants.

<sup>2</sup> Lucie Soullier, 2015, “Dans le téléphone d’une migrante syrienne”, *Le Monde*, 18 December. Access: [https://www.lemonde.fr/international/visuel/2015/12/18/dans-le-telephone-d-une-migrante-syrienne\\_4834834\\_3210.html](https://www.lemonde.fr/international/visuel/2015/12/18/dans-le-telephone-d-une-migrante-syrienne_4834834_3210.html).

“Some immigrants do succeed, and others don’t,” he urged, noting that the game raises the questions, “whose stories get told? Who is allowed to tell these stories?” (*Ibid.*, 2021).

## Conclusion

Concerns that gamification would undermine the prospect of games “finally reaching a level of artistic respect and sophistication” are now dispelled through convincing evidence that games like *Bury Me, My Love* can function as moving manifestations of journalism (Egenfeldt-Nielsen *et al.* 2016: 133). The use of everyday social media interactivity via smartphone for storytelling about refugees offers intimate understanding of their plight through simulated communication. A different approach to the same end of intimate and deep awareness of subjects’ vulnerability is to leverage the emergence of VR through 3D volumetric capture using “lasers or photogrammetry to generate a fine point cloud of measurements” (Uricchio, 2017: 201). Unique user-generated paths and interfaces move beyond conventional point-and-click digital interactivity, like that of 360-degree VR. A virtual environment generated by volumetric capture such as the border patrol scene in *Use of Force* (2014) is interactive in the sense that the user experiences the event and explores their surroundings through head movements in an HMD. Unlike 360-VR, 3D-capture VR introduces a procedural, programming element that sets boundaries and affordances within the virtual environment. These are known as rules in the world of video games based on generating arguments through processes in which the virtual environment functions as the lexical unit through which the user’s actions generate meaning.

Innovations in the co-creation of journalistic texts are particularly pronounced in terms of temporality, agency, and algorithms (Uricchio, 2017). Although interactive documentaries (i-docs) rely mainly on real-time user interactions to unfold their narratives, as in single-player computer games, they increasingly build in-app creative community interactions as with massively multiplayer online role-playing games (MMORPGS) in the gaming world (*Ibid.*, 2017: 199). I-doc production has reinvented interactivity for digital journalism, adding an important dimension to John Pavlik’s (2019) five-fold implications for the story model of experiential journalism. The first posits that a variety of design standards and techniques have emerged from diverse production processes. Refining and sophisticating user interactivity—the core component of experiential journalism—remains a priority, yet approached differently across the multiple producers, commissioners, and global contexts within this industry during this current phase of radical experimentation. The second implication sorts this wide array of production tools and methods into categories of fundamental journalistic reporting and writing; and digital-specific elements,

especially “novel approaches such as games and simulations” capable of generating larger messages with “social meaning and resonance” when combined (*ibid.*, 2019: 149).

The final two implications of J. Pavlik’s (2019) intervention suggest a growing industry and rise in quantity and quality of i-doc production. To contextualize this finding, the proliferation of i-doc production is fueled by experiential media as a journalistic form first through OpDocs, which are short, independently produced documentaries on current affairs and historical topics published online by the opinion and editorial department of the *New York Times*. They were followed by the Daily 360, later rebooted as 360 Video for the *New York Times Style Magazine*. Although the now iconic “Snow Fall” was originally developed by the *Times*’ sports desk, its publication as a feature in the *Sunday magazine* reinforces J. Pavlik’s (2019) designation of i-docs as a journalistic form deriving more from cinematic documentary and feature longform storytelling than hard or breaking news.

Industrial and socio-cultural forces shape the aesthetics and politics of the form’s influence on established journalistic principles. Cross-industry collaborations are on the rise, as game designers increasingly appear in newsrooms and major video game company stakeholders aim to reinvent legacy media based on the information flows and community formation of platforms such as Twitch (Smith, 2018). Illustrating this development is the acquisition of the *Los Angeles Times* by Patrick Soon-Shiong, former majority stakeholder of the battle royale video game *H1Z1* (2016) that preceded *Fortnite* (2017). He claims, “The most evolved engagement engine is video gaming,” which fosters a “different form of social network” because “games add an element of storytelling” (Smith, 2018). Such industrial shifts in ownership signal how new media technologies impact journalism, not in a unidirectional technologically deterministic way, but through intentional re-alignments of existing relationships between producers and owners that reconfigure actor networks. Technology plays a key role in such new relationships in media industry networks and modes of production for journalistic products and their online communities. For example, Radwa Mabrook and Jane Singer (2019: 2099) describe how immersive media technology affects journalistic production through Actor-Network Theory, suggesting critical “attention to every actor involved in the generation of VR journalism—including the technology itself”—in keeping with “a turn toward a socio-technical emphasis in the study of news production.”

J. Pavlik’s framework, combined with Actor-Network theory, helps conceptualize major advances at the intersection of journalism, cinema, and digital games industries, including the Canadian National Film Board’s 2018 AR (augmented reality) experience *East of the Rockies*, Occupied’s 2019 Cannes entry *The Holy City* VR, Oscar-winning director Roger Ross Williams’s 2019 Tribeca debut *Traveling While Black* and iNK Stories Verité VR Series’ 2017 *Blindfold* and *Hero*, winner of the prestigious Storyscapes Award at Tribeca in 2018. These forms blend journalism

with digital games and documentary cinematic traditions capable of advancing progressive causes in areas such as race, environmentalism, reproductive rights, war, immigration, and religion (Baía Reiss and Coelho, 2018). Driven by principles of transparency, social responsibility, and a commitment to veracity, many of these works epitomize the aesthetic and political potential of digital journalism as an empathic alternative to traditional news coverage of major contemporary issues (Sánchez Laws, 2020).

Understanding these achievements through clarifying conceptual frameworks helps address challenges regarding the future of technological mediation of journalism. For example, Mandy Rose (2018: 132) warns of the “vortex of hype and hope”—starry-eyed utopian optimism that uncritically fetishizes new technologies without respect to their social or cultural implications. Steen Steensen and Oscar Westlund (2021) call this habitual and uncritical celebration of technologies for their own sake the *bright shiny things syndrome*, which they insist has plagued the field of digital journalism studies. Yet most serious media scholarship is not apolitical and blind to context, but instead acknowledges that not all VR documentaries are equally endowed with empathic power, as many fail “to address the systemic causes of the social problem described” or neglect “probing the ways in which the viewer is implicated in those systems” (Rose, 2018: 143). Utopianism is found less among scholars and practitioners than marketers. Practitioner C. Milk’s (2015) comment that VR is “the ultimate empathy machine” elicited backlash from detractors denouncing it as utopian hype. His claim was imbued with meaning he never intended, however, since C. Milk himself treats vulnerable human subjects in his reporting—including child refugees—and thus is acutely aware of the distance between his audience’s experience and that of his subjects. The technology’s capacity to close that gap, however, deserves serious consideration for both its limitations and potential.

Concerns regarding immersive and interactive technologies for journalistic storytelling coalesce around four issues:

1. it’s too expensive and impractical;
2. new tools of storytelling make the journalist and their equipment invisible;
3. the question of empathy, which is linked to respect vs. appropriation in treatment of subjects;
4. the persuasive intent/capacity for manipulation (Wahl-Jorgensen and Schmidt, 2020: 268-9).

Regarding expense and impracticality, hundreds of millions of users are already engaging in immersive and VR digital spaces; the technologies have arrived and use is expanding. Luddites made the same claims about the PC and the Internet. Regarding the ethics of immersive spaces leaving out the journalist, one must realize that all journalism is constructed and even in pre-digital forms we find as-told-to journalism in which the reporter is left out of the story. Should those forms be considered unethical too? And finally, as for the *persuasive intent*,



we must of course be highly aware of interest—financial, political, social, and ideological—in any media construct and interrogate it. Media technology can erect boundaries or circumvent them. The in-app experience can become a virtual Skinner Box, a closed environment for conditioning consumer patterns in pursuit of capital gain, or alternatively provide a means of civic engagement in service to democracy.

Overriding skepticism can neglect the power of immersive and gamified media, especially to leverage how “we are hardwired to adopt representations of ourselves as real” (de la Peña, 2018). The journalistic integrity of such technology depends on reporting that informs the aesthetic reconstruction of the event and the environment in which it occurred. Solid reporting and meticulous research of the original settings are essential, especially the need—when possible—“to work with the individuals whose story is being portrayed” (*ibid.*, 2018). The importance of mindful and intentional development of media communication technologies looms large as we catapult into the future. When asked about the advent of electronic imaging, renowned photographer Ansel Adams welcomed the innovation in 1983, saying he hoped to live to see it since “the creative eye will continue to function, whatever technological innovation may develop” (qtd in Scala, 2012: 17). Creativity thus holds the promise of our technological future.

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