



OPEN ACCESS

EDITED BY

Sylvi Vigmo,
University of Gothenburg, Sweden

REVIEWED BY

Eduard Vidal Portés,
Universitat Ramon Llull, Spain
Anette Svensson,
Malmö University, Sweden

*CORRESPONDENCE

Johannes Heuman
✉ johannes.heuman@ju.se

RECEIVED 30 October 2022

ACCEPTED 10 April 2023

PUBLISHED 28 April 2023

CITATION

Heuman J and Rampazzo Gambarato R (2023)
The learning potential of streaming media:
cultural sustainability in a post-digital society.
Front. Commun. 8:1084737.
doi: 10.3389/fcomm.2023.1084737

COPYRIGHT

© 2023 Heuman and Rampazzo Gambarato.
This is an open-access article distributed under
the terms of the [Creative Commons Attribution
License \(CC BY\)](#). The use, distribution or
reproduction in other forums is permitted,
provided the original author(s) and the
copyright owner(s) are credited and that the
original publication in this journal is cited, in
accordance with accepted academic practice.
No use, distribution or reproduction is
permitted which does not comply with these
terms.

The learning potential of streaming media: cultural sustainability in a post-digital society

Johannes Heuman^{1*} and Renira Rampazzo Gambarato^{1,2}

¹Department of Natural and Social Sciences, Jönköping University, Jönköping, Sweden, ²Department of Communication and Behavioral Sciences, Jönköping University, Jönköping, Sweden

The aim of this article is to contribute to a discussion on the challenges of and opportunities for using major streaming media platforms and fictional streaming series in an educational context. The article departs from research on the post-digital condition, platformization, cultural memory, and cultural sustainability. The tangible interest in cultural memory and heritage studies indicates the current need to include streaming services in these research fields, as the platforms for streaming media are vectors of popular culture and heritage in terms of digital archives. With the help of Astrid Erll's analytical model, the authors argue that perspectives from cultural memory studies are useful for deepening the learning potential of fictional series on streaming platforms. The article also supports the idea that major streaming services can be used in education as a supplement to other cultural resources if the potential sustainability risks are considered.

KEYWORDS

post-digital, platformization, cultural memory, cultural sustainability, education, streaming media, history teaching, *Mrs. America*

1. Introduction

The ongoing transition to streaming media platforms in television distribution technology has radically transformed media production and consumption by introducing services that are subscriber-funded and available on demand (Grandinetti, 2017; Lobato, 2019; Lotz, 2022). The current situation of the audiovisual sector with its flourishing system of online platforms is to a large extent related to the consumption of series (García-Orta et al., 2019). Policymakers worldwide are grappling with finding appropriate strategies for the twenty-first-century audiovisual sector and its future development (Lotz, 2022, p. 186). However, the digital transition is also influencing perceptions of the past with the increasing streaming of nostalgia content, including historical fiction, documentaries, and other televisual references to the past (Hagedoorn, 2017; Pallister, 2019; Gambarato et al., 2022). A characteristic of streaming services such as Netflix, HBO Max, and Amazon Prime is how they combine the curation and circulation of new productions with content libraries from television history (Gilbert, 2019). The platforms, together with associated social networks, contribute to the “remediation, preservation, archiving of the cultural and historical heritage” (Daković, 2021, p. 3). Within the educational realm, this generates challenges and opportunities in terms of the sustainability of this changing digital infrastructure, as well as how media content from these platforms can be used in learning contexts. Collins (2013, p. 641), for example, called for a new understanding of what literacy means in a “digital culture which has changed how knowledge is structured, stored, accessed, communicated.”

This article discusses how series on streaming platforms can be used in learning processes within the framework of a post-digital society. The aim is to contribute to a discussion on the challenges of and opportunities for using major streaming media platforms and fictional streaming series in an educational context, with a focus on cultural memory and cultural sustainability. The tangible interest in cultural memory and heritage studies (Apaydin, 2020a) indicates the current need to include streaming services in these research fields, as the platforms for streaming media are vectors of popular culture and heritage in terms of digital archives. The discussion intertwines learning processes with digital platforms and the cultural dimension of sustainable development (Axelsson et al., 2013; Throsby, 2017; Nieborg et al., 2020), and the argumentation is based on the concepts of the post-digital condition, platformization, cultural memory, and cultural sustainability. The combination of these stances will present new analytical perspectives useful for students, educators, and researchers interested in the learning potential of streaming series. The authors do not address any specific educational level, rather the educational potential of fictional streaming series in general.

The article begins with a discussion on the post-digital condition in relation to education, with a focus on platformization and streaming culture. Platformization refers to the process of creating or transforming a business or industry into a platform-based model, where an ecosystem of users, producers, and consumers is formed around a central platform with the aim of capturing value from network effects, economies of scale, and user-generated content (Van Dijck, 2021). In addition to providing the general context of streaming media services, the authors argue that audio- and video-streaming services play an impactful role within the platformization of cultural productions, such as music, films, documentaries, and series.

The subsequent section considers how historical fiction in a digital streaming environment can be used in education. The series *Mrs. America* (produced by FX and aired on Hulu and HBO Max in 2020) is used as an example to discuss the opportunities for and the challenges of employing streaming series for learning purposes. This series deals with the countermovement STOP (Stop Taking Our Privilege) ERA (the Equal Rights Amendment) and feminist support for the ERA in a fictionalized version of American contemporary history. With the help of Erll (2010)'s analytical model, the authors argue that using research on cultural memory in education environments could deepen the learning potential of fictional series on streaming platforms. This is followed by a discussion of streaming media platforms in relation to cultural sustainability. The argument revolves around the assertion that major streaming services could be used in education as a supplement to other cultural resources if potential sustainability risks are considered. Finally, the concluding discussion emphasizes the challenges and opportunities that occur when the lines between formal and informal educational practices blur in post-digital learning contexts.

2. The post-digital condition, the platformization of life, and the culture of streamability

The concept of the post-digital was inspired by the phenomenological experience of living in a world where digital technologies are no longer separated from media. Negroponte's seminal book *Being Digital* (Negroponte, 1995), with a series of predictions about digital media and life, and his article *Beyond Digital* (Negroponte, 1998), with the claim "face it—the digital revolution is over," paved the way for the emergence of the post-digital concept.

The post-digital is not a rejection of the digital, but a recognition that the digital has already transformed the world and that it is necessary now to move beyond the emergence of digital technologies. The post-digital is not about technology; it is about people. It is about how people live, interact, and make sense of the more-than-digital world surrounded by big data, biotechnologies, algorithms, artificial intelligence, streaming services, and machine learning. It is about how knowledge is created and shared. "The post-digital is hard to define; messy; unpredictable; digital and analog; technological and non-technological; biological and informational. The post-digital is both a rupture in existing theories and their continuation," but notwithstanding, "such messiness seems to be inherent to the contemporary human condition" (Jandrić et al., 2018, p. 895).

In the field of philosophy, the concept of the post-digital is used to question the digital dualism of the mind and the body, and the *disembodied mind* (Hayles, 1999) of the Cartesian tradition. For Hayles (1999),

The post-human view configures human being so that mind is not about a person or persons, that the body is not an object of knowledge or a problem to be solved, and that the world exists as a dynamic process of material and informational exchange within networks of energy and flows of matter (p. 54).

Thus, the post-digital is connected to the thinking of scholars such as Deleuze and Guattari (1987), Latour (1993), and Stengers (1997), and to the more recent ontological turn in the humanities (Bennett, 2010; Feenberg, 2019). Therefore, the post-digital is not just about technology, but about a fundamental shift in the way people think about the world.

In the social sciences, the concept of the post-digital is used to challenge the hegemony of the digital in contemporary society. In the book *Post-digital Aesthetics: Art, Computation, and Design* (Berry and Dieter, 2015), the term post-digital is discussed as referring to the period after the digital became embedded in everyday life without characterizing the privileged few. The digital is no longer extraordinary.

In the educational realm, the post-digital goes beyond the simple understanding of a "different stage in the perception and use of technology (...) to consider the 'post' as signaling a critical appraisal of the assumptions embedded in the general understanding of the digital" (Knox, 2019, p. 357). The production

and consumption of digital technologies in educational contexts have grown exponentially [see, for instance, the work of the Open Education Consortium (OEC) or the European Union's Open Educational Resources (OER) policy]. According to Knox (2019), this has been propelled by a range of issues and agendas, of which four are particularly salient.

First, the sheer affordability and accessibility of digital technologies and the associated resources and services have transformed the possibilities for education (D'Antoni, 2009). Initiatives such as the OEC and OER have made access to a variety of digital resources, services, and tools entirely free of charge. Whether in terms of educational software applications, files, templates, resource libraries, or even courses, an incredibly diverse range of resources is available for free that can be used or adapted to support educational needs. The authors add the experience of using streaming media services like Netflix and HBO Max as educational arenas inside and outside the classroom. For instance, Netflix can be used as a second-language learning support (Türkmen, 2020) or as a tool for teaching sexual education in the classroom (Izienicki, 2022). Later, the streaming series *Mrs. America* is presented as an example to discuss opportunities for and challenges of using streaming series formally or informally for learning purposes.

Second, the popularity of digital devices, such as smartphones, tablets, laptops, and desktop computers, has led to the pervasive use of digital technologies in educational contexts, at least in parts of the world where these kinds of resources are at schools' disposal. For instance, more than two-thirds of the world's population uses a mobile phone, reaching 5.31 billion in the beginning of 2022 (Kemp, 2022). This has been further facilitated by many educational institutions adopting BYOD (Bring Your Own Device) policies and offering free (or low-cost) Wi-Fi access to students on their premises.

Third, the move toward digital-based assessment practices, such as ePortfolios, has created new opportunities for education. This has included the development of new assessment and teaching methods and tools, such as massive open online courses (MOOCs), which, in turn, have generated significant new debates about the role of technology in education (Goffe and Sosin, 2005; Veletsianos and Kimmons, 2016; Bagbekova, 2019; Hawkrige, 2022).

Fourth, the advent of digital technologies has contributed to the growth of online learning and the associated move toward online education. In a recent report, the World Economic Forum states that "the highest rate of new learner growth online came from emerging economies," becoming "an important tool helping to close the widening global skills gap" (Wood, 2022). Furthermore, the Covid-19 pandemic accelerated the opportunity and necessity to incorporate online-based technologies at various levels of the educational system, from pre-school to lifelong learning instances (see Lockee, 2021). This has had a significant impact on the way education is provided and accessed, as well as on how educators and students interact and communicate with each other:

It is as if post-digital over-determinates the sociopolitical landscape; without anyone's "permission" it entered the classrooms in both student's and teacher's pockets (via their mobile devices), immersed into the pedagogical process,

and broke the boundaries of formal and informal teaching and learning: unreflexive certainties turned into reflexive uncertainties (Jandrić et al., 2018, p. 896).

The value of the post-digital, however, does not simply reside in its usefulness as a general description of people's relationships with technology. The post-digital is a specific attempt to articulate what is new about the digital, and thus is a more specific intellectual attempt to locate a new area of concern within the field of education.

In the post-digital condition, there is the phenomenon of platformization not just of media and cultural production but of everyday life. Platformization encompasses "the interpenetration of the digital infrastructures, economic processes, and governmental frameworks of platforms in different economic sectors and spheres of life" (Poell et al., 2019, p. 6). Moreover, the term platform "expands beyond its technological definition as a programmable interface to encompass the platform as an organizational form for a data-based business model (...) and a mode of governing" (Strüver and Bauriedl, 2022, p. 13).

Van Dijck (2021) considered that platforms function as part of platform *ecosystems*—an assemblage of networked platforms—and proposed a metaphor that captures the complexity of how platformization operates: the *rhizome*. It was inspired by the work of Deleuze and Guattari (1987) and scholarship on assemblage theory (DeLanda, 2006). The process of platformization can be viewed as a rhizome that is growing in the fertile space between the state, the market, and the commons. A rhizome is an underground stem that can put out lateral shoots and roots at various points; it is characterized by continuous growth in all directions.

Platformization is, therefore, a continuous and recursive process of (re)configuration, in which stakeholders contest and negotiate their roles and responsibilities. This metaphor also captures the relational character of platformization. Rather than viewing platforms as separate entities, they can be seen as "bundles of relations" (Arvidsson and Colleoni, 2012, p. 139). Platforms are entangled with each other and with a broader ecosystem of applications, devices, and people.

Srnicek (2017) discerned four types of platforms: (1) *advertising platforms*, such as Facebook, that offer free services and generate revenue by the placement of advertising and the sale of personalized data; (2) *cloud platforms*, such as Google, that provide information technology infrastructure to ensure digital communications; (3) *product platforms*, such as Spotify, Netflix, and DriveNow, that offer immaterial goods (music and movies, for instance) or physical goods (like cars on demand); and (4) *lean platforms*, such as Uber and Airbnb, that do not own any goods and, therefore, no capital, but control the availability and sharing mode. Within the scope of this paper, the focus is on product platforms, especially those related to streaming media services operating the production and/or the circulation of content with learning potential.

Emphasizing the relevance of streaming media, Jansson (2022) used the term "culture of streamability" (p. 60) to describe the industrial logic that amplifies connective media affordances today. Connective media are ecosystems formed by the convergence of communication technologies, information, and media. He argued that streamability transcends simply governing activities, objects,

and relations digitally, generating and responding “to data streams as efficiently as possible. At the same time, this logic extends beyond the technological architecture of platforms” (p. 61). In addition, Jansson (2022, p. 63, emphasis in the original) referred to streamability as a “*logistical battlefield*” that controls and organizes the flows of media circulation.

The authors argue that audio- and video-streaming media services play an impactful role in the platformization of cultural productions, such as music, films, documentaries, and series. Gambarato et al. (2022) discussed the primary role played by streaming services such as HBO Max in the dynamics of remembering and forgetting cultural content. The argument is anchored in how cultural memory is shaped because of circulation via widely penetrating distribution tools, such as streaming services, because “media is a powerful agent of (individual and collective) memory” (Mateus, 2022, p. 142).

In addition to the capability of streaming services to pull the strings in relation to the circulation of content, streaming media users also actively participate in the distribution of content, regardless of whether or not it is intentional. Other reasons for the protagonism of streaming media are that (1) “streaming is not just a technical form of transmission, but a key metaphor for the flow of information in the [post]digital age” (Morris and Powers, 2015, p. 107), (2) it represents “a qualitative *change in connectivity* that alters the appearance of connective media platforms” (Jansson, 2022, p. 62, emphasis in the original), and (3) the normatization of streaming influences viewing practices, including binge-watching, for instance, and the traditions of cultural productions such as Netflix’s production of original content without pressure from advertisers (Burroughs, 2019).

Algorithm-based structures that govern streaming media services have become indissociable from everyday life. Algorithmic mediations—algorithms function as cultural and infrastructural mediators—are part of the complex ecosystem that involves processes of communication, mediatization, and education. “Despite being private structures, digital platforms have become spaces in which important public debates occur and where the confrontation of views and the articulation of opinions is verified” (Winques and Longhi, 2022, p. 152). According to Couldry and Hepp (2016), the social is increasingly mediated, and this is reflected in the way meanings are produced. In this sense, it can be seen that algorithms are social vectors that contribute to the production of meaning. Thus, algorithms are not just a technical aspect of the web but also a social one, and they impact educommunicative practices.

3. *Mrs. America* and cultural memory

The move toward post-digital-based learning practices has had a significant impact not only on education in general but also on history teaching specifically (Haydn, 2013). An increasing number of teachers are integrating digital tools, such as games, websites, and streaming services, into the classroom on different educational levels (Carretero et al., 2022; Malysheva et al., 2022). More importantly, in a culture in which the digital web plays such an important role, young people’s access to information about

the past increasingly emanates from sources other than history teachers and textbooks (Haydn and Ribbens, 2017). To understand and further benefit from this wider learning context, not only in history but also in other subjects, the authors argue that research on cultural memory is useful.

Cultural memory is a field of research and an umbrella term that describes the interplay between the past and the present in sociocultural contexts (Erlil, 2011; Törnquist-Plewa et al., 2017; Apaydin, 2020a). In recent years, this field of research has become increasingly interested in digital popular culture (Hagedoorn, 2020; Kosnik, 2021). Erlil (2011), Rigney (2012), and Hagedoorn (2013) have, from different perspectives, explored the formation of cultural memory as a performative and more dynamic process of remembrance across different media and with interactive audiences. Today, streaming media platforms such as Netflix, HBO Max, and Amazon Prime constitute essential medial frameworks in the formation and circulation of cultural memory (Gambarato and Heuman, 2022), as the audience’s desire for nostalgic content is fueled by the possibility to watch and rewatch old series and films, while the platforms concomitantly provide new series with historical impulses (Pallister, 2019).

Thus, students’ knowledge of the past is increasingly shaped by streaming platforms, which makes it imperative to discuss the opportunities for and the challenges of using them in education. For a long time, educators and professional historians have been skeptical of visual fictional representations of the past and cinema in general as a “social institution involved in the moral corruption of the masses” (Kansteiner, 2017, p. 89). Today, educators recognize the cultural significance of visual historical fiction, but more for the purpose of historical entertainment and simulation (Marcus and Levine, 2007; Kansteiner, 2017), which disregards important aspects of the learning potential of streaming media platforms in the educational realm.

A recurring pattern of audiovisual series with historical content on streaming services is how the story tends to develop in other media platforms to further engage the audience, which follows the logic of transmedia storytelling (Gambarato et al., 2020). The fourth season of Netflix’s *The Crown* (Morgan, 2016) was featured alongside documentaries on the British royal family, and HBO’s *Chernobyl* (Renck, 2019) was launched with a podcast (Gambarato et al., 2022). *Mrs. America*’s creator Waller participated in various podcasts to provide behind-the-scenes information and explain the chosen perspective (Olsen, 2020). The series was also inspired by previous accounts from completely different media formats, including the memoirs of Bella Abzug, Gloria Steinem, Betty Friedan, and Phyllis Schlafly (Blake, 2020). From an educational perspective, a focus on these transmedia ramifications could potentially help students better understand historical fiction as a genre that integrates a multitude of historical experiences in a more creative way. *Mrs. America*, furthermore, includes brief montages of archival footage to lend the series a sense of authenticity. This is in line with the contemporary nostalgia for older media formats (Giulia, 2019), which are important resources for cultural memory in terms of the content and style of the media representation (Schrey, 2014).

To address how the historical fiction develops in relation to different media platforms and media formats, educators

need competence in how new digital technologies influence the mediation between the past and present, how the narratives are transformed in this digital landscape, and to what extent they can be used as learning tools (Collins, 2013; Haydn, 2013). One way of discussing and deepening the learning potential of fictional series in the digital media environment is to use Erlil (2010)'s three-dimension model to observe cultural memory. The model is used for looking within, between, and around cultural representations by distinguishing the *intra-*, *inter-*, and *pluri-*medial levels.

Foremost, it is important to consider how memory is expressed within the series itself, which relates to the intramedial dimension. In *Mrs. America*, history is portrayed from a bottom-up perspective through social movements in two opposing ideological camps among women. On one hand, the series represents the second wave of feminism of the 1970s, including famous activists such as Gloria Steinem, Betty Friedan, and Bella Abzug. On the other, there is conservative activist Phyllis Schlafly, who opposes the feminist movement and characterizes it as a “small elitist group of north-eastern establishment liberals putting down the homemakers” (Waller, 2020a, episode 1, sc. 34:40). As a window on 1970s social tensions in the United States, the series offers a different perspective on the history of the country compared to the usual perspective in history books, as the series places women at the center of political changes in the United States. Historical fiction on streaming platforms often tends to transcend what Berger (2017, p. 101) called the “national master narrative” by focusing on other spaces of historical development, as they target a global market where different cultures and languages come into play. Although historical fiction could never replace a textbook, it can be a useful resource for discussing alternative approaches to past and contemporary conflicts and can reduce teachers' dependence on textbooks.

A challenge for history education, however, is related to the difficulty students experience in distinguishing between the past and the way it is represented and narrated. Unfortunately, the audiovisual narratives used in the classroom are not often examined (Marcus et al., 2018, p. 157). Instead, teachers favor the use of historical fiction only for visualizing historical events through scenery, costumes, music, etc., which does not help students in this regard. A teacher could instead use episodes from a popular streaming series such as *Mrs. America* to question how the choice of media and forms (Erlil, 2010, p. 390), as well as the social and cultural contexts (Assmann, 2010, 2011), influence how history is represented. *Mrs. America* focuses on different characters—and the 1977 National Women's Conference in Houston—in each episode, and in this way, viewers are encouraged to “consume the series holistically to fully understand the overarching storyline” (Grandinetti, 2017, p. 15). What impact does this storytelling have on the understanding of the ERA conflict? What kinds of ethical concerns are related to the fictional representations of real characters? Such questions might help students better understand the interpretative nature of history and the constructive nature of different perspectives on the past.

Another way of looking at *Mrs. America* as a representation of cultural memory, which could potentially broaden learning outcomes, is to consider its intermedial dynamics. This can be linked to the transmediality of historical fiction on streaming services mentioned above but also more broadly to the notion of

remediation (Erlil and Rigney, 2009). Memories related to events, personalities, or processes are repeatedly shaped by new texts, images, or rituals:

What is known about a war, a revolution, or any other event which has been turned into a site of memory, therefore, seems to refer not so much to what one might cautiously call the “actual events,” but instead to a canon of existent medial constructions, to the narratives and images circulating in a media culture (Erlil, 2010, p. 392).

Significant representations of a chosen historical personality, event, or process can illuminate intermedial dynamics. In educational contexts, Einhaus (2016), for instance, has shown how the literary remediation of the First World War has been used by history teachers in secondary school classrooms in Britain. The corpus of literature used in classes helped students widen their understanding of the war and concomitantly grappled with issues about the accessibility and inclusivity of the cultural memory of the war (Einhaus, 2016). A focus on remediation often exposes the conflicting legacies of historical events, processes, and personalities.

The social conflict around the ERA is naturally less prominent than the First World War. However, all representations of the past “draw on available media technologies, on existent media products, on patterns of representation and medial aesthetics” (Erlil and Rigney, 2009, p. 4). *Mrs. America* portrays the aftermath of the much observed and mythologized 1968 and the protests against the United States involvement in Vietnam, which was the starting point of new civil rights movements and radical politics worldwide. In the series, Gloria Steinem underlines the continuation by stressing that the ERA struggle “is our Vietnam” (Waller, 2020b, episode 2, sc. 23:32). The revolutionary features of the period have recently been the subject of new popular interest with, for example, Steve McQueen's series *Small Axe* (McQueen, 2020), Shaka King's *Judas and the Black Messiah* (King, 2021), and Aaron Sorkin's film *Trial of the Chicago 7* (Sorkin, 2020). These accounts are part of the intermedial dynamics and include conservative backlash (O'Connor, 2022), which related directly to *Mrs. America* and the portrayal of Phyllis Schlafly's movement. The concept of *cultural countermemory* could be useful in emphasizing how such representations of radical social movements challenge more hegemonic modes of remembrance (Bold et al., 2002). *Mrs. America* exposes a feminist countermemory within a contemporary patriarchal culture of remembrance. In addition, the portrayal of Phyllis Schlafly's reactionary movement also represents a different kind of countermemory opposing liberalism and progressive values in the Western world. In response to women's liberation, Schlafly insist that “liberation is in the home” (Waller, 2020b, episode 2, sc. 18:12). In both cases, the intermedial dynamics of remediation is important to understand the conflicting legacies of the ERA.

Finally, the learning potential of *Mrs. America* is related to the consideration of its reception on different medial platforms. Historical fiction can provide the most exciting images of the past, but it must be consumed by an audience to influence cultural memory (Erlil, 2010, p. 395). There is an important difference between viewers who watch the series for their own pleasure and

professional entertainment journalists who review it (Grandinetti, 2017, p. 13). The latter group is easier to trace in magazines, blogs, and other publications; it is challenging to reach communities of viewers outside this professional sphere. However, by looking closer at the pluri-medial networks in which the cultural representation circulates and exerts influence, it is possible to better understand its impact and role in contemporary society and deepen the series' learning potential. This is particularly important within the interactive post-digital cultural environment of streaming media platforms, where series can be the subject of heated debates on social networks and websites where audience engagement develops (Grandinetti, 2017). Students tend to follow blogs, websites, and Twitter, among others, which facilitate educational discussions of the pluri-medial influence of historical fiction.

Historical fiction can also trigger political discussions and academic controversies that involve a dialogue between the past and the present. The HBO miniseries *Chernobyl* sparked lively discussions on nuclear energy, communism, and climate change (Gambarato et al., 2022). In the case of *Mrs. America*, a fruitful discussion relates to how contemporary feminist and anti-feminist groups react to the series. For example, Eagle Forum, the right-wing group that Schlafly founded, was highly critical of the series and used social media to criticize what they perceived as harmful misinformation (Whiting, 2020). The Eagle Forum is now run by Anne Schlafly Cori, the daughter of Phyllis Schlafly. With the help of such reactions, students could further reflect on the link between the opposition to the ERA in the 1970s and different conservative tendencies today.

The series was also subject to criticism from the feminist side. Steinem—one of the main characters portrayed in the series—and the influential feminist activist and leader Eleanor Smeal argued that the series exaggerated Schlafly's role. They pointed out that the insurance industry, chambers of commerce, the National Association of Manufacturers, and other corporate lobbyists were responsible for stopping the ERA due to economic interests. Steinem and Smeal accused the series of misrepresenting feminism and reducing the fight for the ERA to a catfight between women:

First, its Catfight Theory not only lies about the past but doesn't prepare women or men to battle the economic forces that are still opposed to the ERA. Second, viewers don't learn that in ratified states, coalitions are now working to pass state-level ERAs that are crucial to our lives. Third, "*Mrs. America*" has exported this Catfight Theory to England, Australia and India, thus misrepresenting history here and depressing even more women (Smeal and Steinem, 2020).

Steinem and Smeal clearly showed how *Mrs. America* is part of an ongoing dialogue between the past and the present, which is important for the shaping of cultural memory. This criticism exposes difficulties and dilemmas in exploring the past and, simultaneously, provides a compelling and commercially successful story. *Mrs. America* is an example of a popular historical fiction that can be used as a resource in education if its wider political and cultural context is considered. The series' learning potential will not be attained if it is shown only for the purpose of historical entertainment. However, with the help of perspectives from research on cultural memory, the learning process could be

developed in a more reflective manner, involving the conflicting legacies of the ERA.

4. Streaming media and cultural sustainability

Gilbert (2019, p. 698) has argued that the transition from traditional television to "online distribution archives is a fundamental move from push to pull that upends the industrial, audience, and cultural practices for reruns in particular and, ultimately, for television more broadly." Gilbert understands streaming media platforms as digital archives in which the viewer has been reconceptualized as an active curator of content who is browsing, seeking, and choosing in the televisual history. In other words, these platforms not only contribute to circulating cultural memory but also preserve it. This makes it relevant to discuss the platforms from a sustainability perspective. Streaming media's carbon footprint and environmental costs are significant (Marks et al., 2020), but this paper is focused on the cultural dimension of sustainability in relation to streaming media services as this is important for understanding the challenges and opportunities of using streaming media within the educational realm. Cultural sustainability goals highlight appealing themes for educational science and education in practice (Laine, 2016). It is also necessary to consider that no uniformity exists within the sector of streaming services (Lotz, 2022, p. 185), and the discussion focuses mainly on the strategies of the major actors.

Cultural sustainability is a relatively underdeveloped concept (policy and research tend to focus on environmental, economic, and social concerns), and it was originally considered a component of social sustainability (Hawkes, 2001; Pop et al., 2019; Loach and Rowley, 2022). The conceptualization of cultural sustainability implies the complexity of understanding the meaning of culture, which varies according to different perspectives. Sabatini (2019), while discussing the relationship between cultural sustainability and sustainable development, departed from the anthropological approach to culture as a concept that "encompasses the entirety of knowledge shared by a society" (p. 32). From this perspective, cultural sustainability usually encloses the maintenance of cultural heritage in terms of objects, artifacts, representations but also identity, values, cultural diversity, and aesthetics (Axelsson et al., 2013; Soini and Birkeland, 2014).

Throsby (2017) suggested five key principles as a checklist for cultural sustainability. These principles involve (1) safeguarding equity in accessing cultural resources for future generations, (2) equitable access to cultural production participation and enjoyment on a fair and non-discriminatory basis, (3) the value and protection of cultural diversity, (4) precautions when facing decisions with irreversible consequences of cultural heritage, such as damage or loss, and (5) the importance of considering cultural sustainability from a holistic perspective together with economic, social, cultural, and environmental systems (Throsby, 2017). Although cultural sustainability has not yet attained the same recognition as other sustainability goals, it plays a central role in a sustainable society as it relates to the cohesiveness of a society or group (Hawkes, 2001; Loach and Rowley, 2022).

Traditional archives of cultural heritage often constitute what [Assmann \(2010\)](#) called “storage memory,” with no vital links to the present. The content in these archives tends to be communicated through limited academic channels. Looking at streaming media as digital archives for the television history of documentaries, films, and series ([Gilbert, 2019](#)), the accessibility is, on the contrary, very high. Although the licenses exclude library use, consumer-oriented platforms support the equity principle in terms of access to television history ([Throsby, 2017](#)). The strength of streaming platforms as digital archives is in fact not related to their “migrability into the technological future but in their substantially potentized present online accessibility” ([Ernst, 2013](#), p. 88). In this context, it is undeniable that “cultural heritage digitization is one of the best solutions to preserve social and collective memory and extend the public access to collections at the same time” ([Pop et al., 2019](#)).

This not only increases the platform’s influence on cultural memory but is also an important aspect of cultural sustainability. The World Commission on Culture and Development (WCCD) provided one of the first definitions of cultural sustainability and emphasized inter- and intragenerational access to cultural resources ([World Commission on Culture Development, 1995](#); [Axelsson et al., 2013](#)). The integration of old television programs in streaming services played a vital role in the growth and development of these online platforms, which have a “substantial need for content and actively seek out older television” ([Gilbert, 2019](#), p. 692), strengthening the power of platformization and characterizing its post-digital condition. The presence of content from different decades in television history helps create a kind of familiarity across generations, and the content is accessible everywhere, with search boxes on multiple devices. While memory and heritage associated to monument and architecture has been identified as important “tool for communities’ survival” and “for their sustainability” ([Apaydin, 2020b](#)), this should also be applied to streaming services if they influence communities’ relationships with the past and identity formation.

Platform accessibility facilitates users’ active participation, which is considered an effective tool for cultural and social sustainability. The transition from broadcast and cable television to online distribution changed the role of reruns and the circulation of television history. [Gilbert \(2019\)](#) described this as a shift to a “pull environment,” where reruns are not “pushed content” fostering enjoyment through repetition. On streaming platforms, individuals make selections and engage with them. This curating behavior shapes consumer identities. Recommendation algorithms incorporate search history to influence future viewing. Furthermore, the services enable binge-watching and the creation of visible playlists that are sharable on social media ([Gilbert, 2019](#)). The binge-watching experience, an iconic feature of the culture of streamability, influences the viewer, who can connect to the cultural content regardless of the entertainment publisher ([Grandinetti, 2017](#), p. 17). The online model not only cultivates more engagement with a popular culture heritage, reinforcing cultural sustainability, but it is also useful in education, as reruns are available and searchable without programming schedules.

[Collins \(2013\)](#) stressed that downloadable novels, music, and television foster a similar attitude to digital cultural heritage.

He used the term *playlisting* to describe how users navigate different platforms and construct a personal identity from their own digital archives ([Collins, 2013](#)). However, online engagement is also visible on other digital platforms. The online publications *Vulture* and *The A.V. Club*, for example, encourage viewers to comment on and discuss streaming media series next to the reviews they publish ([Grandinetti, 2017](#)). These kinds of publications exemplify how streaming media, despite the displacement of programming schedules, create new communities to consume culture together beyond national borders, in line with how strategies of cultural sustainability “promote intercultural dialogues either within or between countries” ([Throsby, 2017](#), p. 139). From a sustainability perspective, there are also disadvantages to this cultural consumption. Doctors repeatedly warn that binge-watching might have a negative impact on health compared to other addictions. In the discussions in the publications above, viewers also complain about how they cannot refrain from watching series at the expense of their free time ([Grandinetti, 2017](#), p. 19). This is something that teachers in educational environments must consider.

Another important question regarding cultural sustainability is whether streaming platforms contribute to cultural diversity or, on the contrary, suppress national pluralism by promoting American productions worldwide and the Americanization of popular culture. The history of streaming media platforms such as Netflix and HBO Max is full of friction between global ambitions and local markets, as [Lobato \(2019, p. 181\)](#) emphasized:

Digital distribution does not come “over the top” of culture; it must negotiate the rough terrain of markets characterized by fundamental differences in tastes, values, cultural norms, viewing habits, income levels, and connectivity.

Overall, the major streaming platforms show weaknesses and strengths in terms of affirming cultural diversity. The increasing influence of global streaming platforms may result in a decrease in the diversity of cultural production as a result of the competition for viewers, which is a threat to cultural sustainability ([Throsby, 2017](#)). The tendency within platforms such as Netflix and HBO Max, however, is an increasing awareness of the importance of recognizing cultural diversities within different markets by including local productions in catalogs and more linguistic pluralism. Netflix commissioned content from the markets it targets early on to expand its subscriber base in markets beyond North America. Only around 40 percent of the titles in Netflix libraries in different countries are American productions ([Lotz, 2022](#), ch. 161). Therefore, the notion that the globalization of streaming television is indistinguishable from Americanization is too simplistic.

Although most productions on Netflix and HBO Max still use English, these platforms—and especially Netflix—also invest large resources in subtitling original series. [Lobato \(2019, p. 120\)](#) pointed out that Netflix “may well be the most multilingual television service that has never existed.” Several successful series have portrayed multicultural and multilingual environments by including several languages and cultural encounters in the plot.

The American–German production *Unorthodox* (Schrader, 2020), about the emancipation of Esty Shapiro from her ultra-Orthodox Jewish community, includes English, Yiddish, German, Russian, and Hebrew to various degrees (Corrius and Espasa, 2022). The preservation of Yiddish as a transnational minority language must be considered an achievement for cultural sustainability. Another example of this tendency is Netflix's first African original series, *Queen Sono* (Lediga and Tebogo, 2020), which includes a variety of languages intermingled with English, such as Afrikaans, Swahili, and Xhosa. The series exemplifies the ambition to recognize cultural diversity in new markets. Moreover, an important aspect of cultural diversity and streaming platforms is that Netflix is only one of many services: “This multiplicity provides much greater ecosystem diversity than was typical when past thinking on these dynamics developed” (Lotz, 2022, p. 162).

The commercial interests of streaming services also create significant conflicts with cultural sustainability perspectives. Platforms like Netflix and HBO Max are not only digital archives of popular culture but also marketplaces. The content changes and develops in relation to the desires of most of its users. Meanwhile, cultural sustainability must respond to needs in society where there are not necessarily commercial interests, such as protecting cultural artifacts or practices that are at risk of disappearing due to the pursuit of economic efficiency (Throsby, 2017; Loach and Rowley, 2022). Gambarato et al. (2020, p. 273) reassure that the algorithmic processes of shaping and circulating content are not exempted from commercial interests involved in the accumulative power of streaming media to spread stories from the past, present, and future worldwide:

The non-transparent selecting and sorting processes provide evidence of a more complex agency regarding the dynamics of remembering and forgetting, compared to how state institutions and traditional archives maintain links to the past. In this context, the power to shape the past is shared by several actors, but it is also usurped by commercial interests and technology advancements.

These features do not meet the requirements for cultural sustainability, as it also links the accessibility of a cultural heritage to vulnerability and the risk of oblivion and cultural loss. The transformation of cultural resources can be very beneficial for producing new heritage, but it should be initiated and led by communities who are in interaction with this heritage (Apaydin, 2020b). Gilbert (2019) pondered that the major streaming platforms have substantial gaps in their archives related to copyright issues, licensing rights, and the uncertainty of the popularity of older television content. Examples of genres of television programs that have been excluded from the major platforms include “sports, news and newsmagazines, instructional programming, talk shows, game shows, and significant portions of classic television” (Gilbert, 2019, p. 696). At the same time, the global streaming platforms, with different orientations, should, in an educational context, be seen as a supplement to and not a substitute for other digital and material cultural sources—if the potential sustainability risks are considered.

5. Conclusion

Learning experiences are moving in the direction of post-digital contexts in which the use of technologies inside and outside the classroom (Valverde-Berrocso et al., 2021) blends together and blurs the lines between formal and informal educational practices (Colley et al., 2003). Therefore, video-streaming platforms that are already widely disseminated worldwide—Netflix alone had 222 million subscribers in 2022 (Iqbal, 2022)—have the potential to keep learning processes updated and students engaged. Educational environments cannot deny the platformization processes that characterize post-digital societies.

However, the legal challenge of showing audiovisual productions from commercial streaming services in classrooms involves the use of copyrighted material for educational purposes. Streaming services typically hold the exclusive rights to the content they offer, and teachers may not have the legal right to show these materials in their classrooms without obtaining permission or a license from the copyright owner. Some streaming services may offer educational licenses or special rates for schools and universities, which can make it more feasible to access the content legally. For instance, Netflix offers educational screenings permissions, which provide access to a selection of documentaries and feature films for educational use (Netflix, n.d.). The program is free but requires educators to apply and be approved for access. Another alternative solution is to ensure that the use of copyrighted materials falls within the limits of the fair use doctrine, which allows for limited use of copyrighted materials without obtaining permission. In order to claim fair use, teachers must demonstrate that their use of the material is for educational purposes, is not for commercial gain, and does not harm the market for the original work.

Streaming productions such as *Mrs. America* can be used as a starting point for discussions, for example, to introduce new topics, and in history teaching, to challenge national master narratives by focusing on other spaces of historical development. *Mrs. America*, for example, places women at the center of political changes in the United States. Research on cultural memory offers analytical tools for developing the learning process in a more reflective manner, involving the conflicting legacies of historical events, processes, or personalities. The learning potential is particularly important in the streaming media environment, where stories tend to develop in other media platforms to further engage the audience, following the logic of transmedia storytelling.

Audiovisual formats such as series and films make the abstract concrete, and this is their power. The power of visuals (Hansen, 2018) can be incorporated into learning experiences, especially those that concern cultural memory, cultural heritage, and cultural sustainability. Series and films often portray characters in a way that is more relatable to students, is highly engaging, and holds students' attention for longer. In addition, excellence in design production, for instance, contributes to the representation of material culture with precise levels of detail. Discussing this aspect in relation to HBO's *Chernobyl*, Gambarato et al.

(2022) emphasized that “the show’s extremely meticulous design production of the material culture of the Soviet Union (...) increases the perception of reality and truth,” and moreover, it helps “the series to become memorable and to be set at the forefront of what is remembered and what is forgotten by audiences” (p. 275).

The cultural sustainability of streaming services is a function anchored in the platform’s ability to support (1) the creation, curation, and dissemination of diverse cultural content; (2) the participation of diverse communities in the creation and curation of cultural content; (3) the preservation of cultural heritage; and (4) equitable access to cultural content and cultural heritage.

The culture of streamability, however, has become an increasingly important part of the media industry, impacting and influencing cultural memory and cultural sustainability. In this context, Jansson (2022, p. 65, emphasis in original) argued that streamability “reflects the capability of corporations to *steer people* in the directions most profitable to their business and to make people comply with extended forms of interactive data collation.” Thus, great challenges are involved in the learning potential of streaming media because the algorithmic process of shaping and circulating content is non-transparent and is usurped by commercial interests and technological advancements (Gambarato et al., 2022). This becomes a considerable challenge and a plausibly harmful aspect of streaming media services inside and outside the educational realm. Despite the robust learning potential of streaming media for cultural sustainability discussed in this paper—accessibility and popularity, penetration, circulation, distribution of content, connectivity and audience engagement, resource for discussion/reflection—streaming services can also interfere with what will be remembered or forgotten, jeopardizing the sustainability of cultural memory and heritage in post-digital times. Future research can be dedicated to investigating how these challenges could be mitigated and how the

opportunities could be further developed and better explored for educational purposes.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Author contributions

JH contributed to the conception and design of the article and responsible for the part related to the Sections 1, 3, and 4. RRG contributed to the conception and design of the article and responsible for the part related to the Sections 2 and 5. Revisions of the text written by both authors. Both authors contributed to the article and approved the submitted version.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Publisher’s note

All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.

References

- Apaydin, V. (2020a). *Critical Perspectives on Cultural Memory and Heritage: Construction, Transformation and Destruction*. London: UCL Press. doi: 10.2307/j.ctv13xpsfp
- Apaydin, V. (2020b). “The interlinkage of cultural memory, heritage and discourses of construction, transformation and destruction,” in *Critical Perspectives on Cultural Memory and Heritage*, ed V. Apaydin (London: UCL Press), 13–30. doi: 10.2307/j.ctv13xpsfp.7
- Arvidsson, A., and Colleoni, E. (2012). Value in informational capitalism and on the Internet. *Informat. Soc.* 28, 135–150. doi: 10.1080/01972243.2012.669449
- Assmann, A. (2010). “Canon and archive,” in *A Companion to Cultural Memory Studies*, ed A. Erll and A. Nünning (Berlin: De Gruyter), 97–108.
- Assmann, J. (2011). *Cultural Memory and Early Civilization: Writing, Remembrance, and Political Imagination*. Cambridge: Cambridge University Press. doi: 10.1017/CBO9780511996306
- Axelsson, R., Angelstam, P., Degerman, E., Teitelbaum, S., Andersson, K., Elbakidze, M., et al. (2013). Social and cultural sustainability: criteria, indicators, verifier variables for measurement and maps for visualization to support planning. *Ambio* 42, 215–228. doi: 10.1007/s13280-012-0376-0
- Bagbekova, L. (2019). Opportunities of massive open online courses. *Eur. J. Res. Reflect. Educ. Sci.* 7, 768–771.
- Bennett, J. (2010). *Vibrant Matter: A Political Ecology of Things*. Durham, NC: Duke University Press. doi: 10.1215/9780822391623
- Berger, S. (2017). “History writing and constructions of national space: the long dominance of the national in modern European historiographies,” in *Palgrave Handbook of Research in Historical Culture and Education*, eds M. Carretero, S. Berger, and M. Grever (London: Palgrave Macmillan UK), 39–57. doi: 10.1057/978-1-137-52908-4_2
- Berry, D. M., and Dieter, M. (2015). *Postdigital Aesthetics: Art, Computation and Design*. London: Palgrave Macmillan. doi: 10.1057/9781137437204
- Blake, M. (2020). *Want to Know More about the Real “Mrs. America”? Here’s Your Reading List*. Los Angeles Times. Available online at: <https://www.latimes.com/entertainment-arts/tv/story/2020-04-22/mrs-america-phyllis-schlafly-reading-list> (accessed April 22, 2020).
- Bold, C., Knowles, R., and Leach, B. (2002). Feminist memorializing and cultural counter-memory: the case of Marianne’s Park. *Signs* 28, 125–148. doi: 10.1086/340905
- Bourroughs, B. (2019). House of Netflix: streaming media and digital lore. *Popular Commun.* 17, 1–17. doi: 10.1080/15405702.2017.1343948
- Carretero, M., Cantabrana, M., and Parellada, C. (Eds.). (2022). *History Education in the Digital Age*. Cham: Springer International Publishing. doi: 10.1007/978-3-031-10743-6
- Colley, H., Hodkinson, P., and Malcom, J. (2003). *Informality and Formality in Learning: A Report for the Learning and Skills Research Centre*. London: University of Leeds.

- Collins, J. (2013). The use values of narrativity in digital cultures. *New Lit. Hist.* 44, 639–660. doi: 10.1353/nlh.2013.0035
- Corrius, M., and Espasa, E. (2022). Multilingualism, music and gendered roles in unorthodox. *Miedzy Oryginalem Przekladem* 28, 31–53. doi: 10.12797/MOaP.28.2022.55.02
- Couldry, N., and Hepp, A. (2016). *The Mediated Construction of Reality*. Cambridge: Polity.
- Daković, N. (2021). Digital turn—memory studies editorial. *IPSI Trans. Internet Res.* 17, 2–7.
- D’Antoni, S. (2009). Open educational resources: reviewing initiatives and issues. *Open Learn. J. Open Dist. Learn.* 24, 3–10. doi: 10.1080/02680510802625443
- DeLanda, M. (2006). *A New Philosophy of Society: Assemblage Theory and Social Complexity*. New York, NY: Continuum.
- Deleuze, G., and Guattari, F. (1987). *A Thousand Plateaus: Capitalism and Schizophrenia*, trans. B. Massumi, Minneapolis, MN: University of Minnesota Press.
- Einhaus, A.-M. (2016). Cultural memory, teaching and contemporary writing about the First World War. *Liter. Hist.* 25, 187–204. doi: 10.1177/0306197316668055
- Erl, A. (2010). “Literature, film, and the mediality of cultural memory,” in *A Companion to Cultural Memory Studies*, eds A. Erl and A. Nünning (Berlin: De Gruyter), 389–398.
- Erl, A. (2011). *Memory in Culture*. Houndmills: Palgrave Macmillan. doi: 10.1057/9780230321670
- Erl, A., and Rigney, A. (2009). “Introduction: cultural memory and its dynamics,” in *Mediation, Remediation, and the Dynamics of Cultural Memory*, eds A. Erl and A. Rigney (Berlin: De Gruyter), 1–14. doi: 10.1515/9783110217384.0.1
- Ernst, W. (2013). *Digital Memory and the Archive*. Minneapolis, MN: University of Minnesota Press.
- Feenberg, A. (2019). Postdigital or predigital? *Postdigital Sci. Educ.* 1, 8–9. doi: 10.1007/s42438-018-0027-2
- Gambarato, R. R., Alzamora, G., and Tárca, L. (2020). *Theory, Development, and Strategy in Transmedia Storytelling*. New York, NY: Routledge. doi: 10.4324/9780367343057
- Gambarato, R. R., and Heuman, J. (2022). Beyond fact and fiction: cultural memory and transmedia ethics in Netflix’s *The Crown*. *Eur. J. Cult. Stud.* doi: 10.1177/13675494221128332
- Gambarato, R. R., Heuman, J., and Lindberg, Y. (2022). Streaming media and the dynamics of remembering and forgetting: the Chernobyl case. *Mem. Stud.* 15, 271–286. doi: 10.1177/17506980211037287
- García-Orta, M. J., García-Prieto, V., and Suárez-Romero, M. (2019). New audiovisual consumption habits among minors: approximation through the analysis of survey data. *Doxa Comunic.* 28, 241–260. doi: 10.31921/doxacom.n28a013
- Gilbert, A. (2019). Push, pull, rerun: television reruns and streaming media. *Telev. New Media* 20, 686–701. doi: 10.1177/1527476419842418
- Giulia, T. (2019). “Crossing eras: exploring nostalgic reconfigurations in Media Franchises,” in *Netflix Nostalgia: Streaming the Past on Demand* (Lanham: Lexington Books), 17–36.
- Goffe, W. L., and Sosin, K. (2005). Teaching with technology: may you live in interesting times. *J. Econ. Educ.* 36, 278–291. doi: 10.3200/JECE.36.3.278-291
- Grandinetti, J. (2017). “From primetime to anytime: streaming video, temporality and the future of communal television,” in *The Age of Netflix: Critical Essays on Streaming Media, Digital Delivery and Instant Access*, eds C. Barker and M. Wiatrowski (Jefferson, NC: McFarland and Company, Inc.), 11–30.
- Hagedoorn, B. (2013). Television as a hybrid repertoire of memory: new dynamic practices of cultural memory in the multi-platform era. *VIEW J. Eur. Telev. Hist. Cult.* 2, 52–64. doi: 10.18146/2213-0969.2013.jethc032
- Hagedoorn, B. (2017). Collective cultural memory as a TV Guide: ‘Living’ history and nostalgia on the digital television platform. *Acta Universitatis Sapientiae. Film Media Stud.* 14, 71–94. doi: 10.1515/ausfm-2017-0004
- Hagedoorn, B. (2020). “Cultural memory and screen culture: How television and cross-media productions contribute to cultural memory,” in *Information Storage: A Multidisciplinary Perspective*, eds C. Große and R. Drechsler (Cham: Springer), 179–197. doi: 10.1007/978-3-030-19262-4_7
- Hansen, A. (2018). *Environment, Media and Communication*. London: Routledge. doi: 10.4324/9781315625317
- Hawkes, J. (2001). *The Fourth Pillar of Sustainability: Culture’s Essential Role in Public Planning*. Melbourne, VIC: Common Ground Publishing Pty Ltd.
- Hawkrige, D. (2022). *New Information Technology in Education*. London: Routledge. doi: 10.4324/9781003312826
- Haydn, T. (2013). *Using New Technologies to Enhance Teaching and Learning in History*. London: Routledge. doi: 10.4324/9780203075593
- Haydn, T., and Ribbens, K. (2017). “Social media, new technologies and history education,” in *Palgrave Handbook of Research in Historical Culture and Education*, eds
- M. Carretero, S. Berger, and M. Grever (London: Palgrave Macmillan UK), 735–753. doi: 10.1057/978-1-137-52908-4_38
- Hayles, K. (1999). *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*. Chicago, IL: University of Chicago Press. doi: 10.7208/chicago/9780226321394.001.0001
- Iqbal, M. (2022). *Netflix Revenue and Statistics 2022*. Available online at: <https://www.businessofapps.com/data/netflix-statistics/> (accessed April 17, 2023).
- Izienicki, H. (2022). Netflix and chill: teaching sexual scripts in a sociology classroom. *Teach. Sociol.* 50, 39–48. doi: 10.1177/0092055X211033633
- Jandrić, P., Knox, J., Besley, T., Ryberg, T., Suoranta, J., and Hayes, S. (2018). Postdigital science and education. *Educ. Philos. Theory* 50, 893–899. doi: 10.1080/00131857.2018.1454000
- Jansson, A. (2022). *Rethinking Communication Geographies: Geomedia, Digital Logistics and the Human Condition*. Cheltenham, PA: Edward Elgar. doi: 10.4337/9781789906271
- Kansteiner, W. (2017). “Film, the Past, and a didactic dead end: from teaching history to teaching memory,” in *Palgrave Handbook of Research in Historical Culture and Education*, eds M. Carretero, S. Berger, and M. Grever (London: Palgrave Macmillan UK), 169–190. doi: 10.1057/978-1-137-52908-4_9
- Kemp, S. (2022). *Digital 2022: Global Overview Report*. Available online at: [https://datareportal.com/reports/digital-2022-global-overview-report#:~:sim\\$=text=The%20global%20total%20has%20grown,of%20the%20world’s%20total%20population](https://datareportal.com/reports/digital-2022-global-overview-report#:~:sim$=text=The%20global%20total%20has%20grown,of%20the%20world’s%20total%20population) (accessed April 17, 2023).
- King, S., dir. (2021). *Judas and the Black Messiah*, Warner Bros. Pictures.
- Knox, J. (2019). What does the postdigital mean for education? Three critical perspectives on the digital, with implications for educational research and practice. *Postdigital Sci. Educ.* 1, 357–370. doi: 10.1007/s42438-019-00045-y
- Kosnik, A. D. (2021). *Rogue Archives: Digital Cultural Memory and Media Fandom*. Cambridge, MA: The MIT Press (New edition).
- Laine, M. (2016). Culture in sustainability—defining cultural sustainability in education. *Discourse Commun. Sust. Educ.* 7, 52–67. doi: 10.1515/dcse-2016-0016
- Latour, B. (1993). *We Have Never Been Modern*, trans. C. Porter. Cambridge: Harvard University Press.
- Lediga, K., and Tebogo, M., dir. (2020). *Queen Sono*. Netflix.
- Loach, K., and Rowley, J. (2022). Cultural sustainability: a perspective from independent libraries in the United Kingdom and the United States. *J. Librariansh. Inf. Sci.* 54, 80–94. doi: 10.1177/096100621992824
- Lobato, R. (2019). *Netflix Nations: The Geography of Digital Distribution*. New York, NY: University Press. doi: 10.18574/nyu/9781479882281.001.0001
- Lockee, B. B. (2021). Online education in the post-COVID era. *Nat. Electr.* 4, 5–6. doi: 10.1038/s41928-020-00534-0
- Lotz, A. D. (2022). *Netflix and Streaming Video: The Business of Subscriber-Funded Video on Demand*. Cambridge, UK: Polity.
- Malysheva, O., Tokareva, E., Orchakova, L., and Smirnova, Y. (2022). The effect of online learning in modern history education. *Heliyon* 8, e09965. doi: 10.1016/j.heliyon.2022.e09965
- Marcus, A., Metzger A. M., Paxton R. J., and Stoddard J. (2018). *Teaching History with Film: Strategies for Secondary Social Studies*. New York, NY: Routledge.
- Marcus, A. S., and Levine, T. H. (2007). “Exploring the past with feature film,” in *Celluloid Blackboard: Teaching History with Film*, ed A. S. Marcus (Charlotte, NC: Information Age Publishing), 1–13.
- Marks, L. U., and Clark, J., Livingston, J., Oleksijczuk, D., and Hilderbrand, L. (2020). Streaming media’s environmental impact. *Media+Environ.* 2, 1–17. doi: 10.1525/001c.17242
- Mateus, S. (2022). The mediatization of memory. *Matrizes* 16, 137–150. doi: 10.11606/issn.1982-8160.v16i2p137-149
- McQueen, S., dir. (2020). *Small Axe*. BBC One.
- Morgan, P., dir. (2016). *The Crown*. Netflix.
- Morris, J. W., and Powers, D. (2015). Control, curation and musical experience in streaming music services. *Creat. Indus. J.* 8, 106–122. doi: 10.1080/17510694.2015.1090222
- Negroponte, N. (1995). *Being Digital*. New York, NY: Alfred A. Knopf.
- Negroponte, N. (1998). “Beyond Digital.” *Wired*. Available online at: <http://www.wired.com/wired/archive/6.12/negroponte.html> (accessed January 12, 1998).
- Netflix. (n.d.). *Educational Screenings of Documentaries*. Available online at: <https://help.netflix.com/en/node/57695> (accessed April 17, 2023).
- Nieborg, D. B., Duffy, B. E., and Poell, T. (2020). Studying platforms and cultural production: methods, institutions, and practices. *Soc. Media + Soc.* 6. doi: 10.1177/2056305120943273

- O'Connor, C. (2022). Unsettled debts: 1968 and the problem of historical memory—introduction. *Int. J. Commun.* 16, 4596–4601.
- Olsen, M. (2020). *The Reel: Dahvi Waller and the story behind "Mrs. America."*, podcast audio. Available online at: <https://podcasts.apple.com/au/podcast/dahvi-waller-and-the-story-behind-mrs-america/id1337414693?i=1000472516507> (accessed April 24, 2020).
- Pallister, K., ed. (2019). *Netflix Nostalgia: Streaming the Past on Demand*. Lanham: Lexington Books.
- Poell, T., Nieborg, D., and Van Dijck, J. (2019). Concepts of the digital society: platformisation. *Internet Policy Rev.* 8, 1–13. doi: 10.14763/2019.4.1425
- Pop, I. L., Borza, A., Buiga, A., Ighian, D., and Toader, R. (2019). Achieving cultural sustainability in museums: a step toward sustainable development. *Sustainability* 11, 970–992. doi: 10.3390/su11040970
- Renck, J., dir. (2019). *Chernobyl*. HBO.
- Rigney, A. (2012). *The Afterlives of Walter Scott: Memory on the Move*. Oxford: Oxford University Press. doi: 10.1093/acprof:oso/9780199644018.001.0001
- Sabatini, F. (2019). Culture as fourth pillar of sustainable development: perspectives for integration, paradigms of actions. *Eur. J. Sust. Dev.* 8, 31–40. doi: 10.14207/ejsd.2019.v8n3p31
- Schrader, M., dir. (2020). *Unorthodox*. Netflix.
- Schrey, D. (2014). "Analogue nostalgia and the aesthetics of digital remediation," in *Media and Nostalgia: Yearning for the Past, Present and Future*, ed K. Niemeyer (Houndmills, England: Palgrave Macmillan), 27–38. doi: 10.1057/9781137375889_2
- Smeal, E., and Steinem, G. (2020). *Steinem and Smeal: Why 'Mrs. America' Is Bad for American Women*. Los Angeles Times. Available online at: <https://www.latimes.com/entertainment-arts/tv/story/2020-07-30/steinem-and-smeal-why-mrs-america-is-bad-for-american-women> (accessed July 30, 2020).
- Soini, K., and Birkeland, I. (2014). Exploring the scientific discourse on cultural sustainability. *Geoforum* 51, 213–223. doi: 10.1016/j.geoforum.2013.12.001
- Sorkin, A., dir. (2020). *The Trial of the Chicago 7*. Netflix.
- Srnicek, N. (2017). *Platform Capitalism*. Cambridge: Polity Press.
- Stengers, I. (1997). *Power and Invention: Situating Science*, trans. P. Bains. Minneapolis, MN: University of Minnesota Press.
- Strüver, A., and Bauriedl, S. (2022). *Platformization of Urban Life: Towards a Technocapitalist Transformation of European Cities*. Bielefeld: Transcript. doi: 10.1515/9783839459645
- Throsby, D. (2017). Culturally sustainable development: theoretical concept or practical policy instrument? *Int. J. Cult. Policy* 23, 133–147. doi: 10.1080/10286632.2017.1280788
- Törnquist-Plewa, B., Andersen, T. S., and Erll, A. (2017). "Introduction: on transcultural memory and reception," in *The Twentieth Century in European Memory: Transcultural Mediation and Reception*, eds T. S. Andersen and B. Törnquist-Plewa (Leiden: Brill), 1–24.
- Türkmen, B. (2020). Utilising digital media as a second language (L2) support: a case study on Netflix with translation applications. *INDECS* 18, 459–470. doi: 10.7906/indecs.18.4.6
- Valverde-Berrococo, J., Fernández-Sánchez, M. R., Dominguez, F. I. R., and Sosa-Díaz, M. J. (2021). The educational integration of digital technologies preCovid-19: lessons for teacher education. *PLoS ONE* 16, e0256283. doi: 10.1371/journal.pone.0256283
- Van Dijck, J. (2021). Seeing the forest for the trees: visualizing platformization and its governance. *New Media Soc.* 23, 2801–2819. doi: 10.1177/1461444820940293
- Veletsianos, G., and Kimmons, R. (2016). Scholars in the increasingly digital open world: how do education professors and students use Twitter? *Internet High. Educ.* 30, 1–10. doi: 10.1016/j.iheduc.2016.02.002
- Waller, D., dir. (2020a). *Mrs. America*. Episode 1, "Phyllis." FX on Hulu.
- Waller, D., dir. (2020b). *Mrs. America*. Episode 2, "Gloria." FX on Hulu.
- Whiting, A. (2020). *Phyllis Schlafly's Daughter on What 'Mrs. America' Gets Right and Wrong about Her Mother*. Bustle. Available online at: <https://www.bustle.com/p/what-mrs-america-gets-wrong-about-phyllis-schlafly-according-to-her-daughter-22818083> (accessed April 15, 2020).
- Winques, K., and Longhi, R. R. (2022). From media to (algorithmic) mediations: mediation, reception, and consumption on digital platforms. *Matrices* 16, 151–172. doi: 10.11606/issn.1982-8160.v16i2p151-172
- Wood, J. (2022). *These Three Charts Show the Global Growth in Online Learning*. World Economic Forum. Available online at: <https://www.weforum.org/agenda/2022/01/online-learning-courses-reskill-skills-gap/> (accessed April 17, 2023).
- World Commission on Culture and Development. (1995). *Our Creative Diversity: Report of the World Commission on Culture and Development*. Paris: World Commission on Culture and Development.