Metaverse and Public Service Media: Redefining Branding and Young Audience Engagement

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1 Introduction

While older consumers still engage with traditional television, young audience under 35 has halved in the last decade and is expected to further decrease (France24, 2023). Young people who used to passively consume television are now active participants directing their attention toward new screens. To reach young viewers, content providers will need to compete with gaming platforms like Roblox, Fortnite, and Minecraft, which are considered precursors to the metaverse and are already gaining a dominant position in the market. The rise of the metaverse can signify a

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substantial change in how society will engage, generate, and access content. This virtual realm holds the capacity to transform diverse sectors, with a notable impact on industries like media and marketing.

The progressive renewal of public service media audiences is driving the projection of new strategies associated with the consumption patterns established in digital environments. Immersive content powered by virtual reality, mixed reality and augmented reality will play an important role in the next stage of media to blur existing barriers in the consumption of information and entertainment, providing new perspectives and bringing users closer to the scene of events and to spaces with limited access.

The quest for relevance among new generations of audiences is conceived by the media as one of the central points of their corporate strategy, without neglecting the fact that a large part of their followers still prefers traditional consumption, which they must also promote and renew, but following more structural procedures. One of the alternatives followed by broadcasting corporations is to include their disruptive actions, mainly related to new technologies, in secondary brands associated with their parent proposal, thus partially detaching these projects from their conventional dynamics to try out new resources, platforms, and conversation mechanisms in parallel.

This chapter offers an analysis of the possibilities offered by the metaverse for the engagement of new audiences and brand building in public service media, delving into the concept of virtual worlds, their operating dynamics, and the benefits and risks related to taking advantage of these spaces. It also includes sections on key insights drawn from the testimony of a group of international experts in technology and metaverse consulted by the authors for this project, who have been asked about the foreseeable future relationship between journalism and virtual spaces and the opportunities that this new reality provides for the communication sector.

2 Technology Management in Public Service Media

Historically, public service media have been established in order to ensure a number of fundamental rights, such as access to information, diversity, and universality, among others (Aslama-Horowitz and Nieminen 2017). Therefore, the implementation of technologies such as virtual reality or artificial intelligence, with intelligent tools that select, filter, and distribute content, is a particularly delicate task. In this sense, it is crucial to understand that the principles guiding these mechanisms must be aligned with the public service values committed by the entities, thus avoiding the creation of filter bubbles or the omission of relevant information for the construction of a democratic society.

In addition to these implementation challenges, the high cost associated with disruptive technologies, either in terms of technical deployment or in the hiring of specialized talent, represents a significant limitation for many PSM in their most demanding or customized applications. This is why privacy management emerges

as an essential challenge for public media in the use of these prototypes, as the need for data by algorithms raises important questions, the most controversial being the legitimacy of the possession and use of personal audience data in the creation of new products.

Since the beginning of this century, public broadcasting corporations have undergone a profound digital transition (Tambini 2015; Khajeheian and Tadayoni 2016; Van den Bulck and Moe 2017), adjusting to a new context characterized by media convergence, globalization, and multiplatform production (Rodríguez-Fernández et al. 2018). As part of the search for trust and relevance for their audiences, especially for young people who are massively migrating from linear TV to Video on Demand (VOD) and Over the Top (OTT) (Andersson Schwarz 2016), they have introduced immersive narratives and 360° content in their digital platforms (Pérez-Seijo et al. 2018).

Within the framework of these technological transformations, a significant change is evident in the interaction of broadcasting corporations with their audience. There is now a growing appreciation for the inclusion of users in different stages of production, as well as in the generation of content (Vaz-Álvarez et al. 2020). This change is largely driven by the development of the internet and its creation platforms.

In this regard, PSM are constrained by the rules of the General Data Protection Regulation (GDPR) in force since May 25, 2018. This regulation, while necessary, arguably represents a significant competitive disadvantage vis-à-vis media giants that use personal data on a more regular basis through their subscription services.

The EBU (2000) already foresaw that the main challenge for PSM is to develop strategies that allow them to remain relevant players in the technological landscape. To achieve this goal, one possible solution is to innovate in terms of genres and formats adapted to "new forms of media consumption" (Bardoel 2007; Lowe and Bardoel 2007), as well as to incorporate audience participation and integration tools (Franquet et al. 2013). The exploration of new ecosystems such as the metaverse could also be an interesting alternative to differentiate from traditional dynamics and products, something that several public broadcasting corporations in Europe have already begun to experiment with in their structures.

3 Metaverse as a New Communication and Distribution Channel

Emerging technologies drive changes in business models across diverse industries. Amid this digital transformation, the media sector encounters a notable challenge (Dutra et al. 2018). Some authors have pointed out that the metaverse represents a novel medium poised to redefine the landscape of advertising and marketing, akin to the transformative impact the internet had on industry dynamics (Kim 2021; Hollensen et al. 2023).

In this context, traditional mass media, in particular public service media, faces the imperative to identify the nature of its relationship with new generations that no longer demand linear TV but actively seek diverse virtual and digital experiences. Companies must understand the needs of new generations to offer content and products tailored for this segment (Buhalis and Karatay 2022).

The youth is actively seeking new distribution channels that facilitate interactivity and user autonomy (Rauschnabel et al. 2022). Notably, companies have discovered the metaverse as a fresh avenue to unlock hedonistic experiences, particularly within the retail sector (Dincelli and Yayla 2022). This platform enables the creation of enticing virtual stores (Hassouneh and Brengman 2015), the delivery of high-quality services (Gadalla et al. 2013), and the establishment of communication spaces through events and branding initiatives, among other possibilities (Bourlakis et al. 2009).

Television, employing 2D images and sound, contrasts with the metaverse, which introduces novel opportunities for user engagement (Barta et al. 2023). The concept of telepresence, signifying the sensation of being immersed in virtual environments, is crucial for comprehending the user experience in television, as well as in virtual reality and augmented reality (Kim and Biocca 2006; Barta et al. 2023).

3.1 Definition

The early and evolving state of the metaverse has predictably resulted in the inconsistent application of the term and a consensus on an accepted definition (Barrera and Shah 2023). For Hadi et al. (2023: 2), "Metaverse as a network of digitally mediated spaces that immerse users in shared, real-time experiences."

Consumer encounters within the metaverse are facilitated by digital technology—*digitally mediated*. The metaverse comprises digitally facilitated spaces or 3D virtual worlds on which to explore and navigate them—*spatial element* (Hadi et al. 2023). On metaverse, users have the ability to immerse themselves in experiences, fostering a realistic experience and a feeling of presence—*immersive factor* (Hadi et al. 2023). The metaverse can be classified according to the degree of immersion (Diwedi et al. 2022). Unlike the use of PCs as hardware, the metaverse employs mobile devices to promote accessibility and a barrier-free experience. Although the key pillars of the metaverse are mixed reality (MR), VR (virtual reality), and AR (augmented reality), the access to the metaverse can also come through a PC, mobile, AR/VR devices, or various IoT devices (Diwedi et al. 2022; Lu and Mintz 2023; Hadi et al. 2023).

Metaverse is a concept that is constantly evolving, thanks to new technologies. It provides new internet applications, as well as an immersive experience that combines various other technologies: 5G/6G, BCI, 3D, video game technology, AI, computer vision, natural language processing, intelligent voice, suits, and gloves for physical sensations (Fig. 1).

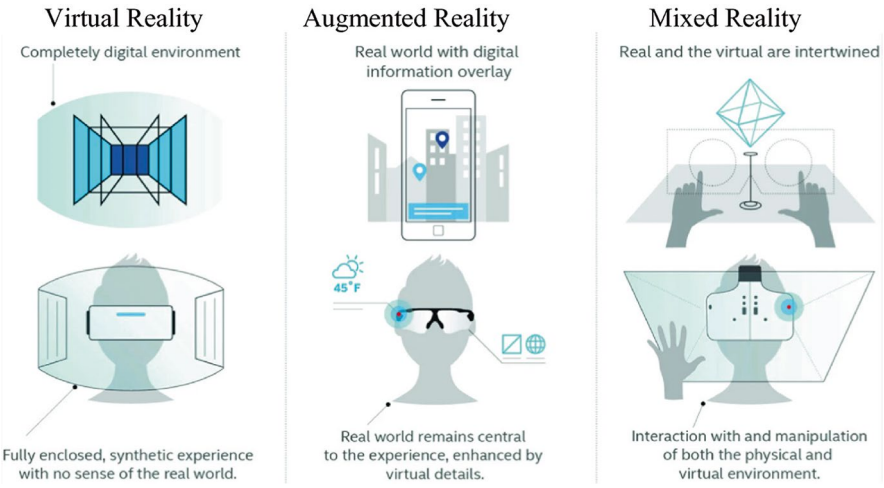

Fig. 1 Typologies of immersive technologies. (Source: Buhalis and Karatay 2022)

The metaverse serves as an environment to forge communities; where multiple users can engage, socialize, and participate in various activities concurrently—*shared element* (Hadi et al. 2023). Users become a community (Diwedi et al. 2022) to socialize and interact (Yemenici 2022) with other and with offline experiences too (Diwedi et al. 2022).

Interactivity and experience consumption within the metaverse occur in the present moment, ensuring that users collectively undergo events in a synchronized sequence, for an identical duration, and simultaneously—*real-time element* (Hadi et al. 2023). Additionally, the idea of temporal persistence signifies that as time progresses in the metaverse, interactions with others and similar experiences are temporary or transitory, resembling the fleeting nature observed in the physical world (Hadi et al. 2023).

On the other hand, Ball (2022) includes an important term, *interoperability*, to the concept of metaverse. Ball defines it as *"a massively scaled and interoperable network of real-time rendered 3D virtual worlds and environments, which can be experienced synchronously and persistently by an effectively unlimited number of users with an individual sense of presence, and with continuity of data, such as identity, history, entitlements, objects, communications, and payments*" (Ball 2022 cited by Hadi et al. 2023, p. 2).

The creation of ecosystems within the metaverse leads to the establishment of various agents and their roles on the platform. Consumers, platform owners, and the so-called complementors/service providers and orchestrators drive a new way of creating value through co-creation and user experience (Schöbel and Leimeister 2023) (Fig. 2).

While Web 2.0 has a centralized organizational structure where decisions focus on corporate and investor profit, data storage is centralized, and payment infrastructure uses traditional methods (credit cards); Web 3.0, that also represents metaverse,

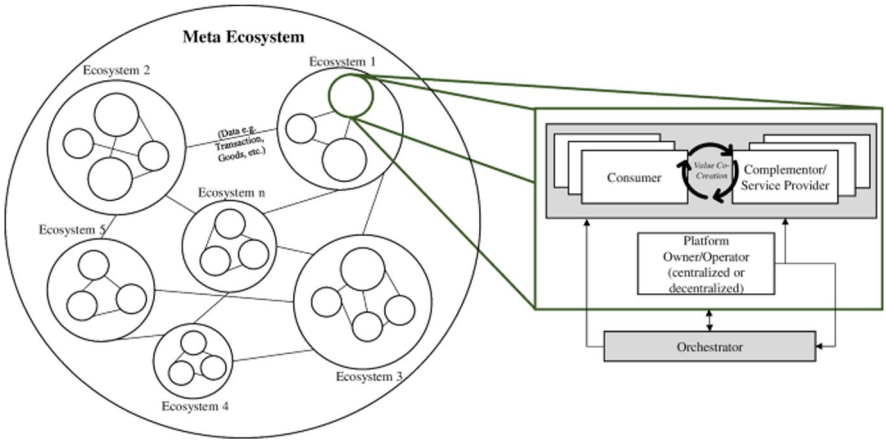

Fig. 2 The meta ecosystem. (Source: Schöbel and Leimeister 2023)

advocates for a decentralized autonomous organization (DAO) where decisions belong to users and data storage is decentralized (Diwedi et al. 2022).

The metaverse places users at its core, offering them autonomy and the ability to interact, create, and commercialize assets securely. This user-centric approach challenges traditional media and TV, particularly in catering to younger audiences who seek more immersive and interactive experiences. Thus, the metaverse offers many chances for the creation of new companies, products, services, payment methods, advertising, content creation, security, and authentication (Yemenici 2022). Users become "complementors" who act as content creators and receive revenues (Schöbel and Leimeister 2023).

The metaverse incorporates the improvement of services related to digital currencies and the development of technologies and elements that emerge around the metaverse, ensuring the security of its use (blockchain). In Web 3.0, the payment infrastructure uses cryptographic wallets, and ownership of digital assets is based on non-fungible tokens (NFTs), which are agile, transferable, and not locked into the platform.

The interoperability among the agents becomes a crucial pillar in the success of the metaverse. In the absence of a "persistent" virtual experience guaranteed by agreements between ecosystems, the metaverse may not exist as such (Schöbel and Leimeister 2023; Diwedi et al. 2022). Now, the technology and infrastructure that would enable the development of a metaverse on which avatars can move freely between platforms and ecosystems do not exist (Diwedi et al. 2022).

Numerous companies across various sectors are increasingly delving into the opportunities presented by the metaverse, viewing it as a viable platform for the content and its distribution and as a communication platform. The marketing perspective is gaining importance in academic research, with sectors like tourism and fashion retail, are gaining much attention in the academic literature. However, in the context of the metaverse as a platform for entertainment industries and mass media,

exploration is still in its early stages (Crespo-Pereira et al. 2023). Much remains to be uncovered and studied in this evolving field.

Preliminary literature research points out that the metaverse offers opportunities such as the following:

(1) Data Collection and Analysis: The metaverse facilitates more extensive and sophisticated data collection (from facial recognition sensors and eye tracking) compared to traditional screens or social networks (Rauschnabel et al. 2022).
(2) User Monitoring and Insights to Create New Experiences: This data holds implications for companies in areas such as product development, distribution, marketing strategies, and customized advertising (Rauschnabel et al. 2022; Lu and Mintz 2023).
(3) Replacement of Television Screens with AR Technology: AR holograph applications and technology may potentially replace traditional television screens in the future (Rauschnabel et al. 2022).
(4) Monetization Opportunities: The metaverse advocates for a virtual ecosystem with multiple revenue-generation formulas and new monetization possibilities (Park and Kim 2022).
(5) AI in the Metaverse Experience: AI plays a pivotal role in creating the metaverse experience, interacting with users through virtual agents that assist in product purchases and the creation of 3D influencers or AR holograms designed to connect with users (Diwedi et al. 2022).
(6) Customized Content: The metaverse's potential to facilitate customized products for consumers is particularly noteworthy (Diwedi et al. 2022). The metaverse, in the form of AR, could assist in creating virtual variations of physical products, new products, new customer service offerings, and/or service personalization (Rauschnabel et al. 2022).
(7) Metaverse as a Communication Tool: It is a new medium for brand building and increasing notoriety (Cheah and Sadat Shimul 2023), and new spaces for advertising and strategies related to virtual influencer marketing (Lu and Mintz 2023).
(8) Opportunities for Enterprises: It offers opportunities for enterprises, encompassing content distribution, advertising, and direct sales of products (Rauschnabel et al. 2022).

4 Experimental Cases of Public Service Media in the Metaverse

Some examples of the introduction of media in the metaverse explode the inmersiveness, the creation of communities, and the possibility to reach new audiences as well as the opportunity that metaverse platforms allow new ways to monetize products. In order to connect with new publics, FranceTV Publicité has introduced "Virtual Odysseys," a web series set in 2035 where two virtual characters and Vtubers, VRé and KirAI, host a vlog about the metaverse. The innovative project

was creatively executed using the VRChat platform, where videos were entirely shot in virtual spaces with pre-created environments and avatars. Although the camera, sets, and costumes are virtual, real actors wear virtual outfits, with their movements captured through motion capture technology and their voices recorded during filming. This marks a pioneering effort by an advertising agency in France.

France Televisions has developed a virtual world in VRChat that recreates Stade 2 set and offers some sports games in virtual reality which is accessible for PC and VR headsets. This initiative helps the broadcaster to reach global audiences, offer diverse events by leveraging the appeal of sports, evoke strong emotions, build community through FanZones, and establish a connection between linear television and VR.

The BBC has established a presence in the Sandbox platform, offering an interactive space featuring immersive content from prominent BBC brands such as Top Gear and Doctor Who, as well as events hosted by the BBC. According to BBC Studios, this metaverse project aligns with their strategy to expand into new categories through technological innovation.

A particular initiative is The Doctor Who: Worlds Apart, which is an officially licensed, free-to-play collectible trading card game inspired by the renowned television franchise Doctor Who. Players can collect, battle, trade, and interact with others with these cards that can be obtained through Doctor Who–themed tokenized packs or the secondary marketplace, where each card is an NFT (non-fungible token) with a unique serial number that allows gamers to trade these items for real money or even compatible games released in the future.

5 Expert Opinion: Possibilities of the Metaverse for the Engagement of Young Audiences and Brand Building

The experimentation of public service media with new technologies in the era of digitalization has had surprising results for the sector as a whole. The opening up to new formats, production dynamics, distribution channels, associated platforms and personalized conversational tones has amplified the possibilities of consolidating a service that is relevant to society. These changes and updates to the strategies and roadmaps of the different agents have also had an impact on branding processes and the projection of corporate values, with which corporations try to differentiate themselves in a highly competitive, specialized and demanding market.

The new generations of digital native audiences are increasingly demanding a service far removed from traditional consumption patterns, demanding content that can be viewed quickly, with easily understood arguments and recreated in an innovative way. This is why the optimization of devices by technological developers is advancing in line with these new demands and is boosting the planning and production of journalistic pieces adapted to these new media, tools, and environments.

The common opinion among the group of experts consulted by the authors for this project is that the first approaches of public service media with the metaverse will be more linked to initiatives related to gaming and entertainment formats, trying to establish and strengthen a new service that will be available in parallel to the rest of their offer, without this impacting for the time being on a real replacement of activities.

This immersive content will be transferred to productive news routines and news creation, but in a second period of experimentation and testing and as there is a real and prominent migration of audiences toward these environments. This is why this first phase is being driven by eye-catching, mainly playful initiatives, with the intention of establishing a valuable conversation in these environments.

The barrier to accessing virtual spaces encountered by users is closely linked to a lack of knowledge in the use of devices and a lack of literacy in the latest consumption trends and modalities. These barriers are lower in the case of young audiences, while in the case of older audiences, this often leads to a high rate of abandonment and disregard for these solutions. This is why, as access to these tools becomes more democratic, the acceptance rate will be higher and the results obtained by communication companies will take a qualitative leap forward.

Ethics is another of the aspects that must be addressed as a priority in relation to new technologies. In the case of artificial intelligence, there is already European legislation in force that regulates its use and implementation in different sectors, which has permeated the governments of the different countries, motivating them to begin to outline and publish the first versions of their national AI strategies. In the case of the metaverse, it would be of interest to establish a regulation that controls the virtual communities that settle in it, as well as the main ethical and moral rules that users should follow in order to promote the creation of socially healthy environments.

Professionals specializing in the metaverse believe that the first approximations between journalism and virtual spaces will be directed toward the coverage of virtual events that take place in these environments, such as gaming competitions, specific cultural initiatives such as shows, concerts, or sports tournaments, and political and social events that are specifically represented in these spaces. The role of journalism will be fundamental for the verification of information in the metaverse, where it is relatively easy to create in volume and to achieve relevance and public repercussion.

One of the central points and differential possibilities that the metaverse offers for journalistic routines is related to the co-creation of content between users and communication professionals. As with social and live broadcasting platforms, the metaverse blurs the lines between creators and consumers, giving any viewer the position of producer, thus establishing an active two-way conversation on which the main value proposition is built and which involves and establishes the community around a given media outlet, brand, or platform.

6 Content Creation in the Metaverse

Although experts agree that the metaverse will be most successful initially in initiatives linked to entertainment and playful content, they consider that its impact on the dynamics of news production and distribution will also be noticeable, which will be reflected in the packaging of news and innovative immersive formats produced by the media. Even so, the common opinion is that the media still have to learn and discover how to really take advantage of the metaverse to squeeze the most out of it and to be able to optimize the user experience and extract more added value from this combination.

The timeframe expected by these technology professionals for the metaverse to have a real influence on the news is around 5 years, which will translate into a period of adaptation of the solutions, in a greater study and knowledge of the possibilities of the tools, and in the time for integration and accommodation of these environments in the daily routines of the users, who today still live slightly removed from the virtual spaces. This evolution is expected to be dynamic and transformative, without undermining the essential principles of the journalistic profession but modifying part of the work routines, especially those linked to current technology.

Among the potentialities of the metaverse that are expected to mark a significant change after its integration into newsrooms is the immersion and personalization of news. The implementation of virtual reality and augmented reality technologies will give a new dimension to the consumption of news products, involving the user inside the content and transferring them to a point of view close to the facts. It will be of interest to monitor whether the media are finally able to project useful proposals in which the participation of viewers in virtual environments provides real value and not just another consumption alternative.

The distribution of NFT will be another interesting factor in personalizing the experience of each user, thus building differentiated profiles with unique characteristics that result in different ways of experiencing the existing content offer. The commercialization of these elements will open up a new line of content monetization, with the use of the metaverse not only being relevant for the purpose of user engagement or the renewal of current narratives, formats, and platforms but also as a means of economic empowerment.

Along these lines, the integration of artificial intelligence will also be used to individualize the experience of audiences by generating news programs tailored to their tastes and interests. As a system is established to recognize the consumption patterns of each viewer, AI will be able to format the parent news content to incorporate the appropriate narrative resources, length, and tone to meet the demands of each user.

Regulating the storage, use, and processing of personal data will be another priority issue to work on in the structural establishment of the metaverse as an information consumption platform. It will also be necessary to avoid the biases that can be reproduced automatically by artificial intelligence algorithms, which are capable of

massively distributing opinions influenced by the inputs that train the system, which is why human control and supervision is essential in the development process of these prototypes in order to optimize and refine their operation.

The uptake of the metaverse will be uneven between public and private media, and this will be linked to factors such as the innovation capacity of each type of media, reflected both in the procedures and speed of implementation and in the funding allocated in each group to the development of technology and new disruptive solutions. However, the traditional, slower model of structural innovation characteristic of public media is increasingly opening up to incorporate disruptive dynamics and proposals in order to reduce the competitive gap with commercial operators.

Experts do not rule out the possibility of the creation of original native media in the metaverse, although they believe that it is still too early to assess this circumstance and that its possible irruption will go hand in hand with the optimization of software and related devices, both for creators and consumers. In the meantime, they agree that the most frequent initiatives will be linked to digital native media, which have a greater capacity for experimentation in environments far removed from traditional production routines.

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