

CELEBRATING THE DURGA PUJA HINDU FESTIVAL OF INDIA, VIA DIGITAL APPLICATIONS

ARKAPRAVA CHATTOPADHYAY

ABSTRACT: Home to a plethora of religious customs and beliefs, “deity worship” is an integral part of the everyday life of Indian Hindus. Apart from temples serving as spaces for regular prayer, various festivals are also celebrated over an annual ritualistic itinerary providing an underlying foundation that reflects the socio-religious and cultural tapestry of the region. The Durga Puja of Bengal, India, is one such festival that has been celebrated by millions of people for centuries. But then, as the global pandemic of 2020 led to such gatherings being temporarily halted to avoid large crowds, specific digital alternatives were initiated that allowed the devotees to manoeuvre around the physical restrictions enforced and yet fulfil their religious needs. Achieved through a confluence of digital innovations ranging from VFX-based and virtual reality-based religious applications to virtual congregations and live streaming — the technologies utilized genuinely contributed to an alternative form of digital worship. A digitalisation, secularisation and overall universalisation of the religious festival itself was also effectuated via these. Furthermore, although initially due to necessity in 2020 owing to the pandemic, these went on to become an integral part of the Durga Puja festival even over the consequent years of normalcy. Employing a mixed method approach combining traditional ethnography, digital ethnography and social semiotics to focus on the emergence, utilization and the subsequent religious negotiations caused by these digital innovations — the study reveals the hermeneutic symbiosis between traditional Hindu practices and digital technology, also attending to the commodification of such festivals. Moreover, in light of the gaining popularity of the newly achieved technology propelled dimensions, the oppositional conflict arising out of the diminishing perceptions for these innovations amongst the community of Hindu priests was also revealed through this study.

Culla di una pluralità di usanze e credenze religiose, l’“adorazione delle divinità” rappresenta una componente imprescindibile della vita quotidiana degli induisti in India. Oltre ai templi, che fungono da luoghi di preghiera regolare, numerosi

festival vengono celebrati secondo un itinerario rituale annuale che ne costituisce un fondamento sottostante e riflette l'intreccio socio-religioso e culturale della regione. Il Durga Puja del Bengala, in India, è uno di questi festival, celebrato da milioni di persone da secoli. Tuttavia, con l'avvento della pandemia globale del 2020, tali raduni furono temporaneamente sospesi per evitare assembramenti, e furono avviate specifiche alternative digitali che consentissero ai fedeli di aggirare le restrizioni fisiche imposte e soddisfare comunque i propri bisogni religiosi. Ciò fu reso possibile grazie a un insieme di innovazioni digitali che spaziano da applicazioni religiose basate sulla realtà virtuale e sugli effetti speciali (VFX) a congregazioni virtuali e trasmissioni in diretta — tecnologie che contribuirono effettivamente a una forma alternativa di culto digitale. Tali innovazioni resero possibile una digitalizzazione, secolarizzazione e, in una certa misura, una universalizzazione del festival religioso stesso. Inoltre, sebbene nate per necessità nel 2020 in risposta alla pandemia, esse sono diventate parte integrante del festival del Durga Puja anche negli anni successivi, segnati da un ritorno alla normalità. Adottando un approccio metodologico misto, che combina etnografia tradizionale, etnografia digitale e semiotica sociale per analizzare l'emergere, l'utilizzo e le negoziazioni religiose scaturite da queste innovazioni digitali, lo studio mette in luce la simbiosi ermeneutica tra pratiche induiste tradizionali e tecnologia digitale, prestando altresì attenzione alla mercificazione di tali festività. Inoltre, alla luce della crescente popolarità delle nuove dimensioni tecnologiche raggiunte, lo studio rivela anche il conflitto oppositivo sorto a causa della percezione decrescente di tali innovazioni all'interno della comunità dei sacerdoti induisti.

KEYWORDS: Hinduism, Digital Religion, Durga Puja, Ethnosemiotics, Mediatization

PAROLE CHIAVE: Induismo, Religione digitale, Durga Puja, Etnosemiotica, Mediatizzazione

1. Introduction

India is an ancient land where spirituality is an integral part of daily life and living. Home to a diverse population, the people follow Hinduism, Islam, Christianity, Buddhism, Jainism and various animistic faiths in localized cultural settings. The majority though (966 million people of the country; 79.8% of the overall population) follow Hinduism (Census 2011). To effectuate an inclusive proselytization, mainstream Hinduism accommodated many of the regional folk-religion practices within its framework over time, resulting in thousands of regional Gods and Goddesses and their associated narratives being further included

within the diverse Hindu pantheon and its ever-expanding mythology. Worshipped to derive a sense of spiritual contentment and catharsis across communities, apart from individual prayer, congregations and pilgrimage, thousands of ritualistic festivals have been ensured to transcend generations. In the context of the mass worship in India though, the most popular deities of Hinduism are *Shiva* (with devotees across India), *Vishnu* and his avatars *Ram* and *Krishna* (with devotees concentrated in the north and some regions of the south), *Durga* (mostly revered in the states of Bengal and Assam), *Ganesha* (most revered in the state of Maharashtra), and *Surya* (the Sun god mostly worshipped in the states of Bihar and Odisha). The narratives of all these deities are intertwined though, in Hindu mythology.

Enshrined by the underlying philosophy institutionalized within the *Vedas*, most of the mainstream Hindu rituals have preserved the aspects of their orthodox framework and structure, hardly evolving over time, accommodating certain localized socio-cultural contexts and the additional folklore of local deities in some cases though. But all in all, conditioning the devotees to develop a sacred space in their minds, the rituals are celebrated across all age groups and act as social bridges within the communities. Weaved into the mechanism of life and living for thousands of years, Hindu rituals are of various types. The most significant amongst these are *Samskaras*, which are associated with life events such as birth, death etc., *Pujas*, which are associated with congregations, worship and prayer, *Yajnas* and *Homas*, which are associated with fire and sacrifices aimed at divine appeasement, wish-fulfilment, etc., and *Yatras*, which are associated with spiritual travel to sacred temples. Resonating with Durkheim's (1912) concept of religion as a social phenomenon facilitating the attainment of emotional security, these rituals also play a vital role in explaining the *Vedas* in the prescribed context.

Although spread out all throughout the year, the month of October marks the beginning of the festive season celebrating religious rituals such as the "Durga Puja", "Navratri", "Dusseera", amongst others. This study focusses on the Durga Puja ritualistic festival of the Indian state of West Bengal. The Durga Puja is in celebration of *Durga*; the mother Goddess who as per mythology, slays *Asura*; the king of the demons, thus re-affirming the symbolic victory of good over evil. An epitome

of women's empowerment, it is an essential ritual that requires a sequence of events to be fulfilled, including large congregations. Apart from the celebrations in communion (*dhunuchi naanch*, *sindur khela*, amongst others), the religious sequence of the *anjali*, *sandhya arati*, and *sandhi pujo* are also attended in large numbers at the makeshift venues. Celebrated over 10 days (*Mahalaya* to *Vijaya Dashami*) as per the lunar calendar (*panjika*) in the month of *Ashvin* (Sept–Oct), the sixth to tenth day is most auspicious and was held from 22nd Oct (*Shasthi*) to 26th Oct (*Dashami*), in the year 2020. Just like every year, approximately 34,000 theme-based “*pandals*” (makeshift venues that house the deities) were built in the state of West Bengal alone. As newspaper reports suggest, more than 10 million people visited such makeshift pandals in Kolkata in 2018, thus re-affirming it to be one of the largest festivals of the world (news18.com 2020; amongst others). It is also a large economic event yearly. As Niyogi (2021) reports, a joint study by British Council, IIT Kharagpur and UK's Queen Mary University estimated it at Rs 32377 crores (4.5 billion USD) in 2019. With increased spending on categories such as gold, apparel, travel and gifts, transactions across industries such as retail (3.25 billion USD), art and decoration (101.03 million USD), idol-making (32.89 million USD), illumination (24.08 million USD), literature and publishing (31.72 million USD), crafts and design (234,900 USD), films and entertainment (6.58 million USD), sponsorship (37.36 million USD), food and beverage (335.2 million USD), and advertising (59.2 million USD), were considerably amplified.

The Durga Puja of the year ‘2020’ was specifically selected for this study because the Calcutta High court passed an order in that year directing the Government to ensure that all the Durga Puja *pandals* in West Bengal be restricted as no-entry zones for devotees due to the Covid-19 pandemic; only to be accessed by the organizers and the priests. Applying to all the 34,000 *pandals* that had already been constructed in the state before the order was passed, these were all to be barricaded. The court order was in response to a petition in public interest filed by advocate Sabyasachi Chatterjee to stop Durga Puja celebrations in West Bengal to avoid the spread of the Covid-19 owing to large crowds. The State Government appealed against the order but to

no avail. The devotees' reactions to the High court order was one of utter dismay. In fact, the State Government challenging the court's decision was an indication of its intent to cater to the public sentiments which were intertwined with their faith. As many believed that it was the Goddess herself who would deliver them from evil, which in this case was perceived as the Corona virus — many perceived the court order as a deterrent to this salvation. Thus, as the religious sentiments and faith of millions of people had to be negotiated with, it is striking to note that various digital innovations emerged through the social shaping of media technology that enabled the people to abide by the restrictions and yet achieve their religious goals.

Deriving a theoretical framework based on the works of Zeiler (2020) and Mukherjee (2022) in regards to digital Hinduism; Campbell (2013) in regards to the social shaping of technology; Hjavard (2013) in regards to mediatization; Hepp and Couldry (2017) in regards to the mediated construction of reality, and Geertz's (1985) reference to religion as a system of symbols — the objectives of this study were to find out — which were the digital innovations that emerged? Did these allow for an alternative form of grandeur and awe via opportunities for special effects and digital enhancements? What impact did these innovations have on the devotees? How were these innovations perceived by the orthodox Hindus and the traditional community of priests? Moreover, the socio-religious negotiations and undercurrents associated with this phenomenon of confluence between Hindu religious rituals and technology, were also investigated from a broader perspective.

2. The study

To inquire into these questions (posed in the paragraph above), a mixed-method approach combining digital ethnography and traditional ethnography was adopted, also employing social semiotics to recognize the hermeneutic symbiosis between traditional Hindu culture and digital technology in the broader context. Descriptive, exploratory, inductive-iterative at the core, the study conducted was also “participatory”, given the researcher's Bengali ethnicity and years of involvement in the Durga

Date	Name	Comment
22.10.2021	Amartya Chakroborty	<i>Sobaike janai subho bijoya . Waiting for the rest of the pujos. Wishing you all a very prosperous day and may Ma Durga fulfills everyone's wishes. VR 360 tour is one of the best pandal hopping pujo app I have ever seen. Every tour is so detailed. Khubi shundor kore detailing kora hoyeche prottekti virtual tourke . Keep it up.....</i>
26.10.2021	Arijit Ghosh	সবাইকে জানাই শুভ বিজয়া.. বড়দের প্রণাম ও ছোটদের ভালোবাসা জানাই ।

Table 1: A sample of Facebook comments on a post about 'Puja App'.

Puja festivals of Kolkata, since childhood. Identifying the popular digital innovations of the Durga Puja by web scraping posts and comments off the relevant trending hashtags on Facebook (most widely used in Bengal) between 22nd and 26th October, 2020 — #DurgaPujo2020, #ShubhoMahalaya, #FBDurgaPujo, #IGDurgaPujo, #DurgaPujoReel, and #PujoReelChallenge — the discourse amongst the audience was analyzed to gauge their sentiment towards these innovations. But although the digital quantification tools served as an overall indicator of which innovations had gained momentum and popularity, the analysis of the discourse proved to be incomprehensive due to the comments and interactions being predominantly in Bengali (the local language of the state), sometimes also written using phonetic English alphabets (as showcased in Table 1).

Thus, engaging as a participant observer within the discourse, interpretations pertinent to the objective of the study were derived. Identifying a purposive selection of 50 respondents amongst the commentators across all age groups in Kolkata, they were contacted

in person for in-depth interviews in regards to their experience and perception towards these innovations. Affirming a sense of “awe” towards the achieved digital grandeur, the respondents were also proud of their role in sharing and informing of these applications amongst their friends as well. In-depth interviews of key respondents such as the innovators who initiated the digital modernizations, as well as college teachers in regards to their encouragement towards students, were also undertaken.

It emerged that apart from the novel “virtual reality” and “augmented reality” based applications representing the mythological imaginaries of Hinduism, online posts in the form of “gifs” and “memes” also emerged to be popular. But then, digital innovations had already been initiated as meta-utilities in regards to the festival, over the past decade. Earlier, digital innovations such as “pandal program lists”, “police helplines”, “blogs”, “puja based food recipe apps”, “stickers”, “gifs”, “memes”, “reels” and “selfie competitions” were gradually making consistent inroads into the digital itinerary of the people. These were popular in 2020 as well. Furthermore, post the arrival of Facebook and Instagram in India, social media was flooded with photographs of pandal visits during the festivals. But then in earlier times, although a religious ritual such as Durga Puja had an impact on the online social media landscape, it was never dependent on it in any major way. The year 2020 was very different in this regard. Triggered by the pandemic, as the gradual pace of technological diffusion was significantly accelerated, apart from emerging as necessitous support systems, the traditional ritual was considerably mediatized according to the needs of society. The new digital innovations that were initiated to cope with the challenges of the pandemic restrictions were as follows:

1. Virtual reality / 360 degree photography-based puja parikrama applications
2. Virtual congregations and live Internet broadcast
3. Live streaming cultural programs
4. Augmented reality filters
5. Durga Puja 2020-based music videos

3. Virtual reality / 360 degree photography based Puja Parikrama applications

Given that the people could not visit the makeshift *pandals* housing the sanctum sanctorum of Goddess Durga as every year, various digital applications emerged that were virtual reality based manifests of these *pandals* enabling the people to sit at home, choose from the list of the best pandals in the city of Kolkata and undergo a virtual tour (*parikrama*) in which the directional manoeuvring controls were provided to the users. This enabled them to digitally enter into the pandal, look left, right, up, down and furthermore move back and forth. The users could also zoom in and out at will. Every minute detail within the puja pandals were meticulously captured using high definition 360 degree cameras and advanced software to stitch the images. Although virtual reality based applications were already being used in others sectors such as real estate, education, amongst others, this was the first time that technology became significant for religious purposes.

It is important to note that some tech startups had already been in the business of offering VR based experiences of pandals, pilgrimage sites and temples even over the previous decade. For example, Bengaluru-based startup “Kalpnik” developed the “VR Devotee” app in January 2018. Theirs and other VR immersive and interactive experiences were part of the *Kumbh mela* of Prayag in 2019. Apart from VR applications such as “27 Mantraa” and “Morkshshil”, virtual reconstructions of sacred landscapes such as the “Vishnupada virtual temple” were also gaining popularity. But then, these were all ancillaries, rather than a part of the ritualistic religious process; not serving as any integral element to the purpose. The Covid-19 based lockdown of 2020 and the resultant restrictions on a large Hindu festival such as the Durga Puja that year thus emerged as a crucible of change. A change that accommodated and transformed the role of such applications into becoming critical elements that enabled the success of the ritual itself.

During the Durga Puja of 2020, amongst the VR based services that emerged such as E-Puja, “Utsav App” and “ABP Digital”, the initiatives of the “Puja App 8.0” were most successful and gained immense popularity over the five main days of the ritual. After information



Figure 1: Photograph of a “Puja App 8.0” virtual tour (*parikramas*). (thepuja.app, 2020)

about the app went viral on social media, 533,149 people used the on-line digital application available on their cloud based website “thepuja.app” on the five main days of the ritual between 22nd October and 26th October, 2020, amongst an user-base spread out across all ages. As the founders of the Puja App 8.0 Arpan Chatterjee and Soumadipto Mukherjee revealed, there was a five-fold increase in the user base of their application during Durga Puja 2020, up from 143,436 users over the past seven years (21.2% of the overall 676,585 users till that date). The application (the first amongst such Durga Puja VR apps) had already been launched in 2013 as a tool for non-resident Indians abroad, to enable them to virtually explore the Durga Puja festival venues in Kolkata. In the times of the pandemic, it transformed into an essential support mechanism for the residents of Kolkata itself, as well as people from other parts of world. Although predominant amongst young users in the age group between 25 years and 35 years, it was striking to note that there were also thousands of users aged above 60 years old.

4. Virtual congregations and live internet broadcast

Although the virtual reality applications provided a detailed showcase of the sanctum sanctorum, the experience was pre-recorded and somewhat superficial to many. As people used these to experience the theme, decorations, intricate details, artistic manifests and the sculpted make of the idols at the famous *pandals* in Kolkata, the local neighbourhood puja organizers adopted yet another novel digital innovation — “virtual congregations”. To facilitate “live participation” in the ritualistic

sequence of the puja being conducted by the priests of the venues, virtual meet applications such as Zoom and Google Meet were popularly used across Kolkata neighbourhoods. The organizers of the pujas at each locality (puja committees) ensured that they sent the virtual meet invitations to all the people in the close knit communities (*paras*) who had contributed *chanda* (financial donation) towards the organizing fund, on each of the days. As Swapnanil Chakravarty, a senior member at the *Mukundapur Durgotsav Committee* explained, a congregation of all the people in the neighbourhood is a necessary element of the ritual. Every year, the people pray “together” as they watch the priest conduct the puja. In 2020, the meetings were hosted from the *pandals* using high quality cameras and sound equipment focussing on the ritual as it happened, and these were regularly attended virtually in large numbers. Furthermore, pujas representing larger neighbourhoods such as *Singhi Park* and *Ekdalia Evergreen* opted for daily broadcast of the entire proceedings at the pandals using Facebook Live and Youtube Live. The links to these being shared on Whatsapp went viral all across India, overwhelmingly reaching beyond their respective neighbourhoods. The puja organized by *21 Pally Ballyganj* in Kolkata received an average of 35 thousand Youtube Live views at each phase throughout the ritual. On the other hand, whereas the morning rituals of the puja organized by the *Ramakrishna Math* in Chennai received 40,000 views on YouTube, their evening time ritual received 10,000 views.

As Suman Bhattacharya, a volunteer at the *Dumdum Park Tarun Dal* puja explained, the highest footfall at the virtual congregations and live broadcasts were during the most significant and auspicious stages of the puja sequence such as the *Adhibas* (establishing the idol), *Shasthi Puja* and *Saptami Puja* (recitation of mantras), *Sandhi Puja* (invoking the warrior goddess), *Ashtami Anjali* (showering flowers and prayer) and *Sandhya Arati* (fire based ritual). Certain elements of the ritual such as *Kala Bou Snan* (bathing of Ganesha’s wife) and *Bisarjan* (conclusion of the journey of the Goddess) which took place on the riverside away from the pandals, were showcased to the people using mobile phone captured videos. However, elements such as *Sindur Khela* (smearing vermilion) and *Dhunuchi Nanch* (dance holding fire vessels) had to be done away with altogether as these involved face to face mass gatherings and touch.

All in all, the VR based application allowed for solo access to the *sanctum sanctorum* invoking peace—in–solitude as well as “awe” in perceiving the manifested grandeur. Moreover, the virtual congregations allowed for the virtual celebration of togetherness with other people.

5. Live streaming cultural programs

Cultural programs have always been an integral part of the Durga Puja festival. Adjacent to every *pandal*, there are usually makeshift stages that are constructed for showcasing cultural performances every evening. As the sitting area in front of the stage served as the primary area of communion and congregation during the festival — apart from music, dance and theatrical skits performed by the residents of the neighbourhood, popular artists were also engaged on each festival day. A manifestation of the culture of Bengal, of which Goddess Durga is an integral part. In fact, whereas elders of any Hindu Bengali family consider Goddess Durga to be their daughter (married to God Shiva), for most of the younger members she serves as a mother who has returned to protect, love and bless them. In both cases, Goddess Durga is considered a Bengali woman who is appeased at the flourish of Bengali culture. During Durga Puja 2020, the cultural programs were for the first time held online. To cater to this need, there emerged various live streaming studio setups such as WooLaLa, Stalin’s Jampad and 666 Grooveyard who provided indoor stage setups for live streaming performances. Apart from providing a soundproof live performance studio including a decorated stage, microphones, sound systems, lights and smoke machines where artists would come and perform — live streaming equipment such as multiple camera systems, live video switchers and software were also installed. As Abhishek Banerjee (*Saltlake AD Block Durgotsav Committee*) affirmed, there was a high demand for such premises during Durga Puja 2020. As these were rented out to the various puja committees who arranged for artists to arrive there and perform, the live streaming link was shared amongst the people of their respective neighbourhood, thus ensuring virtual cultural programs, essential to the festival.

Souvik Lahiri — a founding partner at “WooLaLa” revealed — various puja committees outsourced the entire responsibility of organizing the cultural celebration to “WooLaLa”. Ensuring a diverse pool of folk artists, “Rabindrasangeet” artists, amongst other genres, the link of each performance could be sourced out to various puja organizers simultaneously, who then further disseminated these amongst their neighborhood residents. Thus, it emerged as a lucrative business model not just for the artists, but also “WooLaLa”. Whilst some of the organizers preferred Zoom as the showcase platform, some resorted to streaming it out live on Facebook and Youtube, to reach out to larger audiences. As the genre of artists associated with the Durga Puja-based cultural programs are Bengal-oriented, during Durga Puja 2020, “WooLaLa” not just catered to Kolkata-based Puja organizers, but also to the Bengali diaspora in Bangalore, Chennai and even in the USA and Canada. Furthermore, as Kanad Bose — proprietor of the “666 Grooveyard” mentioned — in some cases, it were the artists themselves who hired the premises and performed via their social media pages, gratifying various puja organizers simultaneously. Overall, the digital spaces and social media being bombarded with online performances of Bengali music, dance and theatre genuinely contributed to the overall grandeur of the 2020 festival.

6. Augmented reality filters

Another digital innovation that popularly emerged amongst the people during the Durga Puja 2020 were augmented reality filters. These were applications that animated the face of the user (scanned through their mobile cameras), superimposing them into digital avatars of the divine characters associated with the festival (*Durga*, *Ganesha*, *Lakshmi*, *Saraswati*, *Kartik* and *Mahishasur*). These gained significant popularity, especially amongst the youth. Initiated by Facebook and Instagram, whereas the AR (augmented reality) effect “Durga Pujo” enabled people to shift from the *Durga* (Goddess) avatar to the *Mahishasur* (Demon) avatar with a shift of their head, the “Puja Parikrama” effect enabled people to see themselves inside a virtual Durga Puja *pandal*. The links



Figure 2: Photograph of the Durga Puja Augmented Reality Effect. (tech.hindustan-times.com 2020)

to these were extensively shared on Whatsapp and people posting pictures of themselves in these augmented avatars were found across social media on all the five days of the ritual. Although not a critical support tool spiritually, these provided some much needed entertainment in the context of the Durga Puja, in troubled times.

7. Durga Puja 2020–based music videos

The rising popularity of the virtual reality–based puja–parikrama applications and augmented reality filters were considerably accelerated by yet another contextual digital innovation — Durga Puja 2020–based music videos. As various such expressions emerged on Facebook, the most popular amongst them was “*Ebar Pujoy Fakay Fakay*” by Kolkata based musician Anindya Chakravarti (DJ Bapon) featuring the Bengali band “Khokon Company”. Reaching out to 324,000 people in those 5 festival days, the music video garnered 11,383 likes, 1,168 shares and 319 comments. Chakravarti was convinced that his music video would inspire people to adopt the new digital innovations which in turn would keep them safe at home. In fact, his initiative was financially supported by the Puja App 8.0. Laden with humour, the underlying

social message of staying at home during the Durga Pujas was portrayed through the visuals, lyrics and voiceovers. As his medium acted as a satirical deterrent against people wandering out into the pandals, the 25 year old artist expressed his satisfaction at having ensured a positive role in support of the nation's efforts against the pandemic as well as contributing to the grandeur of the Durga Puja of 2020.

8. Audience perspectives

The trending hashtags between 22nd and 26th October, 2020 — #DurgaPujo2020, #ShubhoMahalaya, #FBDurgaPujo, #IGDurgaPujo, #DurgaPujoReel, and #PujoReelChallenge — were laden with posts disseminating virtual reality-based applications, virtual congregations, live broadcasts, live streaming cultural programs, augmented reality filters and music videos. The intensive discourse between the audiences (online interactions through comments) generally showcased a positive trajectory of their sentiment towards these. As the large number of views, and likes significantly re-affirmed this trend, the in-depth interviews of 38 out of the 50 respondents (purposely selected from amongst the commentators) indicated that the users were not just satisfied using these innovations but also looked forward to using them in the forthcoming years. The rest 12 were keen on going back to the way things were and stressed upon the keyword “superficial”, most often. The contentment confirmed by the 38 “satisfied” respondents was not just based on religious gratification, but also on certain common individualistic traits. Whereas keywords such “grand”, “fashionable”, “trendy”, “tech-savvy”, “innovative”, and “awesome” were most frequently identified amongst respondents below 30 years of age (28 people) — keywords such as “spirituality”, “innovative” and “blessing” were prominent amongst the rest (10 nos.). Apart from evident generalized keywords such as “Durga Puja” and others associated with the elements of the ritual, the keyword “virtual puja” was found to be most frequent across all age groups. The numerous “re-posts” and “shares” due to the people's acceptance of these new innovations ensured the transformation of a generalized social media environment, into a grand

sacred space where a religious ritual such as the “Durga Puja” successfully played out amidst a consciously created ambience of spirituality. A realm where the “virtual reality”, “augmented reality” and “remote access” based representations were revered and venerated. Additionally, “gifs”, “memes”, “reels”, etc. also played a significant supporting role in generating the “festive mood” backdrop. The rising popularity of these digital innovations were also acknowledged by the mainstream media (Kundu 2020; Pal 2020; amongst others) as a novel trend that helped contain the spread of the virus, thus in turn supporting the nation’s battle against the Covid-19 crisis by ensuring people stay at home.

9. Ethnosemiotic observations

The digital secularisation, universalisation and mediatisation of major Hindu rituals such as the Durga Puja not just reveals the complex and evolving negotiations between tradition, culture and technology, but also the manoeuvrings between the sacred and profane. Social media platforms and Internet websites are often filled with sexual content, sleazy humour, violence and other such generic content that is significantly oppositional to the ethics of traditional culture and religion. Thus, the utilisation of such a profane space per se as an integral element of a sacred ritual ignited mixed reactions. Secularizing and universalizing the ritual by providing virtual access of the digital sacred spaces (*pan-dals*) to Muslims, Christians and other religious communities, the set institutional boundaries of hierarchical access (on the basis of religion, caste, etc.) were considerably breached. A giant leap in the evolution of this centuries old traditional festival, the Durga Puja of 2020 genuinely reconstructed the traditional denotation of the religious process, generating contemporary connotations that genuinely reflect the culture and societal structure of Bengal of present times. Changing meanings and extending its reach, a new kind of Durga Puja was established. Most of the devotees, embraced the technological opportunities, rather than feeling hurt over issues such as universal access and secularisation.

Presently Bengal is inhabited by a large number of migrants from the states of Rajasthan, Bihar, Odisha and Northeast India. The

centre–point of the Durga Puja festival, the state’s capital Kolkata is a cosmopolitan, fraternal city that is inhabited by 4,496,694 people of various faiths and ethnicities. Apart from the 3,417,400 Hindus who are the majority, it is also home to 926,000 Muslims, 39,500 Christians; amongst others (Census 2011). A multicultural familial space ensuing cultural assimilation and relativism, the people are often seen to celebrate each other’s religious festivals in addition to their own. This spirit of camaraderie and cultural relativism was genuinely reflected during the Durga Puja of 2020. However, whereas the adaptability of Hindu rituals due to the indulgence of Bengali Hindu devotees was evident, oppositional negotiations such the dismantling of the hierarchy of priests, setting aside caste contexts, providing access of the sacred space to Muslims and Christians, etc. also considerably played out. In fact, the Hindu priests and those holding Hindu institutional positions were much angered at the VR applications. As the priests’ central role in the ritual were majorly diminished in the virtual manifests via these, they rebuked the authenticity, contribution and popularity of these applications, most vigorously disapproving of the universal access and secularisation that ensued. Linking the digital applications to the capitalist logic of consumption, questions of the commodification of Hinduism were also raised. However, as virtual congregations, live telecasts and live streaming of the ritual also became a part of Durga Puja 2020’s digital innovation landscape, the importance of the priests’ role in the religious process was somewhat reinstated, thus convincing them to accommodate the overall innovations and eventually acknowledge them.

People resort to prayer and worship when they face adversity. Religious gatherings, as the people perceived, were meant to save the people from calamities such as this. Thus, the High Court ban left them dismayed. As was revealed in various interviews with the selected respondents, even a “State” versus “God” perception had developed amongst many. But eventually over the next few days, as most people had already been affected by the raging pandemic directly or indirectly, they consciously chose to seclude themselves within the confines of their homes, despite the urge to participate in the festival and celebrate in defiance. For them, these new digital innovations arrived as a mental support. Being able to ensure most of the traditional customs

using digital platforms, there was no further excuse to move out. The social dynamics of the ritual had changed though. The collective festive ritual had been transformed into a solitary engagement via the digital apps with the contentment that Puja organizers were ensuring that the priests genuinely performed the ritualistic duties at the *pandal* venues. The people were consistently updated of this through the virtual congregations. As the people sent in their names for recommendation to the Goddess Durga (a practice called *anjali*), blessings were virtually ensured through the digital applications (Zoom and Google Meet) and live streaming platforms. Furthermore, there were other benefits as well. Even the elderly who had been missing out on their religious rituals for years to avoid large crowds, were gifted the virtual experience to their heart's delight.

10. Conclusion

The grandeur of festivals such as Durga Puja, Ganesh Chaturthi, and Diwali in cosmopolitan Indian cities not only reflect cultural continuity, but also a complex interdependence of economics, religion, and urban inequality. These rituals, deeply embedded in Hindu tradition, have grown into grand celebrations marked by extravagant decorations, large public installations, celebrity endorsements, and massive consumer spending. While invoking critical questions surrounding economies of scale and the patterns of expenditure in urban centres often grappling with unemployment and poverty, celebrations such as the Ganesh Chaturthi in Mumbai, Diwali (across India), etc., see exponential spikes in retail and e-commerce activity, pushing middle-class households into high-consumption modes (Mazzarella 2003). In Kolkata, despite the city's high employment rate, the Durga Puja economy was valued at over 4.5 billion USD yet (Niyogi 2021). With the Durga Puja's integration with digital technologies, an additional strand of consumption also took shape. Moreover, festivals demand immense energies and efforts from working-class individuals, many of whom are engaged in temporary or underpaid roles in the service of the spectacle. From electricians stringing up lights overnight to migrant workers

setting up temporary structures and making idols under hazardous conditions — the festive grandeur conceals these labour dynamics though. At the same time, the capitalist approach of such Hindu festivals significantly feeds a consumption culture that also subtly aligns itself with Hindu nationalist sentiments. Through the packaging of tradition into commodified forms, Hinduism becomes not only practiced, but increasingly consumed (Nanda 2009); the digital innovations paving a way for a future strand along these lines.

Apart from the digital innovations emerging as effective support systems to this festive ritual in 2020, enhanced surrealistic environments made via VFX, 3D photography and editing technologies also generated a sense of alternative grandeur and awe to the overall experience. An embrace that ensured that a new avatar of the festival combining religious rituals and digital media took shape. Whereas decorative grandeur has always been an integral part of Hindu temples (laden with gold and other valuables), the Durga Puja pandals would usually showcase large chandeliers and fountains as well as other artistic manifests. Utilizing opportunities for special effects and digital enhancements, the decorative spaces of the virtual *pandals* were tailored to include divine imagery in the form of rotating planets, the vastness of the universe, supernovas and various other celestial representations — sometimes placed within the mouth of a digitally depicted God Vishnu, as was described in the religious narrative of the “Bhagavad Gita” (sacred text of Hinduism). Larger-than-life representations of God Shiva (husband of Goddess Durga as per Hindu mythology) were also often included in the virtual *pandals*, with the holy river Ganga designed to flow out from the top of his head.

It is therefore evident that the credibility, heritage, and participatory nature of “rituals” are significantly enhanced when complimented by the technological spontaneity, remote access features and flexibility of the Internet based digital media. The study thus revealed that the needs of society once again shaped technology to serve its purpose. As the world healed into its post pandemic phase, it became difficult for the people to deny the efficiency of these digital innovations and return to their original ways. Thus, one can considerably speculate that these digital innovations have forever become an integral part of the overall

Durga Puja tradition altogether and shall be further developed upon in the forthcoming years. These innovations could also make their way into other such Hindu rituals and in fact already are. Initiating the digitization of traditional rituals, the era of “digital platforms” as effective conduits for Hindu religious meaning-making, has thus arrived.

Bibliographic references

- AKTOR M. (2017) *Material Religion*, in *Oxford Bibliographies*. doi 10.1093/obo/9780195399318-0181, (last access 13 September, 2022).
- BAUMAN Z. (1978) *Hermeneutics and Social Science: Approaches to Understanding*, Hutchinson, London.
- CAMPBELL H. (2010) *When Religion Meets New Media*, Routledge, London.
- . (2013) *Digital Religion: Understanding Religious Practices in New Media Worlds*, Routledge, London.
- CAREY J. (2009) *Communication as Culture* (revised ed.), Routledge, New York (Original work published in 1989).
- CHOWDHURY S. (2020, October 20) *Durga Puja Pandals in Bengal Out of Bounds for Visitors: Calcutta High Court*, “Indian Express”, <https://indianexpress.com/article/cities/kolkata/durga-puja-pandals-west-bengal-to-be-no-entry-zones-calcutta-high-court-6789187/>, (last access 22 February, 2021).
- DURKHEIM E. (1995) *The Elementary Forms of Religious Life*, (translated into English by K.E. Fields), Free Press, Cambridge (Original work published in 1912).
- HANNABUS S. (2005) *Contemporary Hinduism: Ritual Culture and Practice*, “Reference Reviews”, 19(8): 9–10. Doi 10.1108/09504120510632426.
- HEPP A. and N. COULDRY (2017) *Mediated Construction of Reality*, Polity, Cambridge.
- HJAVARD S. (2013) *The Mediatization of Culture and Society*, Routledge, New York.
- HOOVER S. (1995) *Media and Moral Order in Post-positivist Media Studies*, “Journal of Communication”, 45(1): 136–145. onlinelibrary.wiley.com/toc/14602466/1995/45/1, (last access 21 March, 2021).
- . (1997) “Media and the Construction of the Religious Public Sphere”, in S.M. Hoover and K. Lundby (eds.), *Rethinking Media, Religion, and Culture* (pp. 283–297), Sage, Thousand Oaks.

- . (2005) *Encyclopedia of Religion*, encyclopedia.com/environment/encyclopedias-almanacs-transcripts-and-maps/media-and-religion (last access 21 April, 2020).
- KUNDU S. (2020) *Durga Puja 2020 Empty Pandals and Virtual Celebrations: Covid-19 Dampens Kolkata Spirit*, “Deccan Herald”, www.deccanherald.com/national/east-and-northeast/durga-puja-2020-empty-pandals-and-virtual-celebrations-covid-19-dampens-kolkatas-spirit-905297.html, (last access 22 March, 2021).
- MASARELLA W. (2003) *Shoveling Smoke: Advertising and Globalization in Contemporary India*, Duke University Press, Durham.
- MUKHERJEE U. (2022) *Live Streaming the Goddess in the Times of COVID-19: A Digital Ethnography of Diasporic Durga Puja Festivals in Pandemic Britain*, “Religion”, 52(2): 231–249. doi 10.1080/0048721X.2022.2051802
- NANDA M. (2009) *The God Market: How Globalization is Making India More Hindu*, Random House India, New Delhi.
- NIYOGI S. (2021) *Tie Up Durga Puja with Travel Circuit to Boost Economy: Study*, “The Times of India”, timesofindia.indiatimes.com/city/kolkata/tie-up-durga-puja-with-travel-circuit-to-boost-economy-study/articleshow/81007567.cms, (last access 16 May, 2025).
- PAL M. (2020) *Facebook, Instagram roll out new features for Durga Pujo 2020: All you need to know*, “TimesNowNews.com”, www.timesnownews.com/technology-science/article/facebook-instagram-rolls-out-new-features-for-durga-pujo-2020-all-you-need-to-know/670166, (last access 21 March, 2021).
- STOUT D. (2012) *Media and Religion: Foundations of an Emerging Field*, Routledge, Oxon.
- ZEILER X. (2020) *Digital Hinduism*, Routledge, New York.

Websites

- News18.com. (2020) *Kolkata Metro Records Highest Ever Footfall in 34 Years with Over 9 Lakh Passengers on Shasti*, “News 18”, www.news18.com/news/india/durga-puja-2018-kolkata-metro-records-highest-ever-footfall-in-34-years-with-over-9-lakh-passengers-on-shashti-1910821.html, (last access 26 March, 2021).

Tech.hindustantimes.com. (2020) *Facebook and Instagram launches features and programming for #DurgaPujo*. tech.hindustantimes.com/tech/news/facebook-instagram-introduce-durga-pujo-themed-ar-filters-stickers-and-content-71603264362546.html, (last access 7 April, 2021).

Thepuja.app (2020) *Virtual tour of Sreebhoomi sporting club Durga puja*, thepuja.app/VirtualTour/DurgaPuja/sreebhumi-sporting-club-durga-puja-2020, (last access 26 December, 2020).