

DIGITAL MIGRATION OF PRINT MEDIA IN INDIA: A CASE STUDY OF FOUR TRADITIONAL ENGLISH NEWSPAPERS (1997 – 2018)

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Doctor of Philosophy in Communication

By

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and

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- 2) “Evolution of online news form: A case study of Hindustan Times from 1995 to 2017. Analysing the parameters that determine content formats online” as online conference paper at annual conference of the International Association for Media and Communication Research, Tsinghua University, China. 11-15 July 2022

Further, the student has passed the following courses towards fulfilment of the coursework requirement for PhD.:

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Dedicated to my mother and grand-father, who moulded my thoughts

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Abstract

The study seeks to trace the formal transitions of traditional print news dailies upon their online migration. To achieve this end, it makes a case study of the websites of the four major Indian English newspapers. The web interfaces of the respective news organisations are retrieved for the period spanning 1997 to 2018, and the innovations that it brought about over the years are documented. In this endeavour, it uses the framework of analysis proposed by Niels Bruggen, which involves delimiting of websites as objects of study. The formal transitions thus observed are attempted to read from the contexts of simultaneous cultural and technological circumstances. Manovich's concept of 'hybrid media' is used in the work to explain the interactions of traditional news culture and web specific affordances. The way the news organisations appropriated various functions that are intrinsically linked with the digital culture are discussed, alongside the underlying motivations that they served. The theory of 'remediation' put forth by Bolter and Grusin, is used to rationalise these changes and to view the developments within a broader perspective. It compliments the information thus achieved with inputs from the journalists of the respective organisations. In the in-depth interviews with them they elaborate on their respective newsroom practices and their individual experiences as media professionals through the years. It explicates how the editorial dominance of the news organisations gradually waned in the realm of online, in tunes of the big-tech interests. It discusses at length the disruptions caused by the social media spaces upon the news culture, particularly how it redefined the audience relation with the news platforms. The damages suffered by the news organisations owing to such transitions, and the simultaneous changes in the work culture comes up in the interviews. Despite the set-backs, they are optimistic of the future of the traditional news organisations, for which they cite their reasons. The study concludes with a comprehensive analysis of the scenario, attempting to elucidate the transitions in light of the paradigm shifts that happened in the media sector.

List of abbreviations

AdTech	Advertisement Technology
BARC	Broadcast Audience Research Council
BSNL	Bharat Sanchar Nigam Limited
CMC	Computer Mediated Communication
CMS	Content Management System
Connex	Computer Network Experiment
DMOZ	Directory Mozilla
ERNET	Education and Research Network
HTML	Hypertext Markup Language
ISP	Internet Service Provider
IAMAI	Internet And Mobile Association of India
MoJo	Mobile Journalism
NCSDCT	National Centre for Software Development and Computing Techniques
NRI	Non Resident Indians
OTT	Over The Top
OS	Operating System
PTI	Press Trust of India
PDA	Portable Digital Assistant
RSS	Really Simple Syndication
SAC	Space Application Centre
SEO	Search Engine Optimisation
SMS	Short Message Service
TRC	Telecom Research Centre
TRAI	Telecom Regulatory Authority of India
USP	Unique Selling Proposition

VSNL	Videsh Sanchar Nigam Limited
WML	Wireless Markup Language
WWW	World Wide Web
WAP	Wireless Access Protocol
W3C	World Wide Web Consortium
XML	Extensible Markup Language

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Introduction

The immense surge of internet usage and associated developments over the past decade has invited scholarly attention to the Indian digital realm. While it took 15 years to attain 8% internet penetration in India (from 1995 to 2010), (World Bank, 2014) in 2020, it reached 40%. The year also witnessed rural internet users outnumbering urban users for the first time (Digbijay and Madhav, 2020). India constitutes the second largest internet market, behind only China. India is also said to have the cheapest internet connection in the world. There are 504 million active internet users above the age of five. There is an apparent rise in the amount of time spent on smartphones: 4.3 hours per day as of March 2020 (Digbijay and Madhav, 2020). The use of the internet for news consumption practices has also undergone drastic changes over the past few years. There is increasing demand for news content from smaller cities and towns contrary to the previous years' practices. Also, the survey by BARC (Broadcast Audience Research Council) and Nielsen observes an increasing demand for video content over textual content (TechRadar, 2020). These reports indicate the proliferation of the internet and internet-enabled services in India, which has led to associated transitions in various institutional and industrial practices. Of the disruptions the internet created in various sectors over the last decade, the most intense had been in the media industry. The news industry, in particular, was forced to reconsider its age-old practices and functioning styles due to various reasons brought forth by the dynamic shifts that occurred in the communication realms. These changes simultaneously resulted in formal transitions of news. The way the traditional print media houses reacted to these situations and adapted for the online would make an interesting case study, considering the unique trajectory of internet growth in India. The relevance of this study could also be explained in the absence of in-depth research in the field pertaining to the formal transitions of online news, with the focus on tentative changes since their early days.

The form of news is in constant evolution. In various instances of this evolutionary process, there have been scholarly attempts to rationalise the changes caused by the various factors underlying the practices of news production and consumption. The last two decades have been critical insofar as journalism practices are concerned, as they witnessed a series of developments that reoriented the mass communication realm. The technological changes and associated transitions in news production and consumption practices form the nucleus of a range of contemporary academic enquiries. Most discussions on contemporary journalism tend to focus on the ‘disruptions’ to the field facilitated by the large-scale mediatization of consumers’ lives. The formal shifts of news have been occurring since their inception, contingent on the sociocultural conditions pertaining to the information dissemination processes. Ever since the internet became utilised as a potential site for news, the dynamics of this transformation attained a definitive turn. It could well be argued that the formal transition of news over the past two decades has been more intense than ever before in the history of journalism. There have been attempts to study this formal transition of online journalism alongside the history of the internet itself and the user experiences it provided at various instances of its evolution. Such an approach is considered ideal for generating knowledge on the evolving news forms while accounting for its underlying elements such as production practices, dynamics of dissemination, commercial aspects, etc. The present study is an attempt in that direction to document and analyse the formal transition of legacy media news websites in India.

History of the Internet in India

The earliest phase of information networking in India was the government project ‘ERNET’ (Education and Research Network), which enabled swift communication lines with the country’s premier educational institutions. ERNET was conceptualised by the scientists at

COMNEX (Computer Network Experiment), a joint creation of the three government entities. NCSDCT (National Centre for Software Development and Computing Techniques), SAC (Space Application Centre) and TRC (Telecom Research Centre). The project got fully operational by 1987 (Ramani, 2011). The first attempt towards the online news dissemination process, though at a tiny scale, happened due to a collaborative project of NCSDCT and PTI (Press Trust of India). NCSDCT was involved in the archival and intelligent information retrieval of news items for PTI, which was carried out through a telex link connecting both. With mutual understanding, certain selected news items were posted in a Usenet (internet-assisted network of discussion groups) news group by name *soc.culture.indian*, which enabled the Indian diaspora across the world to stay connected with the nation (Ramani, 2011).

Public access to the internet was announced by VSNL (Videsh Sanchar Nigam Limited) in the country on August 15, 1995. Major news portals such as *Times of India*, *The Hindu*, *The Indian Express* and *Hindustan Times* launched their respective online handles the very next year itself.

VSNL service, the government enterprise, had caused many inconveniences to consumers with regard to internet usage. Establishing connections via VSNL service used to be a challenge. The users had to do hours of dialling before getting connected. People used to wait till 8:00 PM to have a comparatively uninterrupted internet connection, as the congestion in telephone lines would be lesser by then (Singhal, 2011). Further, the VSNL internet service was on offer only from four gateway cities (Mumbai, Delhi, Chennai and Kolkata); the Department of Telecommunications (DoT) did not allow its expansion over to other parts (Choudhary, 2011). This acutely constrained the internet user base in India. In such a context, the government conceded to the growing demands for liberalising the internet market in India by enabling the operation of private Internet Service Providers (ISPs) in the country. The

government opened up the ISP market to private players in 1998, following which the first company to attain a license was *Sify* (Satyam Infoway). The company could exploit the lack of potential competitors in the market and churn out immense profit from this newly opened avenue. This escalated the number of internet users. *Sify* had also opened up a chain of internet cafes and thereby started a new cultural shift.

The new telecom policy launched by the Department of Telecommunications in 1999 empowered the private ISPs as it sanctioned them to set up international satellite gateways. The decisions led to a remarkable surge in internet users in India and kick-started e-commerce and other internet-based transactions. This situation necessitated the government to frame fresh laws to govern cyberspace, and in response to this scenario, parliament passed the Information Technology act in 2000. As far as Indian online journalism is concerned, the year also marked a major milestone; the country witnessed the first major expose by an internet-based news portal. The investigative report carried out by *Tehelka.com* on the match-fixing scams in Indian cricket sent furores across the country. The fledgling market of ISPs, in their attempts to reach maximum consumers and provide potential user experiences, tried to expand their target zones beyond the cities and endeavoured to extend them to remote villages. The inconveniences and upscale rates of dial-up internet had been deterrents in this process, eventually leading to their displacement by cable internet services. However, the year 2001 witnessed a tremendous drop in internet-based services, which had been in conjunction with the global trend, which the market observers described as the “dot-com bubble burst” (Choudhary, 2011). Several of the websites got closed down or went into hibernation following this.

Indian government endeavoured to overcome the crisis by initiating alternative plans. In the years following 2002, there were several governmental actions aimed at increasing internet penetration rates in the country and also reigniting internet-based initiatives. Indian

ISPs were sanctioned to set up international submarine gateways in 2002, strengthening their reach and efficiency. In the year 2004, BSNL (Bharat Sanchar Nigam Limited) introduced broadband internet services in India following the declaration of broadband policy by the Department of Telecommunication. This introduced high-speed internet services to thousands of households across the country at an economical rate compared to the previous scenarios.

The year 2010 witnessed two significant government actions that proved crucial in the growth trajectory of the internet in India; the Telecom Regulatory Authority of India released a national broadband plan aiming at subsequent reductions in broadband rates; the major telecom players auctioned the 3G spectrum. Internet use began escalating drastically in 2010; the impact of mobile gadgets is seen as a major contributing factor. A significant development in this juncture has been the extension of the internet populace to non-English speaking audiences. The country witnessed an apparent increase in media start-ups in the following years, particularly in regional languages.

India is estimated to have reached 30% internet penetration by 2015 (IAMAI-IMRB, 2015). The participation of the country's populace in various social media spaces witnessed a considerable increase in these years. Internet penetration overtook the anticipated growth rates, which was majorly caused by the availability of cheaper mobile gadgets and decreasing tariffs on mobile internet. The entry of *Reliance Jio Infocomm Limited* into the market is considered a significant accelerant in internet penetration rates. Their launch offer of 6 months of free internet gave them a head start into the market, gaining ten crore subscribers in 170 days (Gurnaney, 2017). The steep rise in internet users also meant a significant increase in social media presence. In 2021, 56.3 crores of the population were estimated to be using *Whatsapp*, 30.9 crore *Instagram* users and 44.7 crore *facebook* users (Times of India, 2022). The reports indicate that the number of smartphone users is constantly increasing; an average Indian is

estimated to be spending 4.3 hours of his/her day on these mobile gadgets, a significant share of which amounts to news consumption.

Literature Review

In this section, the attempt is to focus on the available academic works that characterise diverse approaches in addressing the field of study. The literature on distinct themes associated with the subject is surveyed and considered as part of the present study to examine the gap if there is any.

News Form

The work of Barnhurst and Nerone (2001) is a prominent attempt at exploring the formal evolution of news. According to them, analysing news forms is significant, as it “...supplies the standard against which content is measured”. In their study, they have attempted to explore the interconnection between “newspaper form and democratic civil culture”. They explained the news form as:

... the persisting visible structure of the newspaper, the things that make the New York Times, for example, recognisable as the same newspaper day after day, although its contents change. The form includes the things that are traditionally labelled layout and design, and typography, but it also includes habits of illustration, genres of reportage, and schemes of departmentalisation. The form is everything a newspaper does to present the look of the news...(Barnhurst and Nerone 2001, p3)

The formal orientation of any media, Nerone and Barnhurst (2001) argues, could be seen as a normative imagination of itself, an ideal that they reflexively reiterate over and again. Their framework of a formal analysis is rooted in the position of treating news form as the embodiment of “...imagined relationship of a medium to its society and polity”. Hence, they

argue, a formal analysis could assume the shape of an ideological critique. They also question the notion of an ‘individual sovereign reader’, as it presupposes a space uninfluenced by the news forms of different media. They claim that while readers make meaning of the news content they consume, they do so not under their chosen circumstances. The form imposes certain “tacit rules”, which “...allows certain reading practices and work against others”. They remark that the media form is a collective result of the environment created by individual media practices, industry practices and a range of other cultural practices, which generates particular forms that may last years, or at times may even get “fossilised” for centuries. It reflects the institutional and ideological circumstances where it operates and could provide insights into the social and political research of the associated periods.

The form of news also serves a ritualistic function; Barnhurst and Nerone (2003) use JW Carey’s (quoted in Barnhurst & Nerone, 2003) postulation of the ritual communication function to explicate their argument further. The media enable the individual audience to imagine themselves as part of the larger community by circulating content that keeps them informed and connected to the polity. Here, Barnhurst and Nerone observe that the contents will differ daily; however, they are packaged in the same format and reach the masses every day. Hence, the ritual function of news could be seen as a direct implication of news form. They observe it is the ritual function of news that mainly got distorted in the age of online news, as “...readers read fewer items, with less pleasure, and with less of a sense of joining a public. The voice of the newspaper disappears almost entirely into the endless array of options presented to the reader” (Barnhurst & Nerone. 2003). While there exist formal peculiarities to which online news adheres, it does not cater to such a social function as that of traditional media, according to them.

Formal Peculiarities of News Online

The online news had formal continuities with the print traditions. The affordances of the space-enabled potential novelties and how they were incorporated have been subject to numerous academic enquiries. The positioning of news and the nature of accessibility the users have presented form the crux of studies on formal characteristics.

There have been arguments that online journalism facilitates transnational flows by transcending state boundaries: presenting themselves as if in a “nexus of local, national and global flows” and, in effect, creating “new subjectivities” and “hybrid discourses” (Costa, 2011). Boczkowski (1999) has pointed out how online newspapers bring together diasporic communities worldwide. He defines online news websites as spaces where the audience is brought together irrespective of geographical location rather than based on language and topics of interest. Over the past decade, there have been several studies on the affordances of online spaces to form communities beyond geographical reach and its implications (Bruns, et al. 2016), (Burgess & Fernandez, 2016).

The power of formal factors in dictating the narratives online and setting up discourses is observed, as also its potential usage in mass campaigns (Baishya, 2014). Alfred Hermida (2010) has explicated the formal factors that characterise online news and their functions. The “ambient mode” of news consumption from “asynchronous”, “lightweight”, and “always on” media, he argues, creates a mental model of news and events around. According to him, the audience creates their own meaning out of the fragments of information they are embedded in. Several scholars have documented the formal innovations facilitated by such an environment.

The ubiquitous environment of communication has significantly disrupted the news dissemination culture online. It necessitated novel approaches to reaching the audience. Danielle K Kilgo and Vinicio Sinta (2016) observe new sensational news forms in emerging journalism practices online. In their study, they observe the rising prominence of soft news

content (which they define as articles structured in a more narrative style of writing) than hard news (which mostly reports on ‘breaking events’ and strictly adheres to the forms of traditional news reports). They have argued three salient features typical of most “viral” (the contents that attain rapid circulation online at scale) news articles. They are ‘Forward Referencing’, ‘Personalisation’ and ‘Listicle Structure’. ‘Forward Referencing’ is the practice of giving headlines that partly hints at the issue or events that are being reported while at the same time not giving any explicit references. “This strategy identifies an object without first giving it a definition, using pronouns and demonstrative adjectives instead, leaving the actual subject as a mystery” (Kilgo & Sinta, 2016). (*Eg: These people are identified as the future of Bollywood. Know why!*). Such a form, observes Kilgo and Sinta, is contrary to the traditional journalistic practice of giving headlines addressing the crux of the story by identifying “who” or “what” concerned. The tactic here provokes the readers to click on the news by introducing an information gap. Personalisation is another characteristic of “viral” content, as identified by Kilgo and Sinta (2016), which attempts to invoke curiosity among the audience and drive them to visit the content page. The attempt is to create interpersonal relations with the readers by using personal pronouns in the headlines. Personalisation is argued to influence the audience to read and engage with it by attempting to embed them in the articles. Listicle Structure is a characteristic popularised and generally associated with born-digital news portals. They are information snippets organised in the form of a list; their headlines mostly begin with a cardinal number (*Eg: 10 things you need to know if you are planning a trip outside India!*).

The formal transitions of online news could be read alongside the larger global shifts witnessed across various realms of cultural productions. Jay David Bolter’s (2019) work on contemporary media cultural practices (which he calls media “plenitude”) could be used to understand online news practices better. He observes a growing tendency that disrupts the traditionally held relation between arts and other expressive forms with established cultural

practices. The cultural products are increasingly fragmented, and there is no longer a universal standard against which one could measure their quality of them, he argues. Various communities may have their standards and meaning-making processes. A cultural product that receives acceptance across different communities may undergo a different meaning-making process in each. He names ‘procedurality’ as the common characteristic of the media culture of our times, which implies the involvement of algorithms and programs in determining effective engagements with humans and machines. “Procedural media” forms favour the way of cultural consumption characterised as ‘flow’. The term was conceptualised by psychologist Mihalyi Csikszentmihalyi (quoted in Bolter, 2019); Bolter defines it as the “pleasure of losing oneself”, which he argues is a key characteristic of contemporary media culture. One may get immersed in the cultural artefacts he/she is engaged with, whether it be video games, social media, online videos, etc. “They offer the viewer, player, or participant pleasure at the moment, but also the seductive possibility that the moment might go on indefinitely” (Bolter, 2019). The experience of flow is contrasted with the ‘catharsis’, which is argued to be the major characteristic trait associated with traditional media forms. The experience of ‘catharsis’ is bound to end within the given time. However, it is not the case that the ‘cathartic’ experience got displaced by the ‘flow’ experience; rather, they both exist with equal prominence now, observes Bolter (2019).

Another prominent characteristic that “delineates” the media culture of the present is the “remix culture”, according to Bolter (2019). While traditionally, originality had been a revered property in creative practices, remix culture has assumed better significance over the years. It involves a collection of fragments of information or cultural products created by others, refashioning it in a different mould and presenting it as an altogether different experience. Such practices have influenced cultural production across various realms, which is also evident in news culture. The refashioning of information and contents several times to

create multiple stories with the same input and restructuring it to fit under different sections (highlighting different facet of the story in each) is a common practice of the online news industry.

The influence of ‘procedural’ logic is not just limited to the realm of cultural production, observes Bolter (2019). It redefines not just the cultural dynamics but also the users embedded in it. He argues that our relationship with technology now is more intimate than what it used to be in the age of ‘mass industrialisation’. Each new device and software comes with its own set of rules and practices, characterising new models of interactions with the technology; in order to use a device, the users need to become part of the procedure, argues Bolter. “...our relationship to technology is now subtler and more intimate than in the age of mass industrialisation. Along with our economic activities, social life is becoming increasingly proceduralised, and many users of all ages seem now enjoy the proceduralisation of entertainment and forms of social communication” (Bolter. 2019).

The developments were not limited to the realm of news consumption; newsroom practices, too, underwent transitions to better cater to the audience’s needs. There had been endeavours to have an optimal presence in a radically altered communication environment. However, the approach to the online realm considerably varied across the different portals, which influenced their performance.

Influence of Institutional Practices and Professional Dynamics Upon Content Production

According to most scholarly approaches, the influence of underlying production practices is central to formal innovations. The shifts in production practices of the legacy media houses, followed by their attempts to move online, have received immense scholarly attention. However, this shift is not a one-time process but rather an evolving one closely associated with the dynamic nature of the internet itself.

The theme of ‘media convergence’ has been a subject of numerous academic works. Lynne Cooke (2005) has explicated it in her study; she points out three realms on which the convergence scholarship has mainly focussed. They are economical, technological/production and cultural/visual. Economic convergence is the result of media conglomerates acquiring various media houses. Here it is said that the convergence is caused by the economic, political and social parameters that bind them together. Technology/production convergence indicates the merger of two or more media technologies or the creation of an environment of content sharing between them. Visual/cultural convergence is more like an offshoot of the other two; the economic and technology/production convergence creates an environment where others could easily appropriate the distinct formal characteristics of a media. Contrary to popular perception, Bolter and Grusin (1999) state that media convergence does not mean arriving at a single plausible solution and eventually eliminating the diverse media experiences provided by older media. Rather the technologies remediate each other in various fashions and ratios and set forth a diverse range of new audience experiences. He claims that in the face of convergence, our fundamental understanding of media would be determined by how they challenge and reform other media.

Boczkowski’s (2004) work is a prominent one, which attempted to look at the evolving journalistic practices as they went ‘digital’ and how they created subsequent impacts upon the form. He views online journalism as the result of journalists’ appropriation of the latest technologies and redefining their previous practices. Any new media, according to Boczkowski (2004), is a result of a potential merger between “social and material infrastructures with novel technical capabilities”. His work attempts to look at how ‘non-print’ publishing methods were adopted by the American dailies and analyse it through the framework of “mutual shaping of technological and social change”. He observes three major information practices when traditionally print-based media adapts to the internet; ‘repurposing’, ‘recombining’ and

‘recreating’. Repurposing indicates the affinity to adopt print-based practices and content for the web; he observes that most of the online news of the mid-1990s had been the reproduction of newspaper content. ‘Recombination’ involved a departure from the print practice of clubbing together the various important daily occurrences, instead enabling readers to scan through contents in customised settings. ‘Recreating’ involved the production of original content exclusively for the web; it followed aesthetic standards different from that of newspapers and other traditional media, depending on practices and forms that were developed in other emerging spaces associated with digital production. He makes case studies on three novel approaches in content creation among web editions of three prominent US dailies in his study.

Boczkowski posits that the fact that the initial contents of online spaces, the products made of digital tools, were reproductions of print forms is a validation of the arguments against technological determinism. Also, he defines this tendency as “mimetic originality”, whereby the attempts towards novelties in form eventually result in “creative production of sameness”. Further, he analyses how the adoption of digital technology served different results in different institutional settings; the basic characteristics often associated with new media, such as ‘immediacy’ and ‘hypermediacy’, varied across various media institutions. He establishes that they were the outcomes of locally contingent practices rather than standard characteristics of digital media.

Regarding the practice of newspapers exploring non-print alternatives, Boczkowski has observed two major tendencies: the first is the prioritisation of the print over the non-print ventures and attempting to maintain the traditional model intact. The second tendency is to venture into the web and exploit all its advantages, the result of which is argued to be dependent upon the factors such as the relation between print and digital newsrooms, defining the targeted users and potentially addressing them through contents, and the character of online newsrooms

(whether they adhered to the traditional editorial practices or adopted newer models in accordance to changed circumstances). The formal transitions undergone by various portals over the years were also the results of the different institutional approaches to technological adoption, according to Boczkowski.

Hunsinger, et al. (2010) have attempted to theorise in depth the influence of institutional practices and corporate strategies of media houses upon cultural productions. He employs the framework of Miles and Snow (quoted in Hunsinger, et al, 2010) to analyse the corporate strategies concerning the online operations of the media houses he chose for his study. Miles and Snow have broadly categorised the companies into four, based on their reactions to the changes in external circumstances. There are *Defenders*, whose area of operation is limited (and they do well within that narrow space) and hence refuse to make many readjustments to alter to the changed circumstances; *Prospectors*, who incessantly seek novel practices and strive to stay ahead of the competitors in adapting to the changed circumstances; *Analysers*, who operate in different types of markets and hence refuse to make alterations in places where they are stable and bereft of competitions while seeking to innovate and adapt in places where they do have competitors; and *Reactors*, who are unable to make changes owing to various of their internal issues, they are the ones that lack consistent ‘strategy-structure’ relationship. Such categorisations hold relevance while analysing the online performances of traditional news portals. Hunsinger, et al. (2010) attempts a cross-national case study of two portals based upon this model and try to evaluate each based on their reactions to the new media innovations. It also tries to address the types of journalisms that could potentially evolve out of changing institutional and technological frameworks. A major conclusion from the study is that the centralised news production system (which could be read as an outcome of the *defender* strategy by the news platforms) could result in the adoption of formal peculiarities of the most

dominant channel/platform and hinders exploiting the affordances enabled by the other different platforms in which they operate.

The new communication environment facilitated by the internet also had implications for the functioning of broadcast channels. The work of Sylvia M. Chan and Jung Suk Park (2000) has explored the content characteristics of the websites of broadcast channels. The reproduction of on-air news content constituted a major share of it. The study results claim that established media companies could better utilise internet affordances, combining them with the informational content they produce for television. This is seen as a safe route for broadcast companies that are aiming to expand over to the internet; they just have to transfer their on-air content to online platforms. Repurposing existing content that already enjoys a significant audience reach for the online audience is posed as a plausible initial strategy for these portals. However, it is also claimed that as the industry matures, they will require better original and better-customised products for the new media.

Regarding the scenario of Indian news media, analysing the institutional strategies in moving online would be significant, as the conditions were unique. Unlike most other countries, where online migration came out of necessity owing to the shrinking possibilities of traditional media models, Indian news media had the relative advantage of a profit-making traditional media market. In 2015, 40% of the advertisement revenues went to the print sector (KPMG-FICCI, 2016). Aneez, et al. (2016) observes how Indian media houses attempt to adapt to changing media environment and subsequent transformations in newsroom organisation and journalistic practices. They make a case study on the digital adaptation of three prominent print media houses: *Hindustan Times*, *Dainik Jagran* and *Malayala Manorama*; they serve different niches of audiences. They attempt to optimise their digital presence by utilising their brand recognition and editorial infrastructure attained via their traditional media. However, it is

pointed out that the legacy media suffers the liability of the “inertia” of age-old institutional practices and professional cultures, from which they cannot detach despite unfavourable outcomes in the digital realm. It is argued that the three news organisations suffer from a perceived cultural hierarchy prioritising print over digital. While the three organisations are found to be in attempts to better themselves in the digital realm through increased expenditures in new technologies, the lack of associated shifts in professional cultures are proved to be a hurdle for them.

Aneez et al. (2016) have also attempted to explore the impact of diverse models of venturing into the digital realm. It is said that while *Hindustan Times* attempted to integrate print and digital news production by creating an integrated newsroom for both, *Malayala Manorama* and *Dainik Jagran* set up parallel newsrooms for digital operations. Hence, it is argued that the digital migration in *Hindustan Times* accompanied a larger editorial involvement in comparison to that of *Dainik Jagran* and *Malayala Manorama*. The cases of *Dainik Jagran* and *Malayala Manorama* are examples of the management logic that the big companies would find challenging to enable transformations in institutional practices, and in situations that necessitate newer approaches, they would rather set up parallel institutions to cater to it. While the case of the *Hindustan Times* is read as traversing another line of development, once it is certain that the operating environment has changed, it becomes pertinent to integrate the company’s core competencies with strategies that better address the new scenario. The study observes a “lack of synergy” between the editorial, management and technical aspects as a major hindrance to the potential integration of newsrooms. For a traditional news organisation to take advantage of its existing assets to make a better online presence, it is pivotal to have organisational changes accordingly.

A significant competition that the traditional media encountered in the digital realm initially was from the stand-alone news portals, which had the relative advantage of enjoying the same audience reach with comparatively lesser production costs. These media outlets were majorly dependent upon the social media spaces, which also served the purpose of content sourcing, apart from content dissemination. These born-digital news start-ups were generally seen as the results of decreasing news production costs facilitated by technological advances. There were scholarly works that addressed the financial sustainability and reliability of such news portals, whose realm of operation is mainly constrained within social media spaces (Carr, 2014), (Jurkowitz, 2014). Also, it raised serious discourses on what is journalism and who are the journalists (Carlson, 2015). Such a cultural shift had impacted the field, and the traditional ways of operation, particularly the labour market of professional journalism, went through disruptive phases.

M.S.M Haneef & A. A Khan (2020) have studied the work culture of the journalists in standalone news portals, their operations across various social media platforms and the production of multimodal content. They make case studies on three standalone news portals in India (*OneIndia, Ippodhu and Doolnews*). Social media is identified to have altered the relationship between journalists, audiences and news organisations. It is argued that news distribution via social media is a horizontal process whereby the audiences can engage with the content. The journalists are expected to report, edit, and constantly monitor the social media pages of people who could be potential news sources and also address user feedback. While in this constant loop of tasks, it is observed that they need more time to reflect upon the issues and events and are incapable of filing detailed or analytical stories.

The consideration of audiences as capital is a prominent aspect concerning digital start-ups. Haneef and Khan (2020) argue that while in traditional media practices, it was the

journalistic works that used to constitute the revenue-generating labour, some digital news start-ups depend on audience engagements and appropriate the user-generated contents to drive traffic to their respective portals. This, they argue, has given rise to “unpaid free labour” in journalism. It is also observed that the developments have spatially reoriented the newsrooms; integrating social media spaces and digital tools with news production has facilitated several spaces and platforms from which news could potentially function.

There are also instances where standalone portals attempted to bring in legacy media houses' production routines and practices within their newsrooms. Lu Wu (2016) has studied the structural transformations attempted to bring in by *Buzzfeed*, a website that mostly carried soft news content until then, and to refashion it like that of legacy media. *Buzzfeed*'s case is a reversal of the more significant trend of “softening of news” (Wu, 2016) that happened with many online news portals then. *Buzzfeed* is observed to have restructured its mode of operation and reporting styles over the years to include more hard news content within its space. *Buzzfeed* used to be majorly dependent upon social media as news sources, and it had even devised a typical style of news presentation, including screenshots of social media statements, embedded tweets, videos etc. While such practices were acknowledged and garnered much audience interest, they raised criticisms concerning the credibility of news sources, the diminishing quality of journalism when carried out by non-professionals and the privacy concerns of using posts and messages from personal social media handles. *Buzzfeed* is identified to have gradually limited the social media-driven content and became dependent upon official news sources just like the legacy media. The case is posed as an example of how digital native media houses could evolve into potential spaces with comparable repute as that of legacy media houses through a radical restructuring of their organisational practices.

Influence of Technologies and Social Media on the Work Culture

Newsroom developments and technological advances are commonly studied in parallel, though scholarly approaches are careful not to read the former as a consequence of the latter. As Boczkowski has argued, technological developments “...do not determine by themselves the dynamics and output of newsroom practices” (2004). Instead, the various ways media houses appropriate the latest technologies and incorporate them into their everyday news practices is considered a more significant approach. The rise of social media spaces and mobile gadgets are often seen as two major digital innovations that have caused potential disruptions in the global media culture and presented with unique challenges that have arguably no precedence in media history. News production had to exceed the precincts of the designated office spaces, and thereby the concept of newsrooms became more abstract. The scholarly works concern how these shifts were addressed and how the technological novelties were incorporated into the production practices.

The need to restructure the newsrooms and alter the functioning strategies to inculcate the available technological affordances better were addressed in research works. Cate Dowd (2016) has stressed the importance of the inclusion of technical experts in the newsroom. The tech teams’ assistance is important in various sectors of news production, from data visualisation to potential social media strategies. The technologically reconfigured newsrooms would provide journalists with novel ways to carry out newsgathering processes. Aneez, et al. (2016) have shown how the inclusion of various applications, such as ‘*Dataminr*’, helps extract information from various online sources. The various features of mobile gadgets and social media have integrated the different tasks associated with journalism, such as content production, visualisation, photography, videography, publication, distribution, etc. The utilisation of content management systems (CMS) to streamline the production processes has been identified to have created potential impacts on the newsrooms. Journalists possess the technological know-how of publishing their stories on the website themselves (Aneez, et al.

2016) (Haneef & Khan, 2020). The technologically well-informed journalists are identified to have opened up the newsroom to newer possibilities. It is argued that the newsrooms of the present are increasingly becoming sites of convergence, where “different media modalities and their functions coalesce” (Haneef & Khan, 2020).

The rise of mobile journalism (MoJo) is observed to have necessitated that journalists be multi-skilled (Aneez, et al. 2016). The production of multimedia content, editing works, publication and distribution, are all carried out using the same gadget. The news contents are consumed from the same types of devices using which they are created, which is argued to have given a “native nature” to the contents. Such a condition facilitates easier collaborations and experimentations and provides potential background for novel content formats. Another significant development brought forth by mobile journalism is the comparative disregard for the technicalities while producing multimedia content. It is claimed that aesthetic standards such as perfect framing and other technicalities hold lesser significance in mobile journalism (Haneef and Khan 2020).

The adoption of smartphones for journalistic productions is connected to the more significant societal tendency towards mediatisation. Studies have posed smartphones as a tool with which users connect with their surroundings, a combination of the personal with the ecological (Miller, 2014). It is argued that the intimacy between smartphones and humans characterises the “new modernity”. There have been attempts to theorise about smartphone usage in relation to its impacts on media consumption from other sources (Thorsen, 2015). It is found that while mobile gadgets could potentially displace media consumption from traditional sources, there may also be instances where they both coexist, complementing each other. Thorsen’s (2015) findings indicate that people’s usage of smartphones or tablets for any of their everyday requirements prompts them to its gradual wider appropriation for several

other utilities as well. A radical development brought forth by mobile gadgets is the extension of media consumption to previously unavailable spaces and times (Chan 2015). The media consumption from these “situational spaces” is argued to have reconstituted people’s relation with the different media. Also, it is argued that different gadgets are used for news consumption from various situational spaces, and hence the usage of one need not necessarily indicate the displacement of the others. Courtois, et al. (2015) has also stressed the importance of spatial context in determining the device choice. The media consumption from mobile gadgets is identified to have given the audiences a sense of insularity from the social environments and also a better position to gratify individual content choices. The affordance of the audiences being selective in their media exposure is said to have characterised the larger discourses on media culture. The various technological and platform-specific novelties could be read as attempts to address such a fragmented audience.

The shifts in audience engagement with the media content forced a radical revamp of the institutional settings and production practices of the mainstream media houses. The consideration of social media platforms as the gateway to the audience has also made the media houses structure the news in accordance with the various platform-specific logic. There have been arguments that the formation of mutual agreements between the global media conglomerates and social media giants would be a beneficial move ahead (Dowd, 2015).

The increasing prominence of social media spaces in the news ecosystem is seen by several scholars as not a fruitful development insofar as the future of healthy journalism is concerned. Bell and Owen (2017) note that social media companies have created a new environment that is ‘data driven’, and news organisations are now left with the only option to function as per the conditions dictated to them. This environment encourages ‘viral’ contents, which are the ones that people would share in their respective virtual communities. However,

these contents need not necessarily adhere to journalistic standards. It is said that the strategies of various news organisations online are determined to a great extent by the policies of the big technology companies (majorly *Facebook* and *Google*). The performance of various news organisations in the “distributed environment” is governed by platform logic, and they have to produce content in accordance with these to sustain themselves in the field. Also, the constant changes in the platforms are identified to have become a growing concern for the media houses. It is observed that the platform logic is subject to transitions, and hence the contents that may work at one point need not work at a later period, which forces the news organisations to change their content formats to the policy changes of these platforms. It is said that while news organisations can post the articles on their social media handles, who gets to read what is decided by the platform algorithms and the editorial policy of the respective portals cannot predetermine it (Bell & Owen, 2017).

The digital advertisement-based revenue model is identified to have influenced the formal characteristics of online news. Bell & Owen (2017) observes that advertising technologies (adtech) have shifted the power dynamics in favour of advertisers as opposed to publishers over the years. Big tech companies are better positioned to cater to advertisers in the online realm. They enable advertisers to reach out exclusively to their target customers effectively. They also have similar strategies for advertisers aiming at larger mass of audiences. Google emerged as the largest player in the digital advertisement market, and media houses depended on it for revenue share. In the digital environment, the placement of an ad is not that important; rather, it is who gets to see it that matters. The monopoly of the publishing companies over the advertisement markets collapsed with this. Big tech companies such as Google and Facebook assign advertisements on journalistic content, and the revenue model of pay per every impression is adopted. An impact of this was that it placed the legacy media and the start-ups at the same level. The scale of site visits determined the profit, and it necessitated

the legacy media houses to adopt formal characteristics of ‘viral’ content, such as clickbait titles and thumbnails, which were popularised by the standalone portals.

Digital Aesthetics

The digital realm is argued to be endowed with unique aesthetic possibilities. As cultural production appropriated this aesthetic space in its flourishing, it has acquired unprecedented dynamics. Several media scholars have explored and analysed the scope of such a scenario. Here, it is attempted to bring forth some of those theorisations.

Impact of Digitality on Cultural Production.

According to Manovich (2013), Shannon and Weaver’s communication model (“classical communication theory”) underlies the notion of messages being “complete and definite”. He argues that such a framework cannot be used to analyse the information network of the cyber realm, as they are structured in a format that favours arbitrariness in information consumption. One can start reading / watching / listening to the content at any point (not necessarily at the beginning) and stop it arbitrarily. Here, the users are not operating within a fixed boundary, as the messages are bound to change or have modifications at any point in time. Further, the radical transformations that cyberspace had undergone in the post-web 2.0 era marked a shift in focus from messages to platforms. The context within which a message is placed is as significant as its meaning in determining its impact. The same could find implications in online news media, as when one story is being viewed, it also suggests a list of related stories (as determined by the algorithms employed). This feature, which is not the property of the content being viewed, but rather the work of the associated software put under use, adds to the experience of information consumption.

The major difference between the pre-digital information dissemination systems and

the digital ones is the capability of the latter to run various forms and sources of information within the same device. This fits well with the definition of 'new media' given by Manovich (2013); according to him, the 'newness' of new media lies in the separation of software and hardware. Various software could be used within the same hardware, which is historically unprecedented. This enables the users to experiment with multiple tools and techniques at the same time. Adapting the concept into the media realm, it explicates the operations within cyberspace and how it enhances the user's power to choose from various possible media. This process in recent times is mediated through news aggregators or social media platforms, facilitating the readers' exposure to the sea of news and information. This 'experience', apart from the consumption of the contents the news contains, determines the act of news consumption itself. From the inception of cultural computing in Xerox parc, the attempt had been to create a new media in the literal sense, unlike simulating the existing media types (Manovich, 2013). In the process, they created several media types based on the existing ones and, at the same time, added properties to them that were previously non-existent. Alan Kay, regarded as the founder of cultural computing, has proposed the idea of 'dynabook' as an amalgamation of all the existing and yet-to-be-invented media (Kay and Goldberg, 2003). Manovich reads the developments of cultural computing adjacent to the parallel developments in the realm of art, the avant-garde artists and their endeavours to break out of age-old conventions in art production. Manovich claims that though these artistic traditions, such as Dadaism, Cubism, Modernism, etc., strived to move beyond the existing paradigms, they were still rendered under the same genre of the art form they were attempting to break from (2013). However, instead of offering a new '-ism', cultural computing provided the users with a platform that supports a multiplicity of possible information structures. Manovich considers the work of the initiators of 'cultural computing' as an instance that is diagonally opposite to 'technological determinism' as the process was not a result of the random encounter between

digital computers and modern media, rather they were thought and programmed by people who were taking inspirations from modern art, literature and media theory as much as technology (2013).

The user interfaces of online portals play a major role in determining the process of news consumption. As was stated by Manovich, in the digital realm, the ‘process’ is as important as the intended product (2013). In the initial days of cultural computing Alan Kay, one of the pioneers, was influenced by the works of the prominent psychologist Bruner, who theorised about the three mentalities of humans that are evolved in the process of their growth. They were enactive, iconic and symbolic; Alan Kay believed a technological interface must appeal to these three mentalities of humans to have a potential impact (quoted in Manovich 2013). He claimed that it is essential to program the user interfaces using real-world scenarios to reach out to novice users, allowing them to think through symbols, actions, and images.

Manovich argues that the simulation of physical media types into the digital realm is a multifarious process which involves creating various software counterparts of the tools and techniques for interacting with the content. This simulation does not occur in a one-is-to-one manner; rather, several physical materials, which were previously unrelated, would get programmed onto a single structure. When various media formats function within the same device, some operation tools may coexist across different programs. Manovich has addressed how this situation, whereby the same techniques getting replicated across the media types, would reflect upon the distinctions between them. He demarcates the digital techniques for media manipulations based on their applicability across the media types and draws two major categories; ‘media specific’ and ‘media independent’ techniques (2013). As the name indicates, the former is exclusive for specific media types (for example, blur, sharpen etc., are tools only for image format), while the latter refers to the techniques that collectively serve several formats (Eg. Cut, Copy, etc.). Such a condition, where the different media types enjoy

complementary existence, could lead the way to the enhancement of ‘hybrid media’, which Manovich defines as the combination of multiple media types where the resulting product is more than the sum of the individual components. The concept of ‘Hybrid media’, according to him, differs from that of ‘Multimedia’, as the latter points to the combination of two or more media forms without any aesthetic variations in either. Whereas hybrid media is not merely the convergence of the contents of various media formats but rather the potential blending of their languages (2013).

“Softwarization of old media did not lead to their convergence. Instead, representational formats of older media types, the techniques for creating content in these media and the interfaces for accessing them were unbundled from their physical bases and translated into software; these elements started interacting to produce new hybrids.” (Manovich, 2013 p. 3371)

The softwarization of media escalated the experiments with the form and structure of the contents, as all it required was “a novel idea and some programming” (Manovich, 2013). Such a premise enabled digital cultural products to break off conventional formats and be flexible in their aesthetics. Of the hybrid digital cultural products, the specificities associated with the successful ones would eventually get standardised. Their formation is not just through the mixing up of various formats into one, rather, it must accompany a structural transformation. This transformation, according to Manovich, must be rooted in questioning the existing conventions of various media types (Manovich, 2013).

Immediacy.

The emergence of any new media is not an isolated occurrence that happens with the invention of a new hardware device; rather, Bolter and Grusin (1999) point out that they grow from within the existing cultural spaces refashioning prevalent media forms. Their newness

lies in the “...particular ways in which they refashion older media and how older media refashion themselves to answer the challenges of new media” (Bolter and Grusin, 1999). They argue that historically, humans had been attempting to invent newer media forms that cater best to their desire for ‘immediacy’. Interactability with the media forms had also been a matter of concern. The interfaces of the respective media determine the rate and pace of dissemination. Transparency of communication is attained when the interfaces are erased (Bolter and Grusin, 1999); that is, when the user is unaware of the medium and stands in direct relation with the content.

Hypermediacy.

Bolter and Grusin explain hypermediacy as “a style of visual representation whose goal is to remind the viewer of the medium” (Bolter and Grusin, 1999). This practice is prevalent in the digital gadgets of our times, in their “heterogeneous, windowed style” of presentation. According to William J Mitchell, Hypermediacy “privileges fragmentation, indeterminacy and heterogeneity and emphasises process or performance rather than the finished art-object” (quoted in Bolter and Grusin, 1999). There has been this trend of clubbing together media forms with interactive potential under the umbrella term ‘hypermedia’. Its most highlighted theme is the random accessibility and provision of switching over from various contents arbitrarily.

The quest of digital media is towards total erasure of itself in the attempt to present itself to the users as if they are confronting the original content without any mediation. However, this never happens in entirety as the computer always intervenes and makes its presence felt. Though the simulated versions of older media forms in the digital realm provide entirely different experiences, they still retain several characteristics that mark the presence of older media. This feature, according to Bolter and Grusin (1999), is the result of their

maintaining a sense of hypermediacy. They opine that the new medium, in spite of all their efforts to remediate the older medium in its entirety, cannot achieve its end as it remains dependent on the older ones “in acknowledged or unacknowledged ways”. According to Steven Holtzman, the simulations would last only till the new media achieved its unique aesthetics. Until that point, which marks a radical break from the past, digital media would remain insignificant (quoted in Bolter and Grusin, 1999). However, Bolter and Grusin claim that such a departure is unlikely to occur; instead, they would function in a constant dialectic with older media, as earlier media forms functioned when they were introduced.

The endeavours to get past the boundaries of ‘simulations’ and to achieve the ‘real’ is not occurring in a metaphysical realm, claims Bolter and Grusin (1999); instead, here ‘real’ is conceived of in terms of users’ experience. In other words, the capability of stimulating an immediate emotional response from the users through appealing to their various senses is considered a step closer to the goal of appearing ‘real’. Though conceptually stands in opposing realms, Bolter and Grusin argue that the concepts of immediacy’ and’ hypermediacy’ and’ hypermediacy’ are the manifestations of the same desire “to get past the limits of representation”. “Just as hypermedia strive for immediacy, transparent digital technologies always end up being remediations, even precisely because they appear to deny remediation” (Bolter and Grusin 1999). They argue that all acts of mediation are, in a way, remediation, as they all depend on one or other acts of mediation.

The act of remediation could occur only within various media types, between which “relationships of respect and rivalry” exist. The eventual acceptance of ‘remediated artefacts’ depends on the social and economic dimensions of the products. Their potential to provide better experiences to the consumers in the place of the media they displaced would determine their social and economic acceptance.

Ubiquitous computing.

As conceptualised by Bolter and Grusin (1999), Ubiquitous computing points to the scenario whereby the entire world is turned into an interface. They pose it as the complimentary condition of Virtual Reality, where one experiences total immersion into a world programmed by the computer without any mediation. In the case of Ubiquitous Computing, on the contrary, the world as a whole is mediated, as everything one encounters is computers or conditioned by the same. In the words of Bolter and Grusin: “Ubiquitous computing is an attempt to reform a reality by making technological objects conform to human needs and wishes”(1999). They further opine that Ubiquitous Computing is an extreme case of hypermedia, as it involves “Injecting media into every imaginable device”, subsequently imparting them “a kind of artificial life”.

If immediacy is achieved in its potent form, it would no longer be needed to address the question of ‘self’ in media discourses, as that would mean the self is becoming one with the objects of mediation. However, given its unachievability in the current world scenario, immediacy would mean being in the presence of media and experiencing the objects of representations through that.

Studies of news websites.

The growth of web spaces made it a subject of scholarly attention; there have been different approaches to studying it. Lisbeth Thorlacius (2002) has conceptualised a framework to analyse various websites’ performance and compare their functionalities. She adapted the elements from Roman Jakobson’s linguistic communication model to frame her website analysis work. It attempts to demarcate the various functionalities of websites and to carry out an objective analysis with the same.

The media scholars interested in analysing online news forms and their evolution generally adopt a position that looks at websites as a dynamic and evolving space that carries the technological and cultural references of the time. Such approaches are dependent on web archives for information retrieval. Ian Milligan (2019) has argued that any attempt to write the history of the 1990s or later periods without reference to web archives amounts to the neglect of the major medium of the period. The data retrieved from web archives is argued to be useful as potential historical sources that bear cultural markers of the time. Mallapragada (2019) conceptualised a website as “a decentered text made up of nodes and linkages”, which defines the user experiences and, consequently, the Web’s politics. The website’s user experiences and cultural references at various points in time could inform the historical narratives or, in itself, be a historical narrative (Milligan & Brugger, 2019). Richard Rogers (2013) has proposed the usage of web archives as a source to derive historically relevant data and to make grounded claims based on it. He has utilised internet-archive to study the interface evolution of google from 1998 to 2007, and he observes its potentiality in studying the organisation of information over the years. The scholars of online news form and its evolution have utilised the web history approach to trace the changes in presentation styles and formats over the years.

Lynne Cooke (2005) has tried to document the changes in American online news websites and their models of news presentations. She studied the homepages of various news websites over the years, considering that they “serve as a window through which the public access the news source’s inner contents” (Cooke 2005). She observes that the dependence on web archives forced her to take a purposive sampling of the websites, considering their availability and completeness including all the graphical and pictorial elements. She observes that the first phase of news websites has been characterised by the “three-panel layout” format, which consisted of “a top identifier panel, left navigation panel and a right content panel”. This format is observed to have reflected the media context in refashioning the newspaper front

page. The second stage moved further from the newspaper format as it enabled more user entry points to the inner contents by presenting the news summary feature on the homepage. The display involved the headlines of various news items and brief descriptions that allowed the users to click on it, which took them to the story page. This model is identified to have given more content for the display on the homepage while at the same time considerably increasing the vertical scrolling to navigate through the homepage. The following web design phase addressed this issue by bringing in a modular news presentation. This is seen as the adoption of newspaper display styles in the 1970s. This compartmentalised various information in distinct demarcated sections using white banners and colours. This move is argued to have increased the functionality of the screen space as it accommodated comparatively more content. This modular characteristic is also seen in television screens and is considered an instance of formal convergence. Barnhurst, (2012) has observed that by the mid-2000s, the navigation in news websites got more complex owing to the increased presence of advertisements. The news stories were spread across the web pages, interspersed with various advertisements. This resulted in taking more screen time to finish reading a story; this extra time and scrolls are potentially monetised and serve as a revenue-generating model for the website. Simultaneously, the external links are observed to have considerably decreased; rather, the links attempted to keep the users within the websites. Also, the options to send feedback mails to the journalists got gradually reduced; instead, the attempt had been to encourage the users to utilise public discussion forums and generate more content within the websites. The website began functioning like a medium with unique characteristics, unlike the previous times when it had been used as a publicity platform for the print media.

The utilisation of digital resources for media research has raised serious discussions concerning methodological frameworks and their plausible impacts on established research traditions. The utilisation of web archives for studies on media forms is a typical case where it

necessitated the reorientation of established research frameworks. The academic studies indicate the need for cross-disciplinary approaches to cater to the changed circumstances.

Methodology

The study is an attempt to explore in-depth the cultural shifts in professional journalism brought forth with the onset of the internet and new media and how they led to the evolution of novel journalistic conventions over time. As part of this, it is essential to consider the various significant factors and prominent players that had a pivotal role in defining online journalism. It necessitates looking into the different strategies and operation styles adopted by the various online news portals during different stages of their growth. Given the variations in the ways of functioning among the different platforms and also the rate at which they adapted to the changing technological circumstances, a qualitative approach that looks into this cultural evolution is considered the most suitable method for this study. This is considering that it requires a nuanced approach to account for the intricacies involved in forms and practices of online journalism and their evolution over the years. As Quinn Patton has observed, qualitative methodologies are preferred over quantitative ones when the focus is on depth rather than maximising the data and arriving at generalised results (2002). The study demands such an in-depth and nuanced approach, which involves documenting and analysing the shifts in features and dynamics of online content production of four major English legacy news organisations in India.

Times of India is the most-read English daily in India, according to the Indian Readership Survey (2020). It started publication in 1838 and is the oldest-running English language daily in India. It is presently published by Bennet and Coleman Ltd, with headquarters in Mumbai. *Indian Express* was founded in 1932. Following the demise of its owner, Ramnath Goenka, the organisation got divided among the family members. The southern editions became *New Indian Express*, whereas the northern editions assumed the title *The Indian Express*. The internet edition of *The Indian Express*, *ExpressIndia* was launched in 1996. Its

headquarters is located in Noida, Uttar Pradesh. *The Hindu* was founded in 1878. It is published by *The Hindu Group*, with headquarters in Chennai. *Hindustan Times* started publication in 1924. It was the frontrunner in several digital innovations. It is published by *HT India Ltd*. The headquarters is in New Delhi.

The attempt is to adopt a web historiographical framework to analyse the news websites over the period considered for the study. A prime focus of the study being the alterations brought forth to journalism by the new media technologies, online handles of traditional media are chosen as opposed to standalone entities, as that would enable focusing upon the overall shifts in journalism practices with the advent of new technologies.

This chapter attempts to outline the theoretical framework for this study based on existing scholarship on the subject. It also summarises the methods involved in the data collection and analysis, the processes involved as well as the limitations faced.

Theoretical Framework

Newer terminologies associated with news production have surfaced, which attempt to capture the nuances involved in the production and dissemination practices of journalism in the age of new media. This is seen as reflective of a larger ontological shift from the "classical" journalism studies. Sjovaag and Karlsson (2016) opine that this shift has created disruptions in established media research practices. They investigate to what extent the available methods of journalism research are capable of accounting for the changed scenario and also the possibilities of newer methods. Referring to Rodgers (2015) and Anderson & De Maeyer (2015) establish two possible approaches to digital journalistic inquiry. While the first approach is to treat the software systems associated with digital journalistic practices as research "objects", the second one is to focus on the consequences of digitisations in the newsroom. The first dimension focuses on digital objects such as "news aggregators, search engines, content

management systems, third-party intermediaries, liquid content and hyperlinked interconnectedness” (Sjovaag and Karlsson, 2016). Sjovaag and Karlsson's point of departure is that the born-digital objects need to be understood in their own terms, which are beyond the ambit of existing frameworks. The second approach focuses on changing newsroom cultures, delocalisation of the newsroom and "overlapping relations between producer and user". Sjovaag and Karlsson claim that the established methods for studying newsroom dynamics, like ethnographic approaches, have become increasingly undependable as the 'spaces' of news production have ceased to exist as an object of study. They argue that studies that focus on digital objects for news production and dissemination would eventually shed light upon the social conditions within which they operate and subsequently the changes brought forth into it by the former. “Objectification” of digital journalistic elements, they argue, is necessary for scholarly studies considering the pace at which they keep on evolving.

The historical study of websites as objects is elaborately explicated by Niels Brugger (2009) in his study, where he devised a theoretical framework to delimit and analyse website histories. He argues that there are ‘theories of objects’ as well as ‘theories of explanation’; while the former is an attempt to frame the object of study in a systematic way, the latter approach is to understand and explain the object by placing it within a larger framework. The theories of objects must necessarily precede the theories of explanation, argues Brugger, as it is necessary to build up conceptual clarity of the research object before complicating it further. Thus, he calls his work as an attempt to formulate a theory of a website as an object. The study of the website as an object is primarily dependent upon its existence as an artefact, and hence the ambit of study is limited to medium and text while omitting factors such as sender, receiver, context, etc. Brugger’s argument here is that the signifying elements of any media (traditional or otherwise) can be studied without bringing up its users and their ways of engaging with it. “What we study is the text as it presents itself as a field of possibilities to be used. The user

confronts a text that is already structured in a specific way with specific possibilities, no matter how it is actually used by the user” (Brugger, 2009). It is not the work of website historians to recreate the users’ experience with the web, rather, it must be to delimit it as an object of study. Thus, according to Brugger web history is not to be perceived as an experience of a ‘concrete visitor’ but rather as an object of analysis. However, the results of such an analysis could be further utilized to complement the studies on website experiences, which are often carried out through other means without involving web elements as parameters. Brugger proposes three basic premises for website analysis, which are the following.

Media Environment: It is understood as the place where the website is embedded, which is generally the internet. The internet and its possibilities over various periods considered for the study are prominent, as it is what determines the potentiality of the other two elements that are proposed. The affordances enabled by the internet would become apparent when historically studying the websites. Brugger explicates this with the example of graphical and flash content which were less supported by the internet in early times. Brugger has proposed a framework of analysis specifically for historically evaluating the internet and its affordances. He bases that on three universal features of the internet; the computers as the necessary components of the network, the component computers as directly connected and the communication between them enabled by a system of shared languages (protocols). These traits would be materialised in the objects of analysis in historically, culturally, and socially significant manners and exploration of that would help the researcher situate the internet in contingent with the period considered for the study.

Textual Environment: It is a system of signifying elements within which the websites are embedded. The prominent aspect here is the Graphical User Interface, which enables the users to interact with the web content. It provides a background for the websites and their underlying structure and is very significant in making sense of the contents that they host.

Textuality: Brugger explains it as “textual elements that constitute a website as a textual phenomenon in the strict sense” (2009). These textual elements are considered to be the basic units of website analysis, and they are composed of either one or more of the following things: “Written letters (or other characters), still images, moving images and sound”. A textual element could be comprised of smaller textual elements, and their analysis could be carried out on two levels; morphological and syntactical. Morphological analysis deals with individual textual elements and their characteristics, whereas syntactical analysis focuses on combinations of various textual elements, their underlying rules and functions. Further, there are three ways to make morphological and / or syntactical analysis; semantic interrelations, formal interrelations, and physically performative interrelations. Semantic cohesion is observed when two or more textual elements are treating the same subject, formal cohesion is when they share similar properties in appearances, and physically performative cohesion is when two or more elements that are not immediately visible on the screen are connected via link or navigation and thereby enabling a possibility of action in between the various textual elements.

Such a framework, argues Brugger, could be utilized for tracing the historically evolving textual grammar of the websites under study. The focus on textual elements of the websites, and also the morphological, syntactic and physically performative relations between them at various periods in the time, would serve significantly in analysing the patterns and themes that appeared over the website. Further, he devises a systematic process to historically analyse the websites. The possibility of adopting “well-known” media theories into the web realm needs to be checked, he argues. It needs to be attempted to place the users and contexts of the website within the historically contingent “textuality and mediacy”. Brugger claims that such an approach would help to arrive at the extent to which mediacy and textuality influenced the web experiences at various points in time. Another important stage is situating the website in accordance with its connections with the other related spaces. He uses Schneider and Foot’s

concept of ‘Websphere’ to explicate this angle further. Websphere is defined as “not simply a collection of websites, but as a set of dynamically defined digital resources spanning multiple websites deemed relevant or related to a central event, concept, or theme” (quoted in Brugger, 2009). The webspheres consist of numerous webpages and web elements, and they are all embedded within the Web. Brugger points out that all these strata are interdependent and, in many ways, constitute each other’s contexts.

Studying the Temporalities of News Websites

The temporal dimension within which online news platforms operate is radically different from that of traditional media. Bodker and Brugger (2017) attempt to explore in their work how news websites textually constitute ‘time’ at their various levels. They make a case study of *The Guardian’s* website from 1995 to 2015 and analyse how the journalistic functionalities interacted with and adopted the possibilities of the digital. They argue that the ways in which the journalistic processes manifest time is in relation to the “media landscape” of the simultaneous era. The journalistic innovations associated with new media technologies are generally seen as the “elimination of space through increased speed of transmission” (Bodker and Brugger, 2017). This is reflected in the scholarly works concerning the impact of new media on journalism dynamics, as most operate within the framework of decreasing intervals of news publication resulting from the acceleration of content production. Such a development could be approached in two possible ways, argues Bodker and Brugger. The first approach is to look at it as an extension of established practices caused by the linking of more spaces within the communication infrastructure of the internet, thereby enabling wider dissemination of “multimodal” contents without any time lag. The arrival of microblogging sites could be seen as an accelerant in this regard; Bodker and Brugger observe that it made the news websites look slower, just as the news websites in pin the paste the traditional media look

like a slower system. However, the adoption of such a framework would be at the cost of a total disregard of numerous intersecting media systems and their role in constituting time. It is also problematic to make generalized claims on journalistic time merely on the basis of some particular kinds of news and their dynamics. While the dynamics of news updations are important they need to be understood in relation to the many ways journalism and news are tied to ‘continuity’, they argue. The concept of ‘continuity’ in online spaces needs to be understood in terms of the accumulation of news content in websites and apparently making it ‘searchable’ and archival. Unlike newspapers, where the news items were physically detached from the previous day, in the case of online news sites they are “...continuous and overlapping issues”. That is, apart from speed and text, the radical change is in the structure of news delivery and its associated practices. This structural transition of news dissemination style paved the way to the practice of dragging along the immediate historical contexts of the published news items. (Bodker and Brugger, 2017). Considering the most prominent online news websites are the online editions of print media, their temporalities used to be an extension of print-based practices. The history of news websites in terms of their evolving sense of temporalities would shed light upon the “dialectics of print-related practices and technological affordances as well as the emerging division of labour between digital and print in terms of temporality” (Bodker and Brugger, 2017). The option to share the news articles by the readers within their respective social media circles is seen as an aspect that further complicates the temporality of online news, as such moves in effect disembed the stories from the temporal ordering of the news websites and would place it within that of the users’ social media. However, given the effects that interactions, feedback mechanisms and shares can have on the prominence of an online news story, this in turn would complement the temporality of the news article on the website.

Websites as Sources

Richard Rogers has proposed the method of ‘Online Groundedness’ for internet-related academic research. It explores online devices and their interactions with digital objects and thereafter draws “societal changes and cultural conditions” from them (Rogers, 2013). Research methods under such a framework consider the internet and new media spaces not just as an object of study but also as sources. In the words of Richard Rogers “...online groundedness conceptualise research that follows the medium, captures its dynamics, and makes grounded claims about cultural and societal logic” (Rogers, 2013). He mentions an approach to research websites whereby the websites are thematically analysed for various features. It requires the archival of websites for references, and this could be achieved through the use of *waybackmachine* of *internetarchive.org*. Here, the website is engaged as an archived object. It enables us to study the history of webpages and their formal evolution ever since the page got indexed.

Defining the Aesthetic Standards of Digital

As Manovich (2013) has pointed out, the way the technologies are experienced by the users is via their respective interfaces. The web interfaces of the online portals give an idea regarding how it progressed. Initially, when the news websites were being set up, the attempt must have been to simulate the formal peculiarities associated with the newspapers onto the web. However, the formal aspects would undergo changes owing to the peculiarities of the platform of operation. As Manovich has argued in the case of cultural software, various functionalities would come together to compose newer models that potentially blend the languages of the tools/functionalities that were involved. This formation of “hybrid” formats is a process that is in constant evolution, given the dynamic nature of the internet realm. The novelties in online spaces that appear from time to time, which are intensified by the advances in connectivity and gadgets, would generally reorient cyberspace and would have implications in

all areas of cultural consumption. The space of online journalism would also be reflective of such changes. Their formal variations over the period of study could be read alongside the simultaneous technological circumstances.

If one is to look into the rationale behind the formal transitions in the digital realm, media theorists Jay David Bolter and Richard Grusin have explored the process of new media evolution in their work *Remediations* (1999). They argue that the evolution of new media is not a sudden process followed by the invention of a new hardware device, rather, they are rooted in old media practices. That is, the new media aesthetics are remediations of the older forms, and the former exists in a constant dialectics with the latter. According to Bolter and Grusin, the formation of new media formats is governed by two logics, which are immediacy and hypermediacy. Immediacy caters to the human desire for having an immediate relation with the mediated objects, which implies the disappearance of the media interfaces and a larger transparency in the act of mediation. On the contrary, hypermediacy implies foregrounding the media interfaces more evidently, which in the context of new media, is derived from older media practices and conventions. Both immediacy and hypermediacy are complementing factors that determine the aesthetics of remediations, according to Bolter and Grusin.

The limitation of such a research framework is, as pointed out by Boczkowski, their exclusive focus on the new media products and a total disregard for the processes that go underneath it. As per Bolter and Grusin's theory, remediations are attempts to bridge past the barriers of existing forms of mediation through advanced expressive features. Boczkowski proves in his study that the manifestation of the logic of immediacy and hypermediacy, to a great extent, is also determined by the locally contingent production practices and not just by the technological and cultural conditions. He argues that placing a predominant focus on the products without simultaneous attention on the production processes would prompt the

research to erroneously regard certain developments as technologically or culturally deterministic, while they may actually be “context-dependent outcomes” (Boczcowski, 2004).

This necessitates going beyond the medium-centred research approaches, as that would limit the study within the technologically deterministic framework. Conclusions derived from the analysis of media interfaces need to be complimented with the accounts of media professionals who were active in the field while the studied developments were unfolding.

Analytical Framework

The need for a newer framework to analyse journalism studies in the digital era is well established in the literature analysed in the previous section. Sjovaag and Karlsson’s study points to the necessity to understand digital artefacts in their own terms, which gets pertinent when the question of the formal and structural evolution of online journalism is concerned. The evolution of online journalism could be subject to analysis at various levels, as well as with different approaches. Given the nascent state of digital journalistic research, the field needs to be “objectified” as suggested by Sjovaag and Karlsson. Such an approach would enable delimiting the field, as well as conceptualising various elements which could be analysed separately and / or each providing the others’ context. The analysis of objects could potentially give insights into the social conditions within which they operate. Similar arguments are also made by Richard Rogers (2015) who claims that the field of the internet could be used as a source to elicit information regarding societal and cultural changes. Brugger has provided a framework to delimit and historically analyse the website as an object. Application of that framework to the archived news websites could enable us to shed light upon its formal evolutionary trajectory as well as its shifting production practices over the period considered for the study. Journalism’s evolution could be mapped using the various web elements, their interrelations and the prominence attributed to them at various points in time. The “textuality”

of websites, defined in terms of “morphology” and “syntax”, would be well suited for the archival study of news websites, as it enables to focus on the various elements that constitute the websites. The transformations undergone by these web elements over time could be read along with the apparent developments in the Web as well as the contextual internet infrastructures in general. As studies have indicated (Cooke, 2005), the web elements during the nascent phase of online journalism were the extensions of print-based practices, and over time, they achieved their own textual grammar. This transition could be well addressed within Manovich’s (2013) framework, where he explicates the formation of digital artefacts via the process that he defines as ‘hybridisation’. As per Manovich, when various tools of cultural production are simulated in the digital space, there is a possibility that the languages of some of these tools to combine and eventually lead to the formation of ‘hybrid’ formats. The analysis of newer journalistic forms could be well carried out through Manovich’s model for simulated tools and their formal evolution that is in sync with their context as well as the technological and connectivity affordances available. Manovich theorised on the formation of digital artefacts within the framework of ‘Remediations’ as formulated by Bolter and Grusin. Their postulations of immediacy and hypermediacy as the factors that govern the logic of digital media evolution could be utilised to probe into the formal evolution of news websites. Immediacy, which is considered a major characteristic trait of online journalism, has been the historical human desire in acts of mediation, according to Bolter and Grusin. Their framework views all advances in communication technology as a step towards the attainment of a larger degree of immediacy. The developments in online journalism could be evaluated in concern with its orientation towards this goal of immediacy. The shifts in journalistic practices when it went digital could also be attempted to understand in accordance with Bolter and Grusin’s argument that the newer forms of media are always dependent on older forms in various ways, their existence in constant dialectics with the past forms inasmuch as they attempt to detach

from them. As far as the immediacy angle associated with the formal aspects is concerned, the temporality of the news websites requires to be brought within the ambit of analysis. The temporal dimension and formal dimension are closely intertwined in the realm of digital journalism. Bodker and Brugger's concept of 'continuity' could well characterise the temporal dimension of news websites. How the social media spaces complicate the temporal angle could also be brought into the discussion via the model put forward by them. The various ways in which the social media spaces were utilised by the news websites at various periods in time would enable insights into the social media dependence of the news websites and also how they were influenced by the dynamics of content flow in social media.

As Boczcowski (2004) has established with his study, any scholarly work that seeks to understand the ground reality merely on the analysis of technological artefacts stands the risk of technological determinacy. Such a possibility is very much apparent when analysing the field of digital journalism, and hence it necessitates bringing forth the production practices and processes behind the news websites within the ambit of the study. Quinn Patton has defined qualitative open-ended interviews as a potential way to understand the viewpoint of the responders. It enables the researcher to attain access to the world as seen by them (2002). The open-ended interviews would enable to approach the subject with an open mind without preconceived notions and thus could bring in nuances which wouldn't be possible through a questionnaire model, argues Patton (2002). The study demands such an approach, as it seeks to explore the distinct organisational and contingent factors that went into content production of the various news portals that are focussed. It follows a semi-structured model, whereby the points of interactions are decided upon, though the responses are largely descriptive. This forms a prominent source of qualitative data for the study. According to Patton, the task of the researcher is to "...provide a framework within which people can respond in a way that represents accurately and thoroughly their points of view about the world, or that part of the

world about which they are talking” (2002). For the purpose of research, the interview data provide information that could complement the data derived from the website analyses.

The study seeks to explore the following aspects of online journalism:

- The form of online news, its evolution over the years, adjacent to technological and connectivity advances
- The shifting temporalities of the news culture
- Usage of multimedia elements and the purpose they served.
- The shifts in news culture in general, the adopted practices that were not traditionally considered among journalistic functions
- The changes in production practices, the work culture and the mode of dissemination; to what extent the locally contingent production practices influenced the formal evolution of online news
- The structural transitions within the newsrooms that accompanied the changes in production and dissemination styles

Method

A pilot study was carried out initially; the news presentation formats of the prominent portals were documented and analysed. The dynamics of content production and dissemination were given a larger focus in the initial study, and their variations across the portals were noted. Also, the journalists from various online news platforms were interviewed, and their work cultures were discussed. Their experiences in content production for the online spaces, as well as their varied dependence on social media spaces, were also discussed. The information gathered from this stage was utilised for designing further study.

The objective of the study is the documentation and analysis of the evolution of online journalism in the Indian context, the initial approach has been to look into the earliest of the examples, conventions and formats followed back then and the subsequent developments that occurred from time to time as the circumstances changed. The first news platforms to hit the online realm were the traditional players themselves. Also, theirs were the journalists who had experienced the transition period from traditional formats to digital and hence were well equipped to speak regarding the transitions in the production processes. For these reasons, the study focuses on the online handles of the prominent English-language news portals of India. The portals for the study were narrowed down to 4, considering only the early entrants to the field and also the ones with a significant circulation. The platforms chosen for the study are *Times of India*, *Hindustan Times*, *The Hindu* and *The Indian Express*.

The web interfaces of the portals under study are documented using the *waybackmachine* tool of *InternetArchive*. It was attempted to document one representative sample of User Interfaces from each year of all the news portals under study. In total, all the portals' web interfaces for 21 years were collected. The shifts in presentation styles and formats over the years are documented for each of the portals, and also special attention is given to the evolutions of conventions that are independent of the print traditions. The various ways in which the platforms appropriated from time to time the newer attributes of the cyber realm are carefully noted so as to have a better analysis in correspondence to the then technological and internet connectivity circumstances. A long list is made which is comprised of the observations made of the individual portals. Further, the observations made are coded for each of the portals. The same criteria were used for coding the observations from all the portals that are being studied. The themes used for coding are on the basis of the developments in the fields of design, changing dynamics of news reporting, adoption of web exclusive features, utilisation of social media spaces, employing multimedia features, interactive features, customisability, and

formation of new sections using data analytics and services and formats that are not considered part of the traditional journalistic culture. Further, the data are qualitatively interpreted on the basis of the new features added, the kinds of features which persisted, the kinds that were discontinued, the portal which was quick to adapt to the web conventions, the usage of multimedia potentials, etc. These observations are analysed for the innovations they brought forth in the realm of online journalism. Further, the factors that made these innovations possible are attempted to bring forth. The attempt was to identify the technological as well as the cultural factors that led to the changes in these respective realms.

In order to get the contextually dependent factors that prompted the changes in the respective news platforms, the professional journalists of these portals were interviewed and queried on their experiences through the years of various phases of online journalism. In-depth interviews with journalists from each of the portals under study were carried out. All the interviews were carried out online via *Google meet*, and the duration of each spanned around 90 minutes. The interviewees were internet editors of the respective news organisations, and all were men. There was no female representation in the initial list of interviewees. A female chief editor of a digital exclusive news portal (which is not among the studied news organisations) was also added in the impression of getting perspective from a different standpoint. In total eight interviews were carried out.

They were asked about the changes in their news production processes and the contextual factors that determined their formal peculiarities and innovations. The attempt has been to get an understanding of their experiences throughout the entire process while online journalism went through various phases following its inception. It was attempted to hear their perspectives on changing work culture and their opinions towards it. How they looked at the evolving formats, their notions on the rationales behind such developments, the impact made

by the changed formats and dynamics to the newsroom structure, etc. are tried to bring in through the interview.

The data gathered through the qualitative analysis of interfaces are used for framing the interview questions. There were organisation-specific questions as well as general ones. Particular attention was given to the questions on strategies adopted following the transition of cybercultural spaces following the initiation of web2.0. The utilisation of social media pages and their significance in online journalism were put into discussion. The questions were also asked about the convergence of media formats and how they resulted in newer languages of journalistic aesthetics. The changes in data-gathering mechanisms and their impact on print journalism was another area that was attempted to delve deeper into the conversations. The possible revenue-generating models are discussed as also the potential of the online subscription model in the Indian context. Further, given the state of the developments in communication technologies as well as the shifting culture of news circulation, their thoughts on the possible future of journalism were also discussed. The interviews are transcribed and coded for further analysis, which is then studied alongside interface analysis.

Limitations

Limitation of waybackmachine as a data source

Basing the study on archived websites comes with its unique complexities. Unlike other media archives such as newspaper, radio, television, film etc., where the choices are just on material selection and storing, Bruggen defines the web archiving process as “...actively created subjective recreation ... and is almost always deficient” (2009). An Archived website is not an exact replication of the live website, instead, it is an outcome of a process carried out by the person or institution that does the archival, where they decide upon the set of features that requires to be preserved. This is very much unlike the traditional media archives, where the

copies are identical irrespective of who does the archiving. The archived website is something that did not exist before archival, and its deficiency is apparent owing to a variety of reasons. Technical issues, such as incompatibility of hardware and software of the present-day gadgets, could hinder the archived website from appearing in its original format. For this reason, several media elements such as images, videos, graphical content, or features such as interactivity, comment box, etc., wouldn't get featured in the archived website. The dynamic updations of the websites could cause another possible deficiency. Given the nature of news websites as being constantly updated every passing minute, the possibility of the site being subject to change while the archival process is ongoing is very high; it reflects in the resulting archived website as well. Because of these reasons, Brugger argues that the archived website must be treated as a unique version rather than a copy. Richard Rogers has also made interesting observations on the limitations of 'waybackmachine' as a research source. He argues that the platform of 'waybackmachine' in itself carries the signature of the period in which it was created, which was in the 1990s. Internet experience of the 1990s is characterised as the 'surfers' experience', which is how the interface of 'waybackmachine' is programmed. This is different from the "searcher's web" of the 2000s or the "scrollers' web of 2010s", argues Rogers. He also notes that the platform's priority is to provide the user with a "frictionless" navigation experience. If a link is clicked on an archived website, the waybackmachine will take the user to a page closest to the queried date; in case of its unavailability, it would redirect to the live web. This experience, which Rogers calls jumping through time "as if in an atemporal hyperspace," prioritises smooth navigation over temporal matching. He goes on to argue that it may rather be described as a "living museum" or "surfer's space" rather than a "historians meticulous archive" (Rogers, 2017).

Unavailability of archived websites

Another major limitation is the unavailability of certain websites from earlier times. The archived interfaces of *Times of India* were available only from 2000 onwards, while the rest of the portals' archives were from the mid-1990s. This could constrain the analysis to some extent when comparing the news portals and their formats in various periods.

Constraints in fieldwork

The in-depth interviews, which constitute a significant data source of the study, are carried out online. It was originally intended to have been carried out within their institutions to enable a better understanding of the institutional settings and their working dynamics. However, the pandemic situation brought about by the outbreak of Covid 19 left the research with no option but to conduct the interviews online.

Tracing the Formal Transitions

This chapter attempts to comprehensively describe the stylistic shifts that the news websites underwent over the period considered for the study. As mentioned in the Methodology chapter, the websites for the study are retrieved using the *waybackmachine*. It follows the framework proposed by Niels Brugger (2009) in delimiting the websites as objects of study. Over the years, the aesthetic conventions of news presentations are addressed in the background of larger shifts in internet culture and simultaneous techno-commercial circumstances. It looks into the general trends that characterised the news presentation culture at the various junctures of internet history, followed by which the novel web elements that occurred in the respective news websites are chronologically described for each.

The evolving of the internet accompanied apparent cultural transitions at various stages, as they often involved radical alterations in the scope and possibilities of the space. Though it is difficult to abruptly draw lines to categorically demarcate the various periods of internet history, the studies on online cultural transitions cannot be done in isolation from the dominant features and nature of accessibilities it presented over the years. Schafer and Thierry (2019) have stressed the importance of periodise the Web in terms of technical as well as various social, political and cultural factors that contributed to its evolution over the years. Web, according to them, is a “historical phenomenon” which provides context for the online culture, while at the same time itself is “anchored in a context” (as in an object situated in particular spatial and temporal contexts). They have also pointed out that in endeavours to mark the historical contours of the internet evolution, web archives are potential sources as they provide access to the information on websites and the cultural signifiers that they carried over the years.

In the context of the present study, the period considered, there have been three major phases through which the internet is said to have gone through; ‘surfers’ web’, ‘searchers’ web’

and ‘scrollers’ web’. Also, factors such as Web 2.0, mobile internet, etc., have disrupted the prevailing user interactions with internet technologies. Such shifts had simultaneous implications for the user interfaces to the web news portals. Here the attempt is to make a descriptive chronological account of the transitions and to identify how they influenced the shaping of online news culture. Anne Helmond (2019) has proposed a way of looking at internet history in terms of the hyperlinks and the various utilities it assumed over the internet evolution. Hyperlinks and the distinct functionalities that it served practically defined the simultaneous internet architecture, according to Helmond (2019). The adjacent news cultures had to imbibe the digital cultural logic to optimise online spaces’ affordances.

News Culture in the Period of Surfers’ Web

The initiation of the World Wide Web in the early 1990s is considered a significant milestone in the history of the internet insofar as the content organisation is concerned. It presented the web as a unified space connected via hyperlinks, a network of links through which the users could navigate across the contents. The navigations through these hyperlinks characterised the dominant internet experience of the time, commonly denoted by the term “surfing”. Hyperlinks constituted the most important aspect of the internet from the users’ perspective at this stage. It was at the core of the “architectural logic” of the Web (Helmond, 2019). Graphical internet browsers, such as *Mosaic*, became the entry point to the internet for many users, providing access to links to the web locations they sought to visit. As the webpages grew in number, practical difficulties about their accessibility came up, which subsequently led to endeavours towards indexing the Web. At this stage, several Web directories came up, which featured links to important pages in an organised manner; significant ones among them were *Yahoo! Directory*, *DMOZ*, etc.

The interfaces of the news websites of the time were reflective of the prevalent conditions. The websites of prominent news organisations were the initial entry point to the internet for a significant share of Indian users back then (Saxena, 2011). Most news portals had special sections that hosted links to important web locations, enabling users to navigate those spaces easily. These links were mostly to the government services that could be availed online. However, they also started having commercial collaborations with business entities, prominently displaying the links to their services on the homepages. In the early phase, most news portals had a separate section featuring external links, a practice that declined over the years, as they found the need to increase in-links to keep the audiences within their spaces longer.

Further, during the early phase, the organisation of websites saw formal continuities with the textual traditions. The page layouts of the time were attempts at simulating the newspaper front pages. They followed the three-panel layout, comprising the top title panel, the left navigation panel that gave links to different sections as in a newspaper and the main content panel that displayed the links to the stories of the respective sections as they were clicked on. Such a design had the prominence of textual aspects, had more white spaces, and multimedia features were scarce (*figure 1*). The practice of giving merely the headline text as links got discontinued in a short span; instead, there began giving brief excerpts of the news under the links in reduced font sizes. They served as teasers for the main content.

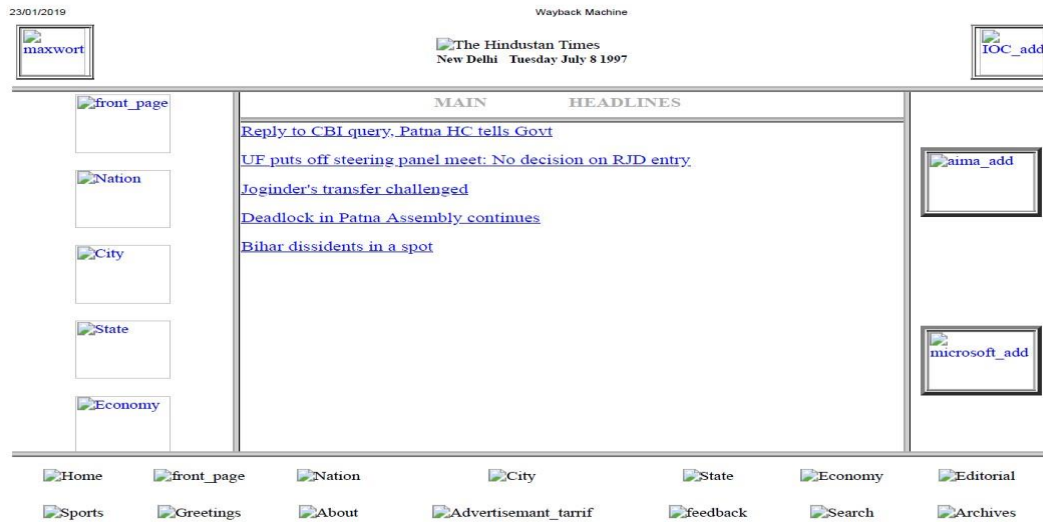


Figure-1 hindustantimes website homepage July 8th1997

However, such designs gave way to modular style by the early 2000s; that way, it potentially used the screen spaces, thereby decreasing the white spaces that divide the story links. The different stories and sections were presented as modules of information that are easily scannable for the users within the homepage (*figure 2*). It was designed in such a way that the users could easily find and explore further the stories of their interest. This way, the practice of treating homepages as an equivalent of newspaper front pages got challenged, as it enabled access to contents from multiple sections within the homepage. Further, the navigation links towards the left gradually disappeared, and the pages began vertical expansion as more content was hosted within the pages. (Only 1/5th of the page is reproduced in *figure 2*).



Figure 2 Hindustan Times website August 15th 2000

Searchable Web

The arrival and immense rise in popularity of search engines were one of the early factors that changed people's relationship with the internet. The web became searchable, which had implications for all internet-related affairs. In the context of web history, the arrival of search engines marked a radical change in the users' relationship with web content. It paved the way for the accessibility of webpages in a comparatively more arbitrary way, and the process marked a fundamental shift in the online context in which the users engage with the web. The transition from "web surfing" to "web searching" characterised a major departure in the organisation of the Web, according to Halvais (2019). He defines this transition as that from a "chaotic distributed hypertext to a largely indexed and searchable web" (Halvais, 2019). While with the early web, the user was required to surf through various pages to "discover" the

information that she sought, it has got more “findable” in the search model, according to Halvais (2019). The news websites also made subsequent modifications in their spaces by deploying search tools (*figure 3*), enabling users to access the contents arbitrarily.



Figure 3 Times of India July 30th, 2001

According to Halvais (2019), apart from technological novelties, the “commodification of attention online” is also at the core of such a transition towards a searchable web. It became one of the earliest profit-making online services, as it brought about opportunities for revenue generation via the strategic placement of links and advertisements (Helmond, 2019). A significant breakthrough in search engine-driven internet usage came forth in 1996 when Larry Page and Sergey Brin initiated *BackRub*, which later became *Google*. The major innovation brought about by *Google* was the deployment of the PageRank algorithm in determining the order of search results. Halvais (2019) observes that they modelled it after the peer review practice of academic publications. The pages with a maximum number of ‘in-links’ from other popular websites would receive precedence in the search results. The previous models depended on bots to determine the web page’s relevance to the search terms. *Google*’s Pagerank algorithm challenged it and instead utilised hyperlinks as a tool to calculate the

relevance of the various websites. The position of the webpages in search results was decided on the basis of the quality of other websites linking to them (Brin & Page, 1998). This created a hierarchy system for the hyperlinks, as not all links were of the same importance anymore. Hyperlinks became something other than just the navigational device online; Helmond defines it as the “industrialisation” of hyperlinks that led the formation of a “link economy”. It became the equivalent of a “currency of the web” with values attached (Walker, 2002).

Such a situation gave *Google* a dominant position within the interlinked infrastructure of the web. The visibility in google search results determined the sustenance of any internet-based initiatives, and it necessitated them to engage with *Google*’s algorithm to optimise their presence. This had particular implications for the online news portals, as the power to determine their audience reach rested upon *Google*. Halvais (2019) observes that, while *Google* wasn’t involved in content production, it held power to make certain content absolutely “unfindable”, which became an indirect censoring mechanism. There came up various means to enhance the location of websites in the search results by following certain formal strategies that are favoured by search engine algorithms. Search Engine Optimisation (SEO) attained an important role in online content dissemination, which naturally got co-opted within online news practices as well. Efforts were made to constantly update the pages with the latest inputs, as the speed at which it is done would favour its better visibility. Further, much attention was given to ‘trending’ search terms of *Google* to include them within the stories. Halvais (2019) notes that in the initial days, the focus had been on “keyword stuffing”, ensuring that the prominent search terms are included in the metadata of the pages and thereby pushing them to the search results on concerned terms. However, over time, *Google* discontinued looking at meta tags, and then the attempt shifted to including these terms as much as possible within the main text. The online news portals started web-exclusive columns featuring the ‘trending’ topics, prominently featuring content that are popular search terms of the respective days.

The early 2000s witnessed the rise of Weblogging (Blog) culture. It developed as a parallel space in the online world where various content creators and their followers found an eco-system, generally denoted as the ‘blogosphere’. There were pages of multiple bloggers who would regularly create content in the form of ‘posts’. It characterised a novel form of online content dissemination, as each ‘post’ had a distinct hyperlink. While previously, the hyperlinking was limited to webpages, here, each ‘post’ could get linked separately as distinct units. The aesthetics associated with blogging also had implications for other online spaces of information dissemination. By the mid-2000s, news websites initiated the blog section, potentially using its unique aesthetics to compliment the content and appeal to the audience. It enabled swift communication dissemination in times of emergency circumstances. Also, to add contextual and background details that couldn’t find their way into the news articles.

A simultaneous development in the news spaces had been the attempts at customisation of news content. The affordance to set user preferences for news on the homepage has been experimented with by most news organisations (except *The Hindu*). In the early 2000s, news websites enabled the audience to create user accounts to better cater to their customised interests. By the mid-2000s, the RSS (Really Simple Syndication) feeds got widely adopted by the news portals for their content dissemination practices, which further extended the possibilities of customisation. The development of RSS feeds enabled the integration of content from other blogs and websites into users’ own web spaces. It also enabled people to ‘subscribe’ to contents that are published in multiple locations of the internet and to access them without making direct visits to those spaces (Helmond, 2019).

The increasing demands for customised content on the web eventually lead to dependence on spaces outside the journalistic realms. The news aggregators and social media platforms came up with addressing such user needs. They gradually gained prominence in the field. Further, social media created larger disruptions of the internet experiences, followed by

which the news portals had to make associated changes that better addressed the transformations of web scenarios.

Social Media

Following the “dotcom crash” of the early 2000s, the discussions on the need to reimagine the Web intensified. Tim O’Reilly coined ‘Web 2.0’ as a marketing term to project a new era for the internet. However, over the period, the term began characterising the collective efforts towards the participatory turn of the internet. There had been spaces in the internet since its early days, such as UseNet groups, BBS, IRC, etc., that enabled user interactions and communications. The earliest online news service in India was via a UseNet group, *soc.culture.india*. However, those platforms remained standalone services that functioned separately from the web. The focus of the World Wide Web had been exclusively upon hypertext at the time of its inception. Over the course of years, it adopted various services that functioned outside its realm, and in a short span, the web began hosting multiple platforms of online sociality (Jadin, Ortner & Sinner, 2019). The wikis, weblogs, podcasts, social bookmarking, etc. were the initial social platforms on the web that attained popularity (Jadin, Ortner & Sinner, 2019). In the mid-2000s, there was a rapid increase in the global user base, coupled with aggressive endeavours towards optimising its utilities to serve commercial interests better. The inception of the microblogging site *Twitter* served as a major disruption in the field of social communication. Facebook soon followed this. Both websites caused significant changes in the online culture; they marked longstanding impacts on online content circulation. It augmented the dynamics of online communication and made it an unavoidable avenue for online ventures, particularly those concerning content dissemination.

The rise of social media platforms on the web marked a new era for hyperlinks and their utility. Social media companies and apps are disconnected from the world wide web at large

and operate within their secluded spaces by their internal logic. The process of “platformisation” (Helmond, 2019) brought new complexities to the digital culture, as its functioning logic marked a major departure from the culture of the Web. Social media platforms have specific “infrastructural and economic models” dissimilar to the rest of the web (Helmond, 2019). However, they repurpose various web-native objects within their space to their advantage. Likewise, hyperlinks got attributed to novel functionalities in those platforms. Anne Helmond (2019) observes that apart from their basic function as a navigation tool, hyperlinks serve the purpose of a data harvesting mechanism within the social media ecosystem. The number of times each specific link gets shared and clicked upon is closely monitored in social media spaces, yielding potential information on user preferences and choices.

While initially, social media platforms were just spaces for the common users to interact and showcase their content, the exponential rise of the user base made it conducive to the larger information dissemination process. The social media spaces gave a potential ground for semi-professional content creators and media start-ups to flourish. Considering the increasing prominence of social media platforms in the online news culture, traditional media houses extended their presence to those spaces. News organisations routinely update their content in social media to garner better audience share in the online realm. They began the practice of prominently displaying the links to the respective social media pages on the homepages of their websites. While initially, it was just the RSS feeds that the websites had links to, this got extended with the inclusion of more platform links.

The Hindu began giving links to XML/RSS feeds in 2006; it made comparatively little effort at social media presence in the early days. It enabled social buttons on *Facebook* and *Twitter* on their website in 2011, towards the end of articles. In 2015, they prominently placed

the links to their *Facebook* and *Twitter* pages above the newspaper title. This got expanded in 2016 to add *Youtube* and *Instagram* pages as well. *Hindustan Times* began giving links to RSS feeds in 2007. They had social buttons of more than 50 different platforms in 2009. *Times Of India* added social buttons to *Facebook* and *Twitter* in 2010. Further, in 2011 they added the option to log in to the website via a *Facebook* account. *The Indian Express* began giving links to RSS feeds in 2005. In 2010 it started giving links to *Facebook* and *Twitter* on page-top. By 2012, *Google+* and *Pinterest* had also got added to them. However, by 2018, only the links to *Facebook* and *Twitter* remained.

The process of linking itself underwent changes in the social media spaces. The emergence of ‘social buttons’ is another major landmark that altered the dynamics of linking pages. They are social bookmarking icons to facilitate easy link sharing across the platforms. The various social buttons belonging to different social media platforms are placed on the webpages that host the contents to be shared; clicking on them would automate the linking process. It would post the content link as an update from the users’ social media handles, displaying the title, author’s name, images used, etc. (Helmond, 2019). Here the significant development is the disappearance of the hypertext in the linking procedure. It is argued that social media platforms reconfigured hyperlinks to suit their underlying business models (Helmond, 2019). The traditional logic behind hyperlinking, which was to bind the entire web as a single space, got challenged in social media. Not all links were considered of the same importance anymore, as the social media platforms had their internal logic about the display and organisation within their spaces. The way a hyperlink is displayed, its visibility across user profiles, user engagements with it, etc. all depend on social media algorithms. Further, the linking system of social media pages favoured in-links compared to out-links, with the intention of limiting the users’ navigations within their platforms for a long time. This had an

adverse impact on the news organisations' attempts to scale up the site traffic with extensive link sharing on social media platforms.

The arrival of smartphones in the late 2000s accelerated the impact of social media platforms. Smartphones enabled people to have ubiquitous access to the internet, which fundamentally altered their approach to it. The inbuilt social media apps in their mobile devices further integrated it into their everyday lives as they got embedded in permanent connections.

Mobile News Culture

There have been efforts to make the web accessible to users via mobiles since the late 1990s. However, it was only after smartphones' inception that mobile phones became an important avenue of news dissemination in the Indian context. Before the time of the ubiquitous internet, in the mid-2000s, there were endeavours towards SMS news services on a payment basis from several news organisations. The link to the section containing details of SMS news subscriptions used to occupy a prominent spot on the homepages of those news portals.

The WAP (Wireless Access Protocol) forum was set up in 1997 by Nokia, Ericsson, Motorola and Phone.com to standardise internet accessibility across their devices (Goggin, 2019). The endeavours were towards facilitating mobile devices' access to the webpages. It required framing a new language for web programming compatible with the said devices. Wireless Markup Language (WML) was programmed to facilitate this. This gave mobile devices access to textual content online, though it remained incompatible with multimedia content (Goggin, 2019). In 2005, W3C (World Wide Web Consortium) launched a project to create a better environment for mobile internet experience (Goggin, 2019). This project, which was popularly known as *mobileweb2.0*, was short-lived as a major disruption within the mobile internet field occurred. The launch of smartphones had been a major deterrent in the trajectory of mobile internet as envisioned via mobile web. The Operating System of smartphones and

the internet accessibility it presented signalled a newer direction for the mobile internet. The significant development was the introduction of in-built applications (Apps). They are software that are assigned dedicated tasks to work within mobile devices. Apps became the primary gateway to the internet for an increasingly larger section of users. Even the services that were previously accessed via the web shifted to Apps (Goggin, 2019). The “App ecosystem” thrives on user data; it enables easier tracking of user information and behaviour as they are integrated well within the everyday lives. Gerard Goggin (2019) observes that the mobile web got prominently displaced by the private, enclosed, ‘walled gardens’ of the commercial and institutionally controlled internet”. Most of the innovations in the internet now are “born mobile”, rather than repurposed for mobile usage (Goggin, 2019). Such a development had implications for the news portals’ interface design; they became primarily intended for scrollable mobile screens.

In the mid-2000s, there were options in the news websites to switch to interfaces favouring mobile screens. By 2009, all adjusted their interfaces to suit mobile screens. The three-panel layout, which was intended for desktop screens, got discontinued. When the modular style was adopted in the early 2000s, it significantly increased the size of the homepage, and the users had to scroll down to skim through the contents hosted there. This got further expanded with the new design, as the mobile screens were more compatible with vertical scrolling (*figure 4*).

platforms. The nuanced information on the user interests is in possession of the social media platforms. Social media companies know the news preferences of the audience better than news organisations. As the news consumption for a significant chunk of users became mediated via social media platforms, the number of unique visitors to the page decreased considerably. Online news consumption was largely governed by algorithms, and it became inevitable for journalists to produce content favoured by them, following the strictures of the big platforms.

The web elements and their appearance on the websites

The Hindu

Arrangement of the sections and format: In the initial days, ‘The Hindu’ news portal was a simulation of the newspaper. In the absence of an established convention for news presentation in this novel platform, the news portals had to innovate to cater to an audience conditioned by traditional media formats. ‘The Hindu’ did not experiment much with the UI formats for many years, as they followed a fixed pattern about the presentation. Front page news items of the particular day would be given on the home page, while the links to other sections were listed towards the left side of the page. In 2008 ‘Resource’ column got added towards the right of the page, which gave data related to elections, speeches of political leaders, statements issued by other key figures etc. In the same year, an option was enabled to alter the page orientation to cater to the needs of the ones that access the website via mobile devices. The orientation of the homepage changed drastically in 2010, as the links to various sections on the left side got removed altogether and instead got placed towards the page top. The three-column format, whereby the links to other sections were placed on the left, news from that day’s newspaper in the centre, and resources on the right, got changed as a shift to make it more mobile device friendly. A separate column got introduced in 2014, which listed ‘latest updates’, ‘infographics’, ‘resources’, slide shows of major events, *Twitter* and *Facebook* presence of

‘The Hindu’. In 2016, they stopped giving links to all the bureaus on the top, and instead, only the popular ones were mentioned, apart from the state bureaus. The ‘special supplements’ were also mentioned along with this. In 2016, they began the display of ‘trending’ content and keywords of the respective days, right under the links to main sections.

Frequency of Updation: ‘The Hindu’ followed the print-first strategy in the initial days. It never uploaded any content onto the web prior to being published in the newspaper. Only in 2004 did they start giving ‘current updates’ as they dedicated a section for that. In the same year, they started giving live updates.

Usage of Multimedia Elements: ‘The Hindu’ was not much into the use of multimedia elements in a news story. They began exploiting the possibility of this new space only much later than the other news portals. Only in 2014 did they dedicate a separate section for multimedia content, when they initiated the section for ‘infographics’ and slide shows of relevant news and information. In 2017 they introduced a separate page for multimedia content.

Use of Social Media Platforms: The Hindu initiated a separate section for XML/RSS feeds in 2006. However, until 2011 The Hindu’s efforts towards appealing to the social media segments had been minimal. But, in 2011, they started adding social buttons towards the end of the articles to share them via *Facebook* and *Twitter* (initially, it was only for sharing via email). In 2014, they included the subsections ‘*Twitter presence of The Hindu*’ and ‘*Facebook presence of The Hindu*’ under the ‘Resources’ section. In 2015, the links to the *Facebook* and *Twitter* pages of the portal got placed in a prominent position, right above the newspaper title. They expanded this list in 2016 to include links to *Instagram* and *Youtube* pages.

Regarding the features to customise the content on the website: ‘The Hindu’ has not ever offered the option to its users to customise the content in accordance with their respective interests or geographical locations.

Interactive Features: ‘The Hindu’ restrained itself from creating more interactive features in its platform compared to the endeavours of other portals under study. They enabled the ‘user comments’ section only in the 2000s. In 2011 they initiated their attempts to address the social media spaces by providing links to their respective social media pages on the website.

Initiation of Sections for News Aggregates Based Upon Data Analytics: ‘*The Hindu*’ was introduced in 2010, a separate section to enlist the ‘most popular’ and ‘most commented’ news articles. In 2012, a section ‘of the most popular content of The Hindu on *Facebook*’ section was introduced. In 2015, right alongside the main headings such as ‘Opinion’, ‘Entertainment’ etc. ‘Trending’ got added as a separate one. In 2016 the ‘trending contents’ and ‘keywords’ began getting placed right under the newspaper title.

Web-Exclusive Columns & Aesthetic Changes that are Reflective of the Cultural Shift in Journalism: The cultural shift associated with the adoption of journalism into the digital realm found only little effect with ‘The Hindu’. They attempted to retain the same formal style and journalistic conventions as they did with the traditional newspaper. However, they targeted the users who wanted to research deeper into any particular matter, to make good use of the site, with the ‘resources’ section helping them to proceed swiftly. This section, introduced in 2008, came at a time when online news portals were not the primary sources of news for many. The visits to the news websites then were mostly for accessing relevant information they couldn’t access easily on the traditional platforms. The ‘resources’ section catered to this segment of the users. The Hindu launched ‘mobile services’ in 2006. In 2015, they introduced listing out handpicked articles for the day, as they deemed important.

Change of UI to Favour Smartphone Screens: In 2008, the option to customise the view for mobile/PDA (Portable Digital Assistant) users was added, and in 2010 the interface got totally reoriented to cater to mobile device users primarily.

Special Services that were not typical of Traditional Journalism: In the initial years of the internet in India, there was an apparent novelty associated with the technology. During then the online news portals were not strictly limited as just the platforms for information dissemination. Several portals were used to provide services that were outside the scope of journalism practice. However, such practices were not prominent at ‘The Hindu’.

Hindustan Times

Frequency of Updates: In 1998, the ‘Hindustan Times’ started giving the latest news blurbs as a separate section. Since 2001, they started giving news articles on the latest issues prior to being published in print.

Arrangement of Sections and Page Format: In 1997, their portal was an attempt to simulate the style of newspapers, with the news items that appear on the front page of the newspaper being displayed on the home page and the links to other sections given separately on the left side of the page. However, in 1998 the homepage got expanded to include news from other sections and links to special supplements. In 2000 they adopted a modular style of the graphical user interface, whereby they put news from different sections as modules of information within the homepage. In 2001, ‘Market Indicators’ and ‘Weather Updates’ too got placed among the main sections on the home page. Also, another major refurbishment in the same year was the dedication of an entire column towards the right side for soft news content, such as ‘dating tips’, ‘celebrity stories’, ‘gossip’ etc. In 2004, links to several pages for exclusive coverages, such as ‘htcricket’, ‘httabloids’, ‘htprint’ and ‘htclassifieds’, got pinned on top of the page. In 2007 they attempted to enable users to customise their content, as they added the option to start user accounts within the website. The right side column got entirely dedicated to the customised content and was titled ‘My Zone’, where users could access news stories that could be set to match their geographical locations and areas of interest. In the same year, they started a separate

section for photographs, which was a major development considering that textual content dominated the online spaces until then. (However, they had a separate page for broadband users, which served more multimedia content, in 2003). In 2008, the link to '*HTSyndication*' too got added among the links to major sections on the top page. In 2009, the option to choose the city got placed further above, on top of the title. In 2009, they stopped listing the links to important news sections on the left side and started listing them on the home page in vertical boxes (a move to cater to mobile phone users). In 2012, the column that lists the 'most viewed' news items got listed in the prominent position, further up on the page. The website underwent a radical refurbishment in 2016, the prominent change being the listing of multimedia content like photos and videos on the homepage itself, unlike them being a separate section or complementing elements to textual stories, as had been the case before.

Use of Multimedia Contents: 'Hindustan Times' was quick to take advantage of the new opportunities enabled in the realm of the internet compared to other portals under study. They added a separate section for video stories in 2001. In 2003 news in audio format was initiated, and also a separate section for multimedia content (which was extended as a separate site in 2003 for broadband users). By 2007, as mentioned in the previous section, important photographs of the respective days were placed on the home page's top. By 2016, multimedia content attained greater significance as it increased in number and in its scope of storytelling.

Use of Social Media Sites and Blogs: As is the case with most of the other portals under study, the link to RSS Feeds was the first to appear on the home page (started in 2007); as far as links to content distribution platforms (other than email) were concerned. However, shortly afterwards, in 2009, links to more than fifty different platforms of content distribution were added as social buttons towards the end of each article. In 2009, *HTBlogs* was started, which was a platform where journalists would come up with long explanatory stories on various topics

of interest. In 2011 they added links to their Facebook and Twitter pages on the homepage, above the main title.

Features to Customise News Content: They started facilities for users to customise their content way back in 2005, with the introduction of sections such as *myht*, *mylinks*, etc. As stated earlier, the scope was further expanded when they enabled the creation of user accounts in 2007. It was further modified through the dedication of the entire right side column *myzone* for customised content in accordance with the users' areas of interest and respective geographical locations.

Interactive Features: 'Hindustan Times' had their website's opinion polls on current affairs in 2001. They brought in more interactive features within the website in consecutive years and even launched a separate section named 'Interactives', which initially contained 'crosswords', 'chatroom' etc. In 2006 they added a subsection 'surfers' corner' to the 'Interactives. Introduced the dedicated button to make their website the browser homepage in 2007. In the same year, they also launched a section named 'interactive map'.

Initiation of Sections for News Aggregates Based Upon Data Analytics: They launched the 'most popular' section in 2009, which contained subsections such as 'most read', 'most printed', 'most top rated', 'most viewed video', 'most emailed stories and photos' and 'most popular blogs'. In 2012 the section was placed in a more prominent spot, alongside the main news headlines on top.

Web-Exclusive Columns & Aesthetic Changes that are Reflective of the Cultural Shift in Journalism: They launched *digitalht* in 1999, which was intended to cater to their internet audience especially. Further, in 2003, they added a special section titled *WebExclusve*, which carried stories about cyberspace as an advancement in the same direction. It was a significant development being one of the earliest attempts in the Indian context that approached the

internet not just as a medium but, instead, as a space where various kinds of interactions and transactions happen. One could observe that such an approach to the internet became increasingly significant over the years, as most portals even established a separate desk to handle such stories.

Special Services that were Not Typical of Traditional Journalism: In 2006, the sections such as *money 2 india*, *matrimonial* and *classifieds* got pinned on top of the home page, right under the main title. In 2007 they initiated SMS News Service.

Times of India

Frequency of Updatations: As was the case with all the other portals under study, ‘Times of India’ followed a print-first strategy. They did not run stories onto the website prior to publication in print. However, in the early 2000s, they started giving ‘Breaking News’ as a separate column, a brief account of the latest news. They started publishing news stories on the respective days by 2004. In the same year, they also dedicated an entire column for live updates. In 2012, they inducted the ‘live blog’ reporting style on select news topics.

Arrangement of Sections and Page Format: In their earlier days, their page structuring and formats were extensions of the print culture. However, it changed gradually over the course of the years. In 2003 they facilitated downloading of the print edition from their page. They started listing out ‘Hot-Links’ on the left side column, which featured links to spaces outside the website. In 2004, there was a steep increase in the number of links to different sections that were given in the left side column. By 2006, many of those section links on the left side were removed, and the page was vertically expanded to incorporate the same in the main column. In the same year, the link to *classified* sections containing subsections such as *Matrimony*, *Real Estate*, *Education*, *Travel*, etc., was replaced to a prominent place at the top. They started a separate section for broadband users that contained more video stories. By 2007, the column

towards the left was removed entirely in favour of a vertically oriented UI that would facilitate easy scrolling for smartphone users. They even launched a separate website for smartphone users in 2009.

Use of Multimedia Content: ‘Times of India’ initiated a separate section for photos in 2002. In 2003 a small box towards the bottom of the page was used to list some video contents. The video content saw a significant rise following the launch of a separate section for broadband users in 2006. Shortly afterwards, by 2007, video stories began appearing on the homepage itself. The video content grew significantly in number as well as in their scope in the following years.

Usage of Social Media Sites & Blogs: In 2006, ‘The Times of India’ coined a separate section named ‘Blogs’, with its link appearing on the homepage. By 2010, the links to the respective Facebook and Twitter pages began appearing on the page top. Further, in 2011, the option to log in to the website via Facebook was enabled.

Interactive Features: TOI started opinion polls on current affairs in 2006. In 2011, they started the *Times Campaign* section, which was supposed to campaign against the “irrational and outdated laws” of the government. In 2012 they started giving labels and digital badges (gold, silver, etc.) to their readers based on their interactions with the website and the supposed impact created by their comments among other readers.

Initiation of Sections for News Aggregates Based Upon Data Analytics: In 2004, they set up sections such as ‘Most read articles’ and ‘Best of the week’. Since 2008, in addition to the most visited articles, ‘most shared’ and ‘most commented’ also began getting displayed separately.

Web-exclusive Columns & Aesthetic Changes that are Reflective of the Cultural Shift in

Journalism: A new section that was titled ‘TOI in 2-minutes’ was started in 2010, which gave comprehensive coverage of important national and international events in a very brief format. In the same year, the section ‘Hot on Web’ was initiated and added to the most important section links on the top page. Soft news content increasingly began getting pushed onto the home page as the years progressed, and they were placed alongside the content traditionally considered more important than the former.

Change of UI to Favour Smartphone Screens: The process of adjusting the UI to favour the scrollable vertical orientation of smartphone screens started in the mid-2000s. They removed most of the section links on the left in 2006. In the following year, the column got removed altogether, and instead, the home page was expanded to include them in the main column as subheadings. They were stacked categorically. For a short period, they even had a separate website for mobile users (*Figure 5*). It is similar to the website user interfaces of the 1990s in its prioritisation of textual content. This is owing to the comparatively lower bandwidth of the mobile internet.

Top Stories

- **India will not let Pak get away: Pranab**
In an exclusive interview to TOI, Pranab Mukherjee made it plain that India would not let Pakistan get away without acting against those responsible for the Mumbai attacks.
- **Rs 1700cr receivables offer hope to Satyam**
Deepak Parekh told TOI the Satyam board was open to inducting "strategic investors" as part of its strategy to revive the company.
- **Terror from Pak a fallout of Kashmir issue: Miliband**
The UK foreign secretary said resolution of the longstanding issue between India and Pakistan would help deny extremists in the region "one of their main calls to arms".



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Figure 5 *Times of India mobile version 2009*

Special Services that were not Typical of Traditional Journalism: In the initial years the website had a partnership with the NRI service, 'Remit2India', and the link to their services was placed on the homepage itself. Times of India initiated an SMS news service in 2008 at Rs 1 per SMS. A prominent development was the 'Times Campaign' section, a radical shift from the traditionally considered role of journalism, as it attempted to make active political engagement through its readers.

The Indian Express

Frequency of Updatiions: Indian Express initially prioritised print over the web edition, as the news items were not published on the website before it reaching the print. However, it began publishing daily updates on the website in 2006.

Arrangement of Sections and Page Format: In the initial days, like the other portals, their UI was also an attempt at extending the user experience of newspaper reading into the digital realm. So they followed the style of listing the links to subsections on the left side and the front page news on the home page. In 2002, they listed two sections ‘Latest News’ and ‘Top News’, on page top, adjacent to each other. They started giving links to the ‘column’ section in the same year; the columns of famous personalities were given as separate highlighted links. They gave ‘City News’ right under the columns section, with the option to customise among Ahmedabad, Delhi, Mumbai, Chandigarh and Pune. They also dedicated a small part of the homepage to ‘Horoscope’. They gave links to extensive coverage on select topics within the homepage. By 2004 the links to ‘Cricket Updates’, ‘NRI News’ and ‘Photos’ also began appearing adjacent to the ‘Latest News’ section. In 2006, the website homepage expanded drastically as more subsections were added. In the same year, the link to the U.S. edition of The Indian Express got placed on the homepage. By 2007, the link to the ‘Classifieds’ section was given as a separate box towards the bottom of the homepage. By 2008, a new section got initiated, ‘Express Cricket’. In 2009, the links to sections such as ‘ShowBiz’, ‘Health/Lifestyle’, and ‘Technology’ got placed alongside the prominent sections such as ‘India’, ‘World’, ‘Business’, ‘Cities’, etc. The link to ‘IE blogs’ also attained significant visibility among the important ones. In 2010, the stock market updates got placed in a prominent area on the page top. The link to ‘Today’s Paper’ got pushed to a less prominent spot towards the end of the page. The same year also witnessed the proliferation of soft news

content on the homepage; the ‘Lifestyle’ section attained a comparatively larger portion of the homepage, considering the previous years. In 2014, the ‘Archives’ section was removed from the homepage; the page also witnessed a further increase in prominence attributed to the soft news content. By 2015, a more advanced news demarcation system got well in place, and there were multiple content modules based on site analytics and editorial judgements.

Use of Multimedia Content: *The Indian Express* started a separate section for video content in 2009; the same year also witnessed a significant rise in the use of images on the homepage. In 2010, some of the video content began getting embedded in the home page and thereby attained better visibility. This tendency increased subsequently, and by 2015, numerous video stories were embedded on the homepage.

Usage of Social Media Sites & Blogs: They gave links to the RSS Feeds on their homepage in 2005. They initiated IE blogs in 2009, and the link to it was placed among other prominent sections. In 2010, the links to RSS feeds, and Facebook and Twitter pages got pinned on top of the homepage, which was extended in 2012 to include *Google+* and *Pinterest* links. In 2018, only the links to Facebook and Twitter were pinned on top; the rest was removed.

Features to Customise News Content: In 2002, there were options to customise the city news section between Ahmedabad, Pune, Delhi, Mumbai and Chandigarh editions. They enabled the creation of user accounts within site in 2010, and in the same year, the option to make *indianexpress.com* the browser’s homepage was placed on the top.

Interactive Features: In 2010, they started the ‘Comments’ and ‘Readers Blog’ sections. By 2013 the ‘most commented’ news articles began getting placed separately, adjacent to other important sections. They had opinion polls since the early 2000s, which also served as an advertisement for its sponsors.

Initiation of Sections for News Aggregates Based upon Data Analytics: It was in 2010 that *The Indian Express* started ‘Most Read’ section, which listed the articles that got a larger share of site traffic on consecutive days. The ‘Most Commented’ articles followed this in 2013.

Web-exclusive Columns & Aesthetic Changes that are Reflective of the Cultural Shift in Journalism: Since 2002, they started listing out a section of news articles under the label ‘Top News’. They had a separate ‘Community Message Board’, where the audience could voice their opinions and remarks on ongoing issues. In 2015, they started the ‘#trending’ section, which featured stories on issues that are popular among the cyber-populace; and the social media content that garnered widespread attention.

Change of UI to Favour Smartphone Screens: As with other news portals under study, ‘Indian Express’ also reoriented its website to cater to the increasing number of smartphone users. It was in 2009 that they removed the columns to the left and adopted an interface that suits scrollable, vertical screens.

Special Services that were not Typical of Traditional Journalism: In 2002, the website even had a separate section called ‘Services’, which was in collaboration with some other partners. It contained paid services such as “Send Flowers and Gifts to India”, “Matrimonial”, “Calling Cards”, etc. In 2004, an entire section got dedicated exclusively to NRI news. In 2009, the link to ‘Express Shopping’ was added to the homepage of an e-commerce venture. They removed the services section in 2009, and instead, “Featured Ads’ appeared. In 2015, they started giving ratings of popular film releases on the homepage.

Journalists' Perspectives on Shifts in News Culture and Their Workplace Experiences

This chapter attempts to discuss the transitions in news culture from the perspectives of the journalists, their newsroom experiences over the years and the changes that they had to bring in their work routines ever since they started adapting themselves for the digital. To achieve this end, the journalists who have been part of the digital teams of the respective news organisations are consulted for in-depth interviews. Their accounts are utilised to stitch together a narrative on digital news spaces from the journalists' perspective.

The newsroom structures and associated practices are argued to be of great relevance in determining the news forms. As far as online news culture is concerned, the field went through several phases over the two decades and, in the process, underwent restructurings that marked detachments from age-old working conventions and dynamics of operations. The ways in which the traditional news organisations adapted to the internet and their shifts in functioning styles to address the new scenarios would provide necessary inputs in analysing the online news forms.

A total of eight in-depth interviews were carried out with the internet editors of the news organisations that are studied. The interviewees were Sriram Srinivasan, Group Digital Editor, The Hindu, Nandagopal Rajan, Editor of New Media, *The Indian Express*, Kunal Varma, News Editor, Times Internet, Indrajeet Rai, Chief Copy Editor, Times Internet Jitendra Verma, News Editor, *Times of India Online*, Hussain Rahmani, Editor, Newsroom Operations, *Hindustan Times*, Dhanya Rajendran, Founder and Editor-in-Chief, *The Newsmminute*, and Subhash Rai (worked in *The Economic Times*, *The Hindu*, *Hindustan Times* and numerous digital native news sites).

Initial Days

In the mid-1990s, when the internet was at its nascent phase in the Indian context, prominent print news organisations set up new teams to handle online operations. This team of technical experts, though they were conceived as part of the larger organisational structure, remained disconnected from everyday work affairs. They lacked any say in the policy decisions and served no purpose from an editorial perspective. Subhash Rai, a senior online journalist who has served multiple media organisations in his career spanning over twenty years, talked about the initial days of online journalism in India and his experience of working for online portals back then. In the late 1990s, he was part of the digital team of *Economic Times*, which was a group of five, and their work premises were in *Bangalore*, away from the main headquarters in *Mumbai*. According to him, the nature of the work had been that of a “part techie” and “part journalist” sitting in the branch office of the “huge” news organisation. They were not part of the mainstream workforce and had minimal communication with the print team. He recollected that it was not possible for them to even get the press club membership as they were not considered journalists. Their routine work involved accessing contents from the headquarters, conversion of text documents into HTML files and then its upload onto the server. Their mode of work used to get tagged as “shovelware”, as it merely involved the repurposing of contents from the newspapers for the web on a daily basis. Apart from this, they briefly engaged with devising a content management system and bringing forth medium-specific novelties. They set up a discussion board on the website where the users could interact and share ideas. They also initiated the ‘forms’ section where people could find external links to download necessary application forms for various government services that could be availed online. Most of the innovations made then were in no way associated with extending the journalistic potential, rather were more oriented on asserting their presence in the new environment.

A major drawback that the digital editions of the traditional print media faced had been the inexperience of the ones at the organisations' helm, according to Rai. While they were well acquainted with all the aspects of the print, they lacked experience with digital newsrooms. The tools and software associated with digital news productions, the pace of operations such a system demanded, etc., remained foreign to them, which created challenges from the business perspective. It also potentially delayed the attempts at appropriating the affordances of the digital. However, he added that this phase, where the digital team was left in the peripheries, didn't last long. This was owing to the rise in competition from born-digital news start-ups that happened simultaneously with the first internet boom.

The digital native news websites that sprung up in the late 1990s and early 2000s had different work cultures, as Rai pointed out. They didn't focus on doing routine everyday reports in the lines of traditional journalism. In Rai's stint at *Indya.com*, a digitally native news site of the time, they just had two reporters. It was *Rediff* and *Sify* that tried to produce original content for the web. Nevertheless, the competition from them put traditional organisations to reconsider their digital strategy. They were compelled to integrate the digital team within the organisational structure, which led to the apparent relaxation of newsroom hierarchies to an extent.

The challenge from the born-digital news portals subsided temporarily with the 'burst of the dotcom bubble' in 2001. While the incident was too early in the Indian context to have an impact from an editorial perspective considering the meagre share of internet users back then, it did create disturbances in the job market. Many senior journalists who shifted to online portals, perceiving them to hold better prospects, lost their jobs following the business crash.

The digital realm rejuvenated over the years, particularly following the commencement of broadband internet. There were aggressive efforts at various organisations towards turning

profitable, which eventually escalated the role and presence of the digital team at the organisational level. The most deterministic transition of his career, according to Rai, happened years later. In 2016 he occupied a central position in the integrated newsroom of *Hindustan Times*. This transition from peripheries to the core also characterises the cultural shift undergone by the digital in the Indian newsrooms, according to him.

Appropriating the Possibilities of the Digital Realm

The advances in digital communication technologies and the newsroom appropriation of the same have led to significant shifts in the realm of journalism. It opened up an avenue of endless possibilities for journalists to experiment with new forms and narrative practices, as per the claims of Jitendra Verma. The endless array of tools that are at the disposal of journalists in the digital realm extended the limits of journalism as he sees it. The process of digital migration is a natural outcome of the time, which is concurrent with technological innovations and new consumption practices, according to Rahmani.

This wasn't a standalone development, rather, it accompanied a larger cultural shift that swept through multiple domains of social practices, such as shopping, banking, entertainment etc. Srinivasan is of the opinion that the shifts in newsroom practices need to be seen as part of such paradigm shifts across various sectors, the drift from how people traditionally used to do things. He stressed that in such a context his organisation's (*The Hindu*) attempt had been to stay loyal to the values that guided them through the print era, even while formally adapting to the new environment. He used it to contrast themselves with some of their competitors, whom he alleged came up with a "different character and attitude" as an online publication.

The changes are not merely concentrated at the end of production, rather, it also encompasses the aspects concerning dissemination and consumption. Srinivasan stressed that the transitions are as much about people's approach to news as it is about how journalists

function. Audiences have got conditioned to a culture where they no longer actively reach out for news. Rajendran pointed out that there is an audience whose news consumption practices are largely influenced by their digital gadgets and social media presence. Reaching out to them is a challenge, considering their passivity towards the news realm. They consume news not because they are interested in it, they would not proactively go and search for news, they consume just because it shows up in their social media circles. The outcome of such a scenario, according to her, is that journalism became dependent on factors that are beyond their control. Apart from the aspects concerning basic internet infrastructures, the behaviour of the tech giants such as *Google*, *Facebook*, etc. became an important parameter in determining the performances.

Content is king argument is right, but you are dependent on several factors. ... one day google will change the algorithm, and it will say I don't want news too much; I will put only features in the news feed. The next day Facebook may say I want only pictures and videos of holidays on my algorithm and I don't want any bad news. That's it; the moment these guys tweak their algorithms, we get a slump in hits.

Dynamics of News Updates

The rise of internet penetration and a simultaneous increase in online readership has led news organisations to move to a 'digital first' strategy in their operations. However, its incorporation demanded shifts in gatekeeping mechanisms and editorial involvements. The journalists had to adapt to newer working environments which demanded content production at a different scale and pace. As far as the pace of work is concerned, online newsrooms have more in common with that of television newsrooms than print, according to Rajendran. She added that her organisation hardly hires people with a print background because of the drastic changes in the functioning dynamics.

...they are used to a lifestyle where they can file one or one and a half stories per day, and that's it. Here you have to do everything, from choosing pictures to suggesting headlines. We don't have people sitting here to upload anybody's stories. You have to put your efforts into everything. And it is not that you can just upload two copies and go.

The density of works is significantly high in the digital native media; however, over the past few years the mainstream news organisations have also started adapting to such work routines, she argued. They need to compete with digital news outlets, and hence they need to get live updates. If an event is running from morning to evening, the audience expects live updates throughout the day, and the organisations have to provide them. She cited an example of the work of her reporter out in Delhi, covering an important event of national political significance. They are in no position to stay out of sync with the situation even for a short while, as audiences expect live updates constantly. They have to report every minute of developments and also make potential use of their social media handles to maintain that connection with the audience.

Rajan spoke in detail about how he experienced these transitions throughout his career. His initial stint was at a newspaper, later moved on to a magazine and then online. This, he said, took him through various models of deadlines; started with daily deadlines, to fortnightly deadlines and finally to a position where each second is a deadline (or rather the reconceptualisation of the very idea of deadlines). Through these phases of transitions, he had to cater to entirely different audience preferences.

The functioning of online newspapers was constrained to the mere reproduction of newspaper contents during the initial days. As the born-digital news start-ups began posing competitions, they began taking measures to better address web spaces. Rajan claimed that it

was then that the traditional organisations had to acknowledge “news can’t be just a 6:00 AM product, it needs to be a 24X7”. Catering to such a demand from the existing production cycle posed a major hurdle, considering that they began having immense dependence upon the news agencies. They would file contents from *PTI*, *AP*, *Reuters*, etc., to keep the website updated. Srinivasan and Rajan have alleged that several prominent news organisations have automated this process of content publishing taking inputs from the agencies. This is considering that speed is an important parameter on the internet in determining the visibility of the contents in search results. This is contrary to the ethics of journalism as they put it, as it disregards the gatekeeping mechanisms. Rajan claimed that in *The Indian Express*, though they follow a digital-first strategy, nothing goes online without at least one person reading it. Their organisation attempts to publish content in “real-time” and at the same time not lose out on credibility. The news organisations that follow the practice of auto-publishing without making any verifications at the desk are more oriented at “eyeball business” than journalism, in his view. However, he admitted that despite all the attempts they are still prone to errors, which is an outcome of the working conditions. The faster work would take a toll on the accuracy levels, he remarked.

While elucidating on the organisation’s policy, Srinivasan pointed out that *The Hindu* follows a digital-first strategy as they no longer wait for a story to get published in print to present it online. The organisation has made conscious efforts to dissuade the practices of rush publishing, which has become a “weakness to journalism” and has given rise to “stories with questionable credibility”.

What a lot of publications do, and we don’t still, and I don’t think we will ever do it; is they have a pipeline of wire stories that come and directly sit into the site without any intervention. In fact, many of them have a disclaimer at the end of the story that there

is no editorial intervention in this. For example, if the PTI send wire stories, the headline is mapped to the headline field on the CMS, and then so on. Google would favour stories which come early favourably...For good or worse we look at stories.

Rajendran explicated on the challenges of managing the contents of online spaces, which is an incessant process. The reports are done in real-time, and in the instances of important events, the latest developments are tentatively added to the stories. The story link is mostly circulated via *Whatsapp*. A news portal could go live on a major happening with just one line of information concerning it. The ones reading that story may share it in their circles, which will get reshared even further. By the time it reaches more people, they would have added further points to the story, and so it continues. Here the rush is on coming up with the news link first. If an organisation waits for a few more minutes to receive more information and to file a more detailed report, by the time they publish, the other news link from a different portal would have reached much more people. So, that way, the pace at which online space operates has influenced content production and circulation.

Such characteristics of online news have put it in sharp contrast with the traditional news forms, as Rajan observed. While print news is nonmodifiable once published, online offers them space for improvement even then. He remarked that online news is an “evolving organism” which could go live even with just two lines of reports and make additions and deletions as they deem fit in later hours. This could also land them in trouble when the stories develop in ways that they never could anticipate. He cited the example of an incident in Kerala when an actress got kidnapped,

When the story broke, it was a kidnap story, so we had the name of the actress when the story broke, but by evening the story had a sexual harassment angle to it, at which point we could not name the actress. But we have already named the actress, right? So

we have updated the copy in real-time to reflect the change and put a disclaimer saying the name has been removed because this section has been added to the case. You cannot do that in print. So, online, the copy is constantly evolving and improving.

Such transitions have also contributed to the shifts in production routines of the newspapers of the respective organisations, as Rahmani pointed out. While previously, the reporters had the whole day to file their stories, decisions pertaining to the contents of the next day's newspaper fell exclusively under the editors' discretion. Whereas now, with the live updates and constant monitoring of the performances of various stories online, editorial decisions are fairly guided by these data, he argued.

There is a common ground among the interviewed journalists that the developments have shifted the power dynamics in favour of the audience. The news organisations no longer enjoy a higher pedestal to 'lecture' the audience, as they are no longer dependent on the former's news cycle. It has put the onus on organisations to adapt accordingly to stay relevant. The ones who made maximum gains out of this scenario are the tech giants, particularly the social media platforms, as they attained a better hold over the realm of communication.

Social Media Conditioning of Journalism Practices

There are notions of social media spaces displacing the traditional roles of mainstream media through being a link with the masses and various important segments of society. It has certainly created disruptions in the realm of journalism and disturbed lots of journalistic standards that "everyone held close to their hearts", in the opinion of Srinivasan. He shared the notion that while it is no more possible to stay out of social media for the journalists, there need to be deliberate efforts at keeping the reporting process insular of the personal ideological underpinnings, which could compromise healthy journalism practices.

The social media encroachments into the realms that used to be the monopolies of the mainstream media could eventually benefit journalism from the point of view of Rajendran. It could pave the way to a scenario where journalists could focus on doing more analytical news coverages and ignore the comparatively less significant routine everyday reports. The journalists' role could now be something beyond the mere reproduction of statements from politicians and celebrities, in her perspective. While they may say their versions in social media, the journalists' purpose is to question those versions, which has become easier to accomplish now, as there are alternative distribution channels for both.

This link with the audience via social media is not sustainable, in the opinion of Rajan. He commented that it is not a direct link, though it may seem so, as there are always platforms that play the role of "middlemen". When the platforms change their algorithms, its consequence will reflect upon the audience reach. In hindsight, any organisation cannot own their audiences on social media platforms. "The communication channel was dependent on the platform. The platform owned the communication. Platform can take you up or down". Too much dependence on any of the external platforms could cause the eventual downfall of those organisations. In his stint as a journalist in *The Indian Express*, their social media generated site traffic hardly went more than 10% of the overall, there was a lot of pressure on them to raise it by increasing the social media activities, but he claimed that it worked to their advantage that they never went down that path, because had they gone the loss would have been much higher when the algorithms changed.

The utilisation of social media for news circulation has also brought into question the role of online communities. Given the extremely segmented nature of social media, there had been attempts to make sure that a story finds its intended audience via the deployment of various tools peculiar to the online realm. Such practices have potentially come to an abrupt

end following the policy changes of *Facebook*, as Rajan remarked. Content cannot be targeted exclusively towards any intended audience, which is only possible with advertisements. So the only way to target any particular content to the intended audience is through spending money on it and making it into an advertisement. Moreover, his organisation no longer place much importance on the site traffic derived from social media, as they don't have any discretion over it. The virality of the contents is neither predetermined nor can it be consciously designed.

A claim shared by the journalists of the *Times of India* and *The Indian Express* is that their core contents are not read via social media spaces. It offers less scope, considering a majority of social media users wouldn't go beyond the headlines and the thumbnail display. Over the years, the utility of social media got more in line with the visibility market space that it presents. They use this avenue to showcase to the world their work potentials, which is to widen the audience base rather than gaining any direct traffic. This move was upon the realisation of the intrinsically self-serving structure of social media platforms, as opined by Rajan and Jitendra Varma. While they are confident that they can function staying aloof from social media spaces, it is the competitive media landscape that dissuades them from it according to Rajan. In the media market, it is not practical to stay detached from a space that is being potentially utilised by others in the same business.

On the other hand, besides circulation, social media platforms have become an important news source for journalists, where they look for story leads. Kunal Varma has pointed out that, the link that social media provides for politicians and business groups with the masses is peculiar on its own. "It is a link that suits their interests", he stated. It is one of the tried and tested models, where the interested parties can have a connection with their followers, while at the same time in no way obliged to respond to the comments and queries raised. This has led to a scenario where they could afford to ignore the mass media somewhat.

In India, the significance of social media as a potential news source saw an increase in the last seven years, according to him. He said that it never held much significance before when the ministers used to hold press conferences. Presently the majority of the communications the government makes are via social media platforms. They break their responses to the various events and developments that happen across the world via social media posts, which necessitated the journalists to give increased attention to those spaces. Rahmani has also attested to an increase in social media-driven stories over the years. This, in his view, has somewhat made the work of journalists easier as they could source the relevant inputs from social media spaces and present the stories with relevant citations. On the flip side, it has necessitated scaling up the pace of working like never before. It has led the journalists to a situation where they have to compete against the speed of platforms and the reach of the various opinion leaders, added Rahmani.

If the PM is tweeting something, and he has 20 million followers, we have only 10 million, we will have to be faster in turning out the stories.

Social media-driven stories hold a disproportionate share of content in born-digital spaces compared to the digital outlets of traditional media. This, according to Rajendran, is a reflection of the space that they occupy and operate in. Nevertheless, she added that there have been conscious efforts on their part to decrease such tendencies, owing to the feeling that their works are constantly getting catered to an echo chamber.

While most of the journalists are adamant that the editorial judgements of the respective organisations are insular of the social media discourses; they admit that it has reconfigured the communication realm within which they are also embedded. Social media platforms hold immense power and it is in an environment that is conditioned by them that news organisations

need to find their spaces. In Srinivasan's opinion, there is no point in agitating against this situation, rather the only option is to see where they can benefit out of it.

However, some shared the contention that they could still survive without social media and its tools. Indrajeet Rai and Kunal Varma stressed the incapability of social media to be a substitute for ground-level work. Social media platforms help journalists in finding leads and stay alert on the happenings across the world. They also equip the publishers to reach out to a larger audience at a greater pace. Attribution of any further significance to social media from a journalistic perspective is meaningless according to them.

Attempts at Formal Innovations

The online editions continued being mere reproductions of newspaper contents for a long; nevertheless, the need to exploit the medium-specific potentials was part of the internal discussions of some organisations, as Subhash Rai claimed. The talks on the possibilities of incorporating multimedia content in storytelling escalated particularly following the initiation of broadband internet in the early 2000s. *Times of India* and *Hindustan Times* had set up parallel websites for broadband users, which hosted content with a greater share of extra-textual features, particularly video. Looking at it in retrospective, Subhash Rai claimed that it served no purpose from a journalistic perspective, as the internet conditions in India were not favourable for such a step then. Moreover, in his opinion, the formal innovations of online journalism used to be majorly governed by advertisement and market goals rather than that of improving its quality standards, which posed a major disadvantage.

The formats and conventions associated with the print traditions lingered on in the digital realm for a long; a major factor behind this could be the apparent lack of newsroom involvement with the online realm. The direct involvement of journalists in the digital spaces is a comparatively recent development, as it had been an exclusive domain of the tech team. It

is pointed out by Rajan and Rahmani that earlier developments in online spaces fell under the ambit of the respective organisations' policy and tech-related affairs, of which the journalists hardly had any role. Whereas the case of born-digital news start-ups presented a different scenario; while there the journalists had a better hold over the affairs about the digital realm, their works were constrained owing to the lack of funds. Rajendran argued that while they enjoy better room for experimenting with innovative contents, their workforce is much less compared to the traditional outlets. The dilemma that they face is whether to focus on experimenting with innovative contents or to do routine news reports, as within their resources they cannot afford to do both.

In the later years as the journalists were endowed with greater responsibilities concerning online activities, they found the need to address the medium specificities and adapt accordingly. They had to find potential modes of staying operational in the digital, while at the same time not making any abrupt disruption of the print products. In *The Indian Express*, as Rajan stated, they adopted the digital-first policy, whereby the news team would provide reports on the latest events and significant developments ("spots" in their vocabulary) for the website while reserving "analytical, investigative beat reports" for the newspaper. This process, which constituted a significant step in their digital transition, enabled them to maintain their relevance in both realms.

As it got more apparent that the digital realm demands a different set of formal parameters than the print, there began serious attempts at adapting accordingly. Srinivasan claimed that *The Hindu's* approach had been to stay loyal to their brand of journalism rather than the formal dogma of the print. Their brand of journalism is reflective of the ethics and values that they maintained through their decades of functioning. Their conviction is to stay

loyal to the same principles while being adept at formal flexibilities, which has become a necessity owing to the transitions in technological circumstances.

It is at the level of section arrangements and overall display of pages that a great deal of changes took place in the initial stages. The style and outlook of the websites used to be largely shaped by the popular technologies of the time rather than by any journalistic standards, according to Rahmani. The prominent gadgets for the web-access determined the interfaces; while it used to address desktop users in the initial years, smartphone users got prioritised at a later phase. Further, the page display attained greater nuances when it came under the ambit of editorial involvement. The organisations adopted a layered approach about their digital presence, as Rajan remarked. He explained it as incorporating readers' interests without losing the editorial ground. There are things which people want to read, and there are also things which journalists think people should read. What they try to do is to "give the things that people want to read with a prominent display of what people should be reading". This became the benchmark for determining the arrangement of various contents according to him. He added that this practice is not a standalone development of the news sector, rather it encompasses the various platforms that host cultural products. He commented that over the past few years, the audience behaviour went through transformations, and the contents that are displayed to them are not entirely based upon their discretion, rather it is also governed by a combination of factors such as algorithms, editors' judgements and user data.

Right now, we are in the 'Netflix' (for example) mode of consumption. The top part is what Netflix wants you to see. The second part is what you want to see, it is your list. The third part is the new releases, which is what (maybe) you should be seeing because the others are seeing this in India (trending). It is a mix of different kinds of news judgements, similar patterns you will see across all websites... In the print era, it was

just the editor's judgement. Now with technology coming into the picture, you have editor's judgement, plus algorithm, plus data, which is basically what the user is reading, so a lot of that is combined. Multiple streams of content.

Determining the positioning and optimal timing for news publication has become an essential journalistic skill of the present era according to Rahmani. In times when there is a flurry of user searches for peculiar content, they cannot afford to stick to their usual news cycle and publish such content in their own time like that of the print, rather they may need to prioritise them and position them prominently. He explicated this with the example of the case of result publication of competitive exams when the demand for news concerning that would be significantly higher than all the other sections, and hence they would prioritise it over the others. 'Positioning prominently' used to imply giving space to it in the homepages until the traffic driven from external spaces attained a greater scale than the direct ones. However, the prominence of the homepage considerably decreased over the years. Rajan pointed at the general misconception that people hold regarding the homepage, as that of it being equivalent to the newspaper front page. He claimed that even some of his colleagues share such a perception, that they complain if their stories wouldn't find a place on the homepage. There isn't any front page on the news websites, considering that only a meagre share of the audience comes through there. The majority come "sideways", directly onto the various story pages, and hence each page is a front page on its own, according to him. They have become a pull-out in itself, as Indrajeet Rai also mentioned. Appealing to the mass audience via the homepage is no more considered a fruitful move, as despite everything that they do people could choose to limit their consumption exclusively to their interests.

The formal variations are also indicative of the larger transitions in the approach towards the news and content circulation. The journalists have stressed an apparent rise in

demand for live and short contents that are suited for instantaneous consumption. Indrajeet Rai has claimed that in the prevailing circumstances a story could be even as short as a tweet. This is associated with the larger shifts in communication culture enabled via social media, according to Rahmani. On the events of important occurrences, they wouldn't wait the whole day to compile all the relevant inputs and bring up a comprehensive long narrative report, rather they tentatively come up with live updates throughout the day. He added that the news reports in the traditional sense have given way to "info-pieces" in the online realm, where the stories are made available as information snippets, under different headlines. If one story is on an election rally of a prominent political leader, the second would be on her address to the masses, a third story would be "all you need to know about today's rally". Rajendran, Srinivasan and Jitendra Verma observed that this could be also seen as the eventual acknowledgement of the distinct reading practices of the audiences, data concerning which has become more accessible in the online spaces. Jitendra Verma further added that while some read in-depth analytical reports, others consume just the short stories with only the relevant inputs. Similarly, some people would just skim through the headlines or the information snippets that they encounter on social media. Packaging of contents in multiple formats is their attempt at addressing the different niches of readerships, and in the process, they end up creating some "ready to use articles". This way, according to him, it is the case that the story formats are the inadvertent results of the reading practices of the audience.

Journalists across organisations have acknowledged an immense surge in demand for short content carrying only the gist of the information. The majority of the traffic is comprised of such readership, seeking only the relevant input for satisfying the immediate information needs. Jitendra Verma pointed out that this has compelled journalists to produce stories in such brief formats without any room for going into the nuances of the aspects concerned. However, it is claimed that they overcome this limitation by filing multiple stories covering different

aspects of each. Kunal Varma highlighted this as a typical facet of the online realm, whereby the users are made to navigate through pages by presenting them with brief chunks of information and “clickbait” titles. He added that this also significantly contributes towards site traffic in the process.

...people end up reading the entire content. What we do is break it up into parts. Making it easier for them to consume. A long story in newspaper form may go one entire page. We do the same thing, but we break it into parts. We will divide it for the readers' convenience, that “these are the five things that you should take note of”. “These are the five things about which you should be forewarned”. Such clickbait headlines also draw a lot of interest, and the reader ends up. Many of these stories are interconnected, if you go to one story that says “Five things that you must do”, within that story you will find the link to another clickbait, such as “The other three things you need to be careful about”. So, you can make a user navigate through small nuggets of information, broken into shorter pieces for making them easier to consume, in the process, it also drives traffic.

Adoption of such forms and practices that enhances the visibility of the stories is an essential aspect of online journalism from the perspective of Indrajeet Rai. He posited that professional journalism would require taking such measures to undergo formal modifications, to have an optimal presence in the current media environment. However, Subhash Rai found the entire scenario as posing a disadvantage for the practice of good online journalism. He argued that legacy media organisations are stuck in a structure, which is the creation of big tech companies. In their attempts towards making their websites an important user destination, they produce sensational contents that could go “viral”. However, in the process journalism is getting confused with these contents that are produced just to run the website, in his opinion.

The 'Comscore' of the websites of legacy media houses indicates that they are all competing within their respective positions, and attempting to "stretch" themselves in ways that have got nothing to do with journalism. The ones "hand in glove" with these news organisations are the big tech companies, who are allowing these big news organisations to dominate. Their revenue may have subsequently decreased, but they could sustain their dominance in the digital realm with support from big tech. From a business perspective, the heads of various organisations, considering the uncertainty over the field, would try to make a profit out of wherever they can, and this is what influenced content production.

For me as a journalist, who has seen these for the past two decades, I see that we can do journalism in the way that it is meant to be. And play it with accepting some of these strictures by google, and not fall for some of these guys' Facebook and stuff, but can also survive as a business entity.

Business Models

There have been disruptions in the news media markets globally with the emergence of online portals. In the Indian context, while the major news organisations were quick to initiate their web presence, their economic sustainability remained uncertain. *The Hindu* was one of the first to go online. Subhash Rai mentioned that they used to send stories on floppy disks to New York for uploading onto the servers. Shortly thereafter other organisations too endeavoured to extend their presence to online spaces. It was also the result of them being strong with their infrastructure and the natural propensity to try out something new that just came up. In Subhash Rai's opinion, while they were just attempts at being novel and appealing to their international audience, they had the expectations to derive revenue out of it at some point. He added that many of them had a clear vision that the endeavours are aimed at the future prospects that the field holds, despite their inability in deriving profits at that point. Yet, there

remained confusion on whether the print team should bundle it with the rest of their activities or were there a need to find alternate arrangements to handle it. Uncertainties pertaining to that lingered on for a long, which attained clarity only much later, in his opinion.

The digital native news sites that sprung up in the early 2000s followed a different strategy. Subhash Rai said that when he used to work for *indya.com*, which was a venture capital-backed organisation, their goal was not immediate profit generation, rather it was at upscaling and selling it off at a greater margin. He had a similar experience with AOL (America Online), an Indian news portal, as well. There was pressure upon the journalists to maximise the page views, however, it still fell short of revenue that matched the investments. He argued that the digital native news sites that make profits are a comparatively recent development.

By the mid-2000s, the attempts of news organisations in deriving profit out of the online realm got more pronounced. However, the involvement of several external players (particularly the big-tech companies) in the news ecosystem made the entire scenario more complex. They played a central role in determining the conditions of content circulation and consumption, while news organisations had no say in it. Subhash Rai claimed that it posed a major challenge from editorial and business perspectives. The operation in the digital realm from then on had to accompany constant negotiations with these external players and the strictures that they present.

It is the Ad funded revenue model that most of the Indian news portals are dependent upon, where the scale of site traffic is an important aspect. Rajan has pointed out that, in the Indian context significant majority of the site traffic of all the news portals is derived from search results. The drawback of such a model, according to him, is the lack of a loyal audience. It is necessary to have an increased share of loyal audience to move to the ‘subscription model’, which is more preferred from a journalistic standpoint, according to him. It is the share of

‘direct traffic’, the ones who make their visit directly onto the site and not via any of the links, that decide the audience loyalty to a news organisation. He stated that in India even established news organisations get only around 25% of the direct traffic. This is in sharp contrast with media markets of other countries; he argued that *Newyorktimes.com* get direct traffic of around 60%, the advantage of which is that they need not have to worry about other aspects concerning social media, search, algorithms, etc. Instead, could just focus exclusively on journalism and the production of good quality content. In the Indian context, since the share of direct traffic is significantly low, news organisations are compelled to make efforts in deploying clickbait titles and other tools which are meant for deriving audiences from other spaces.

The Indian Express has been following an Ad funded model, and it has earned them profit. However, an Ad-funded experience wouldn’t be great from a reader’s perspective, said Rajan. The difficulty faced by the audience in navigating through the content, which is interspersed with various advertisements, could plausibly become a potential reason for them into moving to a subscription-based model, he claimed. The future of Ad funded journalism and its viability is still unclear, which raises the prospects of the subscription model as a reasonable alternative.

The dependence on Ad revenues from ‘viral’ content is not something everyone could depend upon. Sriram Srinivasan said that in *The Hindu* it was from the realisation of the incompatibility of their model of doing journalism with the Ad funded business model, they decided to go behind a paywall.

...we are the first general interest publication in India to go behind the paywall. That is in line with our strengths. Also because everyone from BuzzFeed to Huffingtonpost has realized that however viral you can take your content, it doesn’t make your revenue model robust. An ad-based revenue model is a weakness, unlike print. We recognize it

early, and we recognize we will never be able to play that game of virality. Virality is interesting in some ways, but I think the kind of viral stuff that travels around the world these days; that kinds of content are not what we want to associate with. It is not genuine news, it is not public news, it is not entertaining, it is a mix of curiosity, gossip, personal lives of celebrities, and it is something that we don't want to touch. We recognized this pretty early before the other publications also got into the subscription model in some way. We found that this is the best approach that we could take to make sense of our journalistic philosophy.

He added that it might be difficult for a journalist to come to terms with the fact that their audience is no longer exclusively dependent on them to understand the world. However, it is high time to acknowledge that they no longer have the clout of readers that they enjoyed in the 1980s and 1990s. The times when they were one of the only five national media in the country, and the advertisers used to flout them, have gone, and the journalists need to come to terms with that.

The subscription-based model is something to which all the traditional news organisations will have to move on to at some point, in the opinion of Rahmani. In such a scenario, the existence of a larger network of journalists and bureaus of the traditional media portals, in comparison to the digital native news sites, will work to the advantage of the former in providing good quality journalism, he argued. The digital native news sites may become opinion lead spaces, which will be addressing different niches of the audience. That way, he argued that, unlike print, the existence of one digital native portal is in no way a threat to the other. Their audiences are distinct, and they don't displace one another.

When Rajendran established her news portal some years back, the widely held supposition had been that *Facebook* is the place to crack, and once you earn a significant reach

there it will sustain the audience. Such notions were shattered following the 2016 US elections when *Facebook* changed their algorithm which affected the audience reach of the news portals. Also, their reach in social media need not translate into revenues. The lack of a revenue stream is a major issue for them. The subscription is always a possibility, but according to her, they don't have any plans to move to such a model at present.

...subscription, which is also a problematic space, for example, we have the Ken or the Morning Context which cater to very specific audiences. If they start subscriptions there are people who are ready to pay. Now for the portals that follow a definite political line, people who want them to do that kind of journalism will give them money. Now, can you afford to be like The Hindu or Business Standard that can afford to go behind a paywall? And say that unless you pay the money you cannot read my story? The point is I don't believe in putting my journalism behind a paywall, for two things; one I am under no illusion that people are going to pay for the newsminute and come. At most I can get 3000 to 4000 people who would do that and that's it. The second point is I think more people should read the stories that we do. I don't think going behind a paywall is for everyone unless they are like The Hindu which people are very used to and they will pay for it. But even then, I am sure it is a very small number even The Hindu would have envisaged when they started it.

Rajendran believes it is the 'membership model' that better suits their way of functioning, rather than subscriptions, where everything is accessible to everyone, just that the members will get extra services, like newsletters and events with their journalists etc. This is also driven by the audiences' appreciation of the organisation's work and their wish for it to continue the way of journalism it does, she commented. The editorial independence is the main advantage of being a digital exclusive portal according to her. Yet it has been too difficult to

sustain considering the lack of investors interested in digital platforms. The advertisers are still prioritising print and TV over digital platforms, and hence survival has become difficult. Also, the problem associated with the websites is that at some point they may end up catering exclusively to a niche of the audience who would agree with their take on everything. That way, one would no longer be reaching out to newer audiences, but operate in an echo chamber, catering to the same audiences over and over, she argued. This could limit their expansions and the attempts at widening the user base. However, reaching out to a wider audience may imply compromising their way of doing things, and their values. This dilemma, according to her, is a major challenge faced by most of the news platforms that operate exclusively in the online realm.

Rajan has also pointed out that it has become increasingly difficult for digital-native news sites to thrive. It may seem like an easy walkover from the outside, however, there are way too many challenges, he argued. The online reach of digital native news sites is in no way comparable to that of the news sites of traditional media as pointed out by him. The brand recognition of journalism matters, even in online spaces. It will take at least five years of the gestation period for a platform to get established and attain brand recognition, during which they would require a constant supply of funds. This need not be possible for everyone to attain. He pointed out that there is a trend in the media industry, “...every journalist who loses his job thinks that he will start a website”. However, even the most professionally functioning news sites are up for sale now, as they couldn’t find a viable business model, he argued. Further, most of the digital native news sites were majorly dependent upon *Facebook*, and their functioning got significantly disrupted when the algorithms decreased their visibility over there, which brought them further damage. He also found how the digital platforms measured their growth, via relative rankings, problematic. “If some platform that is presently at rank 2 moves to rank 1, it will show a growth of 100%”, this need not be a clear indication of the

advances that are made by each of the organisations. It is essential to turn profitable at some point to successfully run a news site for a long, and that has become a difficult task for the digital native news sites, considering the present circumstances, according to him. The Ad funded model could thrive only if the investment that is made is significantly lesser than the revenue earned, which requires a huge scale of reach that is beyond the capability of most of the digital platforms, he added.

On the contrary, he posits that the circumstances are comparatively more favourable for traditional news portals to thrive. The significance of moving to the subscription model is getting more apparent now as he pointed out. The subscription model would require brand recognition and unique offerings, which traditional news organisations are better equipped with. He brought forth the case of certain news websites that depend solely upon the search market, their 90% of traffic would be from search. They got cropped up in the past few years to capitalise on the search market; they don't even have journalists, but rather they repurpose content from other sources to publish on their websites. He asserted that in the coming year's such platforms would become insignificant.

Further, the journalism practice is intimately tied to the underlying business model according to Rajan. He pointed out the case of doing investigative stories, which require journalists to work on an issue for several weeks or months. The only way to sustain it is through the adoption of subscription models, as one cannot produce immediate outputs when working on such content. Still, to sustain using that model and produce quality output, it will require so much of subscriptions which even the established media houses are not capable of in the prevailing circumstances. The alternative way, according to him, is to do more entertainment, cricket, astrology, and stories in such a balanced way that it will not destroy the credibility of the portal. Such stories will get more reach and readers, and the media house

could use that revenue to support their other important works, which could be the plausible model to address this scenario.

It is that your worst has to fund your best. You will have to do a lot of your messy thing, to ensure that you make enough money, to invest in high-quality journalism and journalists

Indrajeet Rai also shared his view that sooner or later all news portals would require going behind paywalls. The audience is getting more accustomed to the idea of spending money for online content, which he believes will work to the advantage of news organisations. The advent of ‘over the top’ (OTT) services has been a significant milestone in this regard, according to Rajendran. She believes it has made people more open to the idea of paying for the good quality content that they consume online. She contends that it may work in favour of digital media, as people have realised the necessity of enabling a support system for organisations that do quality journalism.

Influence of Analytics in the Newsrooms

A prominent impact that the internet has brought into the professional culture of journalism, according to Srinivasan, is that journalists have become more conscious of how readers read them. The journalists became more aware of the content that garners greater readership and how audiences access it. The readership traditionally came under the domain of circulation departments, but in digital, the gap between production and distribution has become narrower. Journalists need to work with the production and technology team now, which is to make sure that the innovations that the latter do are run through the journalists as well. This, he claimed, could dissuade them from making any modifications that could hamper the quality of journalism.

There are tendencies across the news portals to frame policies based on site analytics, of which the data on traffic is regarded with greater prominence. Rajan explicated on the three types of traffic. The first is direct traffic, which is people coming to the site by typing the web address. The second is the search-driven traffic, which in India is majorly from *Google*. Being the most popular search engine, the page rankings in *Google* search results have a high significance in deciding the traffics to different websites. The third is social media-generated traffic. In the Indian scenario, nearly 70% of the traffic to news websites is from search, as claimed by Rajan.

It is basically like a rat race. If somebody is searching for something, and if you are in 1,2,3 slot, you will get read, otherwise you will not get read. ... The Google algorithm is the worst that has happened to journalism. If I do an exclusive story, somebody will copy-paste it, put it onto their websites and rank ahead of me.

He pointed out that the problem with such a system is the lack of sense of quality there, anybody can get ranked, which has given rise to a lot of websites that just cater to the “eyeball business”. Srinivasan remarked that it has come to a situation where to get traffic, the journalists don’t need to please the readers, rather they just need to please the platforms. The resultant impact of such a scenario is the radical disruption in the way the audience relates to the content and their motivations to access it.

It is pointed out by Rajan and Rahmani that the audience that comes through the three ways will have different motivations. In the case of search traffic, the intention is primarily information. They may require any specific information on cricket scores, film reviews, weather updates, political developments, etc. They just come for the specific information and then leave. Rajan claimed that such readers may not even notice the name of the website from which they read it. There is no loyalty to the website or its brand of journalism involved among

such readers. As far as the audience generated from social media is concerned, Rajan argued that it is difficult to locate their intention.

Social media is like hoardings on the road. Social media is just catering to the eyeballs, it does not have any intentions. Social media is more about what is the photograph and what is the headline.

The story and the quality of journalism seldom matter in social media, according to him. He pointed out that this characteristic of social media had given rise to an industry of fake media, which posts clickbait content and derives traffic, without putting much effort into quality journalism. However, it changed after the 2016 US presidential elections; after receiving a lot of flak *Facebook* changed their algorithm which substantially decreased the visibility of news portals in their space. Many news portals that were exclusively dependent on *Facebook* got discontinued following this.

The third set of traffics is direct, here the brand value of the organisation is significant. In such a context people would come to read what a particular portal has reported on a given day or its take on any important issue. Such audiences read multiple stories, as they intend to consume what the news platform has provided. Increasing of such readership is the target before the online news portals for the coming years, as they consider it ideal for their way of functioning, he added.

While the nuanced details of audience reception could be resourceful for the journalists, its relevance is also contingent upon how they incorporate it into their functioning. Subhash Rai claimed that he had been keen since the very early days of his career, on the site traffic and the data concerning the performance of various stories in the online realm. While at the same time he was cautious to not base any of the important editorial decisions upon these numbers. He held that while the data concerning audience reception are of relevance, it is also essential

to do the right kind of journalism to optimise these numbers. It informed the journalists, to a certain extent, on the kinds of stories that their readers are expecting, however, it is important to not be deterministic of these data while taking important editorial decisions. He commented on the system that some organisations have established to monitor and prominently display the live traffic of the various stories. The journalists there have become conditioned by it, and subsequently led to a scenario where they feel the responsibility towards the ‘performance’ of the contents that they produce. While some would get thrilled witnessing their stories’ reach, there would be others who get utterly disappointed with their stories not being read on such a scale despite all their hard work. This, he feels is very unfortunate, as the performance of a story is not at all at the hands of journalists, rather it is intertwined with the various factors which are beyond their control. He is of the view that placing too much significance upon traffic has essentially ruined journalism, and made the journalists slaves of social media and search engines. He also opined that it is something that could be sorted at the organisational level, where they could decide which part of the metric they should be emphasising, whether it needs to be the ‘page views’, ‘time spent’, ‘story engagements’, etc., and this will have a potential influence upon the work culture. Nevertheless, the scale of traffic is prioritised over the rest of the parameters in all the portals.

While dealing with changes in the audience and their news consumption habits, Subhash Rai claimed that a drastic shift happened following the rise in prominence of social media platforms. He argued that the news organisations that depended too much on these platforms eventually “ceded control” to these social media outlets. Now they hold immense power to set the agenda and decide what brings the audience. Even journalists look for Search Engine Optimisation (SEO) to maximise traffic, here the parameters are set by the big tech and not by the news organisations. The organisations are basing their work upon the data from *Google Analytics*, they adopted it as a tool to measure their performance. This has done serious

damage to the journalists' perception of stories, according to him. He pointed out that the differences in readerships across various sections are not a new phenomenon, rather it has been there even during the print era. There were comparatively lesser readers for op-ed pages, however, they still constituted an important part of the newspaper. Now, the journalists are getting conditioned by the metrics and comparing all the stories from different sections on par, which he finds silly. When he used to work for *Economic and Political Weekly* (a peer-reviewed academic journal of social science), he said that a lot of young audiences came to their site via *Facebook*. However, its audience was a niche, and it wouldn't reach larger masses. He added that it needs to be acknowledged that each type of content has its audience share.

Nevertheless, everyone claimed an apparent rise in demand for soft news and entertainment contents, and their compulsion to cater for the same. According to Rajan, ever since a considerable mass of Indians began seeing the internet as their primary source of news, 70% to 80% of the traffics had been on Astrology, Bollywood, Cricket and Devotion (this is denoted as the ABCD phenomenon). He pointed out that even though the trend has decreased over the years, it still constitutes a significant share. These are the things that people come looking for, and they needed to sustain that readership by providing them with those content. However, he added that things have changed now; it was essential to go behind eyeballs at that phase, to widen the scope of their reach. Whereas now they have achieved a significant readership online, and hence are more focussed on giving their audience a quality experience. They still do stories on Bollywood, Entertainment, Cricket, etc. but they claim to give quality content on that; "we don't do massy stuff anymore", he added. Indrajeet Rai and Rahmani have also acknowledged the greater prominence that they pose to entertainment content in the online realm. They consider that ultimately it is the audience's interests that need to be addressed, which has become easier to accomplish now since they possess the system to track live data on the readers and their interests. Further, the traffic from foreign countries, which has more value

in commercial terms, is all on soft news content, like Bollywood, Lifestyle, Entertainment etc., so they have to carry them. Rahmani added that there has been an apparent increase in the number of stories that are filed when compared to the print exclusive era. While in print, 200 stories are done daily, online an average of 600 stories goes up instead.

The data on the performances of various stories across audience segments helps to know the reader preferences and packaging of the stories accordingly, for Rajendran. However, she reiterated that this is done without compromising the ethical standards of the organisation. When she started her news website, she tried to write stories with all the relevant data, statistics and all, she tried to adopt the traditional standards of news reporting to the online space. However, she realised soon that people are not interested in such stories that are “too serious” for them to comprehend. After this, she tried to make changes in the way she packaged her news. She claimed that she makes sure that she writes for the “normal people”, to educate them, and that does not necessarily go along the traditional journalistic standards. “I can write the worst crime stories in a way which also tells the readers that this is wrong.”. However, she also pointed out instances where she found issues with the online consumption culture.

There are times when I feel very agitated, for example, if we put out a story saying “Manuel scavenger dies in Bangalore”, hundreds of people will share it, but not even two would have read it. Sometimes I tell my office people that let us put the headline that “Infosys engineer falls down and die”. An inside story should be about the manual scavenger’s death. Everybody is going to read it then. That is the problem with consumption...

All news portals do stuff to enhance readership; the pictures and videos of film actors and celebrity icons will escalate the traffic, as Rajendran pointed out. Nevertheless, she stated that the contention is on how low one would be willing to go for that. The stories on weight

loss, celebrity affairs, cosmetic surgeries etc. would garner a lot of site traffic, but *Newsminute* never carries any such stories as a matter of policy. This is while several mainstream news websites are full of such stories, she claimed. However, the algorithm prefers certain kinds of contents compared to others, and it is not practical to function ignoring that element, she added.

There is a positive shift in news prioritisation in the online spaces, according to Rajendran, as the age-old notions of news significance got challenged in the online realm.

I find the fact that younger editors want to talk about entertainment, pop culture, and how they impact us, let's not forget that a large chunk of people in this country makes their opinion watching movies. ...So why not have serious discussions on entertainment, culture, etc.

Newsminute regularly carry stories on the need to address the movies that romanticise gender and social violence, which seldom received space in other portals earlier. For her, it is to be seen as a positive step, that news has opened up to include more stories, and to cater to people of varied interests. Journalists are having factual data on what people read, and hence it cannot be ignored anymore. It is the indication of the acceptance of the consumption culture, more than anything, she opined.

However, Subhash Rai stressed the practical difficulties that accompany when they try to scale up the traffic with more entertainment content. He shared an example from his AOL days. It was the time when Benazir Bhutto got assassinated, they were one of the first to break that story and got an immense reach. However, they couldn't sustain that audience share, like the websites that dealt with film and entertainment did. Another related incident is when he introduced the 'fashion' section into AOL, to increase traffic. This move, according to him, was a blunder. The content got recognised as "frivolous" by *Google* and the advertisers didn't want to get associated with it. Likewise, the kinds of content that derive traffic for each news website

vary. He pointed out that when he was working for *The Hindu* the entertainment stories constituted hardly over 12% of the total traffic. However, he has had experiences with some of the other portals, where their share of traffic from entertainment stories constituted 40% to 60% of the overall. This was because the *google* algorithm recognised those sources as ‘entertainment’, and it wasn’t picking up their news content in the way it wanted it to. *The Hindu* got recognised by the algorithm as a solid news source at that time, even the entertainment stories that they filed were not “frivolous”, which is why the algorithm favoured their content for news, according to him. So the utilisation of entertainment content to increase the site traffic of news websites need not bring in the desired outcome.

The time people spend consuming a story has become very relevant online. Unlike print, where it was taken for granted that people would read whatever is there in the newspaper, considering they have already paid for it, online data on audience engagement with various stories are available. Rajan said that he has access to information on the stories that have performed well, and the ones that didn’t; also nuanced information on the time spent at particular locations, the portion of text that they covered, the part where they dropped off and moved on to next story, etc. People could drop off from a story for various reasons, maybe it has got to do with the language used, or because of the advertisements that came in between, etc. However, the availability of these data has made it compelling for them to better cater to the audience’s interests. The task before them is to keep the audience within the website for a longer time, he claimed. However, he admitted that it is a very difficult task as far as online spaces are concerned. He gave the example of *YouTube*, where the average time spent on a video is between “5 to 6 seconds”. This is coming from people who have consumed three-hour movies and people who have watched just two seconds before dropping off. It implies that the majority of people are watching only very little. Rahmani claimed that they use the audience data to change stories on the homepage every three hours. There they look at the chartbeats,

find the stories that gave them more site traffic, and accordingly alter the homepage and stories. They can now use the analytics tools to see the time spent by the readers on particular pages, the portion of the story till where they read etc. and then use these data to better structure the contents. He said that an average person visiting their site wouldn't spend more than forty seconds there. Their data suggests that the maximum an average person would read is just three hundred words. So, their task is to cater to such audiences, and also to encourage them to click on links to other stories on their website.

Thus, the time the audience spends on media consumption has become a matter of concern for the entire industry. The journalists' job is to make the site more accessible to users in terms of design, language, technology and formats. Rajan stated that the incorporation of videos into certain stories is part of this strategy to increase the time that the audience spends on the website. The biggest challenge before him is to get an extra click from their site visitors. He claimed that the average page view per session for online news websites is 1.10, which means of the 80 million readers that they get, only a very small share is reading more than one story. The audience who come to the website directly would read multiple stories in one session, however, they constitute only a minuscule minority of the readers.

Newsroom Integration

In the initial days, the arrival of dotcom culture led to the subsequent relaxation of newsroom hierarchies to some extent. However, some old news organisations tried to strictly hold onto that traditional structure owing to the print still being their unique selling proposition. Major media houses had set up separate digital teams to handle the online operations. Subhash Rai remarked that when he used to work for *The Hindu* from 2014 – 2016, they had a separate space behind the main office, from where online operations were carried out. The lowest person in the hierarchy were the 'uploaders', who would edit stories from the wire services and upload

them onto the website. Whereas in *Hindustan Times*, where he worked from 2016 – 2018, there used to have better integration among the different teams. He explicated the office routine followed back then. Every day at 9:15 AM, the heads of various departments would meet and decide upon the news list for the day, and stories coming in from different departments, and each would ensure that their team delivered on those. Meanwhile, the team designated to handle the agency reports would take care of that. The video team would discuss their content for the day. There was also a data team, who would work with the rest of the organisation. When editors meet, they will decide upon the stories that need to be brought out at that point, and they would reach out to the reporters for those contents. The various forms in which it will need to get delivered will also be discussed. It may take the form of a story, Facebook live, etc. Then another meeting will take place at 02:00 PM where they will discuss the performance of various stories on the website and the important contents that need to go into the next day's newspaper. Then again a meeting at 05:00 PM, which will be exclusively for deciding the contents of the newspaper, and finally an informal meeting at 07:00 PM. With such a model, the day starts with the conversations on digital and it remains part of the discussions throughout. However there was dissatisfaction among the reporters with this model, so it got discontinued and integration of different sorts got implemented by the time he left the organisation. Now the print team function distinctly, and there is an integration of various of their digital products such as *livemint*, *HT*, *Hindustan*, etc.

According to Sriram Srinivasan, *The Hindu*'s newsroom is yet to adopt a fully integrated approach. He explained that as of now, they have integration at the level of editing. The web team will get ground reports from their reporters in the event of any important happenings. The stories are passed through a 'media neutral desk', which is to ensure that the same quality is maintained across the print and digital. The media-neutral desk checks for errors in grammar, style and facts; however, they never edit the length. The digital team collects it

from there and publishes it on the website. Later on, the print team cuts it for the newspaper. Hereby, the story does not need to get edited twice, and the same quality is maintained for both products. He mentioned that, while there is room for more developments in terms of newsroom integration, they are very much there as far as updation and streamlining the workflow across print and digital are concerned. They still operate as a distinct digital team. The major challenge in integration is when it comes to bureaus which operate in distinct geographical locations, finding commonalities across them all is a complex task. Another major issue about the disruption of existing structures and practices is that, for them, the print is still a reasonable market, and hence any changes that are made to the system must be gradual.

The Indian Express has two parallel newsrooms, while one that offers web news operates 24X7, and the print newsroom still operates by the 6 AM news cycle. Integration is still under process, “we are 50% - 60% of where we should be”, according to Rajan. The stories that get published on the website first are also being written by the print staff, so integration in that way has been accomplished so far.

Kunal Varma has pointed out that integration radically alters the dynamics of operation. India Times has a centralised newsroom for their print, TV channel and digital, such an integration helped them each to enhance individual performance. Television reporters bring in the latest news reports faster than others, the visuals and other contextual information would enable the print reporters to process the stories more swiftly. The performance of various stories online would help the print editors in framing the stories for the next day’s newspaper; they can take advantage of the various aspects covered on TV and online, and possibly the journalists can rewrite the stories on that basis for the print. The detailed reports and analytical pieces that first come in the print could later be used in websites; that way the integrated news

environment serves as a platform that benefits all forms of journalism that the organisation offers.

There was a need to have an integrated work culture for the online space, however, it does not imply that the traditional designations have vanished altogether. Indrajeet Rai opined that online newsrooms have disrupted the hierarchies to some extent, there may be much younger journalists who would know of things that others may be unaware of, and their inputs could help in online operations, he pointed out. They still have the old system well in place, that of beat reporting, editorial desks, page designing etc. The change is that the work culture has become “more fluid”, he argued. He described the present phase as more like technology with media components embedded.

Drifts in Professional Culture in Contingent on the Transitions to an Online Media Environment

Apart from the functional changes concerning news production and distribution, newsrooms underwent a larger cultural shift pertaining to the overall atmosphere and organisational structure. It demanded a flexible environment where the different domains require constant collaborations and hence the reconsideration of the traditionally held hierarchies and labour divisions. This redefined professional practices to some extent and had direct implications for the formal aspects of the contents. Nevertheless, it didn't radically disrupt the traditional newsroom structure altogether, rather they found ways to optimally mend the functioning in an order that enable their potential performances in both the realms (print and digital).

The claims suggest an apparent qualitative shift at the desk than the ground-level works. Srinivasan has explicated that they had special training programs for the desk level employees, in using the CMS and production of video content. According to him, the reporters don't

require as much of skill upgradation, rather just a change in approach to the news, which could happen at the level of their interactions with their respective bureau chiefs. Rahmani and Jitendra Verma also remarked that the digital demanded a greater workload at the desk, as their assigned tasks grew immensely. They see the escalation of social media spaces to the level of having a potential claim over determining communication dynamics of the masses as a major causal factor behind this. Rahmani claimed that, while initially, the engagement with the masses had been a sole domain enjoyed by the reporters, with the emergence of social media spaces the editors were also compelled to have their share in the same. Considering there has been a surge of news with information sourced from social media spaces, it got pertinent that they need to stay updated on the developments and discourses taking place in those spaces and maintain their connection with the potential audiences. Apart from that, according to Jitendra Verma, it also compels them to stay vigilant against inaccuracies while filing stories, as there exists a constant threat of receiving flak. This necessitates the desk team to equip themselves with all the tools and necessary skillsets to filter the fake information that they encounter in social media spaces. Rahmani claimed that considering the scale of fake images and information that they are dealing with, it has become a task in itself that consumes a significant share of their working time.

The saturation of the information environment with different social media spaces is considered a major catalyst in disrupting the newsroom hierarchies. According to Indrajeet Rai, it is one thing that compelled the news organisations to adopt the digital-first policy, which the journalists were reluctant to move on to at an earlier phase. As social media spaces attained formidable growth, it accompanied a potential shift in the audience's temporal relation with the information environment, and news organisations could no longer afford to wait twenty-four hours to break stories. The competition to reach a wider audience also led them to have optimal presences in various social media spaces and exploit their affordances, and in the

process adapting according to their conditions. Indrajeet Rai pointed out that this happened to be a realm where the younger journalists could fare better than the ones higher up the ranks. Hence the conditions demanded the newsroom hierarchies to loosen up and have a competent team of varied expertise to manage the digital realm. For Rajendran, a major cultural shift that the digital newsrooms characterised had been the slow decline of ‘beat culture’, where certain journalists become exceptionally entitled to handle specific subjects and the issues pertaining to them, which came to be practically impossible in the digital realm.

Further, complying with the different platform-specific conditions implied scaling up on the production of content in multiple formats, which involved greater focus upon the contents with extratextual features. Journalists were assigned the task of producing stories in multimedia formats apart from their routine textual contents. Rahmani shared the scenario of his organisation, where the senior most staffs, who started their career during the print exclusive era, are producing video content, to sustain in the new environment. Srinivasan believes it to be symptomatic of a generational shift, as the younger audiences that are more inclined to video content over text, as opposed to the others. However, he shared his belief that text still holds a place in journalism that is hard to replace.

We do interactive, graphics, data stories, and cartoons, so the idea is journalism is essentially in the field of communication and we should be able to do that in any format ... Tomorrow if the only means to communicate with anybody is the Apple watch, then we should be there. That is the idea.

Rajan claims that it is pertinent on the part of journalists to be wherever the audiences are, to stay relevant. In the process, they may need to make content in multiple formats and circulate the same through prominent digital channels. He added that it has come necessary for journalists to possess the skills that better serve them in making content in formats that

optimally suit the mediums they operate in. This isn't an uphill task according to him, as all that is required is an acknowledgement of the change in medium. He maintains that the core contents remain the "old fashioned journalism", whose production skills are unchanged; they just have to acknowledge the change in medium and context. Rajendran also shared a similar viewpoint that the basic journalistic skill remains the same, which is finding a story and determining the most suitable way of telling it.

Apart from the upskilling aspect, Rahmani pointed out that such changes in content production practices need to accompany systemic changes, as it is a prerequisite to possess the necessary tools and gadgets to aid the same. It requires an apparent rise in expenditure towards the robust technological infrastructure; which has become a pertinent approach considering the gradual decrease in print circulation. The major share of investment made towards digital journalism is siphoned off towards the acquisition of the necessary technology, which could plausibly cut into the funds for hiring the potential workforce for the digital operations. It brought in the necessity for journalists to be adept at multiple tasks that traditionally went under different domains.

Subhash Rai views the increasing demand for multi-skilled people in journalism (particularly in media start-ups) as consequential of the unavailability of funds. As the revenue sources (Ads, subscriptions, donations) prove insufficient to handle the expenses involved, some organisations attempt to balance it out by cutting short on the number of employees and exploiting the available labour. The demand for multiskilled journalists is an aftermath of such an environment according to him. This system is exploitative as it is forcing journalists to stretch their work. It happens in a context where the field of journalism has "deteriorated" and made journalists "insecure" to practice the profession. While it may favour multiskilled people to flourish, he argued that it could make systemic disruption to the profession. He believes it is

essential that people should have the option to focus only on those aspects of content production that they are good at, to sustain a culture of healthy journalism; which is particularly significant considering the profession's pivotal role in democratic settings.

Nevertheless, social media brought forth newer hurdles before the journalists. They gradually lost the connection with their audiences, as platforms became intermediaries. It brought about a scenario where the floating links in social media became the point of contact of news organisations with their audience. Rajendran claimed that it posed a major disadvantage for news organisations, as it led to the disintegration of audience loyalty. People no longer made any active efforts towards news consumption, as they believed their social media exposure alone could suffice their information needs. In retrospect, it could be said that the audience transition happened in phases, spanning through the years, in parallel to the developments that characterised paradigm shifts in digital journalism culture.

The audience demography comprised stark variations through the years, as the digital realm evolved. It was the Non-Resident Indians (NRIs) that constituted the major share of the audience back in the 1990s when the internet in the Indian context had been at its fledgling phase. This didn't last long, as the number of Indian users increased, particularly from the metropolitan cities that enjoyed better connectivity. Subhash Rai shared from his experience that this got further expanded with the onset of broadband internet to include more tier-two and tier-three cities. While until then the operation of the digital realm remained peripheral to the core activities, only complementing the functioning of newspapers that remained the USP, the introduction of mobile internet and smartphones brought forth transitions in audience demography that necessitated subsequent changes in approach. The news organisations had to make reconsiderations their focus areas and story formats, as the new audience and their motivations for news consumption varied considerably. Rajan claimed that it was at this phase

that the newsrooms started having direct involvements with their respective digital realms, before which it remained insular of the news team, and came solely under the ambit of the tech team. The audience expectations got conditioned by the other affordances enabled by the internet, particularly about location specificity and multimodality. Jitendra Verma remarked that the surge in demand for hyperlocal content has been immense, simultaneous to the rise in internet penetration among the masses. In *Times of India*, they potentially exploit the affordance of new media to make location-specific targeting of the contents, to meet this. However, this isn't an all-encompassing scenario that constrained the scope of journalism merely within the immediate circles of the audience. Kunal Varma shared that still, the majority of the content that they produce is those that have appeal beyond any regional specificity. Maintaining an optimal proportion of everything has become essential to sustain, according to him. For Indrajeet Rai, sourcing stories in the age of digital surge meant going after the hyperlocal content that could appeal to an international mass audience. It is suggested that the very conceptualisation of stories in terms of their local and international relevance underwent transformations simultaneous to that of the information environment and audience relation to it.

Subhash Rai said that the speculation that the internet (particularly mobile internet) has brought more relevance to hyperlocal content and shifted attention from world news is not entirely true. The world news remains relevant, though it may not top the chart always. Hyperlocal contents are important on the internet; however, they need not have news values. There are other means on the internet to cater to such demands. The mundane information that is regional-specific (such as “the best saloon in the locality”), is not expected on the news portals. As far as the legacy media are concerned, it is their offline credibility and brand value that got them their audience online first. There may be content that is produced on mobile or

considering the mobile audience. However, the majority of the content that sets the identity of the portal is determined by the traditional approach to journalism, according to Subhash Rai.

In consonance with the cultural transitions associated with other realms, the news had to adapt to the formats that favour instantaneous consumption practices. Srinivasan insisted that the transitions in news need to be seen in the light of the larger cultural shifts in areas such as sports, entertainment, shopping, etc. where the traditional models and practices made way for the much shorter and quicker formats of the same. Thereby, an immense rise in demand for shorter content needs to be seen as the natural outcome of the times, as per his position. Apart from that, he added that the entire scenario poses a moment of realisation for the legacy print houses, "...where a lot of contents were wretched for no reason at all in the past. In most stories there is nothing to read beyond the first four lines". The news-aggregate culture is rooted in such conditions, which went on to attain a formidable presence in people's digital news consumption habits. Rajendran finds it "discouraging" as a journalist that people are increasingly limiting themselves to short snippets of information to make sense of the socio-political developments that may underlie nuanced contexts and multiple facets. It is this scenario that has given potential ground for fake news to thrive, according to her. The position of her organisation is to not be swayed by such trends, and focus on news production in formats that they deem fit, without making any deliberate efforts to shrink contents to fit in any such formats. However, it is also pointed out that there is a wider context to it, that there are different niches of audiences whose motivations for news consumption significantly vary. Unlike the traditional realm, these variances have more pronounced implications in online spaces, as the reach and scale of traffic are central to its functioning. While there are people who wouldn't care to read long reports, there are also others who love to have elaborate takes on things, and from a journalistic standpoint, it is imperative to cater for both interest groups. As Rajan claimed, the circumstances necessitated the news organisations to produce content in multiple

formats that appealed to the distinct sets of audience interests and not to remain a “one trick pony”. Unlike Rajendran, Rajan finds no threat to journalism from the upsurge of news-aggregate culture, as it cannot have an independent existence without the backing of professional news organisations. On contrary, he believes it could work to the advantage of newspapers, as aggregators along with the online portals would unburden it from a load of mundane everyday reports, and instead could focus their efforts towards coming up with exclusive features that adhere to higher quality standards. He claimed that “...a newspaper could become a distilled product of the highest quality of journalism and the best relevant stories that need to be told. The online portal itself becomes the mothership, which has everything that this news organisation has to offer”. This, according to him, is the best possible way for journalism to adapt.

Possibilities of the Future Trajectory of Online Journalism

The transitions that occurred in the information and cultural sphere have compelled the traditional players to reassess their position in the entire scenario, according to Srinivasan. The traditional players lost the prominence that they enjoyed in the field a few decades back, which he claimed to be a development in the aftermath of the gradual decline of their business models. The share of advertisement revenues, which constituted a significant chunk, took a hit following the digital surge, as they found other avenues to connect with the masses. The media organisations lost the edge that they had in the negotiations with the advertisers, as the latter is now equipped with more nuanced ways of reaching their target community, not having to rely upon the circulation data that the former boast of. ‘Disintermediation’ is an emerging trend, and Srinivasan finds it to only intensify in the future. Traditional organisations require to adapt for the new environment to stay relevant and thrive. Even as the traditional roles of news media, that of recording and dissemination of important affairs, may not hold relevance in the long

run, there are functions which they alone could cater to; such as being critical and posing of tough questions. It is imperative from the organisations' part to focus on those aspects that still make people dependent on them to hold any significance in this environment, in the opinion of Srinivasan. He believes that the future would see the eventual manifestation of the developments that are happening at present, whereby the internet populace is constantly increasing with more people entering the digital realm each passing day. Of these, many are first-time users without much background in using digital gadgets or online cultural consumption. As their share increases, it could potentially refashion the way things traditionally used to get done in various realms. He pointed out that some observers had predicted in the late 20th century that business and marketing will assume the form of conversations in the near future whereby it would remain part and parcel of daily chores, rather than appearing at designated time and space. He believes the same is bound to happen to journalism, as that would become a series of conversations unlike the traditional mode of speaking from a higher pedestal than the readers. It would need to get acknowledged that they are embedded in a series of such conversations and can no longer claim a monopoly over people's accessibility to information on worldly affairs. He asserted that even though it presents a "noisy" scenario they have to get to terms with that, as the circumstances demand them to be more "humble" than ever.

Rajan anticipates a scenario that is slightly more favourable for the traditional players of journalism. His contention is that internet culture in India will mature into better circumstances. In the wake of rising misinformation and fake news that accompanied the proliferation of connectivity, the demand for trustworthy and verified content would increase. Such a context, he believes, would pave the way to the development of different "pockets of trust" in the internet for which people would be willing to pay. This would present an advantage for traditional news organisations as they are equipped with better infrastructure to cater for

the same. Further, it could develop into spaces that provide customised news feeds for individual users, recognising their interests and reading habits. This he terms as “democratisation of customisation”, as it prioritises user interests over anything else. A major share of investments and institutional endeavours would be made towards bypassing the intermediaries such as *Google*, *Facebook*, *Twitter*, etc. and forging a better link with the audience. He believes that with the potential exploitation of technological capacities, news organisations could make direct channels to the audiences’ devices, and thereby funnel their contents onto the same without the involvement of any third-party software or platforms. He posits that if this gets successfully accomplished, it will mark a major milestone in Indian media history, as Indian news media never enjoyed a direct connection with their readers, even during the pre-digital era. The traditional newspaper industry was agent driven, and the organisations lacked this direct connection with the readers. Such a development holds the potential to make revolutionary changes in the sector, according to him. Such a scenario has precedence in the context of the U.S., where mainstream news organisations managed to establish direct connections with their audience. It empowered them to focus exclusively on the reader’s interests and cater for the same without having to bother with any other considerations. He believes that Indian news media could also fare better in such circumstances, through a better understanding of the audience.

Rajan claimed that while the developments could accompany formal shifts, they need not necessarily involve an increase in video content. This is because they require comparatively higher production costs, and hence scaling up on them wouldn’t be a viable idea. This, he claims to hold valid across different organisations, as even those who attempted video content production at scale are reconsidering it now. While at present content production is at an all-time high, in terms of their quantity, Rajan finds no possibility for this trend to extend into the future. Eventually, the quality of the contents will have to be favoured over all the other aspects

considering the way the field is evolving. He asserts that fundamental changes are happening at the level of reception, there has been a drastic rise in the share of the audience with no background of news consumption from the newspapers. Such readership would constitute the majority in a short period, and the journalists need to equip themselves to potentially cater for their interests. He argued that “it is not new media, it is new audiences”; the journalists’ focus needs to be on how to address the new audience rather than on adapting themselves for the new media. In his opinion what would eventually prevail is the “old fashioned journalism” served to these “new audiences”.

Unlike Rajan, Rajendran finds the possibilities for the emergence of formal novelties that serves the new consumption practices. She foresees a surge in demand for audio content in the near future, as people are increasingly getting dependent on it, particularly in the post-pandemic situation. Another area that deserves adequate focus is fact-checking, according to her. She believes it to be of utmost importance that the fact-checkers come up with a potential revenue model so that more people would invest in it. Apart from the perspective of journalistic ethics, she holds that such a development is also essential considering the damages done by the misinformation campaigns upon the social fabric. As far as born-digital news organisations are concerned, she anticipates a tough road ahead particularly owing to the paucity of investments. She claimed that this is more intense in the case of portals that are critical of the government, as investors are reluctant to associate with them. She added that in the given circumstances, the next few years would prove crucial in determining who would survive this phase.

However, Rahmani assumes a contradictory position, as he believes the present disruptions as a road to positive outcomes. He predicts an apparent rise in the number of journalists without having any organisational affiliation in the near future, with which the news industry would get more “democratised”. However, he holds that this wouldn’t be a threat to

traditional news organisations, as both will have their niches. His contention is that major changes are about to be witnessed in areas pertaining to the customisation and filtering of the news; whereby the audience would be endowed with the capacity to determine the contents that reach them, on their interests. Even as the revenue generated from digital is on an increase, Rahmani claimed that traditional media houses are facing unique challenges. They are gradually losing the significance that they held once, as there are numerous avenues available now for the ones that wish to connect with the masses. He believes that traditional newspapers would eventually meet a natural death, after their co-existence with digital portals for some more years. However, this notion is strongly contested by Indrajeet Rai and Jitendra Verma, as they don't see newspapers losing their relevance anytime soon. On the contrary, they hold that its prominence is about to increase owing to the increasing demand for critical and in-depth content characterising different perspectives, which is still accessed via the newspapers. Jitendra Verma claimed that even though the Ad revenues may drastically decrease for the print in years to come, it will thrive for more years. The format may change, and new utilities may get added, but that niche of readers who are dependent on newspapers will not go away anytime soon.

As far as online news forms are concerned, Indrajeet Rai holds that the realm is not going to witness any radical changes in the years to come. His contention is that the basic format remains unaffected despite the different contexts of operations. The addition of complementary elements need not necessarily underlie a fundamental transition in the formal approach, rather they see it as efforts over the basic format to enhance the same. The major transition that the digital realm is about to witness would be an immense surge in the number of news portals in regional languages, according to Jitendra Verma. However, he adds that their sustenance would be contingent upon the adoption of potential revenue models. He finds in present developments a striking similarity with the rise of local TV channels in the mid-2000s.

There was a sudden spike in the local TV channels back then, and they all did well initially. However, the inability to find funds lead to their abrupt closure. He predicts the same fate for digital news portals, in the absence of a robust revenue stream.

Subhash Rai shared his strong contention that the present state of affairs in the digital realm makes it unfit for a culture of healthy journalism to survive. He argued that social media-driven rhetoric has achieved real-world consequences, as demonstrated by several recent developments. There has been global consensus on the need to have systemic changes in the internet scenario. He said that when he started his career more than two decades back, he thought this space would bring democratisation in the field of journalism. However, over the years it made contrary impacts. “It was probably the creation of a neoliberal order”, and has become dangerous to society as a whole, he opined. It has increased the accessibility of people to information, which would have otherwise remained inaccessible to them. However, it generates a lot of “cacophony”, which needs to be sorted out, according to him. The increased accessibility has brought with it the datafication of the audience, which is not a desirable direction for the world to function.

We need to address those things now. I am optimistic that it will happen, sooner than later. We did not start that as the objective, but we are now completely taken over by the requirements of these guzzlers of data and surveillance. I don't think that will last long.

Discussion and Analysis

Online news forms are identified as constantly evolving, contingent on the variety of factors concerning the production dynamics as well as its realm of operation. The previous chapters attempted to map the changes that occurred in the online news spaces for the period considered for the study. The significant shifts concerning the formal transitions are documented. This chapter attempts to further elucidate the process, analysing the various aspects that proved pertinent in defining the online news experience. Drawing from the theories of digital cultural productions and transitions, this chapter attempts to discuss the Indian online news media landscape and the apparent influences that some technological innovations, as well as context-specific production, dissemination and consumption practices, have had in its functioning.

Venturing onto the Digital

In the mid-1990s, when the prominent English language Indian dailies made their presence in cyberspace, the attempt had been to simulate the experience of news consumption from newspapers for the newly established web audience. In the initial days, most of these audiences had been the Indian diaspora scattered across the world (Saxena, 2011); they utilised these newly found avenues to stay connected and informed of the developments back home. It brought about a scenario where the traditional news formats got acquired into this new medium and subsequently extended their consumption to an internationally distributed audience. As observed, this opened up possibilities for formal transitions as it gradually embraced the affordances of the new medium of operation. The transitions were reflective of the simultaneous cybercultural shifts, while at the same time not exclusively determined by it.

The initial days of the news websites were the times of surfers' web, during when the internet experience had been largely hyperlink-driven. News websites were the initial entry

point to the internet for a significant share of users back in those days (Saxena, 2011). The links to important online locations and to that of government services were of great relevance, considering that most news websites then had a separate section that featured these. The initiation of various sections and services also happened in terms of commercial collaborations with various outside entities that had rather no significance from a news perspective. There were also isolated attempts at expanding into realms outside journalism. (*IndiaTimes.com* began offering multiple services such as emails, blogs, e-commerce, etc. *Hindustan Times* also started *shine.com*, a portal dedicated to educational and employment purposes.)

The efforts to derive profits from the online spaces drove the endeavours at formal innovations; the apparently different functioning logic of the online news realm in comparison to the print had been a factor that called for distinct formal approaches for the online. As suggested in the interviews, this prompted some of the news organisations to adopt strategies and practices that had no precedence in the traditional news culture. In the 1999 - 2000 period, *The Indian Express*, *Times of India* and *Hindustan Times* established independent companies for taking care of online business. However, in *The Hindu*, it remained part of the parent company.

The discussion board had been one of the initial features to have appeared online, which added a newer dimension, that of interactivity, to news consumption. However, the insularity maintained by the editorial department towards the tech team curbed experimentations in potentially appropriating the possibilities of the online realm and translating it to the formal innovations of news. The journalists had no involvement in determining the mode of content display or homepage layouts for a long period. However, the organisation of contents in the websites underwent transitions over the years, from being a simulated version of the print to

accommodating itself well within the web standards. The customisability of content is another important avenue that various news organisations attempted to enhance in their digital spaces during the early 2000s. The personalisation of various features of cultural products is an aspect that is generally associated with digital spaces and naturally became one of the first medium-specific novelties to get manifested in the online news realm. The news portals brought in measures to facilitate customised user experience in their spaces, while the way it was enabled differed across them.

The endeavours at revenue generation from online handles had been there since the initial days. However, the confusion pertaining to the absence of a robust functioning model significantly hampered the process. The initial struggles were mostly in concern with the division of works and profit sharing, which they claim was primarily owing to the lack of expertise of media company owners on the online operation. There were attempts to make profits out of online ventures from the initial years on. Apart from the business collaborations with outside entities and online advertisement revenues, there remained confusion pertaining to how to monetise their content. The first attempt at an online subscription model was made in 2001 by *Thenewspapertoday.com* of *IndiaToday* group (Saxena, 2011). They couldn't survive long with such a revenue model, which prompted the other organisations to not go behind paywalls, as the Indian online media market wasn't mature enough to accommodate it at that point in time. Following this, the ad-funded model was identified as the only viable alternative and got widely adopted. The revenue generated from the advertisements constituted the major chunk, and the organisations took measures to maximise the benefits from it. The adoption of such a model necessitated bringing in various metrics, such as a scale of site traffic, average time spent on the page, the extent to which individual users scrolled across the various contents, etc., into the equation. It necessitated the optimisation of form and content to match the requirements, which brought about a shift from traditional journalistic practices. The

placement of various advertisements on the page, as well as determining important ‘spots’ on the screen that potentially enable the users’ visibility of it, came to be of significant importance in running online news spaces. As the time spent on the websites and the traffic to various news pages became important parameters in optimising the advertisement revenue, by the mid-2000s, the external links (that navigate the users outside the websites) got significantly decreased while the number of in-links saw a steep increase in the years that followed.

The possibilities of the digital and the online-specific parameters concerning the monetisation of content have had their influences on the news form online. However, paradoxically, content production remained disjunct from the online operations, as it had to adhere to the newspaper standards. This was owing to the fact that the newspapers constituted the core business of the organisations and hence demanded priority over the digital. The practice had been to upload the content online only following the newspaper publication. Such practices were reconsidered following the initiation of born-digital news spaces in the early 2000s, and traditional news organisations took abrupt measures to face the challenges that they posed. A gradual move to a digital-first strategy was initiated from here, and necessary organisational and infrastructural changes found their way. In the early 2000s, news websites moved from being pure HTML pages to active server pages, which enabled them to make tentative modifications throughout the day (Saxena, 2011). While the newspapers still held prominence at the organisational level, the websites were supplied with the latest content concerning important developments so as to run ‘breaking news’ in its space. The endeavour was to keep the websites live and updated, and was carried out through immense dependence upon the stories served by the wire services. Such a practice also enabled them to not exhaust the exclusive content for the newspapers. The wire services too, were quick to realise their potential in meeting the demands of the new environment. They identified the distinctiveness of the online spaces and brought in associated changes in the contents that they supplied for

the online media. There was an apparent increase in arts and entertainment-related content. Also, they started making additional charges from the news organisations for using their content on the internet (Saxena, 2011).

Over the years, internet users considerably increased, and so did the popularity of various forms of communication systems enabled by it. Disruptive interventions in the realm of communication found manifestations in the online news culture as well. It imbibed the conventions and practices that are typical of communication cultures of the various online spaces, though they had no direct involvement in the news realm.

The Influence of Other Prominent Communication Practices of the Internet Upon the News Form

The online news form, though it began as a simulation of the print, underwent tentative modifications over the period that was reflective of the internet culture of the simultaneous era. The networked nature of online (an intrinsic property of the World Wide Web), where the boundaries across different digital spaces are blurred, sets the premise for potential formal collaborations. As a result of which, the various modes of online content dissemination styles conditioned the news context. It is this uniqueness associated with the Web context that enabled the online news realm to appropriate the formal aspects of contents that evolved from non-journalistic spaces (in the traditional sense). The scenario is not an abrupt result of a formal co-option; rather, it is an evolving process where both the segments have mutual contributions, as they occupy shared existence in the realm of the Web.

The organisation of websites as a collection of webpages, each with its individual URLs, had been a factor that disrupted the traditional news culture. While the traditional news came as a package, with pre-set space allocations for various news sections, the websites presented each story as a pull-out in itself, which could get randomly accessed. The URL of

the story page could get shared across different digital platforms, thereby widening its reach among the audience who may not necessarily access it from the website's homepage. This brought about a scenario where one no longer has to adhere to a standard pathway for accessing the contents. It enabled the audience to limit their exposure exclusively to the content that caters to their respective individual interests. An implication of this had been that, although the spatial constraints decreased, it led the way to newer hurdles in terms of the necessity of addressing varied sets of audiences and their reading practices. The journalists have observed how they made redundant forms of the same content in order to address the different niches of reader preferences. The site metrics gave nuanced information on the popular stories, content formats, reader interests, etc., which subsequently went on to condition the content productions. The need to address the varied sets of readers and their practices got more pronounced; while the long narrative forms held their importance, the share of info-pieces and news snippets also prominently increased owing to its demands.

The early 2000s witnessed the rise of blogging culture, its formal specificities and associated conventions characterised a significant shift in the cybercultural sphere. It enabled online spaces for individual user expressions, which subsequently led to an increase in personal narratives and their widescale dissemination. The nature of blog posts (formal as well as content specific) extended the discussions to aspects that didn't fall under the ambit of traditional content dissemination platforms; further, it also had the added dimension of interactivity. The websites of traditional news media made efforts to appropriate these features in their spaces as they initiated separate sections for blogs. The journalists used to handle their individual blogs on the news websites, making personal narratives and experiences that they couldn't accommodate in their objective news articles. The significance of such a move from the journalistic perspective had been that it marked one of the earliest efforts towards the creation of original content for the websites, in line with the web standards, from the part of

traditional news organisations. Until then, the website contents were mostly repurposed from the print. Further, the possibilities of content organisation associated with blogging were also incorporated into the culture of news production and dissemination. The ‘live blogging’ style of reporting got adopted while covering matters of high reader interest, with tentative inputs from the field. The influence that blogs made upon the traditional news culture is a prominent instance of formal shifts in that realm, where the language of both fields is “hybridised” (Manovich, 2013), that way optimising it for the digital medium.

The process of optimising the contents for medium-specific demands created further formal modifications as the internet culture underwent characteristic shifts over the years. A fundamental shift in the way people imagined computer-mediated communication (CMC) happened with the onset of social media platforms. It altered the speed and intensity of the communication practices of the digital realm, the impacts of which were imbibed into the news spaces as well. The apparent rise of social media, together with the advances of new-age digital gadgets, reconfigured the entire scenario of online content dissemination and consumption practices. The outcome of such developments has been the creation of a significant share of passive audiences, for whom news consumption is not through actively seeking out it but rather merely a consequence of them being in social media spaces. The news organisations had to make platform-specific innovations to their content in order to draw audiences to them. The context of their content consumption was determined by the respective social media platforms, and the news organisations had to comply with such a system so as to draw audiences. The news organisations played along the strictures of the social media platforms to enhance their visibility in that space and also packaged their content in formats that could appeal to the audiences in such contexts. This gave rise to the culture of ‘virality’, whereby certain contents would get immense reach and visibility across social media spaces in a short time. The formal

specificities attached to ‘viral’ content were identified, and the news organisations attempted to replicate them across various stories from different themes.

Social media made the gap between news organisations and the audience narrower; the traditional mode of lecturing the audience by assuming a higher pedestal got practically impossible. Social media spaces are largely characterised by their user-generated content and subsequent discussions, news organisations, found the necessity to be part of these conversations to stay operational in these spaces. The social media handles of news organisations had to embed themselves within the conversational pattern of the respective social media platforms. They had to devise distinct platform-specific conventions for each social media so as to eventually draw the audiences to their websites.

Manovich’s (2013) postulation that the experience of cultural consumption from digital spaces as invariably linked to the underlying software, holds relevance in the context of news organisations’ dependence on social media platforms. The conditions of content dissemination are dictated by the platforms, and the news organisations’ editorial decisions on social media engagements are constrained within them. The social media handles of news organisations are attempting to reach out to the mass of audiences whose context of consumption is conditioned in accordance with the respective platform algorithms. Such a scenario, where the performances of different organisations are governed by the same logic, sets the potential premise for formal convergence.

The incompatibility of the traditional work cycle with the temporal order of the digital made the former adopt alternative measures to sustain. They had to immensely depend on the wire services for tentative information updates, as they had reservations about going digital first with their content, considering that their print products were their USP. It brought about a scenario where the different news organisations’ digital handles were running with the same

input provided by the wire services (Saxena, 2011). That way, the form and content of the digital handles of traditional news organisations attained similar characteristics to an extent. It is observed that the contents shared in online news websites of various organisations shared so many commonalities, as they were all sourced from wire services. No newspaper had made efforts to make original content for the Web initially, as the realm was not sufficiently profit-making.

Simultaneously, the social media influence on news websites has seen an increase over the years. There were prominent displays of social media engagements made by the respective organisations on their websites. The articles hosted social buttons to link them to the readers' social media spaces; separate sections got initiated to list the articles which received a maximum of such shares. The newsrooms also began taking into account the emerging social media discourses to decide on their content dissemination. There were also shifts in the organisation of contents; apart from the various sections that featured temporally bound stories, the 'keywords' became an important aspect that connected the stories from different sections. The scenario could be analysed in terms of the syntactic interrelations that Brugger (2009) proposed. When an article is accessed, it comes with a prominent display of related content as determined by the keywords. This is a medium-specific feature whereby the contents that are neither spatially nor temporally bound are connected. This could be understood as a case of physically performative cohesion across the articles hosted in the portal. With this, the demarcation of news attained novel complexities, considering the digital space as not spatially bound and there being more than one way to reach content. Such developments in a context that was already witnessing a rise of passive readerships imparted greater prominence to the story recommendation systems.

The realms of social media and news websites, though function independently, their existence is intertwined. They are embedded in a common ‘textual environment’ (Brugger, 2009) and present a plausible avenue for the formal conditioning of the underlying web elements. Both realms are immensely hyperlinked with each other; the news websites got largely dependent upon the social media spaces owing to the significance that the latter holds with regard to online communication. The relation could be read as instances of physically performative cohesion, as their intensity of linking has opened up spaces for the collaboration of various web elements. As observed, there are instances of news forms getting conditioned by the pattern of content dissemination in the social media realms. This could be read as a case of formal cohesion, as it involves the convergence of properties and appearances. An outcome of these spaces being closely knitted has become a scenario for semantic cohesion; the contents and larger operation of the news realm are not insular of the developments and discourses that take place in various social media that they are linked to. Apart from the influences that social media discourses exert upon the operation of online newsrooms, semantic cohesion could be also observed across the various news websites. Contrary to the traditional news culture, where the form and content of each newspaper follow a uniqueness of its own, online news content tends to show similarity across multiple portals. This is owing to the factors such as the convergence of their sources (wire services and social media) as well as the characteristics that govern content circulation in the online realm. Considering the maximisation of site traffic an important criterion for the sustainability of online portals in the circumstances that prevailed, the journalists tend to adhere to certain features that are identified to be typical of ‘viral’ content. The architecture of various social media platforms and other large-scale content dissemination mechanisms imposed a uniformity of form and content, which apparently led to a larger scale of formal cohesion. It is also observed that contents get replicated within the same

web portals under different sections, particularly if the crux of it is featured in the daily ‘trends’ section of social media or search engines.

Post Broadband and Web 2.0 Era

The arrival of broadband internet had been an important milestone in the growth trajectory of internet-based initiatives in the Indian context. It was in 2004 that the country enabled access to broadband internet, which offered a speed of 256kb/sec back then (Saxena, 2011). Some news portals found an opportunity in this to scale up their multimedia content.

The case of multimedia content is an aspect that is generally associated with the online journalism culture. It is always posed as a novel possibility to strive towards in the age of digital. While most of the portals being studied ventured into it at some point, Hindustan Times was the frontrunner. They set up a separate portal exclusively for broadband users, describing it as a “total multimedia experience.” However, as Subhash Rai remarked, it was too early in the Indian scenario, and that was largely motivated by the market goals rather than endeavours at bringing formal novelties and exploiting the possibilities of the digital. It is significant to observe that the multimedia contents were initially a separate section in all the news websites; interested users had to visit those spaces to access them. Later on, it got integrated with the rest of the contents and got prominently placed alongside the texts.

While the developments in connectivity gave more room for enhancing multimedia content, they didn’t displace the prominence of text in news spaces. The online handles of traditional media continued the prominence of textual content, using other media forms only to complement it wherever necessary. It could be read as a case against technological determinism, where the possibilities to adapt to novel modes of communication need not necessarily translate into its widescale adoption. The textual contents constitute the major share, even though the format is not the same as it used to be in the traditional era. As Rajan

remarked, this is also owing to the huge financial burden that it entails; they are yet to figure out a cost-effective model for scaling up multimedia content.

It was the advancements in connectivity that facilitated the evolution of social media spaces, which gradually re-engineered the ways in which the news is sourced, presented and disseminated. The development of RSS feeds initiated the integration of content from other blogs or websites into the users' spaces, which was a precursor to the sharing of content onto social media. It also brought about a scenario where the stories would be made available for the users without visiting the homepage. The need for a direct visit to the news websites got decreased considerably with this. The rise in prominence of *Twitter* by the late 2000s had been a milestone; it necessitated the extension of news gathering to digital spaces like never before. 'Tweets' could be made the crux of breaking stories, as observed by Kunal Varma. This got further amplified with the proliferation of other social media spaces such as *Facebook*, *Youtube*, *Instagram*, etc. The embedding of content from social media spaces within the news articles became a norm, which subsequently added newer dimensions to the news reports. It became a common practice associated with the optimisation of stories with multimodal content. This became possible owing to the affordance enabled by the digital realm to make potential collaborations of multiple entities without much effort. Also, it is significant to note that the social media contents embedded within the story text serve a different purpose than what it does within its original space, as it is extracted from the originally intended context. This is a case of 'remixability' of the cultural products, which is a characteristic feature common in the digital realm, as Bolter (2019) pointed out.

The features typical to various social media found their way into the news form. There have been several 'hybrid' (Manovich, 2013) formations resulting from the potential merger of the languages of various online spaces. The social media-specific features were appropriated

by the news organisations to optimise their content's performance and visibility. They had to repurpose their content in the forms of images for *Instagram*, video content for *Youtube*, instant short newsreels for the various video snippet-sharing platforms, etc. Even the textual contents blended with the multimedia languages of various social media platforms to optimally address the tentative information needs. The 'live blogging' and 'information threads' (a feature typical of *Twitter*) are generally utilised to cover the stories of popular interest while they unfold in real-time. Considering the audience interests associated with such incidents, the reporters wouldn't wait till the end of the day to file the story. Rather, the page evolves through the day alongside the happenings out there; meanwhile, the link to it would get widely circulated through instant messaging services such as *Whatsapp*, *Telegram*, etc. The traditionally print-based services also depend on social media platforms of video snippet sharing for the dissemination of their flash news; here, they embed the text within the video snippets so that the users would come across them while scrolling through. The hybridisation of content happens in ways that enable them to have a prominent presence in the online environment of their audience.

The dependence on social media spaces to connect with audiences also resulted in the gradual decline of certain features from the websites, interactivity and customisability being the prominent ones. The discussion boards had been one of the earliest medium-specific novelties to get featured on the website; however, over time, that role got assumed by the social media spaces. Hosting of User Generated Content beyond a point is considered to take a toll on the credibility of the portals, as Rajan opined. Hence, the user discussions and narratives got largely limited within the social media spaces. Also, considering the greater accessibility to individual user data, the social media platforms were better positioned to customise the content for the users. It brought about a scenario whereby the user exposure to news content in

social media gets governed by platform-specific algorithms. The measures initiated by various news portals to enable customised content within their spaces got discontinued following this.

The interviewed journalists held diverse views regarding the involvement of journalism with social media practices. It was generally seen as a necessity of the times, considering a variety of factors that condition the information realm. An important concern had been the fear of losing out on the untapped potential of the competitors. In the online realm, the competitors are not just the other media organisations, but rather potential usage of the platforms by the opinion leaders and other traditional media sources (eg, office of elected representatives, entertainment icons, etc.), which presents a situation where they need to compete amongst these. Also, the paradigm shifts in content dissemination, where the passive audiences are on the rise, are seen as a condition that necessitates their presence over there. The connective environment brought about by social media enabled a system of content dissemination that took over the space traditionally held by media organisations. However, some viewed it as a positive development insofar as the media organisations are concerned. As per their claims, it enabled them to focus more on analytical and in-depth news coverage, as it significantly cut short the workload over the production of redundant daily reports. Some also shared their contention that the reach offered by the social media platforms, though alluring, is not static as that is dependent on the algorithms of the respective platforms. The follower base of an organisation within social media platforms cannot be claimed as their own, it is the platforms that regulate their performance eventually. This has put news organisations in a position where they have to strategize changes in terms of the social media platform logic. The policies and logics assumed by the social media platforms are intensely self-serving, while the news organisations are kept out of much of the gains. It is claimed that over the years, the nature of dependence has altered; now, the presence is not largely motivated by the hopes of direct traffic generation but to showcase their potential to a larger audience.

The realm of content dissemination underwent intense transitions over the years, which is unprecedented. As claimed by Manovich (2013), the digital realm is more akin to such swift transitions compared to the traditional spaces; as the efforts to bring about it are minimal compared to the latter. However, the sudden changes in information dissemination patterns enforces organisations to reflect those changes in their functioning dynamics. Unlike the print era, the frequency of changes in the digital are more, this has brought forth the need to make constant reorientation of the workforce, which the established media houses with age old systems in place found difficult to bring about.

The journalists adapted to the new environment by bringing about changes in their work routines and in the content that they produced. The interviewed journalists were in agreement that there had been an apparent increase in the total number of stories that are filed daily. Apart from the obvious reason of being free of space constraints as in traditional media, what motivates is also the affordance to duplicate the contents over and over. Unlike traditional media, one has the opportunity here to modify and repackage content (highlighting different aspects, formal modifications, etc.) until the story attains optimal reach. Also, to make tentative modifications of the news stories as more details concerning it unfold.

The rise of the app ecosystem that thrived on the cultivation of user data altered the nature of the internet and the way people accessed it. Social media apps became the entry point to the internet for many, which resulted in the dwindling of the number of unique visitors to news websites. The search traffic became more pronounced, and hence the news had to get packaged in accordance with that. The stories that needed to get uploaded became contingent upon the ‘trending’ user searches of the respective days. This created a scenario where the news became a subsidiary of the user performances on the external platforms and the discussions that took place there. Further, in addition to the making of platform-specific modifications to

the contents, news links had to get designed in peculiar ways to suit the context. The hypertexts gradually vanished from social media spaces; instead, the ‘thumbnails’ that featured headline texts and images got more prominent. The design of thumbnails became significant in the entire process, as the magnitude of its visibility across user profiles got contingent upon that.

The claims of journalists suggest that the functioning logic of various social media and Over The Top (OTT) platforms have been imbibed into news organisations. It particularly holds true in the matters pertaining to content organisation, as the online context necessitated them to adopt a layered approach in determining it. Apart from the editorial judgement, they had to consider the audience reception data and social media performances in determining content. The journalists acknowledge that their monopoly over the news discourse has shrunk to a great extent. The aspects concerning attention generation online became invariably attached to the production of news content. They view such transitions as the results of the radical transformations that happened in the online communication realm, particularly following the surge in participatory communication networks facilitated by social media platforms.

The Smartphones and Extension of the Possibilities of Multimodal Contents

The arrival of smartphones had been a disruption to the imagination of the internet as a connected system of webpages. Rather it presented the ‘walled garden’ of the app ecosystem, from where the ‘outlinks’ are seldom possible. News apps are generally seen as a way to cultivate a dedicated audience since most visitors to news websites are identified as not going beyond the single page that they arrive at. Apps are expected to overcome this limitation considering their unique architecture. Further, they also potentially enable news organisations to provide customised user experiences, considering the better accessibility of the user data. Smartphones also constituted a milestone concerning people’s relationship with the internet.

Particularly in the Indian context, it facilitated many first-time internet users (Business Standard, 2021). It embodied a distinct logic and screen aesthetics, which went on to condition the news culture in many ways. It presented a scenario that enabled better integration of digital technologies and the internet in everyday life. Smartphones extended digital media consumption to previously unavailable spaces and times. It catered to the user demands from ‘situational spaces’ (Chan, 2015), where the context of consumption differed significantly from that offered by the traditional media. It carried numerous functionalities that are designed to assist users in different walks of daily lives, and thus it went on to occupy a riveted presence in the everyday affairs of people. It enjoyed an intimate presence in the users’ lives that no other media device in history had precedence of. It is inevitable to consider these details while considering their implications on the news forms.

The distinct utilities embedded in smartphones make it a potential site for multimodality, and it is within such an environment that the news contents have to find their optimal presence. Considering the attention span of users from situational spaces, it necessitated a stylistically novel approach, the one that potentially exploits the possibilities endowed by the technology. A large body of text in stories is considered an aspect that detests smartphone readers; hence a content organising pattern has been devised for a better user experience. According to Adornato (2022), mobile audiences need to be served the contents as “...snackable bite-sized chunks of information that are easily digestible”. He proposes a layered model (based on eye tracking studies), where the story is organised as short paragraphs with sufficient subheadings and interspersed with various multimodal elements that complement it. These include images, videos, statistical graphs, embedded social media posts, etc. The study observed that in the initial days of online news portals, the multimedia contents used to get placed as separate sections (which is also owing to the comparatively low bandwidth of the time); their integration with the main section got more prominent when webpages got

designed primarily aiming at mobile device users. In presenting stories that contain information sourced from various social media, embedding the respective content within the story page added a new dimension to it; this opened up a window for the audiences to the spaces where these discourses are emerging. Smartphones intensified the utilisation of extra-textual features, also the integration of various spaces that carried such contents. Such a model also served a commercial purpose, as advertisements could easily find their way to that slot. The scrollable screen gave advertisements placed in between the short paragraphs good visibility.

Another major development that entailed the widespread adoption of smartphones was its potential usage as content production systems. It was for the first time in history that the same device got used for sourcing, producing, editing, disseminating and consuming content. Several organisations considered this novel possibility and made attempts at appropriating such a system within their work routines. However, as some journalists opined in the interviews, in the Indian context, the age-old system that is in place cannot be disrupted at once, particularly when the traditional products still constitute a larger share of their revenue. As observed from the interviews, the apparent mismatch between the production practices required by the digital and the existing structure that is designed according to the traditional work cycle often acts as a hurdle towards novel forms. However, the attempts at catering to online demands without making any larger disturbance to the traditional content production practices are well in place. So far, the attempts have been to address the new medium and the specificities that it demands without making a total detachment from the traditional practices.

The Temporality of the Digital Media Environment and its Conditioning of Online News Formats

The ubiquitous connectivity and the proliferation of digital gadgets have paved the way for the furtherance of information consumption from situational spaces. The past decade of

online journalism has been characterised largely by the increasing “ambient” mode of information delivery, where consumption is not an active process; rather, the audiences are embedded within the environment of diverse content (Hermida, 2010). Within such a system, the notion of a constituted time dedicated to information access is challenged; rather, it provides a condition where the media occupies an inalienable presence in various walks of individual lives. This change disrupted the traditional temporality of news and also accompanied formal transitions that cater to such consumption practices. The formal innovations were consistent with the larger online architecture and could be seen as attempts at remodelling themselves to benefit from such a system.

Immediacy has been the central factor around which various of characteristic shifts of online news culture emerged. It had implications for distinct realms and practices associated with news production. The contents got modelled to suit the temporality of the larger media environment, which is motivated to make constant connectivity and maximise screen time. Over the years, online news portals have experimented with novel content formats that could optimally cater to the demands of immediacy. Much before the adoption of the digital-first policy, the news portals had scrolling content on the homepage that displayed live updates. Further, there have been formal collaborations with other popular modes of online communications to cater for the demands for immediacy. The ‘live-blogging’ style was experimented with in the early 2010s to make tentative updates on issues of high significance. This was followed by several other formal hybrids, with functionalities typical of various other web spaces. *Twitter threads* got co-opted as a potential format to organise the content; it got wide acceptance across different news organisations. Such practices of giving contents as bullet-points, “listicle format” (Kilgo and Sinta, 2016), are identified to hold high significance in the new media reading practices. Considering the majority of news consumption as happening from situational spaces, the contents are designed in such a way as to enable

consumption from the interstices of everyday lives. The journalists emphasised the need to throw away formal orthodoxies to stay relevant. As news consumption is becoming more passive than ever, considering that for an increasing share of the masses, it is getting contingent upon what the algorithms choose to highlight at the given time, it became pertinent to make formal adaptations so as to not lose out on the audiences.

The endeavours of news organisations at scaling up with multimedia content could be also seen as their attempts at addressing the consumption practices that have extended to situational spaces and times. While there have been attempts to push the boundaries of news forms with the inclusion of extratextual content, they were carried out contingent on the conditions that characterise news consumption of their audience. The audio format is a widely utilised multimedia element in online stories, and its usage is expected to grow in the coming years, as Rajendran pointed out. This is owing to, apart from its comparatively low production cost, its ability to have a complimenting presence alongside the daily chores. It is consistent with the ambient mode of news consumption, whereby it need not necessarily occupy a timeslot of the day; rather, it could happen simultaneously with other activities. The presentation of textual contents as embedded within the short video snippets is another prominent example of formal innovation that assists news consumption from situational spaces. Here, the news blurbs are displayed without the audio or with the option to turn it off; however still sensible owing to the textual descriptions. It has been devised to cater to those consuming news from public spaces. Likewise, there has been an apparent increase in contents that could occupy everyday routines, catering to the passivity of the environment.

It is important to note that the temporal order of the contemporary media forms is largely contingent upon that of the social media platforms. As some journalists claimed in the interviews, they are equipping themselves to compete against the speed of these platforms in

churning out the news, which they think has become inevitable to sustain. The people hold the capacity to be independent of the news cycle of the organisations, as they are in the perpetual connection of social media. As news organisations are stretching themselves into catering to a temporal order that is designed to prioritise speed of dissemination over anything else, it could lead to ramifications in professional journalistic culture. Acting along the conditions set by the tech giants could eventually ruin the reputation of their brand of journalism, which they acquired over the decades of functioning in the traditional realm. Such a realisation has prompted some organisations to make deliberate efforts against being towed along by the platforms, and to attest to their independent existence. The emergence of online subscriptions could also be read as part of such efforts to challenge the hegemony of the big-tech interests in the field.

Analysis

The study has been an attempt to critically look at online news forms and their transitions over twenty-one years. It looked for factors that made significant contributions at various points in dictating the formal aspects of news in online spaces. Radical changes are observed regarding the conditions of news dissemination and consumption; apparently, as Srinivasan suggested in the interview, the changes are as much pertaining to the way readers read as it is to how journalists function. There have been systemic changes in the realm of connectivity and accessibility, which comprehensively reconfigured various important sectors and made an obvious impact on the practices of news and information delivery. From the observations made, the attempt here is to establish the various tentative changes that characterised online news formats at distinct points as part of larger cultural transitions of the media environment rather than reading them as the consequences of the technologies of the respective periods.

The earlier forms of online news websites have much more in common with the newspapers. As observed, they were attempts at simulating the newspaper reading experience for the online audience. The realm of the internet, which carried distinct communication practices that evolved independent of journalistic traditions, exerted influences upon the news formats. The existence within such settings could induce formal hybrids, which is essentially an important way of transitions taking place. However, it has been observed that hybridisation does not take place at random; rather, there are motivations to which they cater. Immediacy is identified as an important motivation that has driven a lot of formal innovations. The traditional news formats, which were conceptualised for a different temporal order, faced a mismatch with the new age demands and hence took different formal approaches to address the digital realm. In that process, they drew from the then prevalent prominent online communication practices and attempted its replication with the hopes of better connecting with their audience and meeting their demands of immediacy.

Interactivity, a feature that is commonly regarded as typical of digital cultural products, made crucial contributions toward altering the audience's relationship with the information environment. While in the initial years, interactivity had a limited scope, that of hosting the user-generated content within the news websites, it escalated over the years and attained an overarching presence in all realms of online cultural production. It brought in the ability to repurpose the contents and to present the same in entirely different contexts, in turn attributing a different meaning to it. It challenged the notions of salience attribution on the basis of the news articles' placement by opening up multiple possibilities for accessing and presenting them. It considerably reduced the significance of homepages, as most of the audience does not access their content through there.

The locally contingent production practices differed considerably across the platforms, particularly with regard to the ways in which they tried reorienting their newsrooms to address the digital transition. However, this didn't make any radical changes in terms of the news form. There are no comparable changes across the various news portals on the basic news form. It cannot be pointed out that one peculiar portal follows a unique way of carrying stories. The locally contingent production may have implications upon the temporality of the news updates; however, it is not prompting any divergent formal path for any of the portals. This could be owing to the loyalty to print-based conventions and formal paths. The digital medium is being connected to the print in various ways; the formal detachment is underway however, it is a process that continues, as Bolter and Grusin (1999) remarked. Also, all of them operate within the same environment that is conditioned by the big-tech companies, making them adopt common techniques and storytelling patterns as their competitors. The editorial independence on formal matters is somewhat compromised in tunes of the ones that favour the big-tech interests.

The big-tech companies, particularly *Facebook* and *Google*, enjoy disproportionate power over determining the conditions of information dissemination and consumption. As some of the journalists claimed, such a setting has disrupted the traditional power dynamics and their hold over the system of information delivery. The platform conglomerates hold a significant position in the realm of digital cultural practices; Manovich's postulation of software as the medium through which culture is experienced holds relevance in understanding social media platforms. The overarching presence of social media platforms has made the audience relations with the information environment mediated through them.

The fundamentals of social media are rooted in a radically different imagination of the relationship with the audience. It presents them with a customised, embedded experience with

the information environment where news consumption has taken a passive turn. Such platforms have accumulated more power over the system of news dissemination than traditional organisations. The formal and content-specific aspects of news got constrained within the algorithms set by the big-tech companies. The editorial decisions pertaining to the formal factors had to give precedence to the platform-specific conditions (which are subject to tentative changes) so as to optimise their visibility within that space. Journalists across the news organisations have stated their discontent over the system of affairs that has practically leached out their power in favour of the big-tech companies. It has led many to adopt alternate paths whereby they could maintain their autonomy. The attempts are at cultivating a larger base of dedicated audience and thereby gradually decrease the dependence on external spaces as gateways to higher traffic. Everyone considers the subscription model as the eventual destination that they have to move on to at some point. It is essential to build credibility and to make unique content offerings for that to happen. They believe such a scenario would empower them with more agency in determining their content formats. It could enable them to focus more on doing good journalism without bothering about its performance within other platforms.

The subscription-based model requires good brand value, without which it would be difficult to cultivate a loyal audience. The unique offering is essential in manufacturing such an audience base; the portals that thrive exclusively on the social media sensational market will not be able to enter into that arena. As Rajan and Srinivasan emphasized, the subscription-based model is essential to continue journalism professionally, and hence the nature of content that is formally set to stimulate the audience clicks may not hold relevance with the onset of the subscription-based model.

The digital realm is presented with multiple possibilities for news presentations. However, from the initial days on, the changes hadn't been too abrupt; on the contrary, there was always a sense of continuity with the print tradition. No innovations have been made just for the sake of it or just because the possibilities exist. Rather, the formats continued their adherence to the print era for a long. Even when the avenues for storytelling with extra-textual content came up, it didn't lead to its widescale adoption. There has always been a sense of continuity. The multimedia contents were appropriated in such a way that they complemented the existing ways of doing things rather than making disruptions in their entirety and presenting themselves in an entirely different manner. It could be owing to the continued sustenance of print as their more preferred product, and hence not making largescale disruptions that could affect its production routines. Further, considering the production practices of the respective organisations that are considered for the study, there are observable changes among them. However, that hasn't made an obvious presence in their outputs, as one cannot find many ways in which their story formats differ considerably. Such formal cohesions could be read as the results of adhering to the print traditions and also getting conditioned by the similar circumstances of the online realm.

As per Bolter and Grusin's (1999) argument, the formal detachment of new media from the older forms is an ever-going process which can never be deemed to have occurred in its entirety. The trajectory of formal innovations of online news portals could be read along with that. It began as the simulations of print formats and, in the long run, became subject to changes that cater to the new consumption practices, but there is no one moment that marked an absolute detach from the print. The innovations have been contingent on the variety of factors that condition the media environment, such as industrial, economic, technological, and professional practices, etc. Even the proliferation of digital gadgets and ubiquitous connectivity didn't lead to a scenario where the news forms functioned with absolute exploitation of the capacities

endowed by the medium, totally detaching from the traditional formats. The formal evolution emerged out gradually, more through the existing models and their hybrid interactions with the other popular functionalities typical of the internet realm. Even in such hybridisation processes, it hadn't been random mixing up of various functionalities to create novel forms; rather, it emerged challenging the existing models and ways of functioning, disrupting it, and in the process, totally redefining it.

The expressions of interviewed journalists that the print would continue its function for more years to come, even in better formats considering the online has taken off the burden of mundane reporting from it, could be read alongside Bolter and Grusin's postulation of the relation between old and new media. "What is new about new media comes from the particular ways in which they refashion older media and the ways in which older media refashion themselves to answer the challenges of new media" Bolter and Grusin (1999).

CONCLUSION

The endeavours focused on tracing the trajectory of the digital migration of print dailies in the Indian context. It explored the formal evolution of news content following their digital simulation. While deriving conclusions exclusively from the media products could amount to technological determinism, the production contexts were also brought into the ambit of study as a measure to overcome this limitation. The formal analysis and in-depth interviews attempted to shed light upon the development of the online realm as a potential news site and the intricacies that fundamentally redefined professional journalism practices. The information gaps about the said aspects were what the study primarily set forth to address; while there are limitations, it could accomplish an elaborate account of the subject field, which could plausibly spur further debates and discourses on the matter.

The study embarked with the assumption that the internet infrastructure of the land and the global shifts in the web culture exert influence upon the environment wherein online news operates and hence is imperative to view the developments of formal characteristics within the context conditioned by them. It informed the work to a great extent in analysing the web elements and contingent journalism practices from consecutive historical vantage points. Such a position proved crucial through the course of work in forming a comprehensive understanding of the field. The analysis of web elements without the simultaneous contextual background would be bereft of how they link with the sociocultural environment they sought to serve. While the study didn't directly address the user perspectives on the formal shifts, the transitions in web culture are viewed as milestones that refurbished the user relations with the information environment and thereby inadvertently linked with the online news culture.

When the documented formal shifts were analysed and interpreted within Manovich's framework, it is surmised that the conventional formats, subsequent to their simulated existence

in the digital realm, underwent adaptations tentatively to suit the medium. This is construed as a development subsequent to their embedded position within the digital space that is loaded with multiple possibilities and dynamically evolving. Nevertheless, it didn't occur in an ideal manner, where the organisations potentially appropriated the possible avenues for effective storytelling. Rather the concomitant commercial viability was an important parameter in determining these. This became more apparent as the internet culture turned towards 'platformisation'. Though this initially enabled them to widen their online audience base and be better informed of their interests, it eventually proved detrimental to editorial independence.

It could be argued that the initial organisational efforts had been towards accommodating the digital with the least damage to the existing models and ways of doing things. Over time, systemic changes had to be brought to answer the challenges of the new circumstances increasingly depleting the barriers to content production, thereby escalating it in range and scale unprecedentedly. The biggest challenge before the organisations had been to carry on with professional journalism practice in this environment of 'information abundance', which demanded fundamental changes in their content production and dissemination approach. How they negotiated with these ordeals is what the journalists had the most to talk about in the interviews. They were forced to mend their ways through these "noisy" alleys and adopt practices that enabled immediate sustenance. They had to seek supplementary existences in external spaces as an avenue to a greater audience, which eventually resulted in their peril. The data derived from the big-tech corporations became the benchmark on how they measure their performances. In their quest to maximise the traffic share, they had to internalise the platform logic and function in compliance with the strictures that they dictate, which exerted direct implications upon the news formats that the organisations came up with. As the circumstances suggested a scenario where the big-tech interests enjoy absolute dominance over the field, the news organisations were compelled to rise above the occasion and find potential alternatives.

The responses indicate their reluctance to proceed to an abrupt departure from the prevalent practices owing to practical difficulties, even while they find an independent existence bereft of any third-party influences as their eventual destination in the long run. The difference of opinions amongst the journalists is mainly in terms of the possible pathways enroute to achieving self-sustenance and the degree of dependence they need to maintain on the 'platforms'. The field is clouded with confusion over the suitable trajectories for the immediate future, which has allegedly taken a toll on the professional culture as well. The prevailing uncertainties threatened the investments in the sector, and the available funds proved inadequate to run the organisations. This has arguably led to exploitative labour practices, which is not ideal for a healthy journalism culture, as some journalists put it.

Despite all these, the journalists are optimistic about finding light at the end of the tunnel. Notwithstanding the current circumstances, they don't view the future as an extrapolation of the present. Rather, they find it inimitable that it would unhinge from the limitations and attain independent existence in a format optimal for the user experience in the available circumstances. The commonly shared contention is that, while the formal orthodoxy may not stand, the demand for professionally backed, critical and analytical content wouldn't cease despite the flurry of user-generated and semi-professional content.

Limitations and scope for further study

It must be acknowledged that the project is not conclusive or exhaustive work that has delved into all the possible avenues of significance pertaining to the subject field. There are unexplored and underexplored aspects that may provide critical insights and didn't get sufficient introspection in the study that they may deserve. Studying a cultural phenomenon deeply rooted in the technological circumstances of the time through the lens of media theory is bound to have analytical limitations, primarily due to the disciplinary boundaries. Apart from

that, the contention is also that the pursuit of the same with methodological variations could have produced results that shed light upon more contextual nuances that are absent here. It could be argued that the field has opened up a series of possibilities for future inquiries.

All the inputs concerning the newsroom operations are sourced exclusively through the interviews; the project couldn't accomplish any field visits or gain first-hand experience of the organisational practices. While this constituted an important part of the initial plan, it had to be reconsidered in the aftermath of the countrywide lockdown imposed in the wake of the covid pandemic. However, the field visits made as part of the pilot study of this project informed further explorations, and the interview questions were framed in light of that experience. Though the study is not focused exclusively on the present scenario but rather towards a more comprehensive understanding of the formal evolution in the realm, bringing in the diverse newsroom experiences across the organisations would have added a significant new dimension to it. Participant observation or ethnographic methods could unfold more details concerning the field and is a potential avenue for further explorations. Considering that newsrooms are increasingly becoming abstract entities with the development of CMS-s that enable people from remote locations to function together, the possibility of attempting studies with digital-ethnographic methods deserves scholarly attention.

Another limitation pertaining to interviews is the absence of perspectives from the reporters, as everyone was an internet editor of the respective portals considered here. While it was at the level of the desk where the implications of the digital migration materialised initially, the reporters had to simultaneously inculcate a different approach to the contents (as claimed by some interviewees during the study). Documenting and analysing this shift is necessary to bring further clarity to the arguments produced, which would require a more comprehensive understanding of the work culture of digital news reporters. Further studies on this aspect could

produce an interesting scenario, considering that the lines that characterise the traditional labour divisions are increasingly blurring. Hence it may necessitate an approach beyond the traditional understanding of the newsroom and its functions.

Another major shortcoming could be the adoption of a web-historiographic approach in tracing the formal transitions of online news. While it proved resourceful in eliciting information on the tentative formal shifts in the respective websites, its utility waned over the years as online news increasingly exceeded spaces beyond that realm. This is particularly true in the scenario following the proliferation of social media platforms, as organisations put deliberate efforts towards extending their performances to those spaces. This was also accompanied by the gradual decline in the share of direct audience traffic, which left implications for the relevance of news websites' homepages. In such a context, making claims on the characteristic shifts of the news culture with references to the homepage transitions need not be well grounded. This got further complicated with the arrival of news apps of the respective organisations, which significantly altered the way people accessed the contents. Web historiography is framed to cater to the studies of the internet of an era when it used to be dominated by the culture of hyperlinks and the user navigations across them. It need not hold the same potential to account for the present online environment, where the standalone spaces and services (apps) that do not favour external linking are prominently emerging. Such an internet infrastructure is also driven by the aspirations of cultivating user data and utilising it to their advantage. As media culture is increasingly getting co-opted into a system governed by algorithms and thrives on user data, it calls for novel methodological endeavours with cross-disciplinary collaborations.

An important development concerning online journalism that didn't find mention in the study is the conflicts between news organisations and aggregators over the latter's unauthorised

use of the contents produced by the former. It spurred intense debates and discussions at the international level concerning content dissemination in online spaces before the issue got settled. The emergence of news aggregators and the disruptions they caused in the news media market is vast in scope and may deserve a study of its own, considering the pivotal influence it exerts upon the news formats.

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