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## Framing Utopia In Emerging Technology

A Critical Discourse Analysis of Financial Media  
Representation of Virtual Reality and Augmented Reality

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## **ABSTRACT**

*This research seeks to uncover discursive features of financial news media coverage reporting on new and emerging technology, Virtual Reality, and Augmented Reality (with a stronger focus on VR). The researcher first delineates scholarships in agenda-setting and frame-building to ground the theoretical framework that can be used to analyze the news framing of VR/AR in the discursive power mediated between the market, public discourse, and technology corporations. Eight news coverage of VR/AR topics are selected from the website database of Bloomberg and the Financial Times and then examined through the toolkit of Critical Discourse Analysis. This research then synthesizes the frameworks of the political economy of financialization and mediatization, the corporate hegemony, and the Techno-utopianism and Technology Assessment as the theoretical lens. Three main findings are presented: (1) Financial news tends to present quantifiable results concerning linear development and progress, thus intrinsically linked to the pro-market logic; (2) Corporate hegemony is established through constructing the discursive structure that places corporate social actors as the leading “active voice” and “enabler,” while some counter-narratives, such as the narrative of the “whistleblower” is represented to a certain extent; (3) While utopian communication is a standard discursive device used by financial journalists when depicting the use of VR/AR, the dichotomy of cynicism and optimism is also a prominent feature of the more recent reportages.*

## INTRODUCTION

Society is divided into agents of socio-technical change on the one hand, and the rest of society on the other—explicitly or implicitly (through its practices) legitimizing the status quo. (Dickel & Schrape, 2017: 290)

Virtual Reality has been immensely expanding in the commercial space in the past year, which generates a fascinating discourse surrounding technology and its commercialization practices. With the convergence of the Digital with the Physical and the Biological in the so-called “Fourth Industrial Revolution,” our understanding of Virtual Reality can shape how we experience the world in the future (Schwab, 2017). VR, especially, has been riding on the high wave of public discussions since Mark Zuckerberg’s launch of the Metaverse and the strategic corporate transition from Facebook to Meta. Other big tech giants also are competing in this field of developing new VR/AR products, with currently Google Glasses, Sony Playstation, and the Ocular headset as the big players in the market (Kelly, 2022). Simultaneously, Apple is planning to launch its Apple Glasses, an augmented reality product, as soon as 2022 (Gurman, 2022). While competing against each other, these firms also present different narratives regarding the extent to which Virtual Reality technology shall infiltrate our daily life. The choices made by these technology firms will undoubtedly influence how this technology is imagined, shaped, mediated, and used in our future society.

Media reporting reflects and shapes cultural ideas about technology and governance issues (Besiou, Hunter, & Wassenhove, 2013; Burgers, Konijn, & Steen, 2016; Cukier, Ngwenyama, Bauer, & Middleton, 2009). It is widely acknowledged that modern media not only determines what consumers (of technology) know but also how and what they think (Burgers *et al.*, 2020; Droog, Burgers, & Kee, 2020; Plough, 2020). More specifically, Droog *et al.* (2020: 820) argue that this influence is primarily achieved through the creation of frames (frame-building) of technological innovations. Droog *et al.*’s article focuses on metaphorical framing in the case of cyber-infrastructure for big data. In the media discourse, new and emerging technology is often compared to something people are already familiar with for better comprehension

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(Droog *et al.*, 2020: 820). Scholars use the term ‘frame-building,’ coined by Scheufele (1999), to describe the phenomenon in which different “societal actors create or change frames, and the factors that can shape this process” (Droog *et al.*, 2020: 821). This analysis of frame-building has attracted my motivation to delve into the process of framing a specific technology. I am driven to explore the relationship between three dynamic social actors in the frame-building process: media, technology, and market, defined by the convergence and remix between corporate discourse, media discourse, and public discourse.

The narrative surrounding VR/AR is complex since it relates to profound philosophical questions, such as how we can redefine human interaction in physical and digital reality in the future. These narratives can have immense socio-economic implications. For example, how people talk about emerging technology in its early stage can enormously influence its later development trajectory in the marketization of this technology (Burgers *et al.*, 2016; Scheufele, 1999; Markham, 2003; Droog *et al.*, 2020). I am then intrigued by how news frames and narratives play a role in the development of technological innovations. Droog’s article further explains how journalists can be a crucial factor in shaping the frame-building of new technology by funding as ‘gatekeepers for specific (metaphorical) frames’ (Droog *et al.*, 2020: 821). Other societal actors include developers and experts in technology (Cukier *et al.*, 2009; Droog *et al.*, 2020). These different social actors often hold different perspectives about various aspects of an emerging technology due to their distinct positions. Moreover, their voices are selected, mediated, and framed differently in different news media reports. I wonder which of these voices might represent a ‘stakeholder voice,’ as Besious *et al.* (2012) define, that obtains particular agendas that can bring them economic advantages by framing technology through a particular lens.

Regarding socio-economic implications, financial news media are impactful “gatekeepers” as it synthesizes information and opinions to cater to a global elite business community (Machin & Niblock, 2010). How financial journalists perceive and present economic and business news could have significant political ramifications on the governance of future technology (Doyle, 2006; Besiou *et al.*, 2013; Davis, 2011). One example is how “financial crisis journalism” played

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an indispensable role in the 2007 collapse of the financial markets or the Enron scandal in 2001 (Chakravartty & Schiller, 2010; Davis, 2011; Doyle, 2006; Tambini, 2015). This case study (of financial crisis journalism) represents a significant proportion of academic interests in the study of financial media. However, I recognize a gap in the lack of scholarship focusing on the relationship between financial journalism and technological development. This study attempts to fill this research gap, which is critical in a society where the interaction between technology, market, and media is becoming the shaping forces of our humanity's future. All of the above observations and initial research lead to my understanding of how we can use financial news as a resourceful subject to analyze the narratives on the "future of technology."

## LITERATURE REVIEW

### The Agenda-setting Power of Mainstream Media and Stakeholder Journalism

The agenda-setting theory describes how the news media might affect the weight given to the issues on the public agenda (McCombs & Reynolds, 2002). After a series of studies on news coverage of public issues and the voters' perceptions in the US, McCombs concluded that 'news media are a primary source of citizens' perceptions of public affairs' (McCombs & Guo, 2014: 251). While the agenda-setting effect is first analyzed in the context of decision-making in politics (such as opinion polling during elections), its impact can also be reflected in forming public perceptions surrounding the "discourse of technology." The "discourse of technology" is crucial because technology companies also depend on their political legitimacy to launch a new product in the market (Barbrook & Cameron, 1996; Bechtold, Fuchs, & Gudowsky, 2017). Therefore, this paper analyzes the "agenda-setting" and "frame-building" effects in evaluating the discourse of technology in VR/AR.

While explaining the process of "frame-building," Droog *et al.* (2020: 821) argues that 'news frames are constructed through a negotiation of meaning between journalists and other societal actors (i.e., the technologists and the public)'. However, some background research

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shows a divide between "stakeholder-driven journalism" and "investigative journalism" when reporting on new technology. Moreover, the role of financial news media is very subtle when considering the influence of frame-building and agenda-setting. The agenda-setting theory deciphers that the public's perception of issue salience primarily results from intensive news coverage of these issues (Luo, Burley, Moe, & Sui, 2019). Besiou *et al.* (2013) used the agenda-setting model to study stakeholder journalism and the "stakeholder media networks." The "stakeholder media" is defined as "communication instruments used by stakeholder communities to increase their resources and influence vis-à-vis organizations and other stakeholders" (Hunter, Menestrel, & De Bettignies, 2008; Frooman, 1999). The term "stakeholder" is informed by the "gatekeeping" power of mainstream media (MSM) in deciding what would be fit to print (Besiou *et al.*, 2013). They argue that activity stakeholders must follow mainstream media (MSM) rules in setting public agendas (Besiou *et al.*, 2013).

In writing about the crisis communication and reputation management of enterprises, Hunter *et al.* (2008: 3) point out that 'business organizations occupy an increasingly political role in society, and as such, are condemned to dialogue with other social and political actors'. They also argue that, by abjuring dialogue, a firm can significantly magnify the risks to its market capitalization (ibid). As Hunter *et al.* (2008: 2) point out, intangible factors such as reputation may bring about a 'major share of a firm's market valuation'. Moreover, media constitutes a firm's public reputation as it circulates (mainstream or non-mainstream) discourse. Currently, the development of VR/AR technology is mainly facilitated by the already existing major players in the tech sector, such as Apple, Meta (previously Facebook), Google, and Sony. If the mainstream media reports on VR/AR technology have a positive tone, it can bring the firm additional market valuation. This is why "stakeholder journalism" exists, which is often taken charge of by a firm's PR (public relations) team. However, the position of the financial news media is often more nuanced and ambiguous than pure "stakeholder journalism," considering the financial news agency does not have a direct interest share in the technology companies they write on. Therefore, in the following section, I will explore the origin of financial journalism in order to understand its position in the market. The question is whether financial

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news media assimilates more towards the mainstream media system or stakeholder media network — and how would the different positions be reflected in their writing style and "frame-building" in reporting on emerging technology.

## The Position of Financial News Media In Parallel to Financialisation

The book "The Political Economies of Media: The Transformation of the Global Media Industries," edited by Winseck and Jin, presents different schools of thought on the political economy of media rather than situating them as a unified field of inquiry. This includes Neoclassical Economics, Radical Media Political Economy, Schumpeterian Institutional Political Economy, and the Cultural Industries School (Winseck & Jin, 2012). The book alerts the readers about the recent integration of media institutions, technologies, markets, uses, and society as it changes the world around us. As the title of the volume, "The Political Economies of Media," indicates, diverse media institutions (traditional versus digital/tech) continue to exhibit their unique political economies even in the age of convergence and remix (Winseck & Jin, 2012). Nevertheless, what position does financial news media hold within this "convergence and remix"? I will trace the development of financial news agencies paralleled with the process of financialization in western society since the post-war era through a historical and political-economic lens.

In Chapter 11 of the book "Mediation, Financialization, and the Global Financial Crisis," Aeron Davis (2011: 241) investigates two separate but linked phenomena -- 'the expansion of financial and business news and the growth of financialization in Anglo-Saxon led, free-market economies' since the beginning of the 19th century. He looked for the links between the two development and the consequences of this relationship. The methodology Davis adopted is what he called 'an inverted political economy of communication framework' (ibid), which he used to reverse the critical political economy approach. The traditional critical political economy method investigates the top-down shaping of media content and public understanding by powerful groups and institutions (Davis, 2011: 241). Reversely, Davis takes the sites of power, elite actors, and processes operating at the tops or centers of political and economic power and asks the question of 'how media and culture shape the activities of those



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actors in the evolution of the processes' (ibid). Thus, his article focuses on the cultural mechanisms that link established economic and political elites through processes of financialization.

The main finding of Davis's article is that 'the significance of financial media has lain in its ability to disseminate a series of discourses, narratives, and myths, about finance itself, to financial and associated stakeholder elites' (ibid). This reflects that financial media and its surrounding discourse have informed high-level policy, regulations, and investment decisions since its invention. According to Davis, these implications may destabilize the financial sector and draw resources from governments and regular people into the financial markets (Davis, 2011). One example of the consequences Davis cited in his article (written in 2011) is the collapse of the financial system in 2007, to which financial journalism has contributed some. During the writing of this thesis paper (2022, more than a decade later), a similar phenomenon has also been witnessed in recent events of the collapse of the stock values of several prominent tech companies. In May 2022, it was reported that the world's largest technology companies lost more than \$1 trillion in value within three trading days (Novet, May 9th, 2022). Microsoft has lost around \$189 billion in value; Amazon's market capitalization has declined by \$173 billion; Facebook (now 'meta') has lost \$70 billion in value (Novet, May 9th, 2022). This is an intriguing phenomenon to consider as the market is closely related to the public perception of the companies (Thompson, 2015; Tambini, 2015).

Banking and financial centers have a crucial function in capitalist democracies, from governments balancing their books and controlling the money supply to firms obtaining investment capital to retail banking for ordinary individuals (Davis, 2011; Tambini, 2015). Moreover, financialization refers to 'the development that financial sectors have become more dominant in the national economy than government or nonfinancial corporations' (Davis, 2011: 242). The rise of financial media is, according to Davis, 'a parallel but distinct development' to the process of financialization (i.e., the rise of financial institutions) (ibid). Davis concluded that financial media represent the financial and associated stakeholder elites and the elite discourse networks that link them. He cited Jones (1987) and Tunstall (1996), who

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concluded that, by the late 1980s, the financial press had become a leading category in the United Kingdom's serious press. Moreover, a report on the Enron collapse of 2001 by Professor Gillian Doyle indicates that 'passivity concerning pro-market ideologies is fairly characteristic of the sector (of financial journalistic practices)' (Doyle, 2006: 446).

However, how does one make sense of the parallel development between financialization and the rise of the financial news and determine the degree of mutual influence? Media is virtually irrelevant in the stock market and classical economics models, which strongly advocate individual rationality and market equilibrium (Davis, 2011; Thompson, 2015; Clark, Thrift, & Tickell, 2004). This common assumption is grounded in mainstream economists and liberal/middle-ground media scholars (Davis, 2011; Bodied, Kane & Marcus, 2013). Outside of mainstream economics, critical economists have been joined by critical media scholars in their shared understanding of structural and ideological biases deeply ingrained in mainstream media institutions' reporting that favors discourse that advances capitalism (Bootle, 2009; Davis, 2011). In presenting these opposing standpoints (mainstream/liberal economics versus critical economics), Davis offers his alternative proposition: both did not adequately explain the relationship between financialization and financial media. Firstly, mainstream/liberal economists fail to acknowledge external social influences and human behavior while simplifying market behavior through linear models (Davis, 2011). He criticizes the critical economic views as 'overplaying the weight and influence of media when it comes to financial matters, financialization, and the general public' (ibid: 245). Davis thinks it seems highly improbable to claim that financial media have significantly influenced the development and form of financialization or the general public's comprehension (Davis, 2011). This is because financial topics are often highly complicated, and neither journalists nor the public understanding of economic matters can impact the markets at large (Davis, 2011).

## Technology Utopianism and Technology Assessment

New and emerging sciences and technologies (NEST) are not purely scientific-technological development but also consist of the socio-economic and socio-political domains of studies

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because they are 'loaded with meaning concerning the future of humans and society' (Grunwald, 2014: 274). This results in an abundance of scholarships in the emerging interdisciplinary field of "Science and Technology Studies" (STS) that aims at unpacking the "hermeneutic side" of technology (i.e., the interpretation or surrounding narrative of technology). For this research, I have reviewed two main scholarships in this domain: Dickel and Shraper's "semantic logic" of 'utopian communication' and Bechtold *et al.*'s concept of technology assessment (TA) for responsible research and innovation (RRI). This is related to the conceptualization and public discourse of VR/AR technology. Some view it as the ultimate utopia, while others view it as a gloomy technological dystopia (Wellman, 1997; Winner, 1997; Suoranta, 2020).

In the article "The Logic of Digital Utopianism," Dickel and Schrape (2017) wrote that technological utopias are seeing a new heyday in the era of digitalization with 'a rhetoric of potentiality' (p.47). This rhetoric is centered around using emerging technology as tools or vehicles to enhance human lives (Dickel & Schrape, 2017; Droog & al., 2020). Dickel and Schrape emphasized studying the shared "semantical logics" of "utopian communication" (p.48) while presenting two case studies: web 2.0 and 3D printing. In web2.0, Dickel and Shcrape point out the emerging "prosumer capitalism" phenomenon within the media landscape. Instead of concentrating on either production or consumption (of information), "prosumption" and the "prosumers" incorporates both simultaneously (Ritzer & Jurgenson, 2010). Drawing from Dickel and Schrape's method of analyzing the "semantic logics" of utopian communication in web2.0 and 3D printing, I aim to trace certain similarities and differences in the "utopian communication" of Virtual Reality in the context of web3.0.

For Dickel and Shcrape (2017), to disentangle "utopian communication" is to analyze what kind of language is used to construct the technological utopia. Techno-utopianism originates in the early development of "cyberspace" as a separate domain, free from any capitalistic restraints and political power structures (Dickel & Shraper, 2017; Rambe & Nel, 2014). Moreover, Dickel and Shcrape emphasize that the media utopia of today's society anticipates a technologically-driven transformation of society as a whole rather than the idea of

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cyberspace as a progressive niche. This "wholeness" is also a narrative that constitutes the vision of the "techno-future" of an AR/VR-empowered society. Rather than its earlier narrative for gaming and gamers only, the "techno future" of AR/VR technology infiltrates every aspect of society and every industry practice. Techno-utopianism also tends to propose 'fundamental, revolutionary' change that 'fundamental media revolutions that supposedly shake the very foundations of society' rather than "an incremental or graduate change' (Dickel & Shrape, 2017: 53).

The authors argue that the 'renaissance of techno-utopianism' is something that we should be alarmed by as they might view social criticism and alternative concepts of society as 'nothing more than background noise' (Dickel & Shrape, 2017: 47). This is in contrast to the traditional social utopia theories, which are based on social criticism of the current system (Dickel & Shrape, 2017). The lack of social criticism is an interesting point to consider when studying the techno-utopian discourse in financial news media, considering the rising centralization of global production and the dominance of a small number of corporations across several global technology sectors. This phenomenon is often called "surveillance capitalism," the increasing centralization of data and the economical production of datatification (Zuboff, 2019). This leads to my questions on whether (financial) news media reports on emerging technology can present social criticism of surveillance capitalism.

Grunwald (2014) argues that positive visions (utopia) can lead to public acceptance, and negative visions (dystopia) can raise concerns and mobilizes resistance. "Techno-utopia," "Technology Dystopia," and "Technology Assessment" are some of the key conceptual frameworks that I am going to explore in my research. On the other end of "techno-utopianism" ideals, researchers are examining, evaluating, and adapting various future study methodologies on many levels due to a growing orientation of technology assessment (TA). Technology Assessment is an emerging field that evaluates upcoming challenges and consequences of future socio-technological developments (Bechtold *et al.*, 2017). This presents a way of thinking about the "socio-technical futures" rather than merely reflecting on technology as a subject. This advocates "responsible innovation" (RI) in technology design and

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its cultural mechanism (Bechtold *et al.*, 2017). In times of "pluralism, uncertainty, and ignorance" (Bechtold *et al.*, 2017), this also lead us to reflect on whether it is the role of financial journalism to present a "technology assessment," incorporating an investigative, objective, and nuanced views on technology in their coverage.

## Conceptual Framework and Research Question

In my theoretical research, I synthesize my resources into three areas: the first one is the agenda-setting theory and its contingent theory, "frame-building," used by Droog *et al.* (2020). This section starts with theoretical tradition in media studies to investigate the "ability of the news media to influence the importance placed on the topics of the public agenda" from the context of US elections in the 1950s until today's political climate — the process of issue salience in political decisions. I argue that this theory is very relevant to the subject study of this paper because technology companies nowadays hold enormous political and institutional power. Since the marketization of new technology in society is also a sizeable political decision, its portrayal by the mainstream media as the gatekeeper of information has large agenda-setting and frame-building power. For example, positive mainstream media reports on VR/AR technology can give the firms that develop these technology additional market valuation. I adapted some studies in the "stakeholder media" to investigate the relationship between corporate and the media sector and strategic communication from the corporate sector. And then, I realized that I had difficulty placing financial media as directly linked to the "stakeholder media" as they do not involve direct ownership of one another.

With these unanswered questions, in the following chapter, "The Position of Financial News Media in Parallel to Financialisation," I focus on the political economy of financial news media by contextualizing its origin and development. I also presented the distinct opinions from different political economy traditions (neoclassical versus critical political economics) on placing financial news media paralleled with the rise of financial institutions. This debate on whether financial news outlets hold structural and ideological power for free-market logic will be analyzed through the Foucauldian view of discourse and power. This debate addresses whether financial news media holds structural and ideological biases that deeply normalize

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the free-market capitalist vision of society. I also drew from Aeron Davies's perspectives of "an inverted political economy of communication framework" in his article "Mediation, Financialization, and the Global Financial Crisis," in which he adds that financial media does not necessarily inform financial decisions.

In the last section, "The Logic of Technology Utopianism and the Rhetoric of Potentiality," I explored the theoretical field of "digital utopia" and "media utopia" and the "semantic logic of utopian communication." These will be useful when it comes to developing a framework of analysis for discourse analysis in my paper, informed by the theory of "hermeneutical orientation" by Armin Grunwald (2014), which mainly concerns the interpretation of "socio-technical futures." This offers an alternative to the technological determinism that several scholars have issues with — the lack of social criticism in our current media coverage of technology and raised general concerns on the importance of "Responsible Innovation" (RI) in Technology Assessment (TA).

All these three sections cover the ground of issues that we are going to address in this paper. I will address them individually and then establish links between these issues. As a combination of all areas, my essay will focus on the "utopian communication" of AR/VR technology circulating in financial news media. It aims to investigate the narrative (the hermeneutic) of reporting on technology, precisely in the financial news media, for its unique position in marketizing new technology. The research questions can be addressed as follows:

Research Question 1a (RQ1a): What factors do financial journalists consider when evaluating VR/AR technology?

Research Question 1b (RQ1b): What kind of language and frame-building practice do financial journalists use when describing VR/AR technology?

Research Question 2 (RQ2): How does it differ/assimilate between different financial journalists or different media agencies?

## RESEARCH DESIGN AND METHODOLOGY

Critical discourse analysis (CDA) is a form of analysis that can be employed to disentangle the tension within the texts and between different readers and investigate 'the socially constructive effects of discourse' (Fairclough, 2003: 3). It allows us to explore the importance of language and meaning-making in social life. Fairclough argues that the CDA subsumes various approaches toward the social analysis of discourse which differ in methodology, theory, and the type of research issues to which they tend to give prominence (Fairclough, 2001). For my research, CDA is a powerful tool to critically examine how the media, the public, and technocrats are shaping the commercialization of VR technology. It is to study how cultures circulate in everyday communication and the meaning-making system. My research design and methodology are centered around critical discourse analysis embedded in the themes of "agenda-setting power," "the political economy of financial news media," and the "utopian communication of technology" (as referred to in Dickel and Schrape's framework of the semantics of (digital) media utopianism). In the following sections, I will address the rationales of research design/methodology, the sampling of data, the design of research tools, and the reflections on ethics accordingly.

### Rationales for Research Design

In the Literature Review section of this paper, I concluded that the portrayal of emerging technology by the mainstream media has large agenda-setting and frame-building power in the political economy of media production. In "Language and Globalisation," Norman Fairclough (2009) summarises his approach to 'critical discourse analysis (CDA), envisaged as a "component of a 'cultural' political economy.'" His premise was that discourse could contribute to the constitution, dissemination, and reproduction of ideologies. For Fairclough, political economy is distinguished from classical economics by asserting that economic structures and changes are politically conditioned and entrenched (Polanyi, 1944; Fairclough, 2009). Therefore, it is sensible that we choose CDA to study the discourse generated by the financial news media as social action and, in Fairclough's (2011) term, a specific 'social practice'

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produced by a specific 'social field.' I employ aspects in the literature review section of this paper to underline the "social field" from a political-economical perspective.

In this research, I try to understand how VR/AR technology is represented through different discursive practices corresponding to varying positions of social actors (i.e., whom the financial news article refers to as sources of information and from which roles of social actors are they speaking from) in the 'frame-building' process. Fairclough argues that 'the political field is partly constituted as a particular order of discourse, as are specific governmental, educational or business organizations' (Fairclough, 2011: 2). He sees a 'semiotic dimension' of social events in all texts produced by these social institutions, which are different 'social fields' (Fairclough, 2011: 2). Additionally, he contends that social actors are 'represented through several discourses in the social practices of government, politics, medicine, and social science, as well as through various discourses within each of these practices.' (p.3). The economic system, consisting of practices of financial organizations and the division of labor, is also narrated through a particular lens by different social actors.

Fairclough (2003: 3) describes the "discourse analysis as 'oscillating' between a focus on specific texts and a focus on the 'order of discourse', the relatively durable social structuring of language which is itself 'one element of the relatively durable structuring and networking of social practices'. And he also points out that 'critical discourse analysis is concerned with continuity and change at the more abstract, more structural level, as well as what happens in particular texts' (ibid). Therefore, in my analysis, I will focus on finding the "continuity and change" within one text as well as between different texts. Moreover, in Fairclough's term, text analysis is understood to entail more than just linguistic analysis; it also encompasses 'interdiscursive analysis', which is the process of 'examining texts in terms of the various discourses, genres, and styles they draw from and articulate together' (ibid). I will also adopt this method of 'interdiscursive analysis', which entails making comparison in the system of language used in different sample texts, revealing the "intertextuality" of discourse (Fairclough, 1995): how are they compared to each other? Is there an overarching theme for all the texts?



**Table 1** Semantics of (digital) media utopianism

Dimension of meaning	Utopian semantics	Simplification patterns
Factual	Reality/alternative	Decontextualization
Temporal	Past/future	Decoupling and forgetting
Social	Public/utopians	Overgeneralization (early user → general public)

Fig.1. Dickel and Schrape’s framework of semantics of (digital) media utopianism

Dickel and Schrape emphasized studying the shared ‘semantical logics of utopian communication’ (2017: 48). For example, in Dickel & Schrape analysis of 3D printing, they found an overarching discourse that technology journalists often ‘positioned themselves as visionary speakers of a new participatory age of production and innovation – if only society is ready to embrace the novel technological options’ to popularize the technology (Dickel & Schrape, 2017: 54). In their article, the dimension of meaning in the semantics of (digital) media utopianism is divided into factual, temporal, and social (as the fig.1. above shows). I adopted their model with Fairclough's Critical Discourse Analysis on the textual, discursive, and societal. Fairclough's CDA also addresses current and contemporary processes of social transformation, which are defined by "neo-liberalism," "globalization", "transition", "information society", "knowledge-based economy," and "learning society" (Fairclough, 2001). These are all relevant themes in the political economy study of media production which are fruitful concepts to examine the narrative of emerging technology circulated in financial news media.

### Sampling of Data

In this research, I sampled six articles from two primary financial news sources, Bloomberg and Financial Times, as I aim to present nuances between financial news agencies and journalists who work under the agencies. I chose two articles from each news from 2021 to 2022, as I am interested in the most recent and contemporary discourse around Virtual Reality since the launch of the Metaverse is seen as the big step for adopting VR/AR on a massive scale. I also selected one more dated article from each news agency on Virtual Reality to compare how the contemporary perspectives on Virtual Reality might be different from how

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it was framed in the earlier days. I gained access to the articles through their online database and found the earliest article published with “Virtual Reality” in the title. It is worth mentioning that I chose the earliest I can find on both websites with “Virtual Reality” in the title. Interestingly, Bloomberg’s website with “Virtual Reality” in its title (“Virtual Reality” in Appendix 5) dated back to 1992 (almost the same time as Bloomberg News was established), while the earliest article in Financial Times’ database with “Virtual Reality” in its title (“Virtual Reality”) dated back to 2007.

## Research tools

I followed the method of Critical Discourse Analysis in Fairclough's “Analysing Discourse” (2003), which provides a step-by-step guide to investigating language as data, the ‘textually oriented discourse analysis’ (Fairclough, 2003: 2). Fairclough (2003) states that his approach to discourse analysis is based on the premise that language is a fundamental component of social life. He concludes that texts are components of social events which are ‘shaped by the causal powers of social structures (including languages) and social practices on the one hand, and social agents on the other’ (Fairclough, 2003: 38). Hence the study of language as data should be ‘a component in all social study and research’ (ibid: 3). This study uses Fairclough’s three-dimensional framework (as shown in figure 2) to streamline the analysis effectively. The following are the three components of this framework in this study: discourse as text (micro level), discourse practice (meso level), and sociocultural practice (macro level).

Textual - In Fairclough's framework, text and discourse intersect, and the analysis reflects this overlap. This level of analysis discusses the language elements used in the financial news media, including vocabulary, syntax, and rhetorical devices. I will focus on the rationales of linguistic features, such as vocabulary, grammar, coherence, and the overall organization of the text. For example, I will analyze the strength of modal auxiliary verbs and the words used to connect clauses. I will also address the ‘semantic relations between sentences and clauses: casual, conditional, temporal, additive, elaborative, and contrastive,’ as shown in figure 3 in Fairclough’s *Analysing Discourse* (2003: 87). I will focus on the meaning relations between sentences and between clauses within sentences, connected by logical assumptions

that underline the various grammatical structures. For example, in this book, Fairclough uses the example of 'You will be weighed *so that* your subsequent weight gain can be assessed' (ibid: 87) to show logical assumptions of a causal semantic relation.

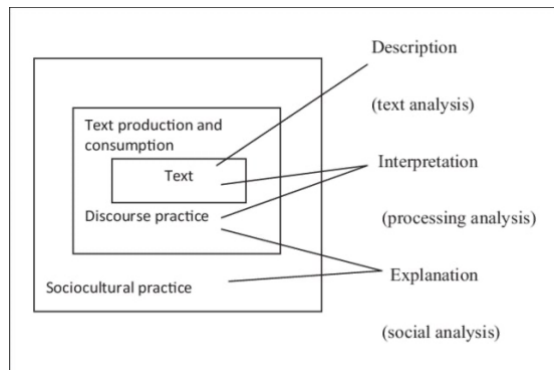


Fig. 2. Fairclough's three-dimensional framework for analysis of discourse in "Analysing Discourse"

Discursive - the second dimension of the analysis where we will focus on the text production, distribution, and consumption of how various representations of economic actors and technology were articulated in financial news. The emphasis here is to challenge the stable configurations with the concept of hegemony, which Fairclough linked to discursive power structures. It reviews the various discursive strategies used in the discourse of financial news media to reproduce and maintain the hegemony of certain economic actors. In this section, I am also going to look for specific discursive themes concerning Fairclough's understanding of social transformation, which is defined by "neo-liberalism", "globalization", "transition," and "information society," "knowledge-based economy," and "learning society." And then, I will compare them to the three theoretical frameworks I developed in the literature review:

1. The intrinsic link between financial reward and progress
2. Agenda-setting in corporate hegemony
3. Techno Utopia, Techno Dystopia, and Technology Assessment (these three will be highlighted in different colours to present contrast)

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Societal - This level focuses on the idea of social practice. It considers the broader ramifications of a specific discursive event, such as the wider social and cultural structures, relations, and processes. Fairclough aims to investigate how such practices, circumstances, and texts arise out of and are ideologically shaped by power relations. He cites Weber (1964) that 'every system of authority attempts to establish and to cultivate the belief in its legitimacy.' And in this paper, this process of "legitimation" will be identified in terms of how the logic of tech-utopianism and market logic is explained and justified.

## Ethics and Reflexivity

There are some critiques of Critical Discourse Analysis as it often adopts a moralistic perspective and actively addresses social issues from the standpoint of left-leaning politics (Graham, 2018). The notion of hegemony and power in discourse usually is the big umbrella (and a colored lens) to view social issues delineated in the CDA style of analysis. The "a concern with 'wrongs' in social life" and the goal to 'speak truth to power' is Fairclough's response to critiques on CDA as being "too politically left." Consequently, I also position financial media agencies as the social actor representing a specific hegemonic power speaking from the position of the global business elites rather than the less empowered. However, with the diversity of journalistic practice within this discipline, it might be too narrow-minded to assume all journalists have the same (political) standpoint and present the same voice regarding technology and the market. Therefore, in the discussion and analysis part of the essay, I aim to capture nuances in presenting similarities and differences among the narratives on VR/AR technology in each sample.

Furthermore, discursive themes in CDA-style analysis can be interpreted subjectively, thus inserting certain personal biases (Billig, 1999; Schegloff, 1997). While I asked other classmates to decode my sample texts with the same discursive codes that I had developed, we came up with some different results — we would use different codes for the same sentence as we interpret the sentence differently. This difference in our categorization practice shows a specific limit to the qualitative nature of CDA. What results from the researcher's analysis inevitably depends on the subjective interpretation of texts, particularly the social theory upon

which the analysis has been built. Lastly, this study is quite western-focused. I did not analyze financial news media from other languages or mention tech companies in the non-west context. Further study should be conducted to review and compare the relationship between new technology and financial news in another socio-economic context in which financialization and marketization of technology proceed differently.

## RESULTS AND DISCUSSIONS

Critical Discourse Analysis is the analytical discourse as research to study the social perpetuation of dominance and power abuse by text and talk in a socio-political context (van Dijk, 1998). It is used to demonstrate the ways hegemony can be constructed and circulated in language. Based on Fairclough's (2001) CDA framework, the analysis is conducted progressively at the textual practice (micro), discursive practice (meso), and social practice (macro) levels. To support the discussions and findings, I have chosen quotes highlighting pertinent aspects to the three above dimensions (textual, discursive, and social). Additionally, I've included copies of my annotations for three of the six articles I evaluated in the appendices (Appendix 1, 4, and 5) to show how I used the three-dimensional CDA framework in practice.

While the research question focuses on financial news media as a genre, it wishes to understand how different journalists' and agencies' perspectives vary and assimilate. Fairclough refers to what Laclau and Mouffe (1985) quoted as the "logic of difference" and "logic of equivalence" in his "Analysing Discourse." He explains "logic of difference" as 'respective tendencies towards creating and proliferating differences between objects, entities, groups of people, etc.'; and "logic of equivalence" as collapsing or 'subverting' differences by representing objects, entities, groups of people, etc., as equivalent to each other" (2003: 88). These two logics will also be strong signaling discursive practices that I will examine in my analysis.

For easier reference in the analysis and discussion, I numbered the six articles I sampled (their links can be accessed in the appendices).

1. "Can augmented reality take off where VR has failed?" — Financial Times (2022.5)
2. "It's not time to log off from reality yet" — Financial Times (2022.7)
3. "This Time, Augmented Reality Really Could Be the Next Big Thing" — Bloomberg (2021.9)
4. "Venture Capitalist Matthew Ball's Guide to the Metaverse" — Bloomberg (2022.7)
5. "Virtual Reality" — Bloomberg (1992.10)
6. "Virtue and virtual reality" — Financial Times (2007.8)

## The Framing of Financial Reward and Progress

As expected, the frequent use of numbers and figures as the common indicators of values of VR/AR as products reflects the accurate alignment between financial media and financial institutions. This alignment ("logic of equivalence" in Fairclough's term) can be seen in sentences such as "Mark Zuckerberg liked Oculus so much he bought the company for \$2bn" (Article 1) and "a multi-trillion-dollar transformation" (Article 4). The overwhelming but also "substantial" sense that an astronomical figure can bring is a typical discursive device used by financial media to quantify the impact of such development. Moreover, word choices such as "pioneering" and "showed promise" (Article 1) links financial reward to the growth and progress of human society. This "logic of equivalence" indirectly reflects the financial news media's capital-driven, pro-market logic. As Tarvainen (2022: 1) describes, "the notion of 'Innovation' has become a central metaphor of contemporary capitalism, a global symbol of hope and future".

On the other hand, numbers are sometimes used to point out that VR/AR has not "fulfilled its potential" in contrast to the market expectation. For example, the difference established in "Goldman Sachs's prediction of 100 million VR and AR headsets in use by 2020 and the actual number today, closer to 10 million" (Article 1) demonstrates a tension between the market (the investment) and the technologist. The market expects technology to grow ceaselessly. In

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reality, technology can only expand for a limited period as the market can also be saturated, and new products need to be invented. This tendency to present VR/AR on a massive scale corresponds to the conclusion of the article "the Political Economy of the Metaverse," that the narrative of VR at the moment is predominantly one about the growth potential of the video game and corporate software sectors, an economic opportunities significantly magnified by the Covid-19 pandemic (Gilbert, 2022).

From the above analysis of textual dimensions, we can also link this correlation between new technology, progress, and financial growth to the "California Ideology," a concept raised by critical political economists Richard Barbrook and Andy Cameron in 1996. They use this concept to critique the 'dot-com neoliberalism' to define a 'heterogeneous orthodoxy for the coming information age.' The authors argue that Silicon Valley's development of networking technology was ideologically connected to American neoliberalism and 'a paradoxical hybridization of beliefs from the political left and right in the form of hopeful technological determinism' (Barbrook & Cameroon, 1996: 44). With word choice to describe these new tools as "revolutionary," the text assumes the ability to enact sweeping organizational and social changes. These changes are often framed in a techno-determinism that puts "progress" as a linear reality. As Gilbert (2021) points out in his report "The Political Economy of the Metaverse," social media's potential for expansion has been chiefly exploited to its maximum, and the pressure on advertising sales has increased as society places more and more value on data privacy. The best idea for continuously growing shareholder value in the tech sector is exploring a new mode of communication as a new means. While in 2022, some major tech companies (such as Netflix and Meta) have experienced long-term strategic crises and industry bottlenecks regarding revenue growth and market value. This sense of "crisis" is a side of stories not represented in the sampled articles. Instead, the prospect of the ever-growing tech industry and the tech-oriented product is the central narrative that financial news media attempts to uphold.

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## The Naturalisation of Corporate Hegemony and the Potential for Counter-hegemonic Discourse

In CDA, locating the subject situated in the sentence can help us determine whom the material is intended for and from what perspective (Besiou *et al.*, 2013; Cukier *et al.*, 2009). In the sampled texts, I observed that Silicon Valley and other big tech or financial corporates are often placed as the subject of a sentence, representing the omnipresent status of the elitist global corporates (e.g., in 'Nevertheless, Silicon Valley is gearing up for another attempt to convince us that the future of computing is on our faces' or "Goldman Sachs predicted there would be...'). This type of discursive structure establishes the hegemonic discursive power by signaling the tech giants and financial institutions as the determining force of future technological development. This insight is similarly shown in Cecilia's article, which focuses on a venture capitalist's perspective as the 'shaper of future technology' (Article 4). Other prominent characters in the texts are "industry experts," whose identities are marked by their affiliation with particular corporations (for example, "Evercore analyst Mark Mahaney" or "says Bryan Lewis, a researcher at IBM"). I contend that these narrative methods detach the human subjects by associating their corporate job title with the identity that defines them in their positionality. This observation links the textual dimension to the discursive and social framework of "Californian Ideology" through constructing sentences with linguistic hierarchy. Gillian Doyle (2006: 446) has observed that 'passivity concerning pro-market ideologies is fairly characteristic of the sector (of financial journalistic practices)'. The perspectives from tech corporations (Meta, IBM, DECm Apple, Sun, and other Silicon Valley firms), other corporate entities acting as investors (Walmart), traditional financial institutions (Wall Street, World Bank), and individuals from tech companies are all represented in the sampling articles. It does not, however, include stories from the more marginalized social groups.

However, some financial news media articles use more "opinion-piece" language. For example, FT's article "It is not time to log off from reality yet" (Article 3) takes an entirely different angle. It counters my assumption that neutrality and objectiveness characterized the language used by these elite institutions in the earlier days. Both use their personal experience with the technology as the entry point to the argument; the use of "I," "my family," and "my



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nephews" projects individual experience and identity into forming the sense of immersiveness. Besides using the corporate actors as the subject, the users' experience as the center of a technological product has become a critical discursive strategy that these journalists use. As Dickel and Schrape (2017) suggest, the emphasis on individual experience might be another device to sustain the interested public and legitimize socio-technical change.

Although my literature review concludes with an initial generalization on financial news media as an advocate for corporate hegemony, the article I sampled also shows a tendency for counter-hegemonic discourse. This potential for counter-discourse to the domination of an omnipresent corporate ideology is worth exploring in the recent function of "opinion piece" in most financial news (especially prominent in the articles from the Financial Times). One example is the popularity of the idea of "whistleblower," which entered the public discourse in recent years as one of the morally in-between calls out of big tech companies. Moreover, the discussion about the early technologists and technology companies is becoming more nuanced, diversified, and sober, with slight traces of criticism even from the perspective of the financial news. They are represented in the discussion of VR/AR as Meta has become a controversial company due to their neglect of users' privacy and rights in recent years. As seen in Article 2, the author uses the recently well-known case of Meta whistleblower Frances Haugen ('When Meta whistleblower Frances Haugen spoke out against her employer, addiction to the metaverse was one of the things she claimed to be most worried about. She said that immersive environments would encourage users to unplug from reality altogether'). Compared to the early period in which the internet was constructed as idealistic cyberspace, there has been a rising mistrust in the public discourse these days (Chakravartty & Schiller, 2010; Rambe, 2014; Waters, 2020). The role of "anti-heroes" such as the "whistleblowers" became gradually important in mainstream media discourse (Waters, 2020). Consequently, the financial news media has to adapt to this switch to be relevant to its readers (to appeal to the public discourse). Under this influence, corporate hegemony should no longer be identified as a singular identity - it is composed of a relatively complex relationship with "conscious capitalism" in the late-capitalist era.

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This analysis corresponds to the methodology Davis adopted, which he called 'an inverted political economy of communication framework' (2011: 241), which he used to reverse the critical political economy approach. Davis takes the sites of power, elite actors, and processes operating at the tops or centers of political and economic power. He asks 'how media and culture shape the activities of those actors in the evolution of the processes' (ibid: 241). Cecilia points out 'negative associations around the metaverse, like dystopian novels and cryptocurrency' (Article 4). Negative associations are often the product of popular culture, and it has the power to shape the activities of 'the sites of power, elite actors and processes.' We argue that both lenses of 'critical political economy' and 'inverted political economy of communication framework' are relevant to understanding the power relations underlying financial news media texts. They present how the elites and hegemonic power shape discourse and how the elites and hegemonic power are shaped by public discourse.

However, one would question whether offering a "counter-narrative" without challenging the core of the structure of "surveillance capitalism" is just a mask for de-radicalize the wider anti-capitalist or counter-capitalist movement at large. Some argue that this has been seen widely in the rising discussions surrounding ESG (Environment, Social, and Governance) in corporate responsibility (Parashrya, 2021). Parashrya argues that, despite widespread praise for the institutionalization of ESG as a significant step toward firms acting more ethically and sustainably, the discourse surrounding ESG ultimately serves corporate hegemony (ibid: 40). Similarly, the journalist from the Financial Times, Elaine Moore (Article 2) discussion of the whistleblower case, raises particular concern about the ethical practices in big tech. Still, it does not directly call out the accountability of the tech giants in VR/AR technology to be the root of the problem and ask for more radical potential solutions. Right after her ambivalent mention of Haugen, the tension in the text is mitigated by ending the conclusion with "many of us lost the battle against limiting our internet use" (Article 4). This is quite a simplified statement that can retract the tension that would have invited the readers' further reflections. This ending fails to push the argument forward into exploring whom we lost the battle to and what social mechanism has enabled our addiction to Internet use. These reflections would address the

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social mechanism that enables addictive internet use — — the design mechanism used in big tech that uses psychological metrics to facilitate and stimulate certain human behaviors, including addictions. Instead of pointing out the corporate or surveillance capitalism, this ending merely points the problem at "us," the users. Therefore, although the role of the whistleblower renders the text more dynamic and aligned with popular discourse, I would argue that the text still fails to challenge the status quo eventually. This "logic of difference" (creating and increasing differences between objects, entities, groups of people, etc.) reflects Dickel and Schrape's point in "The Logic of Digital Utopianism." Dickel and Schrape warn us that the public can be trapped in a mindset that views the status quo as being without alternative" in naturalizing the discourse on technology as a single entity without stakeholders' involvement (Dickel & Schrappe, 2017).

## The Dichotomy of Utopia and Cynicism

Since the primary audience of this financial news is the global community of business and finance professionals, I assume that the texts are usually written in a serious, professional tone. However, when depicting VR/AR technology, a romanticized version of the re-imagination of reality is often the critical discursive device. This type of language is usually situated at the beginning of these articles to entice the readers into future-oriented scenarios to mimic the feeling of the users of VR/AR tech. This is especially obvious in the early depiction of VR technology. One of my earliest sampled articles, "Virtual Reality" in Bloomberg News, displayed a strong tendency to 'distill' the Technological Utopia as a dreamland with no "moral string attached.' The author Joan O'C Hamilton wrote this article in 1992, which was one of the first articles on Virtual Reality on the public Bloomberg's website (Article 5).

'Instantly, you're transported inside a tank rolling across the Iraqi desert. You are performing the same maneuvers as a unit of the 2nd Armored Cavalry during "73 Easting," an actual battle in the Persian Gulf war. The graphics on the screens are only video-game quality. Yet, but the illusion works: You duck as shells scream toward you and explode in ear-splitting fury' (Hamilton, 1992, Article 5).

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The use of "you" invites the reader to imagine themselves in the scene as the participant of a future empowered by VR technology. Thus, it creates an immersive experience usually associated with VR/AR technology. This unconscious association underlines the ideological persuasion of the discursive practice of constructing the technological utopia. The article describes a fictional war scene, a scene that is usually associated with a typical genre in video games. However, the potential violent adaptation of this function (in real life) is disguised in this type of language (for example, in "Instantly, you are transported inside a tank rolling across the Iraqi desert"). The danger of such naturalization is that the politically economically advanced states (such as the US) will often obtain these emerging technologies and use them against countries that do not have access to these technology (Iraq, for example). The word "instantly" is used frequently in these articles to highlight the 'technological advancement'. Its magic evolves around how it makes us feel about time and space. With the dreamy tone perpetuated in this paragraph, this ideological violence and hierarchy of the real-life scenarios are naturalized in a fiction-like, bubbly language. Therefore, through a CDA lens, we associate these hidden power dynamics with the underlying political economy of VR/AR and reveal the sense of detachment often used in constructing the digital utopia.

Similarly, in "Can Augmented Reality Take Off Where VR Has Failed?" (Article 1), the author Tim Bradshaw starts with a series of actions that describe a Utopian scene ('Pop into Snap's offices, and you might see some curious things. Butterflies fluttering around the lobby. Zombies in the canteen. The entire solar system on the terrace'). These are short and punchy sentences highlighted by actions (the strength of modal auxiliary verbs), which are more commonly used in fiction than what we would associate with the serious undertone of financial news media. Bradshaw uses this language to introduce his visit to Snapchat, one of the corporations attempting to enter the realm of VR/AR. The description of the atmosphere is an entry point to the author's assessment of the company culture and the VR/AR product of a specific company.

Some sampled articles aim to present a "techno-future" where techno-utopia is the leading narrative 'that popularizes existing and anticipated innovations to attract attention and

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funding, to create and sustain interested publics and to legitimize socio-technical change' (Dickel & Schrape, 2017: 291). However, some sampled articles are cynical of these "free spirits" internet boosters (Article 6). They hold different positions on the fictional, dreamy quality of VR/AR. This cynicism is seen in the other article I selected to represent the more dated view on VR, an opinion piece written by Christopher Caldwell in 2007. Its central argument is to state that VR is "not a new way of interacting and not a new world" (Caldwell, 2007). Caldwell presented a strong opinion that represents the thoughts of many: "Virtual reality can be an exciting place, but certain real realities of the human condition are inescapable. That remains true no matter who your avatar is or how much you paid for its genitalia" (Caldwell, 2007, seen in Article 6). This contrast reflects that the current discussion on ideological concepts in the digital realm is often placed in the dichotomy of cynicism and optimism. The journalist Cecilia D'Anastasio (Article 4) even starts with the line, "Hi everyone. It is Cecilia. Finally, we have a book about the metaverse that a science-fiction novelist did not write." This article asks for a more "realistic" depiction of VR/AR. This is an exciting statement when it links to the concept of technological utopianism and its connection to sci-fi novels. The word "metaverse" came from a sci-fi novel called *Snow Crash*. Sam Gilbert wrote that in the novel "*Snow Crash*," people 'develop property, strike business deals, conduct archival research, attend rock concerts, drink in exclusive bars, take psychedelic drugs, race motorbikes, and fight with samurai swords' in the metaverse. However, Cecilia attempts to use the dreamy quality of sci-fi as a counterexample and suggests the readers drive away from that and be 'realistic about it' (Article 4). The word "finally" and the use of the subject "we" strengthen this sentiment of "us" needing to rethink VR/AR out of the framework of sci-fi description. This tendency can be identified in the recent development of VR/AR's wider adaption in workspace and industry transformation — a "rebranding" from its original association used for gaming and other entertainment purposes.

Moreover, Cecilia's narrative constructs today's internet as boring at the end of her opinion piece ("... Own well-trafficked properties, attract users' content, and design infrastructure that generates compulsion, not joy"). This constructed sense of boredom and monotonousness is

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created to strengthen the contrast to the description on tomorrow's internet as an exciting ("massive and interconnected 3D virtual world"). This constructed contrast (the logic of difference in Fairclough's term) is a play on the disenchantment of today's technological utopia and a need for a reconstruction of a new technological utopia — which then implies the need for technology to invent and re-invent itself constantly. These visions are an expression of a form of public communication that perpetuates the fundamental semantic structures of modern utopianism about new media technologies, according to Dickel and Schrape's (2017) analysis. They are not primarily technological roadmaps that are waiting to be realized. The authors advise us to avoid "the pressure cooker of a technovisionary discourse" and resist the 'allure of speculative possibilities' (Dickel & Schrape, 2017: 292). I argue that these types of "lucid" narratives are the basis of conducting "Technology Assessment" but are sometimes insufficient to present critical depth that fundamentally enables readers' reflection and deeper investigation.

## CONCLUSION

While drafting my research question, I start with a straightforward hypothesis that all financial news media represent corporate hegemony that prevails in its discursive structure. My analysis and discussion revealed much more nuanced tension underlying these texts than I assumed from my literature review and other preliminary preconceptions. They are purely scientific-technological development but also represent socio-economic and socio-political meanings. The dichotomy of optimism and cynicism in most sampled articles highlights the inherent ambivalence of new and emerging sciences and technologies (NEST).

To analyze the narrative around how VR/AR is mediated, represented, and positioned towards the global decision-makers and the business community is particularly relevant. The results show that the mediation of the economic narrative of VR/AR in financial news articles obtains the social function of asserting pro-market ideologies while aligning notions of

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development to economic investment and return. Moreover, it maintains corporate hegemony by naturalizing the position of the speakers as the investors of technology, the global tech companies, or the employees (spokesperson) within the companies. However, the appearance of a “whistle-blower” presents another dimension in recent technological discourse — an alarming sense of crisis. However, the sampled articles do not address further the cultural mechanism that legitimizes the status quo. On the contrary, it encourages the de-constructing of the current model of tech business by praising the “next big thing,” thus presenting a techno-utopia that pertains to the hope of attracting popularity and more investment. This discursive practice signals Davis’s conclusion on ‘the significance of financial media in its ability to disseminate a series of discourses, narratives, and myths, about finance itself, to financial and associated stakeholder elites (Davis, 2011: 241).’

As I have noted in the “ethics and reflexivity” part, this study is conducted based on samples from western financial news media sites. Although these financial news media (Bloomberg, Financial Times, Wall Street Journals, the Economists, etc.) are considered the “authority” in the global financial community, new platforms for disseminating financial information are booming in emerging economics (such as 36Kr Holdings, a tech, and finance news portal that caters to dynamic startup and venture capital ecosystem in China). I believe understanding how discursive practices in the narratives of VR/AR assimilate or differ in different cultural or socio-economic contexts could be an interesting next step for further research.

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# Framing Utopia In Emerging Technology

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APPENDIX (SELECTED): ANNOTATED ARTICLE 1

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# Can augmented reality take off where VR has failed?

Snap's Spectacles are the first of several new headsets, including from Apple, Meta and Google

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Tim Bradshaw MAY 31 2022

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Pop into Snap's offices and you might see some curious things. Butterflies fluttering around the lobby. Zombies in the canteen. The entire solar system on the terrace.

*planing corporations as subjects* Snap, which began life as photo-messaging app Snapchat, has been a pioneer in "augmented reality". But instead of peering through a smartphone app to view these effects, I saw them through what almost felt like normal glasses.

Snap's newest "Spectacles" are not widely available, but the demo I had showed promise. When I held out my hand, a butterfly appeared to land on it. I clicked a button on the frames and the glasses told me what I was looking at. Images were bright and clear — although a big limitation is the batteries last just 90 minutes

*dream-like, imaginative choice of words that induces utopian vision signaling progress*

*signaling positive market expectations*

○ = textual  
 — = discursive  
 ■ = societal  
 ■ = keyword

# Framing Utopia In Emerging Technology

CHUYUE ZHAN

Recommended



Elaine Moore

Meta must move fast to get its head in the VR game

Google recently demonstrated similarly unobtrusive glasses that seemed to show near-instant transcription and translation of a foreign language as it is spoken. "Kind of like subtitles for the world," according to the promotional video. By contrast, Apple and Meta appear to be opting for the full-fat experience: high-resolution AR headsets that look more like ski goggles than glasses.

*placig (big tech) as the subject and the competing entities*

There's an argument that anyone's first demo of VR or AR is just too good. The first time you turn your head in VR, or see holograms in AR, it is incredible. Only on repeat viewings do you realise how cumbersome the hardware is. The next 12 months may determine whether that turns out to simply be a new platform's growing pains or the technology's epitaph.

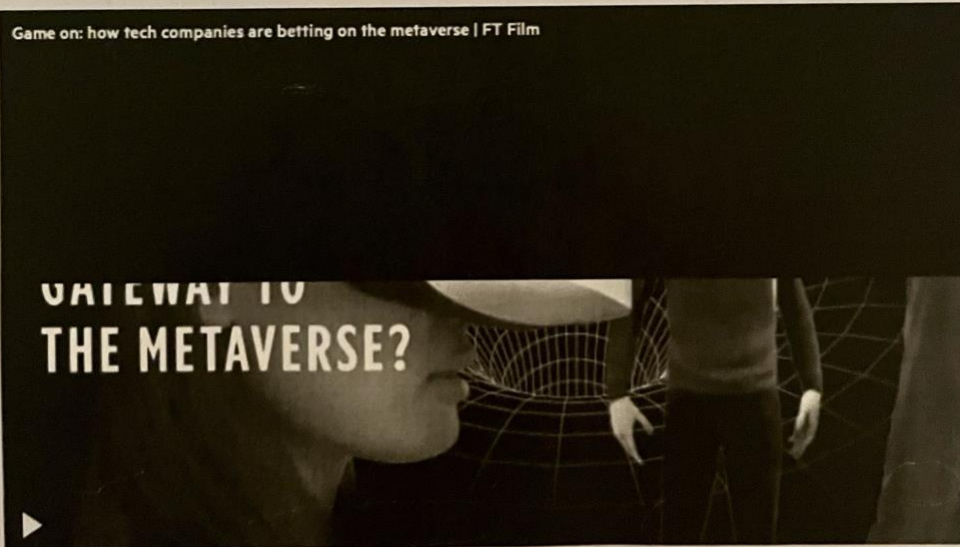
*positive affirmation: techno-utopia, techno-future*

making market predictions on a small scale

Tim Bradshaw is the FT's global technology correspondent

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