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A Multi-Layered and Interdisciplinary Approach to Online Virality and its Temporalities

This book explores the many ways we can think about online virality and analyse the circulation, reception and evolution of viral digital content. Virality and content sharing always intertwine material, infrastructural, visual, and discursive elements. This involves various platforms, stakeholders, intermediaries, social groups and communities that are constantly (re)defining themselves. Regulation, curation, and content moderation politics, as well as affects and emotions are also at the core of online virality.

With a deliberate intention to unravel the complexity of a multi-layered phenomenon, the authors explore virality at various levels, through micro and macro scales, close and distant readings, international phenomena like the Harlem Shake and more local or precise case studies (history memes, memes based on telenovelas, political memes related to precise events in Chile, France, and Northern Ireland).

Crucially, the book's subtitle, "Spread and Influence", introduces key dimensions – exploring the intricate interplay of influence, infrastructures, curation, socio-technical arrangements, and the role of intermediaries. This approach extends to the examination of the relationship with other media, recognising digital virality is a part of a broader media system. The reintegration of virality within a systemic framework is a central goal of this book.

This volume is organised around three main topics: Expression and Genres; Mobilisation and Engagement; Circulation and Infrastructures. The first part explores the semiotics of virality, some creative forms of expression, specific genres, and their relation to other media. The second part focuses on the political dimension of memes and viral content and their use in the context of controversies, "communities of practices", and political and ideological opposition. Finally, the third part delves into the often understudied but essential side of virality, by examining the role of platforms and their curation, methods to grasp virality and circulation of content, and in short, the infrastructural dimension of virality. These three parts allow us to question fundamental notions linked to virality: influence, reception, economy of attention, instrumentalisation, affects, etc.

The chapters offer an interdisciplinary overview on online virality by including various methodological approaches (including scalable reading, visual studies, discourse analysis, etc.), and historical and socio-technical analysis. One of the

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book's strengths is that it brings together authors from various disciplines, including semiotics, history, information and communication sciences, digital humanities, media studies, computer science, etc. In addition, the contributors approach the question via case studies that allow for a perspective that is not exclusively US and European-centred. Two chapters explore virality in Brazil and Chile. The book also investigates a wide variety of platforms (YouTube, Twitter, Instagram, TikTok, video game platforms, etc.).

The book emerged from the Hivi project[1], while embracing a diverse array of contributors, part of them being tied to the Viral seminar[2] we organised for two years and the conference on Virality, Platforms and Influence that took place at the University of Luxembourg on March 2023[3]. Certainly, it does not aim for exhaustiveness, but more for comprehensiveness, and we hope it may be a valuable complement to other existing approaches, through its concern for exploring online virality in a broad sense, and notably the interplay of infrastructures and intermediaries, as well as emotions and affects. Last but not least, it addresses media entanglement and multi-layered temporalities at stake, which we believe constitutes a contribution to the current state of the art.

1 Virality Beyond Memes

Significant interest in memes, particularly within the field of semiotics, has emerged in the last decades. Works by Shifman (2012, 2013), Milner (2016), Denisova (2019), Wagener (2022), and others, as well as the *Critical Meme Reader* (2022), have clearly paved the way for a better understanding of memes. They have become prominent in the digital landscape, being of particular interest for researchers as "sociosemiotic objects", as highlighted in Marino's chapter on the Harlem Shake, an Internet phenomenon that he describes as the "perfect sociosemiotic object, self-reflexive and metadiscursive, as it speaks about itself and the world it belongs to: it tells the story, schematic and complex, of every phenomenon we have learned to call viral".

Studying memes requires considering the interweaving of three elements that have become practically inseparable over the past three decades:

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1 HIVI (A History of Online Virality) is a project running from 2021 to 2024, which is supported by the Luxembourg National Research Fund (C20/SC/14758148). https://hivi.uni.lu.

2 https://hivi.uni.lu/2021/09/15/the-viral-seminar/ and https://hivi.uni.lu/2022/09/02/the-viral-seminar-season-2/.

3 https://hivi.uni.lu/2023/01/09/conference-virality-platforms-and-influence/.

- The concept of "meme", and by extension, memetics, derived from Richard Dawkins' Darwinian approach to culture, that developed well before the web. It takes as its starting point the idea that cultural elements, such as words or gestures, will propagate and spread according to a genetic model of persistence (see Dawkins 1976);
- The appropriation of this concept by the pioneers of the internet at a time when any metaphor capable of shaping the changes at work was worth trying (Mike Godwin for instance defined his law as a counter-meme[4]). In the same period, marketing appropriated the previously negative metaphor of viral circulation (Rushkoff, 1996) to find formulas to make this phenomenon commercially exploitable through the promotion of new services and communicative uses;
- The development of an "internet culture" in the following decade and the heritagisation of "viral" and/or "memetic" elements, whether linguistic (LOL-speak, etc.), related to digital practices (selfies, etc.), or audiovisual objects (animated gifs, etc.). This grassroots heritagisation is carried out for the purpose of creative celebration by fans, as well as appropriated by media companies.

These three trends do not fall under the same dimensions of media experience and do not necessarily have conceptual coherence. They have competed to the point that Jenkins (2009) speaks of "definitional fuzziness" to describe the various biological metaphors of circulation and how they can be confusing. One example can be found in the catch-all metaphor of "infodemic". Simon and Camargo (2023) note that its use related to the wide spreading of false information about the coronavirus pandemic implicitly conveys the idea that information is, as if by default, itself infectious for journalists and media professionals.

However, not every viral phenomenon is a meme, and not every meme is viral. While memes hold a significant place in several chapters, for instance in those by Wagener, Marino, Göke, and Lundqvist[5], other forms of virality are also illuminated, such as comments on YouTube videos related to Dieudonné, in

4 Godwin's law notes that as an online discussion grows longer, the probability of a comparison to Nazis or Hitler approaches 100 percent. Godwin (1994) suggests that his law can act as a "counter-meme" by countering the memetic nature of the comparison to Nazism.

5 We draw the reader's attention to the fact that in these chapters, as in many others, numerous visual references are used. However, reproducing memes proves to be highly complex, as the author's rights to this content are as multi-layered and intricate as their analysis itself. We naturally encourage the reader to go online to get an idea of the cited content, regretting that we could not include more reproductions in this book.

Quemener's chapter, and hashtags and pictures as seen in the case of Julliard and Pailler's study. Images of all kinds can become viral, whether they are photographs by reporters (such as the lifeless body of Alan Kurdi in 2015), images captured by non-professionals (like the millions of duckface selfies online), amateur videos (the success of Numa Numa Guy's lip-synced performance in 2004), or people filming themselves during a challenge (such as the Cinnamon Challenge or Ice Bucket Challenge). Texts, expressions, or words, especially in the form of hashtags (Stassin 2022), can also go viral. These include formulas ("Sex is good but have you ever tried . . ."), laws like Godwin's law or Rume's law ("If it exists, or can be imagined, there is Internet porn of it"), and even strings of absurd characters like the famous "covfefe" from President Donald Trump in 2017 in a tweet. It is important not to narrow down virality to memes, although they are crucial, and to consider diffusion, circulation, without exclusively focusing on content, genres, or forms (and even though memes exhibit diverse forms, ranging from image-macros to dance performances). This approach entails exploring a concept that, while admittedly vague (what are the criteria for virality in terms of audience reach?) is central. One of our goals is therefore to extend the approach beyond the key realm of memes, delving into various forms of virality and also introducing the key issue of content circulation, as exemplified for instance by Vétel's exploration of video games or Grison's chapter on shadowbanning. These final two chapters focus more on obstacles to spread, as well as users' strategies and adaptation than on virality itself, but they indirectly prompt us to consider the latter, by contemplating brakes on diffusion, intermediaries, and agents of change as well.

2 Spread and Influence

While arguing against the biological metaphor of circulation that animates the notion of meme and that we mentioned earlier, the famous media scholar Henry Jenkins refrained from treating virality as an almost intrinsic property of content, and instead strongly considers the creativity and agency of internet users. As suggested by the title of his blog post series, "If it doesn't spread, it's dead" (2009), the value of content lies in its dissemination within active and creative communities. Subsequent works by Jean Burgess further emphasise the agency of audiences and content production practices, on YouTube for example. She and her co-author Joshua Green consider that YouTube was "co-created by YouTube Inc., now owned by Google, the users who upload content to the website, and the audiences who engage around that content" (Burgess and Green 2018, 8), and that this combination and entanglement created "a dynamic cultural system". The circulation of content relies

on a platform, and on various stakeholders, encompassing users and professionals in commerce, media and communication. In addition, several studies have highlighted the role and mechanisms of the platform economy, of algorithmic and human recommendations, of intermediaries (moderation providers, troll farms), and the many strategies to capture and influence audiences. For instance, the cultural industries have significantly adapted to the digital environment, not without trial and error. They had to define strategies in the face of the massive circulation of content outside the distribution channels they were used to controlling (whether through user sharing or third-party exploitation), to consider new forms of recommendation (by "non-professional" actors and by algorithms), and to address potential negative buzz that could occur. In our book, influence is therefore mostly not considered at the individual and micro-social levels but more on the meso-social and macro-social scales (Courbet 2015). Internet phenomena and viral content involve the construction of collective meaning, while studying the circulation of media themes includes a focus on social influence.

2.1 Infrastructures and Intermediaries as a Common Thread

Some of the key influencers in the last 20 years have been the platforms themselves, both as services generating substantial profits (Mishra and Tripathi 2020), and as infrastructures facilitating and shaping content circulation and users' social networking. Studying these infrastructures goes far beyond considering their sole technical architectures and the role of user generated content. It also encompasses the data market and the invisible work of maintenance, moderation and animation that is required. The platforms have developed environments aimed directly at amplifying data production. As noted by Anne Helmond (2015) in her study of the platformisation of the web, the circulation and virality of content have undergone significant transformation between the mid-2000s (the birth of Facebook and YouTube, for example) and the early 2010s. As noted by Payne (2012), content that previously seemed to become viral by accident now circulates easily and on a much larger scale, particularly thanks to standard features aimed at sharing content or making them "platform-ready". Among the well-known features the platforms have developed, we can mention "likes" and "retweets" as well as links from a blog post or video embedded in messages. As demonstrated by Tommaso Venturini (2019), a standardised market of online audiences, armies of bots, the quantification of engagement through metrics established by platforms, intermediaries, deep learning algorithms and various other factors actively contribute to the circulation of content and the generation of profits from it. The wealth generated by giant platforms cannot be attributed solely to content circulation, given that these services are usu-

ally free to users. Instead, their business model relies on content analysis and the aggregation of personal data (Casilli 2019) that are sold on two-sided or three-sided markets, while Facebook and Alphabet make most of their money through advertising (Mishra and Tripathi 2020). Beyond the design and business models of platforms, one must also consider their infrastructure, governance, and the individuals working to make these platforms productive and profitable, and notably through content moderation. Content is either allowed to circulate by default, with moderation occurring only upon notification, or it is systematically moderated by a team, often employed by an outsourcing company located offshore. Content moderation involves assessing the legitimacy of content to circulate, and determining what is legal, appropriate and profitable. It is also noteworthy that smaller but highly active platforms have built their popularity on not being truly or only very lightly moderated, at least initially: 4chan and Reddit have contributed to the production of many memes and viral phenomena.

Several chapters analyse the crucial role of intermediaries and digital infrastructures in the circulation of content. As Vétel raises questions about "digital migrations", the role of platforms and underlying commercial issues is key. He defines online gaming platforms as a dynamic assemblage influenced by its client-server network architecture and the sociotechnical features of the characters played, and he shows how much active users can develop businesses and services to bypass as much as to balance platforms' affordances. Grison demonstrates coercive aspects of platforms moderation strategies (shadowbanning) as well as user strategies to circumvent them. Pégny revisits the strategies of major players when discussing the use cases of Machine Learning (ML). Platforms, like Facebook, extensively utilise predictive ML to estimate the probability of clicking and sharing, models that play a pivotal role in their strategy of maximising engagement. While delving into platforms is crucial to understanding how circulation and sharing fuel circulation and viral phenomena, content production itself also adds complexity, with countless ways of assembling texts, images, signs within messages, memes, GIFs and videos. In her chapter, Simon builds on this by leveraging the distinction between "replication" and "variation" proposed by Bonenfant (2014). As Pégny notes, with messages undergoing constant reformulation, reshaping, commenting and insertion into larger messages within informal, horizontal communications, the issue of virality is multi-layered.

2.2 "Affective Communities" and Emotions

There are many reasons why the image of a teenager like the "Star Wars kid" or "Disaster Girl" circulates globally, whether for mockery, empathy, humour, ha-

tred, etc. A phenomenon becomes globally viral thanks to specific properties that allow it to circulate across diverse linguistic and cultural communities – properties that make it easily appropriable and transformable (to the point that its meaning can be very different from one community to another, as seen with Pepe the Frog [Pettis 2022]). Most of the time, it happens because content is sufficiently anecdotal or consensual (e.g., the Ice Bucket Challenge or Rickroll), or on the contrary because of tensions and antagonism between specific communities, increased through trolling, denunciation, or complaints. Sometimes, content also goes viral because people want to raise awareness and warn others about it. Around 2010, moral panics about online discussions held by individuals suffering from eating disorders made the terms "proana" and "promia" well-known worldwide (Tubaro and Mounier 2013).

The intricate interplay of emotions and the concept of "affective communities" are a lens to delve into the multifaceted dimensions of interactions and circulations. Indeed, the complexity of sign arrangements and content, as well as the multiple ways of sharing them, also rely on the fact that the production and circulation of online content primarily occur within affective communities. Networks of individuals produce, share and discuss content together, maintaining an "affective economy" specific to them (Ahmed 2004). Ahmed raised the question in her 2004 analysis of the Aryan Nation website: "How do emotions work to align some subjects with some others and against others? How do emotions move between bodies?". She demonstrated how fear served to unite a community defined by its "whiteness", a territory it claimed, and a nation it asserted against hypothetical "Others" that would threaten it. She conducted this analysis at a time when researchers were more focused on the emergence of blogs and social networks, the transformation of the music and film industries in the face of piracy, or the rapid rise of digital actors like Amazon. However, 15 years later, Ryan Milner and Whitney Philips (2021) describe the ideological antagonisms tearing the United States apart and they reveal the same logics that have colonised all media spaces in the meantime, indicating how platforms and their business models have contributed to the polarisation of exchanges.

Lundqvist delves into the concept of resilience, shedding light on the ways in which users navigate and adapt to events related to political violence in Belfast, Northern Ireland. Humour, as a powerful catalyst, takes centre stage in his work as well as in da Rosa Amaral and Santos Vieira's and Wagener's analysis. The later analyses how memes play a role in political activism by conveying political concepts through humour, or provocative content grounded in cultural and ideological viewpoints. Through a pragmatic discourse analysis, his chapter delves into memes that amplify messages through the fusion of language and visuals, aiming to unveil the mechanics of political engagement. Emotions are also further

emphasised by Arce-Pradenas, whose inquiry reveals shared features among the "Celebrities of the Unrest", figures who gained fame by going viral during the 2019 Chilean upheaval and subsequently transitioned into political careers, showcasing a distinctive leadership style that blends elements of activism, microcelebrity and traditional political activities. Additionally, he analyses social media network data from Twitter and conducts sentiment analysis of YouTube comments to gain deeper insights into this phenomenon. Quemener's chapter offers a nuanced understanding of how individuals form connections based on shared experiences, interests, and emotions. She adopts an approach rooted in affect theories and the "affective turn" within Cultural Studies (see Gregg and Seigworth 2010). Semiotic complexity is particularly central in the circulation of affect, while relying on mechanisms of resignification and reappropriation within communities, to implicitly formalise a relationship and belonging.

2.3 Methodological Challenges and Approaches

The chapters present a diverse range of methods for grasping the phenomenon of online virality. All are grounded in data collections conducted by the researchers themselves, employing various strategies. Julliard et al., for instance, collected massive corpora through Twitter's API, while Grison opted for more artisanal practices. Simon's work delves into the challenges of cross-platform analysis, and relies on discourse analysis, while Quemener reveals the complexity and hybrid nature of methods for studying online videos and comments. The book also acknowledges visual and sound studies, with Marino shedding light on the Harlem Shake and Grison contributing insights to sound studies. Alongside qualitative and semiotic approaches, there are those leaning towards distant reading, as exemplified by Arce-Pradenas' chapter. His hybrid analysis combines qualitative and quantitative elements, drawing on press clippings, interviews, blog articles, online forums and social media posts, while conducting sentiment analysis, examining over 4,962 user comments on Facebook, 14,338 on YouTube and 24,955 tweets. Quemener too focuses on comments, studying a sample of 343 videos published between August 2014 and December 2017, along with the associated 150,504 comments from 39,395 accounts. The hybridisation of methods is also obvious in the case of Vétel whose research relies on empirical investigations within the MMOG Dofus (2010–2016), involving semi-structured interviews with players and Ankama Company employees in Roubaix, along with quantitative data from gaming servers. As a complementary inquiry, he extends his analysis to the League of Legends from 2022 to 2023 and online observations on platforms such as Discord and Reddit. The hybridisation of methods is echoed in the intersection of plat-

forms, as demonstrated in Simon's analysis, and emphasised by Julliard et al., who highlight the challenges of processing multisemiotic corpora.

Research approaches using typologies through several chapters are not surprising, aiming to simplify and make both the content, as seen in Wagener's analysis, and the practices, as seen in Grison's analysis, more understandable. In their analysis of images, Julliard et al. distinguish four possible ways of linking images to study the development of visual regimes. Indeed, viral content and memes demonstrate several levels of complexity and elaboration. In their respective analysis of memes, Göke and Wagener propose comprehensive frameworks that involve distinguishing various key elements, providing a nuanced understanding of the intricate layers contributing to the meaning and impact of memes. Several chapters also question the role of media in constructing social and political reality, while infrastructures and platforms are also explored to better understand viral spread and influence, notably in the third part of the book.

3 Time and Temporalities

The issue of time and temporalities also cuts across the entire book. Temporalities are an indispensable complement to community considerations, when seeking to comprehend the digital landscape in its evolving state.

Pégny for instance analyses phenomena that originated in the pre-digital era. As Gustavo Gomez-Mejia (2022) demonstrated thanks to a French corpus of press articles, the term "buzz" entered the vocabulary of both specialised marketing and mainstream press as early as 1999. Concurrently, the concept of e-reputation emerged (Alloing 2017). In the 2000s, the marketing world developed the concept of "viral marketing" (Ferguson 2008). This strategy was theorised and discussed throughout the 2000s, with the term "virality" entering common language to describe the widespread and rapid dissemination of online content through sharing infrastructures, using the biological metaphor. However, significant media phenomena unfolded before online virality, as highlighted by Pégny, who refers to works on rumours by Froissart (2002), and the book *Fake news et viralité avant Internet. Les lapins du Père-Lachaise et autres légendes médiatiques* [Fake News and Virality before the Internet: The Rabbits of Père-Lachaise and Other Media Legends] (2020). The metaphor of social contagion found its roots in the writings of Gustave Le Bon (1841–1931) and Gabriel Tarde (1843–1904), while Harold Lasswell (1902–1978) introduced the metaphor of injecting ideas through a hypodermic syringe (Marino 2022). For sure, virality has now reached another scale of immediacy, globalisation and mass impact. However, even in the late 1990s the

web acknowledged this phenomenon, through the success of the Dancing Baby (1996) or the Hampster Dance (1998), well before BuzzFeed's inception in 2006.

Over the past three decades, content has significantly evolved based on various platforms, on available tools (including meme and GIF generators), network speeds and, since the 1990s, one can distinguish:

– An initial period, where text prevailed, even though a few scanned images from photos or magazines circulated in fora;
– An era of expert multimedia. Everything became possible for those with expertise and appropriate professional software. Images could be edited for instance with a pirated version of Photoshop, or one could code their own website with animated GIFs;
– The advent of the online pop remix. Skills are increasingly acquired more easily, and both audio and video editing become easier, especially with platforms like YouTube, Myspace and Tumblr;
– The ubiquity of mobile creation (Allard et al. 2014, Goggin 2008). Smartphones now enable everyone to post photos, share audio and video, take screenshots, add comments to images, create elaborate compositions and share them almost instantly.

The historical dimension is obvious in several chapters. It is apparent when Simon explores the memetic circulation of #Chadolf #Kitler on online social media. It is also explicit when Göke seeks to analyse the peculiar genre of history memes and investigates how they function as connectors between the past and the present through reinterpretation. Her approach enables a better understanding of mediation between then and now through emotion, an issue that Barclay and Downing (2023) have already explored for historical art memes. Diachronic analyses, such as the examination of three periods of debate on gender and "Mariage pour Tous" in France by Julliard et al., emphasise the complexity of retrieving virality, circulations and intermediaries through time. As they point out, while for a given event it is quite easy to map exchanges in a single graph, the task is trickier when it comes to following the circulation of images over the course of several events. Arce-Pradenas revisits the case of Chile in 2019, while Quemener starts from the early 2000s to examine Dieudonné and the intensification of media attention towards him. Marino, on the other hand, delves into a phenomenon from 2012 to 2013 and its legacy in challenges for instance. His chapter analyses the historical evolution of the renowned Harlem Shake meme, examining how today's media landscape has been shaped by such cultural phenomenon. In a time marked by the swift consumption of images, videos and semiotic texts, revisiting the Harlem Shake, which acted as the catalyst for a novel approach to textuality as a practice, can in his view enhance our comprehension of contemporary trends.

This case study also allows him to recall its popularity on Vine, a now dead platform, and to reflect on the transition and development of TikTok, establishing complex genealogies, while also contextualising the Harlem Shake and discussing other phenomena of the time, like Crank That by Soulja Boy and, of course, Gangnam Style by Psy.

Emphasising time and temporality also leads to a consideration of media entanglement. Indeed, in the realm of media dynamics, it is crucial to recognise that virality, often deemed a digital phenomenon, encompasses a broader spectrum extending beyond the digital realm. Pégny stresses that the virality of a message should not be solely attributed to its digital lifecycle. Arce-Pradenas further illustrates this idea by intertwining online strategies and on-ground political actions of viral celebrities in the Chilean context. He underscores the pivotal role played by mainstream media in amplifying the virality of a message. Notably, media giants such as centre-right Canal 13 and Radio Bio Bio, along with the satirical leftist magazine, *The Clinic*, played a significant role in shaping and disseminating content. The mainstream media's involvement in this process, particularly through widely followed official accounts, propelled the messages into a national conversation. Examining the case of Dieudonné, Quemener also highlights the intricate relationship between public attention and media influence. Pégny stresses the importance of acknowledging both peer-to-peer dynamics and vertical communication in media and digital interactions. Intermediations, alongside vertical components, contribute significantly to the overall media landscape. A study by Sharad Goel et al. (2015) revealed that virality on Twitter results from a combination of horizontal and vertical diffusion. This is echoed in the analysis of the Harlem Shake phenomenon we conducted (Pailler and Schafer 2023), which demonstrates that the amplification of user-generated content is complemented by robust media coverage across regional, national and international press as well as platforms. Turning to the relationship between Telenovelas and the digital sphere, Santos Vieira and da Rosa Amaral exemplify the enduring connection between mediums. This relationship can be understood within the broader framework of globalisation and convergence culture. When analysing the global circulation of memes featuring the Brazilian telenovela character "Nazaré Confusa" or "Confused Blonde Lady" and examining the intersection of Social TV, Telenovelas, and internet humour, Santos Vieira and da Rosa Amaral delve into the mechanisms that drive a meme to achieve virality within a transcultural framework, beginning with an emphasis on audiovisual centrality and the pivotal role of internet memes as key mediators between mass and post-mass media.

Most chapters in the book address temporal challenges in their analyses, an aspect that often takes a back seat in scholarly inquiries. A comprehensive examination of temporalities poses specific methodological challenges. First, when com-

bining qualitative and quantitative approaches diachronically, the seemingly homogeneous accessible data may be highly heterogeneous due to evolving data collection methods over time (i.e., evolution of web archiving). Cross-referencing or comparing data available on online platforms with data from web archives and historical forums spanning over two decades presents a genuine technical, analytical and narrative challenge. This complexity can introduce biases, notably in distant reading approaches, necessitating a digital hermeneutic and a precise critical evaluation of digital sources attentive to the conditions of data collection. Second, conducting cross-platform and cross-technology analyses requires accounting for the context and history of these platforms while most of them are not yet historically documented. One must also consider the frequent disappearance of platforms (as seen with Vine in the context of the Harlem Shake; see also McCammon and Lingel 2022), and changes in audiences, users' profiles and moderation rules (as exemplified by the recent transformation of Twitter into X).

Finally, consideration must be given to shifting technological contexts and the representation of technologies, which may not evolve at the same pace as the technologies themselves. This discrepancy arises because commercial discourses often emphasise novelty or render fundamental technological or cultural transformations on the contrary invisible. There is not always a direct relationship between how a company envisions the use of a feature on its developed platform, the diverse meanings users attribute to that feature, and how the media reports it. Examples abound, such as the role of hyperlinks in content circulation, transitioning from a visible emblem of the web to an omnipresent but not always apparent component of mobile social applications (see Rogers 2017). We hope to demonstrate in this book how a diachronic and/or historical approach has the potential to reconcile these various temporalities at play and to help us understand phenomena that may seem ephemeral, often brief, and spectacular, by revealing their genealogies, continuities, patterns and contributions to a short yet rich history of digital cultures and a longer history of media and communication.

In exploring the rich landscape of online viral phenomena, readers will encounter a plethora of memories. From iconic figures like "The Confused Blonde Lady", to the examination of cats in viral content (and their enduring presence, as seen in Emily Griffin's chronology within the Hivi project[6]), through viral political content during US elections (see Wagner's chapter), as well as Kilroy or the Harlem Shake, well-known phenomena are continually reinterpreted. The question is therefore the lasting impact of these viral moments, already marked by

6 https://hivi.uni.lu/2023/01/28/a-timeline-on-viral-cats/.

the establishment of a meme museum in Hong Kong in 2021[7]. What will come of memes for instance? Historically, it is crucial to incorporate these massive, vernacular and often enjoyable phenomena into the narrative of the web and socio-digital networks, as they are an integral part of our digital and visual culture (see Pailler and Schafer 2022; 2023). Despite predictions of transformative shifts in virality influenced by AI and tools like Midjourney, generating rapid images (and deepfakes) and transforming our visual cultures and uses, virality will change but persist as long as online social platforms and their models endure. The archiving of these viral phenomena also poses significant challenges (see Schafer and Pailler 2024), but there are stimulating initiatives in progress, like the one taken by the Library of Congress (LoC), which archived both Know Your Memes and Meme generators[8], when creating a particular collection in 2017 "Remix, Slang and Memes: A New Collection Documents Web Culture". This curation specifically oriented towards internet phenomena embeds a documentary dimension (in addition to the preservation approach) that also helps to retrieve part of the context of production and circulation of these complex phenomena. However, the heritagisation of viral phenomena reflects the ongoing efforts and tensions between institutional preservation, conservation by platforms themselves and dedicated for-profit initiatives like Know Your Meme[9] (see Pettis 2022). Notably, KYM, initially acquired by Cheezburger Network in 2011[10] and later by Literally Media in 2016, exemplifies the economic potential embedded in the heritagisation of seemingly simple content. As the most famous memes venture into the realm of NFTs[11], these vernacular forms as well as their heritagisation reveal powerful aesthetics, cultural, infrastructural, economic and political aspects beneath their playful surfaces.

7 https://www.lifestyleasia.com/hk/entertainment/meme-museum-9gag/#:~:text=MEME%20Museum%20is%20located%20at,art%20space%2C%20B2%2FF.

8 https://blogs.loc.gov/loc/2017/06/remix-slang-and-memes-a-new-collection-documents-web-culture/?loclr=twloc and https://loc.gov/collections/web-cultures-web-archive/?loclr=blogloc.

9 https://knowyourmeme.com.

10 Cheezburger network is a collection of popular websites that host user-generated content, particularly memes. It includes, for instance, I Can Has Cheezburger, which is known for making LoL Cats famous.

11 In 2021, Chris Torres auctioned off his rainbow pop-tart cat, Nyan Cat, followed then by Grumpy Cat, Bad Luck Brian, and Disaster Girl.

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