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Curating AI Into Being: Hacks/Hackers as Amplifiers of Journalism's Digital Futures

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As a network of journalists and technologists, Hacks/Hackers represents a transformative force reshaping traditional journalistic practice. From advocating for data journalism to proposing automated journalism, Hacks/Hackers plays a crucial role in "curating AI into being" by advancing AI-driven communication as journalism's digital future. Based on a media ethnography conducted across Germany, the United Kingdom, and the USA, the article demonstrates that this happens in a three-step process: (1) introducing AI as an emerging trend, (2) consolidating the vision through illustrative examples, and (3) normalizing it. Ultimately, Hacks/Hackers' curation serves as a twofold amplifier—supporting a sociotechnical imaginary of AI not only as the future of journalism but also as a transformative force in society more broadly.

Keywords: automated journalism, artificial intelligence (AI), pioneer community, innovation, datafication, data

Amid a period of radical change in journalism, Hacks/Hackers emerged as a network of journalists and technologists committed to reshaping traditional journalistic practice. Founded in 2009 in the San Francisco Bay Area and New York, this collaborative community of journalists ("hacks") and technologists ("hackers") set out to reimagine journalism's digital future. Quickly recognized as "the largest organization of its kind" (Lewis & Usher, 2014, p. 384), Hacks/Hackers expanded rapidly across the United States and beyond. Local chapters first appeared in Latin America, followed by Europe and Australia, with the movement eventually reaching a peak of 123 groups worldwide.

Following the trajectory of other pioneer communities (Hepp, 2025), Hacks/Hackers has shifted its focus beyond peak expansion, now concentrating on its U.S.-based organizational elite and selected chapters. This shift became visible with the relaunch of its website in September 2024. Whereas the previous website featured a world map of chapters and described Hacks/Hackers as an "international grassroots community of people who seek to inspire and inform each other to build the future of media"

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(Hacks/Hackers, 2024b), the updated version presents it as a nonprofit organization with the mission "to advance media innovation and foster public trust in the information ecosystem." Despite this refocusing on its core organizational elite, Hacks/Hackers continues to play a pivotal role in shaping journalism's digital futures.

For this analysis, the often vague term *digital futures* (Schlagwein, Currie, Leimeister, & Willcocks, 2024) is defined as encompassing all imaginations of possible futures that envision a social world—in this case, journalism—where, first, digital media and their infrastructures play a constitutive role in constructing the social world, and second, these media are regarded as primary drivers of societal transformation (Hepp, 2025b). From this perspective, digital futures are both sociomaterial and performative (Michael, 2000), meaning they are constituted through practices deeply interwoven with technologies and exert a defining influence on the present.

Building on these reflections, this article addresses a threefold research question: How can the curatorial efforts of the Hacks/Hackers community be characterized? What patterns emerge in the construction of AI as journalism's digital future within the Hacks/Hackers newsletter? And what theoretical conclusions can be drawn for broader debates on sociotechnical imaginaries of digital futures?

To address these questions, the analysis draws on media ethnography conducted across Germany, the United Kingdom, and the United States. This ethnographic approach combines (partly online) interviews with key figures within the pioneer community, observations of their meetups, and a content analysis of the newsletter.

Overall, this analysis demonstrates that Hacks/Hackers remains a significant force within the broader field of "pioneer journalism" (Hepp & Loosen, 2021), evolving from an advocate of "data journalism" (Gray, Chambers, & Bounegru, 2012) to a proponent of "automated journalism" (Caswell & Dörr, 2018) and aligning with contemporary forms of "communicative AI" (Guzman & Lewis, 2020; Hepp et al., 2023; Stenbom, Wiggberg, & Norlund, 2023). Following a model of fostering interdisciplinary encounters, Hacks/Hackers' approach to curating AI into being unfolds in three steps: introducing AI as an emerging trend, consolidating the vision through illustrative examples, and normalizing it. Ultimately, its curatorial efforts act as a dual amplifier, reinforcing a sociotechnical imaginary of AI not only as the future of journalism but also as a transformative force in society more broadly.

From Visions to Imaginaries of Digital Futures

As previous research has shown, ideas of possible futures emerge within specific social figurations—groups that not only generate such visions but also disseminate them. Actors from the San Francisco Bay Area have played a crucial role in shaping digital futures since the 1960s. Looking back, the RAND Corporation was instrumental in pioneering early developments of today's Internet and other computer technologies, establishing one of the foundational contexts of futurology (Beck, 2016; Powers, 2018).

The connection to the contemporary San Francisco Bay area and its "silicon future" (Cheney-Lippold, 2024) is particularly notable. Helmer, who developed the Delphi method at RAND, later founded

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the Palo Alto-based Institute for the Future (IFTF), which remains a key networking hub for pioneering groups in Silicon Valley. This futurist mindset also permeated the network formed around the *Whole Earth Catalog*, influencing not only the emerging digital entrepreneurship of the 1990s but also spreading globally through platforms such as *Wired* and the Global Business Network, a consulting firm with worldwide reach. This so-called "Whole Earth Network" (Turner, 2006, p. 3) represents a first-generation pioneer community.

Subsequent second-generation pioneer communities emerged, including the Maker movement, which emphasizes experimental manufacturing practices, and the Quantified Self movement, which focuses on self-optimization through technology. In the domain of journalism, Hacks/Hackers exemplifies this phenomenon, advancing a vision of public communication transformed through technology-driven journalism. Such pioneer communities function as "communities of practice" (Wenger, 1999, p. 72), establishing "network forums" (Turner, 2006, p. 72) that shape their collective identity as forerunners—defined by experimental practices and visions of digital futures (Hepp, 2025a).

Empirical research on the early years of Hacks/Hackers highlights how this pioneer community was built on voluntarism, with members united with a shared goal: exploring how software could transform journalism (Lewis & Usher, 2014, p. 389). Through meetups and hackathons, Hacks/Hackers created "trading zones" (Galison, 1997, p. 781), fostering interdisciplinary knowledge exchange that led to the emergence of a shared language and innovation. This process cultivated an imagination of journalism's future that integrates ideas of (open) technology development (Lewis & Usher, 2013, p. 603).

However, even in its formative phase, Hacks/Hackers cannot be reduced to a mere extension of data journalism (Usher, 2019, p. 3). This is evidenced by studies that address Hacks/Hackers within broader contexts, such as hackathons (García-Avilés, 2024), civic tech (Cheruiyot, Baack, & Ferrer-Conill, 2019), data activism (Milan, 2017), and media labs (Nunes, Mills, & Pellanda, 2022).

Like other pioneer communities, Hacks/Hackers operates within a broader social context, specifically that of pioneer journalism. If we define pioneer journalism as a larger figuration of actors who experiment with their journalistic practices and imagine possible futures for the field (Hepp & Loosen, 2021; Ruotsalainen, Heinonen, Hujanen, & Villi, 2023), then pioneer communities such as Hacks/Hackers represent just one type of collective actor within this larger figuration. Other key actors include more loosely structured "networks" of cross-border journalistic collaboration (Heft, 2021), as well as corporative actors such as journalistic "startups" (Appelgren & Lindén, 2020; Deuze & Witschge, 2020), innovation "labs" within established media companies (Hogh-Janovsky & Meier, 2021; Mills & Wagemans, 2021), and supporting organizations like "accelerators" and "incubators" (Willemsen, Witschge, & Sauer, 2021).

To fully grasp the role of Hacks/Hackers in pioneer journalism, it is crucial to examine its relationships with and interactions among these diverse actors (Hepp & Loosen, 2021). To capture this dynamic, it is essential to conceptually distinguish between the visions held by collective and corporative actors and broader sociotechnical imaginaries. In the study of digital futures, the concept of "sociotechnical imaginaries" (Jasanoff & Kim, 2009) has become a key reference point (e.g., Bucher, 2017; Gerhold & Brandes, 2021; Jewitt, Leder Mackley, & Price, 2019; McNeil, Arribas-Ayllon, Haran, Mackenzie, & Tutton, 2016). At its core, sociotechnical imaginaries are defined as collectively held and enacted imaginations of

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desirable futures, shaped by common understandings of social life and order and embodied in the design and realization of societal technological projects. As such, the concept operates at the level of society or, at the very least, larger (political) entities (Jasanoff & Kim, 2009, p. 123; Taylor, 2004, p. 28). In contrast, the visions of pioneering actors—whether corporations (Haupt, 2021), groups of scientists (Hilgartner, 2015), or pioneer communities—are distinct and operate within a different framework.

Across this diverse spectrum of corporative and collective actors, one could argue that their visions center on imagined futures of collective practice. These visions emerge and evolve through collaborative practices, contributing to the formation of a shared identity based on common relevancies—specifically, what is deemed important in contemporary societies and how each community or organization positions itself in relation to these issues. However, it would be misleading to equate the visions of corporate and collective actors with broader imaginaries on or beyond societal levels.

This nuanced perspective brings us to the core of this article: an analysis of the role of pioneer communities' visions in shaping sociotechnical imaginaries of digital futures. To date, media and communication research has largely explored sociotechnical imaginaries of digital futures as constructed in public discourses. While recognizing these discourses as "multiple, contested, commodified" (Mager & Katzenbach, 2021, p. 223), a central argument is that they lead to a "talking into being" (Bareis & Katzenbach, 2022, p. 855). The future expectations formed around new technologies through such discourses help guide the direction of politics and corporations, making the imagined futures more likely to materialize (Köstler & Ossewaarde, 2022).

What remains unexplored in such research is the role of pioneer communities and their visions in the formation of overarching societal imaginaries. This article seeks to address this gap, not by examining how the visions of pioneer communities are absorbed into public discourses (see Hepp, 2025a), but by analyzing how Hacks/Hackers, as a pioneer community, curates its visions, facilitating a double amplification. In focusing on this, we observe a process of curating into being. If we define curation as the "discriminate selection and organization of materials" (Davis, 2022, p. 40), pioneer communities shape and spread their visions of digital futures through curated processes. These processes are not automated curation, as seen on social media platforms (e.g., Gillespie, 2018), but instead are—as this analysis will demonstrate—curated through the influence of organizational elites.

A Mixed-Method Media Ethnography

In line with the general understanding of (digital) media ethnography (Pink, Horst, Postill, Hjorth, Lewis, & Tacchi, 2016), the following analysis aims to describe the Hacks/Hackers pioneer community, its curatorial practices, and the patterns through which future visions of AI are constructed via the newsletter. To this end, a comprehensive set of data was collected (see Table 1). This includes: first, interviews with members of the organizational elite of Hacks/Hackers; second, observations of (online) meetups; third, data scraped from Hacks/Hackers groups on the Meetup platform; fourth, analysis of data available via GitHub from the original Hacks/Hackers website; and finally, an examination of the newsletters distributed via email.

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Table 1. Data Collection and Analysis.

Type of data	Scope of data	Methods of analysis
1) Interviews	3 interviews organizational elite Germany	Qualitative coding according to Grounded Theory
	2 interviews organizational elite UK	
	3 interviews organizational elite USA	
2) Observations	3 meetups	Contextual information for interview and newsletter coding
3) Chapter activities on Meetup platform	Entries on activities of 82 chapters worldwide	Statistical analysis to visualize the size and geographical distribution of the chapters
4) Website via GitHub	Website with all changes 2010–2024 (254,2 MB)	Contextual information for interview and newsletter coding
5) Newsletter	330 newsletters (01/2017–12/2024)	Word trend analysis; Qualitative coding according to Grounded Theory

The data were collected incrementally using "theoretical sampling," as outlined in Grounded Theory (Charmaz, 2014, p. 192–224; Glaser & Strauss, 1999, p. 45–77). After gaining initial field access, contact was made with members of the U.S. organizational elite, leading to the first interviews in San Francisco in March 2020. This enabled the establishment of further contacts and facilitated step-by-step interviews with members of the organizational elite in Germany, the UK, and the USA, including those responsible for the largest chapters in each country by 2021. The field contacts also provided access to the GitHub and Meetup data. Online data collection continued until December 2024, coinciding with the relaunch of the Hacks/Hackers website and the refocus on its original organizational elite.

The qualitative analysis of the interviews followed the grounded theory approach, employing an "initial coding" process followed by "focused coding" using OpenQDA software (https://openqda.org). The coding addressed the following main areas: the practices (12 categories) and means (11 categories) of communication and curation, main themes (11 categories), and actors relevant to Hacks/Hackers (15 categories). The entire coding process was compared with observations from meetups and information from both the archived and current versions of the website (via GitHub). This analysis was further supplemented by data on the size and activity of individual chapters obtained from Meetup data.

The newsletter analysis for the period January 2017 to December 2024 was conducted in two steps:[2] First, a word frequency analysis was carried out, recording all words used more than three times, while excluding articles, prepositions, and technical characters, such as "©" or email headers. In the second step, the identified keywords were organized into thematic clusters through a qualitative semantic review.

[2.] There were two reasons for this temporal focus. First, the embedded images in the newsletter were only available from January 2017 onward. Second, the shift from data journalism to automated journalism only became apparent from 2017/18.

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Each cluster was formed by including the four most frequently used terms alongside the respective core term, resulting in the following clusters: "automated journalism" (keywords: "ai," "automation," "artificial," "hugging," "openai"), "COVID-19 pandemic" (keywords: "covid," "covid-19," "corona," "coronavirus," "pandemic"), "data journalism" (keywords: "data," "dataharvest," "datajournalism," "storytelling," "visualization"), "future" (keywords: "experimental," "future," "future," "prediction," "trends"), "platform" ("disinformation," "fact-checking," "misinfocon," "misinformation," "platforms") and "sustainability" ("climate," "energy," "environments," "environmental," "sustainability"). The cluster on "automated journalism" was then subjected to in-depth thematic coding using grounded theory.

Continuously Fostering an Interdisciplinary Encounter

While pioneer communities are generally geared toward the global spread of their visions, they adopt different models of curation (Hepp, 2020). The Maker movement, for example, is based on franchising, particularly for its fairs. In contrast, the Quantified Self movement is curated through an unenforced trademark that serves as a starting point for identity communication. However, despite their ideas of global influence, what these pioneer communities have in common is comparatively few financial resources and limited opportunities for control. Therefore, answering the first research question of this article—how can the curatorial efforts of the Hacks/Hackers community be characterized?—involves clarifying its model of curation.

This can be best described as continuously fostering, aimed at building interdisciplinary cooperation between journalists and technologists. This approach is closely linked to the emergence of Hacks/Hackers, which resulted from the convergence of two initiatives. The first, led by Burt Herman, sought to unite journalists with software developers in San Francisco in early 2009. After his Knight Journalism Fellowship at Stanford University ended, he and Xavier Damman established the startup Storify, which provided an online service for dynamically integrating social media content into personal "stories."[3] As Herman puts it, the key question was "how social media [...] can be part of journalism, not just distributing but actually creating it." This required finding software developers who shared similar interests, prompting the idea of establishing a supportive meetup.

[3.] Storify was acquired by Livefyre Inc. in 2013 and the service was finally discontinued in 2018.

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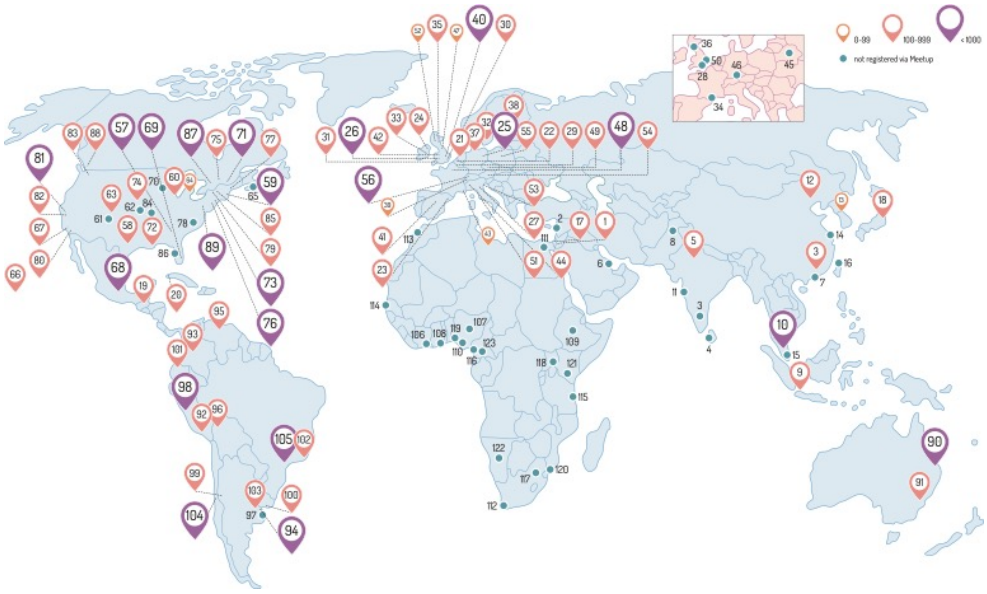

Figure 1. Hacks/Hackers chapters (2019).

Note. Own visualization based on Meetup and website data. Figures in parentheses indicate the number of members of the meetup groups; chapters that are not active on Meetup are indicated by simple dots.

In addition to this "West Coast" group, an independent "East Coast" group formed around a conference in Massachusetts organized by Aron Pilhofer (New York Times) and Rich Gordon (Northwestern University, School of Journalism), with support from the Knight Foundation. The goal was to build a network of people interested in developing digital technologies for journalism. The two groups eventually merged through their networks and established the Hacks/Hackers website (https://www.hackshackers.com) to give their joint initiative a unified presence. Since 2014, Hacks/Hackers has held 501(c)(3) status in the USA, making it a recognized nonprofit organization.

The peak of Hacks/Hackers' growth occurred in 2019, when the community had a total of 123 local chapters and 75,000 registered meetup members worldwide (see Figure 1). These chapters aligned with the Hacks/Hackers brand and followed the original meetup model. However, they operated independently, organizing and financing themselves while developing unique identities.

Even years after its founding, the American organizational elite emphasizes that Hacks/Hackers remains at "the intersection of journalism and technology" (HH board member and founder of the New York Chapter, 2020). The director of community, co-founder of the New Orleans group, explains that the "mission" of Hacks/Hackers is "to advance journalism and technology, so anything that fits within that umbrella is fine" (HH director of community, March 26, 2020). This aligns with the understanding of local chapter leaders beyond the U.S. The co-founder of Hacks/Hackers in Berlin, Germany, uses the metaphor of the "Venn diagram" to express the core idea, with "technology" on the left, "journalism" on the right, and Hacks/Hackers representing the overlapping "two things in the middle" (HH Berlin co-founder, January 19, 2021).

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Another member of the German organizational elite highlights that the Berlin chapter aims to "be an open forum to bring journalism and techies together" to "arouse curiosity [...] for new possibilities among journalists" and "in a certain way foster [an] understanding of journalistic work among techies" (HH Berlin co-organizer, December 14, 2020). Similarly, in the London chapter, participants originally included "journalists who studied coding or people who (are) developers who do some journalism" (HH London co-organizer, January 6, 2021). The aim was to create encounters between these two groups and the hybrids that exist between them.

It is this idea—that the possible futures of journalism will be determined through an "interdisciplinary encounter"—that provided the orientation for the Hacks/Hackers: first, about its global spread and the underlying fragility; second, about the means and practices of curation.

The Global Spread and Organizational Fragility of Hacks/Hackers

The establishment of Hacks/Hackers was achieved through a strategy of open global spread, comprising three elements: building a brand, leveraging existing networks to initiate local groups, and supporting local initiatives. However, because Hacks/Hackers is a networked pioneer community with cultural differences between chapters, it exhibits inherent organizational fragility.

A key aspect of building the brand was the aforementioned website, along with a logo and tagline, as well as a presence on the Meetup platform since 2009. Initially, both the website and Meetup were dedicated to the two founding groups, providing online representation and a tool for their emerging community. However, the development of this was—at least implicitly—linked to the idea of expanding further into the USA and beyond. The goal was to create a "brand that actually has a really nice footprint around the world" (HH board member, March 3, 2020).

Even if our interview partners downplayed this aspect, drawing on existing networks to initiate local groups was integral to the American organizational elite's strategy for global expansion. In our interview, Burt Herman mentioned that he encouraged "another former Knight fellow […] from Africa" to start Hacks/Hackers "across Africa" (Burt Herman, May 5, 2020). Additionally, contacts with the International Centre for Journalists (ICFJ) were leveraged to establish chapters in Latin America and India. While not directly aimed at founding individual groups, certain Hacks/Hackers projects, such as the Mozilla-funded project on misinformation—which hosted conferences in the UK, Ukraine, and the USA—used professional networks to empower specific local chapters.

A third element of the strategy was to support local initiatives. Support here means providing local groups with the resources they need to become independent chapters and offering email feedback, which was later institutionalized in the "start a group" section on the main website (HH director of community, March 26, 2020).[4] The London chapter of Hacks/Hackers, founded in 2010, emerged from a local group of technology-oriented journalists who, from their perspective, used the Hacks/Hackers "branding" (HH London co-founder, February 4, 2021) to establish a distinct position within the journalism landscape. The Berlin

[4.] With the relaunch of the website, this section was abandoned.

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chapter, founded in 2012, can be traced back to its co-founder's visit to New York (HH Berlin co-founder, January 19, 2021), where he attended meetups of the local chapter and, inspired by these experiences, sought to replicate the model in Berlin. The opportunity to adopt the Hacks/Hackers brand and the basic format of the local meetings—typically featuring a "show and tell" of specific projects followed by socializing—was instrumental in this process.

This interplay of building a brand, drawing on networks to initiate local groups, and supporting local initiatives has led to what one of the founders described as "organic growth" (Burt Herman, May 5, 2020). However, this growth has been significantly influenced by the "global imaginary" (Marwick, 2017, p. 317) of Silicon Valley—the romanticized belief that the future of the media environment will be profoundly shaped by the technologies developed in the San Francisco Bay Area. Chapters often regard Silicon Valley as the hub of the latest technological developments, and this mindset drives members to travel there and attend related conferences to gather insights into possible digital futures (as told to us by members of the German, UK, and US organizational elites).

These examples highlight the need to approach the founding narratives of Hacks/Hackers with caution. Rather than a purely grassroots movement from which the organizational elite emerged, we see a reciprocal dynamic where local interest is nurtured alongside encouragement and support from the American organizational elite.

Furthermore, this varying identity formation and the related composition of local members define the differences between the chapters. For instance, the Berlin chapter is closely tied to NGOs and views its relation to civil society as its core (HH Berlin co-founder, January 19, 2021). The Buenos Aires and New York chapters emphasize programming and hacking as central to their identity (HH London co-organizer, January 6, 2021). The London chapter has strong connections with journalistic and social media corporations and is particularly proud of its history, which predates its membership in the Hacks/Hackers network (HH London co-founder, February 4, 2021). Therefore, the Hacks/Hackers, as a globalized pioneer community, are anything but homogeneous. A main unifying element, however, remains the shared "mission" (HH director of community, March 26, 2020) of bringing together journalism and technology, as well as the shared communication formats.

This highlights the organizational fragility of Hacks/Hackers: Although the U.S. organizational elite became a nonprofit organization, it never fully funded the global network. Instead, the pioneer community operates as part of an ongoing globalized process of "organizing" (Weick, Sutcliffe, & Obstfeld, 2005, p. 409), where many chapters are loosely connected groups of committed individuals: "just local people who are enthusiastic about journalism and tech and wanted to start a group" (HH director of community, March 26, 2020).

From the perspective of the U.S. organizational elite, running Hacks/Hackers primarily involved a "weekly phone call" (HH board member, March 3, 2020), that is, a monthly Global Open Call open to all via Zoom. Core decisions are made by the board. However, the chapters perceive themselves as "their own organization" (HH London co-organizer, January 6, 2021), independently doing their "own thing, growing the community" with "little contact" (HH Berlin co-founder, January 19, 2021) with the U.S. virtual office. A

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flat hierarchy prevails where anyone can join the organizational elite, with the situation often dictated by the "tight time budget" (HH Berlin co-organizer, December 14, 2020) that members face. Responsibility for organizing events generally depends on the topic and members' own capacities. Local communication is diverse, taking place via email, Twitter direct messages, or WhatsApp. Additionally, chapters often support each other through professional and personal exchanges.

This demonstrates the character of organizational fragility: The U.S. elite's ability to assert control over local chapters is limited, as is the influence of individuals within those chapters. Local organizers often change, leading to fluctuating phases of activity. The primary source of organizational stability comes from the ongoing collaborative sensemaking process driven by the virtual U.S. office.

Means and Practices of Curating

The creation of such sensemaking processes is ultimately the main focus of the curation of Hacks/Hackers. Central to this is Hacks/Hackers' virtual office, which currently comprises a team of six people, alongside the board (Hacks/Hackers, 2025). Curation is primarily carried out through four key means: first, the website; second, the Meetup platform; third, the events; and fourth, the newsletter.

The role of the website in curating Hacks/Hackers has already been emphasized: It serves to communicate the community's "brand" and "news" to the outside world. In its initial iteration, the website offered resources for emerging and established chapters, including an overview of existing chapters and guidance on starting a new group or organizing meetups and hackathons. However, in its current form, this has been reduced to a general presentation of Hacks/Hackers as a nonprofit organization, along with an option to subscribe to the newsletter.

The Meetup platform was central to Hacks/Hackers from its inception until around 2021. Burt Herman used the platform to organize the first meetings in San Francisco, making it the primary hub for the global coordination of local meetings. However, the relationship with the Meetup platform has been ambivalent: On the one hand, this "people platform"[5] was effective for the straightforward organization and setup of local meetings, making it "probably the most important [tool] for it" (HH Berlin co-founder, January 19, 2021). On the other hand, the platform imposed significant limitations, such as restricted access to participants' e-mail addresses, which hindered centralized organization across various chapters, increasing costs over time. Consequently, Hacks/Hackers has largely discontinued its use since 2021, and local events are now promoted via the website and social media.

The third means of curation involves organizing events on both small and large scales. Initially, the community was built around local meetings, which can occur as frequently as every couple of weeks (HH Director of Community, May 1, 2020) or as infrequently as twice a year. A typical format for these meetings, as suggested on the old website, includes "two or three exciting short presentations" (HH Berlin co-organizer, December 14, 2020), followed by a Q&A session and an informal gathering. In addition to local meetings and hackathons, the virtual office and individual chapters organized larger conferences. Notable

5. https://www.meetup.com

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highlights include the "Hacks/Hackers global event in Berlin" (HH Berlin co-founder, January 19, 2021), various Misinformation conferences, and the annual "Media Party" organized by the Buenos Aires chapter, touted as "the largest single event in the world" (HH board member, March 3, 2020). This event has now become a brand of its own, taking place in various locations and being promoted by the new website as a collaborative project (Hacks/Hackers, 2024g).

Finally, the newsletter plays a crucial role in Hacks/Hackers' curation. We can characterize the newsletter as a typical "network forum" (Turner, 2006, p. 72), which is also common in other pioneer communities. On the one hand, our interviews indicate that it primarily addresses the local organizational elites and members of the Hacks/Hackers chapters.[6] On the other hand, anyone interested can subscribe to the newsletter via the Hacks/Hackers website. In this sense, the newsletter connects the core of the pioneer community with the wider figuration of pioneer journalism and the domain of journalism as a whole.

The three-to-four-page newsletter was, until September 2024, compiled by the first HH director of community, and since then by her successor, and the fact that she was a paid staff member at Hacks/Hackers underscores its importance. In addition to a lead story, the newsletter typically contains updates from chapters, tips on readings, job postings, and information about upcoming events. In the words of the HH director of community, it includes "updates from Hacks/Hackers groups, like what they are doing around the world" as well as "stuff that [...] Hacks/Hackers types of people would be interested in, so like, upcoming events, some job posts [...], readings, and we really try to make sure that's global" (HH director of community, May 1, 2020).

This quote clearly highlights the goal of curating the pioneer community: defining its core identity by offering particular visions of journalism's digital futures at the "intersection of journalism and technology" (HH board member, March 3, 2020). Whether it is through events or the newsletter, the first step is selection. This involves choosing people, topics, practices, and related projects that are considered "interesting" (HH London co-organizer, January 6, 2021) to the Hacks/Hackers community in particular and pioneer journalism in general. These elements are arranged and presented in a way that makes the vision of the pioneer community apparent. While this globalized curation is driven by the U.S. organizing elite, particularly through the newsletter, local chapters also take this process seriously when organizing events: They seek their own way with curation.

Constructing Communicative AI as Journalism's Digital Future

Up to this point, the analysis has shown how Hacks/Hackers' model of curation works and the significance of the newsletter within it. On the one hand, the newsletter is the only means of curation through which the U.S. organizational elite can reach the various local chapters worldwide, becoming a kind of self-observational mechanism for the pioneer community. Its contents primarily comprise the activities of individual chapters, with local activities communicated back to the broader community. On the other hand, the newsletter is the main means of reaching additional individuals interested in Hacks/Hackers activities.

[6] In our field research, we were unable to determine the exact number of readers, nor do we assume that all 75,000 registered meetup members worldwide have subscribed to the newsletter.

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Therefore, an in-depth analysis of the newsletter is crucial to understanding both the inward sense-making and outward self-presentation of Hacks/Hackers. Consequently, the newsletter is the ideal data source for answering our second research question about the patterns through which Hacks/Hackers construct AI as journalism's digital future.

The development in the number of newsletters sent also reflects the life cycle of the pioneer community: While it was initially sent biweekly and peaked in 2020 and 2021 with 54 and 55 issues, respectively, the number has since declined to 33 (2022), 22 (2023), and 25 (2024). However, when examining the newsletter's development since 2017 from a more qualitative perspective, we observe a discursive shift from engagement with data to AI, with the latter being constructed in three steps as the digital future of journalism.

Dynamics of a Discursive Shift

Hacks/Hackers has emphasized data journalism from its inception, with the core idea of bringing journalists and technologists together to develop a new, future-oriented journalism. This vision is reflected in the first edition of the *Data Journalism Handbook* (Gray et al., 2012), in which many journalists closely associated with Hacks/Hackers participated. However, since 2017, there has been a noticeable shift in future-oriented discourse from data journalism to automated journalism. As the HH director of community stated in 2020, "AI and machine learning are kind of the current hot topic" (HH director of community, May 1, 2020). This shift is also evident in a word trend analysis (for methods, see Section 3).

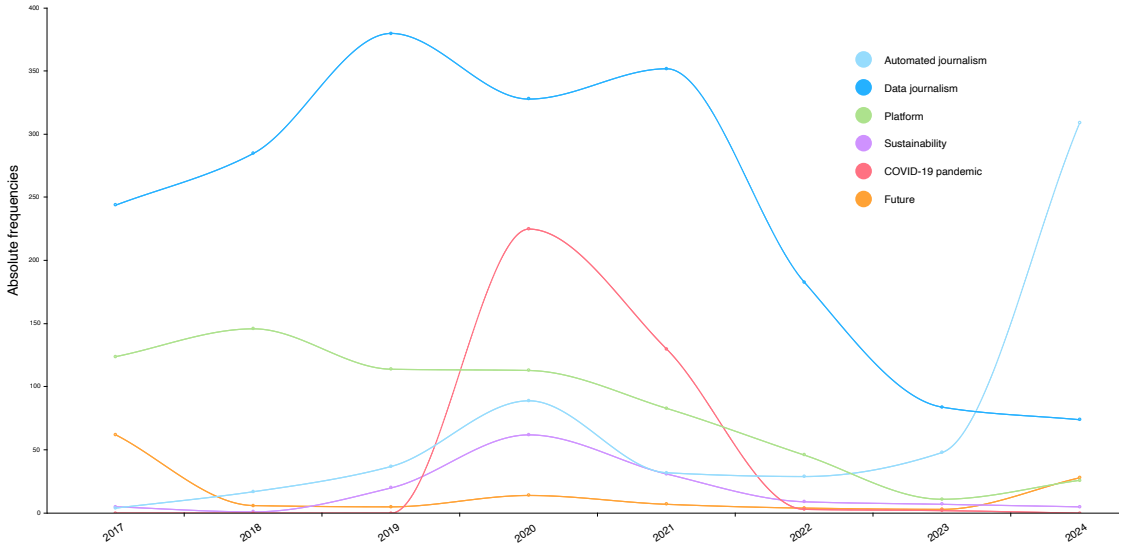

Figure 2. Trends of thematic clusters.

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Figure 2 shows the trends of the keyword clusters, such as "data journalism" and "automated journalism," alongside "future," "sustainability," "covid-19," and "platform." This highlights the discursive shift within the Hack/Hackers newsletter: In the early stages, data journalism emerged as a core topic, closely linked to an interest in social media platforms and a strong focus on the future. A peak in this regard occurred in 2019, coinciding with the high point in the pioneer community's life cycle. At the same time, interest in AI and automated journalism grew, along with a rising focus on sustainability, both of which reached a peak during the COVID-19 pandemic (2020).

The pandemic proved pivotal for several reasons: First, data-driven COVID-19 journalism dominated the conversation, overlapping with automation discussions and leading to a diminished interest in platforms. At the same time, sustainability (climate change, environment) garnered increased attention. Following the pandemic, another shift occurred: Interest in "data journalism" rapidly declined, while "automated journalism" rose to prominence, surpassing "platforms" and "sustainability" as major topics. Meanwhile, the "future"-oriented outlook that characterized the early phases of Hacks/Hackers has nearly returned to its original level of importance.

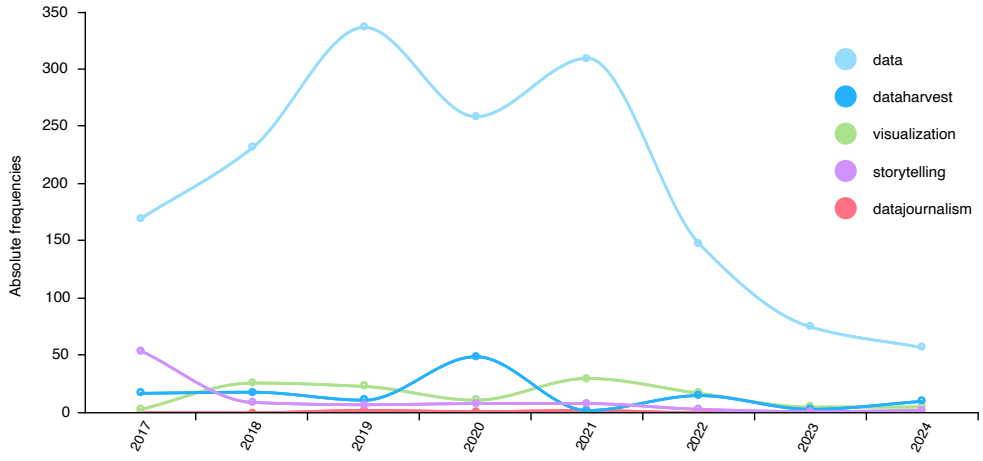

Figure 3. Cluster "data journalism"—top keywords.

These dynamics become even clearer when examining the two clusters: "data journalism" and "automated journalism." For the "data journalism" cluster (Figure 3), it can be seen that in the initial phase of Hacks/Hackers, the focus was predominantly on traditional aspects of data-driven journalism, such as "storytelling." Over time, this emphasis shifted increasingly toward "visualization," which is recognized as a core component of data journalism (Reilley & Sunne, 2022, p. 180–198). The term "data journalism" began to gain traction in 2018 as part of the newsletter. However, since 2022, the frequency of all keywords within the "data journalism" cluster has significantly declined.

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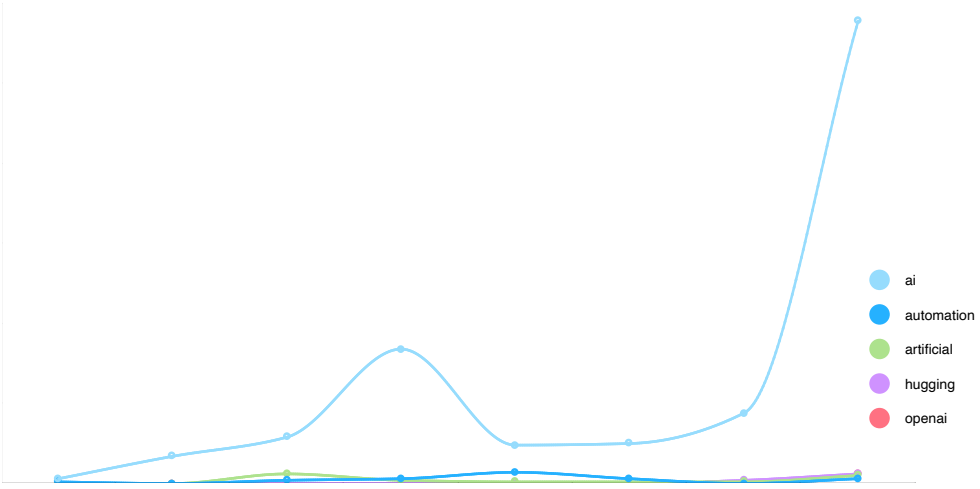

Figure 4. Cluster "automated journalism"—top keywords.

A detailed examination of the trends in the top keywords within the "automated journalism" cluster reveals significant aspects of the discursive shift in the Hacks/Hackers newsletters (Figure 4). Since 2017—well before the public hype surrounding OpenAI and ChatGPT (Bareis, 2024; Hepp et al., 2023)—there has been a noticeable increase in the focus on "AI" and "automation" in journalism. This focus reached an initial peak in 2020, which subsequently flattened because of the COVID-19 pandemic and the newsletter's shift toward other topics. However, interest in AI then rose slightly before experiencing rapid growth in the following months. This surge in the discourse surrounding AI prompted discussions about specific corporations and their AI applications, particularly Hugging Face (founded in 2016, known for providing computation tools to build applications using machine learning) and OpenAI (established in 2015, recognized for its GPT large language models and DALL-E text-to-image models).

Three Steps to Constructing AI as the Future

The shift from "data journalism" to "automated journalism" also manifests qualitatively. Three key steps can be identified in the construction of this digital future of journalism: First, the introduction of AI as an emerging trend; second, a consolidation that deepens understanding through illustrative examples; and third, the normalization of AI as part of everyday professional practice.

Until the end of 2018, AI was treated cautiously and tentatively in newsletters when discussed as a trend in journalism, often appearing as reading recommendations or early experiments. For example, a general editorial on the current activities of Hacks/Hackers references the Montreal chapter's activities in "experimenting with AI and journalism" (Hacks/Hackers, 2017a, Figure 5) and includes a link to the

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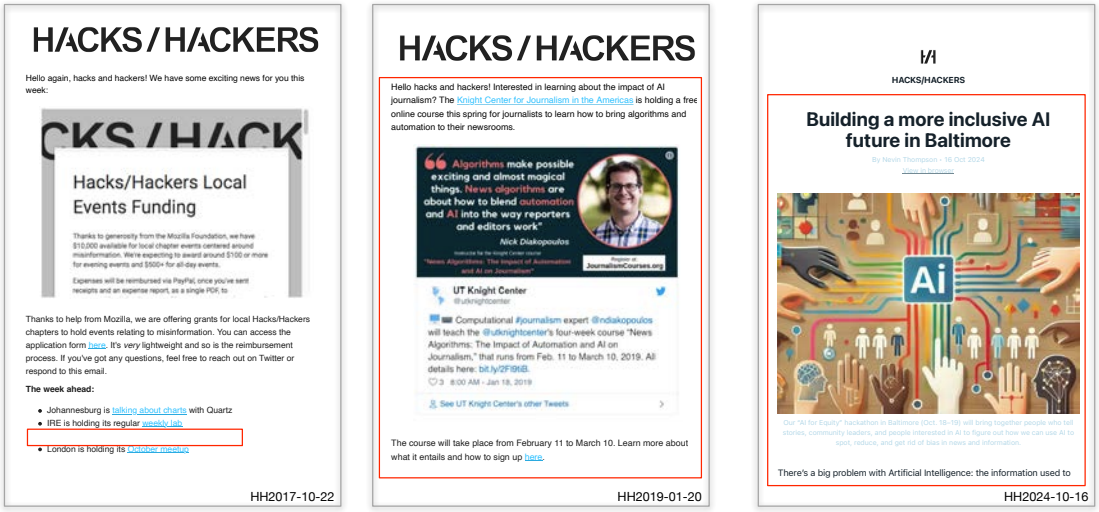
corresponding meetup. Another editorial mentions that the Boston chapter "is talking about the impact of AI on democracy" (Hack/Hackers, 2018c).

At this initial stage, reading recommendations are particularly important. Examples include a recommendation of a Newman Lab article discussing an AP report on best practices for automation in the newsroom (Hacks/Hackers, 2017b); another Newman Lab article on how "digital leaders" from the BBC and Al Jazeera are discussing the ethics of AI (Hacks/Hackers, 2018d); and a listing of the "AI and the News Open Challenge" finalists, presented as "what the future holds for AI and journalism" (Hacks/Hackers, 2018a). Additionally, a *Medium* article on AI-based automation in the coverage of the 2018 World Cup is highlighted (Hacks/Hackers, 2018b).

These recommendations collectively leverage well-known institutions and awards in journalism to underscore the importance and anticipated continuation of the trend toward AI. The newsletter also highlights job offers with profiles in AI, as well as individual funding opportunities. Although the newsletter remains largely focused on data journalism—AI and automation appear in only 10–20% of the newsletters—a preliminary vision is emerging that suggests that the future of journalism may lie in its automation through AI. However, the specifics of what this entails remain vague.



1. Introducing AI as a trend (2017 - 2019)
2. Consolidating AI through examples (2019 - 2022)
3. Normalizing AI as everyday practice (2022 - to date)

Figure 5. Communicative AI in the Hacks/Hackers' newsletter editorials (Hack/Hackers, 2019b).

The second step is consolidating AI through examples. From 2019 onward, coverage of AI and automation intensified, with approximately 50% of newsletters focusing on these topics. A pivotal moment is the newsletter editorial from January 20, 2019, which is entirely dedicated to AI and automation for the first time. This edition presents a "free online course [...] for journalists to learn how to bring algorithms

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and automation to their newsrooms" (Hack/Hackers, 2019b), offered by the Knight Center for Journalism in the Americas.

Subsequent editorials continue to highlight significant AI-related events and initiatives. For instance, the AI for Good Summit in Switzerland is promoted as a key event (which eventually took place online [Hacks/Hackers, 2020b]), and the Hacks/Hackers Buenos Aires Media Party is announced to include a talk on AI in journalism (Hacks/Hackers, 2020e). Additionally, meetups, such as the one in Zurich, focused on AI are advertised (Hacks/Hackers, 2020c), and the Local News AI project from AP, in collaboration with the Knight Foundation, is promoted.

Although communicative AI and automation are not yet central to all newsletter editorials, they are framed as increasingly important for the digital future of journalism. Repeated discussions and references contribute to the growing significance of these topics.

Many AI examples presented in the Hacks/Hackers newsletters come from experimental or even marginal areas of journalism, rather than legacy sectors. For instance, one reading recommendation highlights a *Medium* article by an "entrepreneur" and "data scientist" who created an Instagram account featuring machine-generated content about New York. The story also details how the "data scientist" automates requests to restaurants for free test meals, which he then reports on through his account—and, in most cases, he receives the meals (Hacks/Hackers, 2019a). Another example discusses a "fun experiment" in which a college student used GPT-3 to create a fake blog under a false identity (Hacks/Hackers, 2020d). Art is another area of experimentation, as seen in a *Medium* article about artistic AI tools (Hacks/Hackers, 2020b). Some projects are scientific, such as a blog post by Berkeley Artificial Intelligence Research discussing the optimization of machine learning using user data (Hacks/Hackers, 2020a). Other examples include a Financial Times article on the experimental use of AI to detect weapons in surveillance images (Hacks/Hackers, 2021c) and a Google blog post about the experimental use of AI for time- and location-accurate weather forecasts (Hacks/Hackers, 2021b).

In addition, reading recommendations often reference renowned institutions, particularly those within pioneer journalism. For example, one recommendation highlights a blog post by a professor of journalism at the London School of Economics and Political Science, which presents the JournalismAI Initiative and its global survey on the use of AI in journalism, supported by the Google News Initiative (Hacks/Hackers, 2019d). Another notable example is a blog post by the Knight Foundation discussing AI's role in automating content moderation at the Washington Post (Hacks/Hackers, 2019c). Additional recommendations include an artistic project by Harvard's metaLAB on the saturation of everyday life with AI (Hacks/Hackers, 2021a) and an article from MIT Technology Review examining the widespread use of communicative AI, noting that science has yet to fully understand how it works and the potential risks it poses (Hacks/Hackers, 2021a).

The examples so far illustrate how consolidation through specific examples occurs: While AI is not yet a firmly established practice in legacy newsrooms, the newsletter's coverage suggests that it is on the verge of becoming so. This vision of a digital future is consistently reinforced by references to relevant scientific advancements, successes at institutions within pioneer journalism, and, in the absence of examples

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from legacy journalism, successful experimentation in other domains. Additionally, job postings, events, and funding opportunities are frequently highlighted, reinforcing the impression that this vision of AI as the future of journalism is part of a broader, general trend.

The third step is normalizing AI as an everyday practice. By mid-2022, AI had become an integral part of journalistic practice, with widespread reporting and a major push occurring in 2023. By that year, communicative AI and automation were featured in nearly 68% of all newsletters, and in 2024, they appeared in 100% of the issues, with 18 of 22 editorials (as of December 2024) dedicated to the subject. Initially, communicative AI was often discussed in the editorials as a secondary topic, such as when it was noted that the Media Party Chicago featured AI-related talks with speakers from organizations like AP, BBC, and Hugging Face (Hacks/Hackers, 2023d), or when it was framed as one of several cutting-edge topics, alongside "generative AI, local news revitalization, misinformation and more" (Hacks/Hackers, 2023b). However, by 2024, the tone had become more emphatic (see Figure 5). For example, one editorial highlighted the "AI x Journalism House" organized by Hacks/Hackers at the South by Southwest conference in Austin, which centered around the question, "What might an AI-influenced info ecosystem look like in five years?" (Hacks/Hackers, 2024f). This suggestion—that communicative AI will fundamentally transform journalism—echoes through other editorials as well. A report at the same conference noted how "the CEO of German media group Axel Springer warned that journalists are at risk of being replaced by AI if they don't innovate" (Hacks/Hackers, 2024d). Civic journalism was also depicted as deeply altered by communicative AI, with discussions on building "tools for journalism and civic information by prototyping with open-source AI" (Hacks/Hackers, 2024a). Some editorials even predicted the end of the traditional web ("RIP Web") because now "AI is in your interface" (Hacks/Hackers, 2024e).

The reading recommendation topics align closely with the editorials, focusing specifically on journalism. For example, recommendations include "a summary of [AP's] 'local news AI'" initiative (Hacks/Hackers, 2023e), a Nieman Lab blog post predicting "how journalists will integrate ChatGPT and other AI tools into their workflows" (Hacks/Hackers, 2023c), and a report on the "Journalism AI Academy" from the London School of Economics and Political Science (Hacks/Hackers, 2023f). Additional recommendations feature an OpenAI blog post on preventing "OpenAI from scraping your pages" (Hacks/Hackers, 2023a), a Conversation article on how "newsrooms are experimenting with generative AI" (Hacks/Hackers, 2024c), and an article from The Journalist's Resource on the "future of AI and the news" (Hacks/Hackers, 2024g). These recommendations are further supplemented by references to job advertisements, though references to funding opportunities have largely disappeared.

These examples illustrate how the normalization of AI as journalism's digital future has unfolded: Communicative AI is now treated as an integral part of everyday professional journalism. The examples and reading recommendations no longer focus solely on experimental projects or peripheral domains within pioneer journalism, but increasingly originate from the core of the journalism industry itself. This shift is also evident in the institutions and sources of publication. In the editorials, the digital future of journalism is consistently depicted as one in which AI is deeply interwoven with journalistic practices. While some critical aspects are raised—such as concerns about corporate strategies like those of OpenAI and a recurring emphasis on open-source language models as a potential foundation for automating journalism—even these

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critiques are framed within a broader vision where AI now occupies the central role that data once held within Hacks/Hackers.

Conclusion: A Circular Amplification

As empirical analyses have shown so far, the curation of Hacks/Hackers operates through a model of continuously fostering interdisciplinary encounters (research question 1), resulting in a three-step process of "curating AI into being": introducing AI as an emerging trend, consolidating the vision through illustrative examples, and normalizing it. Concerning the third research question, it remains to be clarified what theoretical conclusions and broader reflections on sociotechnical imaginaries of digital futures we can draw from this.

To answer this, it is first crucial to summarize what curation into being entails based on the preceding analysis. While "talking into being" (Bareis & Katzenbach, 2022, p. 855) refers to the societal discourses that produce sociotechnical imaginaries, curation into being focuses on fostering specific, often radical visions. In pioneer communities such as Hacks/Hackers, this involves a set of practices centered on selecting and presenting what is perceived as the core of the community's vision. Since members of a pioneer community typically engage with a specific societal domain—in this case, journalism—these curatorial efforts are closely intertwined with the field's everyday practices. In this context, Hacks/Hackers can be seen as having prefigured the hype surrounding communicative AI in journalism. By framing AI as the digital future of journalism since 2017, the community contributed to shaping a discourse that, following the public hype (Bareis, 2024; Hepp et al., 2023) surrounding ChatGPT, became embedded within broader sociotechnical imaginaries.

The nexus at play here is neither one of prediction—where Hacks/Hackers would have merely foreseen a future development—nor one of invention—where it would be credited as the originator of communicative AI in journalism. Instead, it is a process of circular amplification characterized by a dual dynamic.

First, the empirical analysis shows how Hacks/Hackers, particularly through its newsletter, established an important "network forum" (Turner, 2006, p. 72) within pioneer journalism. In this forum, communication flows in two directions: inward and outward. Inwardly, the newsletter functions as a tool for self-observation within the pioneer community. By continuously reporting on events, discussions, and initiatives across various Hacks/Hackers chapters, these activities are made visible and open to negotiation among members of the pioneer community. Outwardly, the newsletter serves as a bridge between Hacks/Hackers and the broader world of pioneer journalism and the journalism industry at large. Since it is publicly accessible, external audiences—including journalists, technologists, and other stakeholders—can engage with its discourse and participate in shaping journalism's digital future.

These communication flows result in a first level of amplification: Through continuous circular self-referencing, the newsletter reinforces ongoing discussions within the community, strengthening existing themes and making them more prominent. By doing so, it not only solidifies Hacks/Hackers' internal discourse but also expands its reach, attracting a wider audience and further embedding these ideas into

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broader debates on journalism's future. However, we can also identify a second level of amplification. While the discourses within the Hacks/Hackers newsletter primarily represent the perspectives of a single pioneer community within the domain of journalism, similar discussions are unfolding in parallel across other pioneer communities. These communities, though distinct, contribute to the broader construction of communicative AI as a defining element of digital futures.

One notable example is Reboot (https://joinreboot.org), a pioneer community based in the San Francisco Bay Area. Dedicated to "reimagining techno-optimism for a better collective future," Reboot fosters discourse through various curatorial efforts, including its printed magazine *Kernel* (which draws inspiration from the Whole Earth Catalog), a website, and a newsletter (Hepp, in press). Such parallel curations create a second level of amplification where similar visions are reinforced and echoed beyond their original contexts. This broader, cross-community circulation of ideas strengthens the legitimacy and momentum of the discourse, further embedding communicative AI as a central theme in visions of journalism's digital future.

This circular amplification highlights the necessity for research on sociotechnical imaginaries to go beyond merely describing their emergence in public discourses. Instead, it is crucial to examine how they are actively reinforced by the visions of collective actors. These visions do not arise in a vacuum; they are curated into being, and pioneer communities play a central role in this process.

Therefore, if one seeks to critically interrogate the socially widespread constructions of digital futures from the perspective of critical media and communication research, it is important to include pioneer communities in the analysis. Their curatorial efforts shape, amplify, and sustain particular imaginaries, influencing not only their own networks but also broader societal understandings of technological change.

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