All the Other Directions We Can Go: Alternative Media Networks and their Infrastructures

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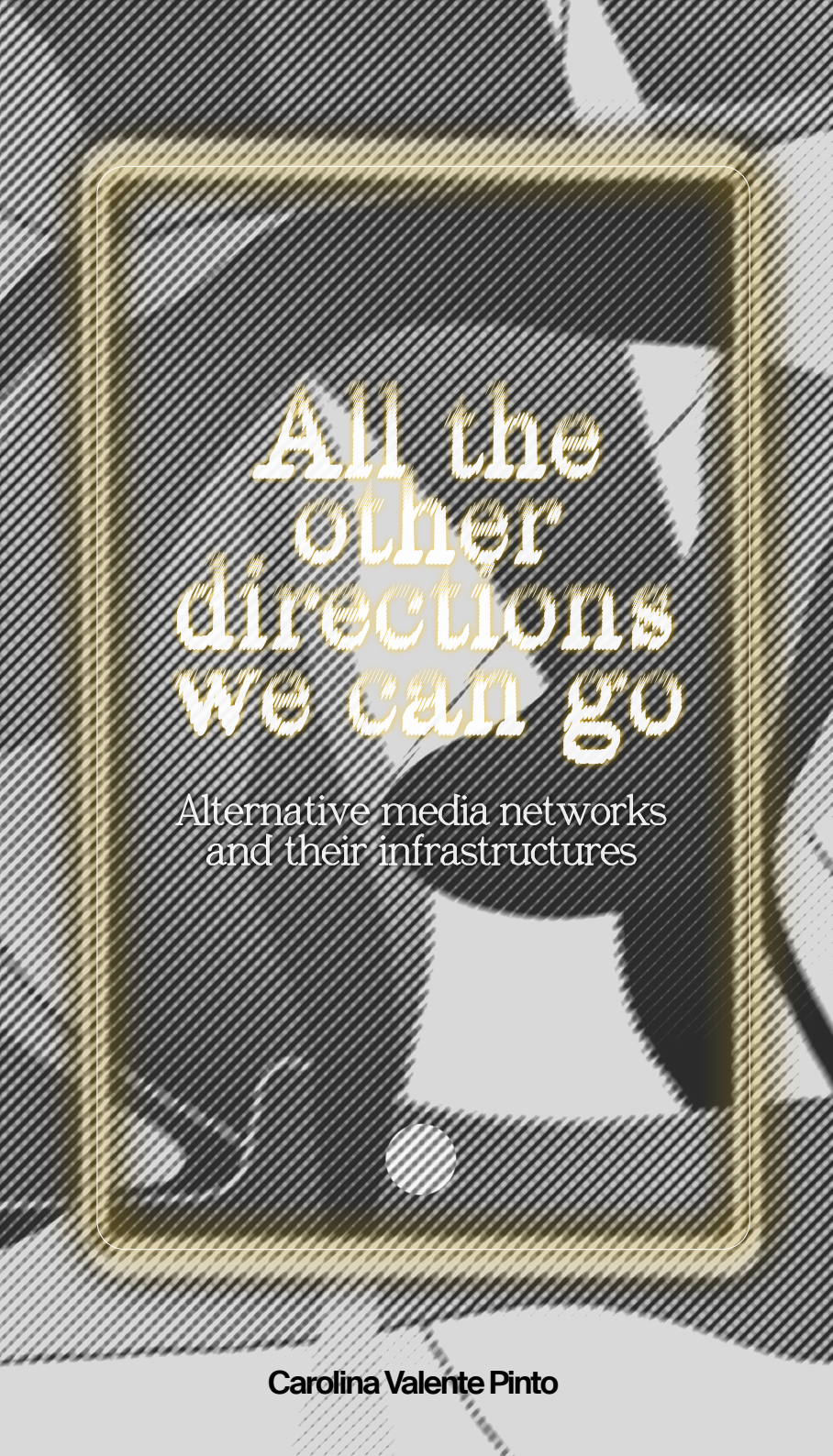
Publication date
2023

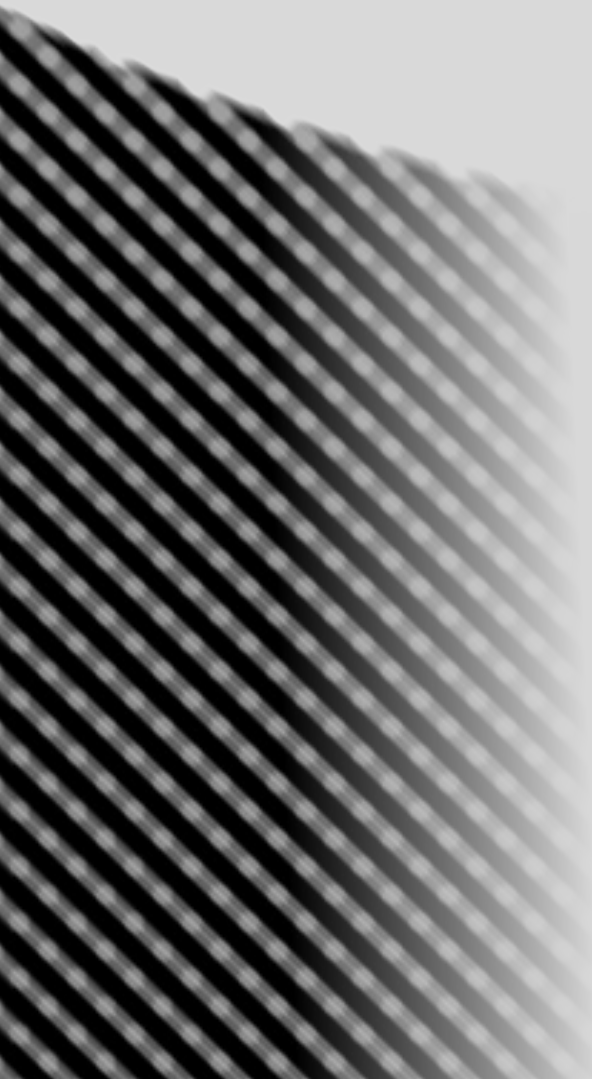
Document Version
Final published version



All the other directions we can go

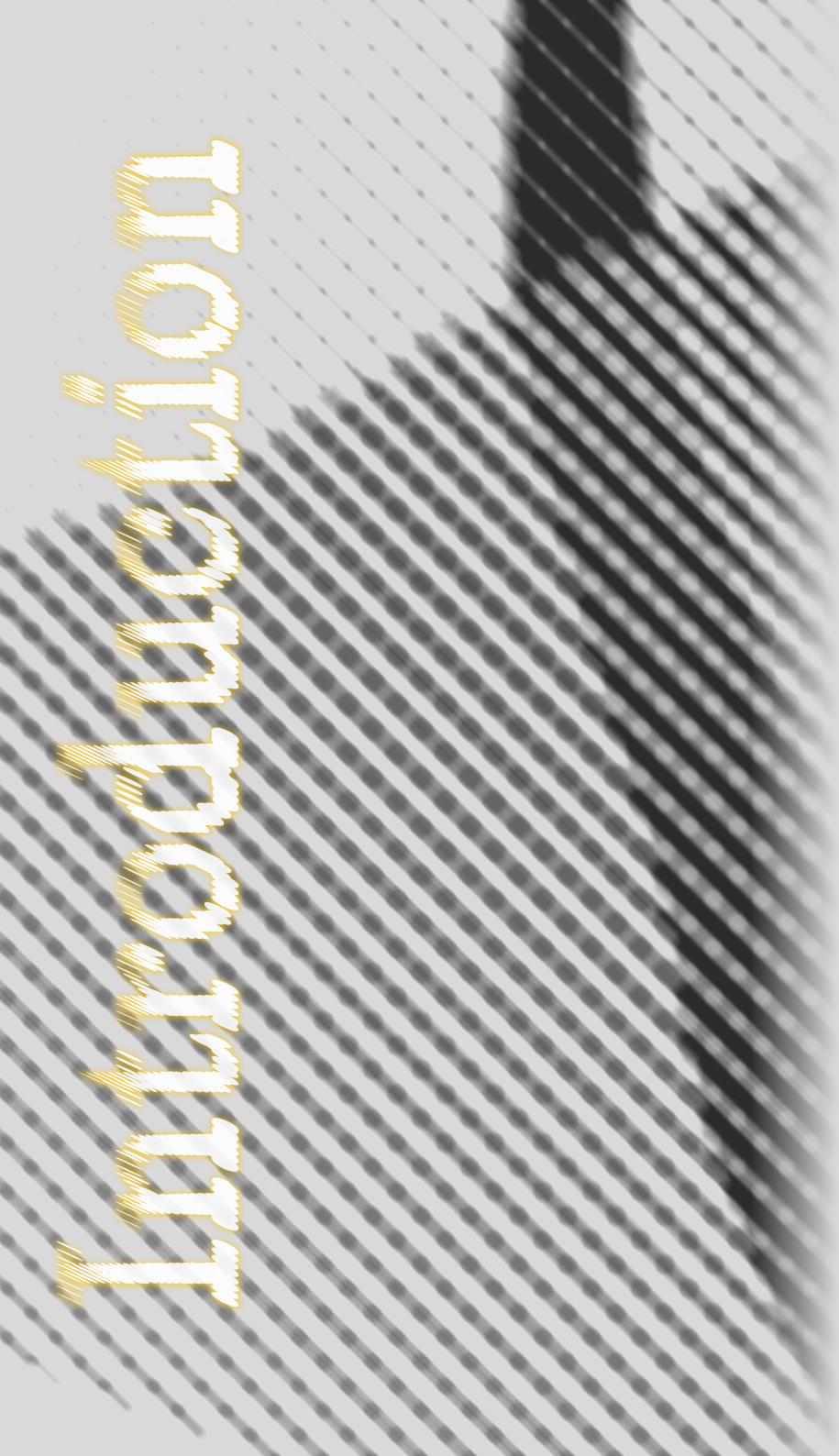
Alternative media networks and their infrastructures

Carolina Valente Pinto



"This is a dream not of a common language, but of a powerful infidel heteroglossia. It is an imagination of a feminist speaking in tongues to strike fear into the circuitsof the supersavers of the new right. It means both building and destroying machines, identities, categories, relationships, space stories. Though both are bound in the spiral dance, I would rather be a cyborg than a goddess."

— Donna Haraway, A Cyborg Manifesto (1991)



Networking, a practice that precedes digital technologies and is mostly rooted in collaboration and empowerment, now seems to be mainly moderated by biased artificial intelligence and infrastructural platforms, repeating hierarchies of power and presence. We find ourselves sustaining a network that is difficult to name, grasp, and care for. We depend on QR codes, on captchas, on passwords and infinite bureaucracy, on opaque agreements and fine prints that make us networked, make us citizens, efficient, and no longer imagining a future that does not come with a sharing button. This invisible technological infrastructure stands amidst a post-truth landscape of dying trust both in institutions[1] and in reality[2], creating users and lives that are cynical, skeptical, disembodied, and alienated. But was this the internet we had dreamt of, that was envisioned? From the visions for an infinite virtual reality of the free democratic world, away from the restrictions of centuries-old hierarchies and boundaries, comes a failing counterculture that turned the open networking dreams of cyber utopianism into a centralised platform universe[3]. So where do we find the glimpses of an alternative media landscape, where did the digital DIY hopes go, and are they being reinvented?

Rooted in alternative media practices stemming from countercultural movements and DIY (do-it-yourself) cultures in the later half of the last century, this research brings to attention initiatives that are happening in and around cultural organisations that centre not only alternative artistic production, but technologies and networks. I follow present-day alternative new media that actively counters mainstream platforms and strives for independent infrastructure and produces critical discourses around technology. By highlighting tools, methods

[1] Griffin, Hollis. 2021. 'Living Through It: Anger, Laughter, and Internet Memes in Dark Times'. *International Journal of Cultural Studies* 24 (3): 381–97 and Khaja, Yasmeen. 2021. 'Memes in Kuwait as Coping Mechanism for a Lack of Infrastructure'. In *Critical Meme Reader*. Institute of Network Cultures.
[2] McIntyre, Lee. 2018. 'Chapter 1: What is Post-Truth?'. In *Post–Truth*. MIT Press.
[3] Turner, Fred. 2006. *From Counterculture to Cyberculture: Stewart Brand, the Whole Earth Network, and the Rise of Digital Utopianism*. Chicago: University of Chicago Press, and van Dijck, Jose, Thomas Poell, and Martijn de Waal. 2018. 'News'. In *The Platform Society*. Oxford University Press.

and strategies that are used, this research assesses their impact and sustainability as alternatives to commercial structures. My main drive in engaging immersively and meaningfully with such media and networked initiatives was to understand the strategies they use and in what aspects of media production their interventions act on successively. Beyond a critique of platform dependency through showing initiatives that are countering it, I also wanted to critique and reflect on alternative media by engaging with its pitfalls, as "the old blind spots of both political activism and contemporary art thus carry over into contemporary DIY"[4], uncovering what drives alternative practices today, and reflecting on the strategies and processes cultural and artistic networks go through to achieve their objectives, focusing on the infrastructural, political, personal and organisational challenges they face. This assessment remains crucial if society is to become more critical of mainstream digital culture, and consequently embrace more alternative media approaches.

More specifically, I start by centring infrastructure as essential to media distribution and epistemic institutions, understanding platforms as contemporary infrastructural institutions affecting cultural production, under the unregulated neoliberal "platform capitalism"[5] that gentrifies the internet[6]. This paradigm is historicised following Fred Turner's work on how counterculture turned into cyberculture on the hands of New Communalists communities in the San Francisco Bay Area, combining "countercultural conception of community and a cybernetic vision of control into the system" led to a "technocentric form of management"[7] eventually originating internet corporations that became the social media platforms under mainstream use today. Moving towards visions and dreams of what the internet could have been, this work then situates countercultural and alternative media efforts, relying on zines as examples to

[4] Cramer, Florian. 2019. 'Does DIY Mean Anything? - A DIY Attempt (= Essay)'. *Anrikningsverket Journal*, no. 1.
[5] Srnicek, Nick. *Platform Capitalism*. Cambridge, UK ;: Polity, 2017.
[6] Lingel, Jessa. 2021. *The Gentrification of the Internet: How to Reclaim Our Digital Freedom*. University of California Press.
[7] Turner, Fred. *idem*

conceptualise cultural objects that form affective networks and communities, build group identity and are distributed in non-commercial oriented ways, identifying them as "commons-based peer production"[8], and that go beyond their object capacity by transcending dynamics of publication and representing discursive communication practices[9]. Performing a social function, the intimacy and shared sense on ownership over media productions makes up alternative media's "affective surplus"[10]. Continuing to interrogate infrastructure, alternative theoretical understandings then become key in the analysis, particularly when uncovering cultural phenomena and movements subversive of the platform dependency turn and thus advocating for technological sovereignty. Examples include Lovink's "tactical media"[11] and open-source software projects where "self-governing volunteers collaboratively produce public goods"[12], as well as more experimental and artistic projects that allow for online creative uses of new media and critical discourses of technology that create and speculate on alternative possible futures. The gateways opened by contemporary DIY media projects might then lie in understanding it as intersecting with other social movements, paralleling oppressive systems with oppressive infrastructures, while at the same time meeting challenges such as the tensions between ideological aims and pragmatic realities, as well as the affective labour asked from those under precarious economic realities.

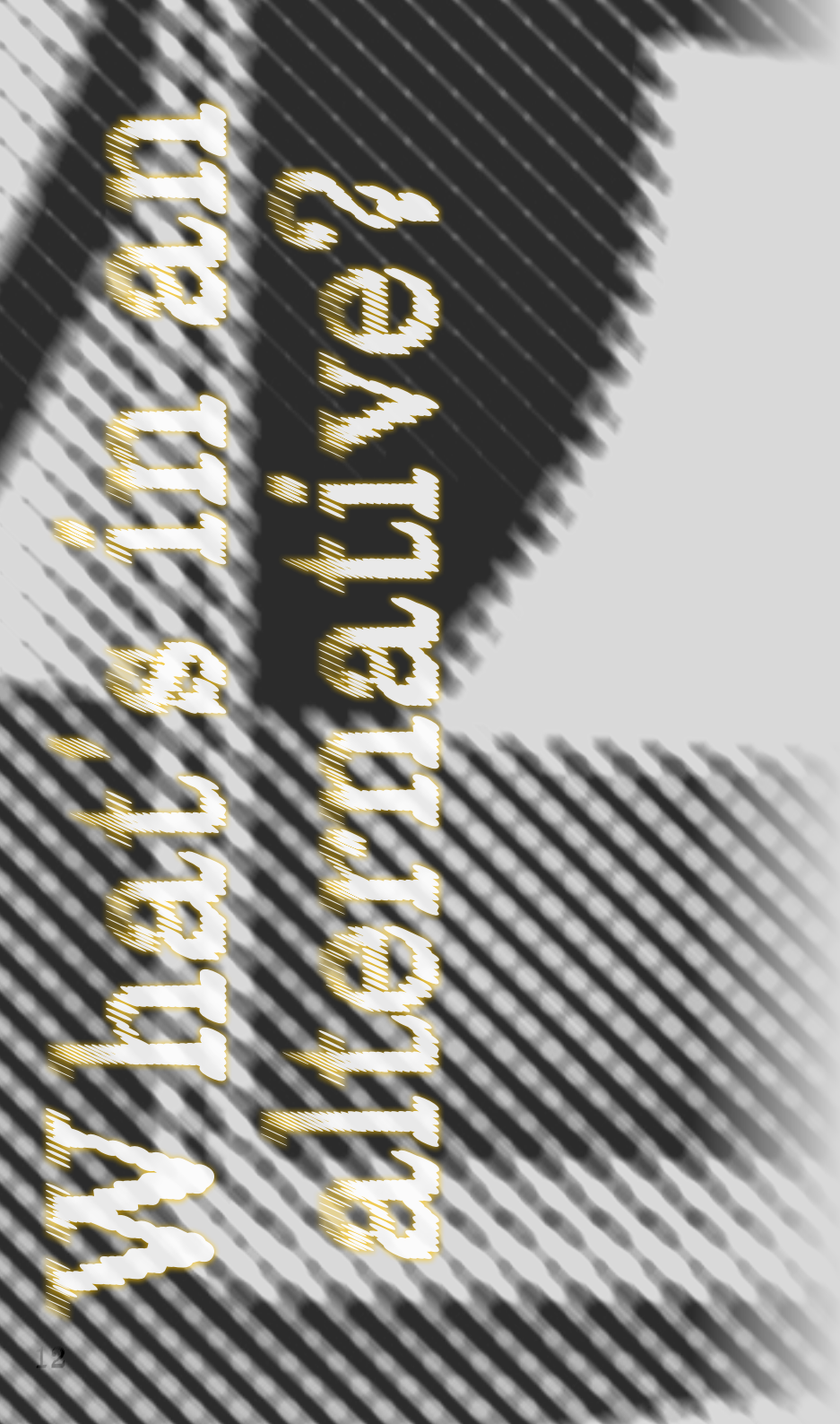
Asking what types of strategies and processes drive alternative media networks and their DIY infrastructures and how are those cultural projects changing online practices, this work puts in focus *A Tra[s]versal Network of Feminist Severs (ATNOFS)*. Founded in the beginning of 2022, this

[8] Benkler, Yochai. "Practical Anarchism: Peer Mutualism, Market Power, and the Fallible State."*Politics & society 41*, no. 2 (2013): 213–251.
[9] McKinney, Cait. 2015. 'Newsletter Networks in the Feminist History and Archives Movement'. State." *Feminist Theory 16* no. (3): 309–28.
[10] Berlant, Lauren. 2016 'The Commons: Infrastructures for Troubling Times*'. *Environment and Planning D: Society and Space 34* (3): 393–419.
[11] Lovink, Geert. 2002. *Dark Fiber: Tracking Critical Internet Culture*. Cambridge, Mass: The MIT Press.
[12] O'Neil, Mathieu, Laure Muselli, Mahin Raissi, and Stefano Zacchiroli. 2021. '"Open Source Has Won and Lost the War": Legitimising Commercial-Communal Hybridisation in a FOSS Project'. *New Media & Society 23* (5): 1157–80.

is a digital culture project and a network made up of organisations across Europe that interrogates "alternative engagements with digital tools and platforms", "in pursuit of an intersectional, feminist, and ecological impetus" for digital culture[13], with members coming from digital activism, design and art backgrounds, previously working with both speculative technologies and DIY infrastructures. Methodologically, I worked with an immersive and situated research method that aligns with the research subject, as the messiness and ad-hoc nature of DY "is best understood from within"[14]. I follow Lingel and Clark-Parksons and Lingel's call to adopt feminist reflexivity especially when studying alterity online, underlining the importance of close and direct engagement[15]. Methods to do so included participation in one of the network's meeting weekends, conversations with three organisation members and a qualitative analysis of various documentations — all of which allow to answer the research questions and go "backstage" into the processes driving alternative media.

Through understanding the tactics of cultural and artistic interventions in media and the way they shape "alternative media", we can begin to understand its limitations, in power, in resources, and in ideology. While recognising parallels with past alternative media expressions, this research argues that while contemporary DIY networks might be socially relevant and technically productive, they often lack efficiency and applicability outside of their sphere in cultural organisations. Although they might not reach the point of being infrastructural, these projects still signify changes in the types of epistemic infrastructures and infrastructural digital solidarity amongst the networks it operates in, an important gesture towards expanding platform independent and non-extractivist models that foster horizontal, stewardship approaches to think the internet otherwise.

[13] 'A Transversal Network of Feminist Servers'. 2022. European Cultural Foundation (blog). 10 February 2022. https://culturalfoudation.eu/stories/cosround4_atnofs/.
[14] Cramer, Florian. *Idem*
[15] Clark-Parsons, Rosemary, and Jessa Lingel. 2020. 'Margins as Methods, Margins as Ethics: A Feminist Framework for Studying Online Alterity'. *Social Media + Society 6* (1).



Before there are technical advancements and new features that open up infinite possibilities of transactions, networking or even purely mindless scrolling, there are visions and imagined futures that make up the internet. Despite the fast paced yet ingrained nature of digital culture, there is a history of these imaged futures that has led us where we are today, and this is not a history that necessarily starts by envisioning new media as QR code scanning apps, GPS tracking, targeted adds: this is a history of the internet as infinite decentralised possibilities, of the digital space as playground, as traversing time and space in a way that could make the real world obsolete.

Although this history is a long and tumultuous one, touching upon warfare, gender inequalities and infrastructure ecologies along the way, this section aims to focus on digital utopianism as conceived in the later half of the 20th century, rooted in the belief that that new media would bring about a more democratic, free and open society. Even though these visions might have stayed precisely that — dreams — they still resonate with contemporary imaginaries, both in mainstream and marginal spaces.

Cyber utopias and dependencies

This section aims to draws on concepts that illustrate contemporary platform dependencies that have arisen out of counterculture and cyber culture and that hinder or affect cultural movements and practices. Reaching their peak both in the United States and in Europe in the later half of the 1960's, counterculture in this historical context can be described as a reaction and active opposition to the normative social and political paradigms in place until then. In the US, this manifested in a pacifist and anti-hierarchal culture, "antithetical to the technologies and social structures powering the cold war state and its defence industries"[16], and yet paradoxically seeing in the technological advances

[16] Turner, Fred. *Idem.*

given by those industries “the transformation of consciousness as the primary sources of social change”[17]. In a history that dates back to the first instances of networked technologies during WWII (although they are not elaborated on throughout this research), links the 1960s U.S. countercultural utopias to the way it shaped 1990s digital utopianism, and to a larger extent, the internet we inhabit today. Shaped by New Communalist visions for society, that prized American individuality in an open landscape of endless possibilities where one can redo oneself and believed digital environments would offer the ideal setting for such utopian living, San Francisco individuals gathered in small communes that pushed for a higher consciousness in a technological context, linked by cybernetic notions of the world and society “as a single, interlinked pattern of information”[18]. Counterculturists’ such as John Perry Barlow believed that it was cyberspace that would free Humanity: “disembodied, nonhierarchical, high-tech”[19] was seen as the democratic and right alternative to both tyrannical governments and corporations.

An example of this networked logic surfacing around the 1990s laid in Turner’s work is the network WELL (Whole Earth ’Lectronic Link), a precursor of what would be today a social media platform, that took the counterculturists of the 1960s into a text-forum computer network system based on a subscription model. Because it was community-based and founded on utopian visions laid out by counterculture, there wasn’t any responsibility in the network itself, and so the WELL has the (almost) impossible task of balancing the paradox of the countercultural conception of community and a cybernetic vision of control into the system”[20]. Anti-hierarchal sentiments translated into a “technocentric form of management”[21]. In the virtual community, users and costumers were charged a monthly subscription that make each individual log-in seem free in the invisibility of automatic transactions, in the likes of contemporary counter-parts such as as Spotify or

Working computer with ARPANET connectivity, circa 1970.

[17]—[21] *Idem.*

Netflix, thus becoming “community members who help support corporate goals in many ways”[22] in the countercultural umbrella of the free cyberworld. Unfortunately, the same countercultural ideas for small scale commune living could not be applied as universally as hoped, and these discourses of cyberspace “simultaneously modelled and masked a new and very personal economic reality”[23].

Bruce Baumgart takes his robot on a tour of Al’s computer room.

Instead of escaping the techno-centric mainstream society that was forming, countercultural hippies turned to an attempt at reshaping it. This new economy, based on individuality and highly personalised features, is set in motion by the infrastructures we rely on today: digital platforms.

The lack (or fragile existence) of institutional unity in neoliberal systems ironically appropriates and thrives on a type of DIY production as business models[24]. British cultural studies scholar Stuart Hall already described this as “the new, vital forces of capitalism: the do-it-yourself conveyancers”[25]. Similarly to the WELL, distributing and individualising responsibility, social issues, and networks becomes key for platforms to succeed. I’s important to centre the ways in which platforms become infrastructures and thus institutions in themselves and the power inequalities that platforms generate, unlike Barlow’s predictions that technological solutionism would mean a less hierarchal society. Thinking of media production and institutions as infrastructure is central to this research, recognising it a part of a wider effort in media studies to recognise the materialities and knowledge production conditions in digital environments known as the “infrastructural turn”, that reflects on media information “from and within infrastructure”[26]. Moreover, I situate infrastructure as epistemological, forming “ways of knowing and

[22] Bell, David J, Brian D Loader, Nicholas Pleace, and Douglas Schuler. 2004. “The Key Concepts.” In *Cyberculture: The Key Concepts*, 16-177. Routledge.
[23] Turner, Fred. *Idem.*
[24] Cramer, Florian. *Idem.*
[25] Hall, Stuart. 1986. ‘No Light at the End of the Tunnel’, Marxism Today, 15.
[26] Anand, Nikhil, Akhil Gupta, and Hannah Appel. 2018. *The Promise of Infra-structure*. Durha ; London: Duke University Press.

ways-to-know"[27] through epistemic institutions such as museums, libraries and publishing platforms. In the way they give form, conduct and storage knowledge, infrastructures also influence the way that information is transmitted and receives, "are performative in the present, generating particular forms of knowledge that are taken up and built upon"[28]. Social media platforms have developed in digital culture as infrastructures, meaning that they embed themselves in other markets and industries as to provide technical and operational infrastructural properties[29], making these external parties dependent on the platform's integrations. This process isn't a symbiotic one — over time, platforms' expansion of boundaries and strategies of infrastructuralisation means that full control and access to data infrastructures develops "platform-partnership relationships are inherently uneven and asymmetrical"[30] — this, however, as been proven to be an effective platform strategy, partly due to efficiency, comfort and entanglements of platformisation that make it difficult to "disconnect" from platform infrastructures.

John Perry Barlow and Bill Gates at PC Forum, 1991.

The overwhelming presence of platforms in digital and web infrastructures wasn't always the case, but has grown exponential over the years — it becomes evident that this affects cultural production, since culture becomes dependent in obeying platform strategies and methods, and "content developers have to align their own business models and production and circulation philosophies with those of leading platforms"[31]. A clear example of how platforms affect culture lies in the recent developments in journalism, for example: an historically platform independent production that has now progressively become

[27—28] Munn, Luke. 2020. 'Thinking through Silicon: Cables and Servers as Epistemic Infrastructures'. *New Media & Society*, December.
[29—30] Helmond, Anne, David B. Nieborg, and Fernando N. van der Vlist. 2019. 'Facebook's Evolution: Development of a Platform-as-Infrastructure'. Internet Histories 3 (2): 123-46.
[31] Nieborg, David B, and Thomas Poell. 2018. 'The Platformization of Cultural Production: Theorizing the Contingent Cultural Commodity'. *New Media & Society 20* (11): 4275-92.

dependent on advertisement revenue and platform governance, by using them to distribute and monetise news content.[32] Journalistic values that have been crucial for a independent scrutiny of institutions, corporations and governments such as independency, impartiality or accuracy are put into question under the platform infrastructure: "As the content– audience–advertising configuration is unbundled and rebundled through platforms"[33], cultural production is then made dependent on monetising strategies and compliant on data mining and targeted advertisement.

As media networks constitute audiences and communities, the networks previously populated by active and participatory agents such as in alternative media become datafied and adapted to the interests and behaviours of platform users with the advent of platforms' infrastructuralisation — who, in turn, behave according to platform affordances. Networks and user communities are now moderated and recalibrated under platform logics and opaque algorithmic mechanisms, marking the "end of end-to-end"[34] technologies within cultural production, giving ground to a more polarised, opaque and algorithmic driven cultural production, alienating instead of empowering users. The cultural impact of this deemed "end" is also described by Jessa Lingel's recent work as "the gentrification of the internet"[35], paralleling digital and urban environments. This metaphor emphasises the role of infrastructures in embedding norms into digital culture, as the author identifies key features in urban gentrification present in online space: commercialisation, isolation, and "gentrified digital displacement" (when a platform's politics and aesthetics dominates the online landscape), displacing competing platforms or initiatives[36]. The "pre-made" imposed templates on online spaces impact cultural production and institutions, marking inequalities even more and perpetuating cycles of exclusion, since "Big Tech

[32—33] van Dijck, Jose, Thomas Poell, and Martijn de Waal. 2018. '*News*'. *In The Platform Society*. Oxford University Press.
[34] Gansing, Kristoffer. 2020. 'Introduction: Networks Means and Ends'. In *The Eternal Network*, 1st ed., 6-13. Institute of Network Cultures, Amsterdam.
[35—36] Lingel, Jessa. 2021. *The Gentrification of the Internet: How to Reclaim Our Digital Freedom*. University of California Press.

platforms cater to the middle, because the margins tend to be controversial and unruly"[37]. Impacts include a community and network that remains passive and without agency: we become networked rather than networking, in unequal and uneven power structures, and "under the calibrated eye of platform algorithms" [38]. Platforms' main incentive to become infrastructures is to create dependencies and so take over as many markets and industries as possible, as "platforms deploy partnership strategies to connect and integrate with organisations worldwide"[39]. generating more revenue. Similarly to other types of capitalist extractivism, platforms have found data as the prime "material" to harvest and monetise. These business have made use of data to sell user information to advertisers, beat competitors and control their labour force through surveillance tactics. In an illusion of user participation and networking, communities under platform regimes and their cultural production are likely to continue to obey and expand platform power. Under the often unregulated neoliberal market, this trend — what Srnicek coins as "platform capitalism" — is marked by its inequalities in production and labour, "laying the ground for the digital economy with flexible labour and lean economies"[40].

In the beginning of the 21st century, Chris Atton predicted an optimistic stance on how the internet would erode the binaries and polarities of "powerful and powerless, dominance and resistance"[41]. But as everyday operations and cultural production become dependent on corporate partnerships that solidify even further a platform's infrastructure, it seems that those polarities might be more enforced than ever. Thinking of mainstream platforms and their infrastructures as built on those cyber-utopian ideals of the New Communalists might bring new insights into some of the bias present in our networked mechanisms: for instance, the closed communes on similarly identifying individuals lead to the "soft

[37] *Idem.*
[38] Lovink, Geert. 2002. 'Requiem for the Network'. In *The Eternal Network*, 1st ed., 102–115. Institute of Network Cultures, Amsterdam.
[39] Helmond et al., 2019, *Idem.*
[40] Srnicek, Nick. 2017. *Platform Capitalism.* Cambridge, UK. Polity.
[41] Atton, Chris. 2002. *Alternative Media.* London: SAGE Publications Ltd

descriminations" experienced when navigating the web and contemporary apps embedded in the way programmes are coded[42]. As enterprise, platforms end up mining not just from users, but through the "precarious and exploitative nature of cultural and (immaterial) labour of both producers and end-users".[43] After cyber-utopianism, contemporary digital culture now faces techno-scepticism and cynical attitudes towards the internet from alienated users that don't see ways out of platform dependency — to counter this, Lingel identifies the importance of recognising more marginal, alternative and even "failed" online projects, as ways to imagine otherwise, envisioning how alternate paths could have been, so that users "turn feelings of scepticism and paranoia into a sense of power".[44] Resistance to infrastructural power might pass through diversifying networks, pushing for digital literacy, learning about policies and the epistemic institutions we navigate in, so that "we just might be able to topple Big Tech and build something better".[45]

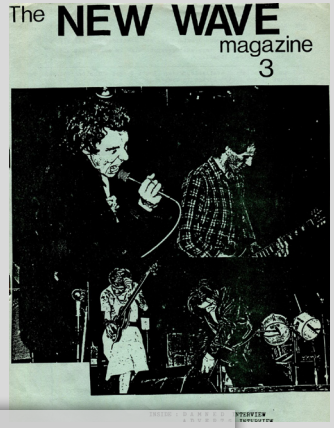
Alternative media & alternative modes of production

As cyberculture during the 1990's steered mainstream culture towards platform dependency, other directions were also taken, namely alternative media practices that continued to be fostered and that experimented with media and infrastructure in artistic and subversive settings. Steering towards the paths that did not merge into mainstream platforms is key to understand the digital culture landscape today, as they both influence one another through acts of refusal, countering, critique and reimagining. From avant-garde movements like Fluxus, to 1970's punk movements and consequent 1990's feminist post-punk, publishing has been essential to subcultural identities and dissemination. Within such alternative modes of distribution, this section zooms

[42] Turner, Fred, and Petar Jandric. "From the Electronic Frontier to the Athropocene: A Conversation with Fred Turner". *Knowledge cultures 3*, no. 5 (2015): 165-182.
[43] Nieborg, David B, and Thomas Poell. 2018. 'The Platformization of Cultural Production: Theorizing the Contingent Cultural Commodity' *New Media & Society 20 (11)*: 4275-92.
[44—45] Lingel, Jessa. 2021. *Idem.*

into zines' formulations as alternative media and cultural objects that form networks (communities), build group identity and are distributed in non-commercial oriented ways: articulations that become essential to continue understanding digital infrastructures and their countercultural expressions.

What can be called DIY culture is at the front of alternative media practices, past and today. Historical countercultural media shows that there are other voices but also ways of doing, they "spread alternative content, and alternative models of knowledge".[46] Alternative media is an umbrella term for DIY (do it yourself) productions with a low budget and providing counter hegemonic points of view.[47] Continuing on Gramsci's conceptions of counter-hegemonic, Chris Atton identifies how alternative media can be defined in connection to social movements, expressing positions against the dominant culture and social class. Conceptions and embodiments of alternative media can also show that peer production approaches to media are more about the form and discourses around organisational structures rather than just their content — politicising modes of knowledge production and "conditions of production, which are meant to allow democratic participation in making media"[48].



New Wave 3, 1977, UK.

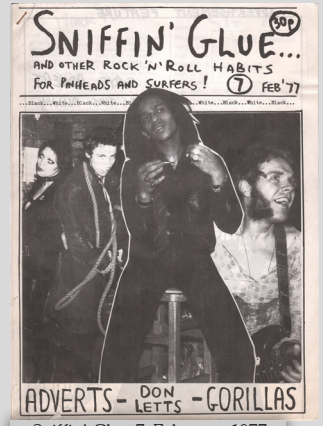
Zines inform networking practices as infrastructure, since both "zines and digital social networks produce similar affective networks and identity work",[49] in the way they produce like-minded cultural communities outside of mainstream institutions (although the contemporary digital culture as formed by platforms complicates these distinctions). These publications are also key in understanding alterity and marginality as resistance, and show a history of media with a focus on a feminist history of alternative media. In their non-commercial position, alternative media are part of an approach to distribution as commons, where resources are available to every member of a community, "generated through the free cooperation of its users"[50]. In this logic, labour is collective and media and other outputs from the community "are orientated towards the further expansion of the commons, while the commons are the chief resource in this mode of production"[51] in a circular, modular and decentralised fashion. Alternative media is, as exemplified by zines, often anti-capitalist and emancipatory, thanks to its collective production and interactivity in a "democratic-participant"[52] model that favours horizontal and non-hierarchical positions, and so ideal in a subcultural, countercultural and small-scale environment. Alternative media distribution, often involving collective action but also immaterial labour, takes on a collaborative approach that is "radically decentralised and non-proprietary"[53], where the act of producing and circulating media generates networks, as media objects go beyond their object capacity and become producers of an informative, sociable community, resulting in "group authorship" and "hyperlinked structures"[54], that become distributed ""networks of networks" of interpersonal relations".[55]

As objects producing affective networks, zines and other alternative media allow to rethink and reconsider networking in itself, as essential to feminist movements[56]. Of significance to note in relation to alternative media in their socio-political dimension is the type of individualised collectivity it fosters, offering group identity connections based on identity markers, specially since the emergence

[46] Atton, Chris. 2002. *Idem.*
[47] Bennett, Andy. 2005. *Culture and Everyday Life*. London; Thousand Oaks, Calif: SAGE Publications.
[48] Gehl, Robert W. 2015. 'The Case for Alternative Social Media'. *Social Media + Society 1 (2)*.
[49] Atton, Chris. 2002. *Idem*
[50] Cummings, Neil. 2018. 'Common'. In *Distributed*, 1st ed. London: Open Editions.
[51] O'Neil, Mathieu, Laure Muselli, Mahin Raissi, and Stefano Zacchiroli. 2021. "Open Source Has Won and Lost the War": Legitimising Commercial-Communal Hybridisation in a FOSS Project. *New Media & Society 23 (5)*: 1157–80 [52] Atton, Chris. 2002. *Idem.*
[53] Tkacz, Nathaniel. 2015. *Wikipedia and the Politics of Openness*. Chicago; London: University of Chicago Press
[54] Geert, Lovink. 2002. *Idem.*
[55] Lievrouw, Leah. 2011. 'The Roots of Alternative and Activist New Media'. In *Alternative and Activist New Media*, 28–71. Digital Media and Society. Cambridge, UK: Polity Press.
[56] McKinney, Cait. 2015. 'Newsletter Networks in the Feminist History and Archives Movement'. *Feminist Theory 16 (3)*: 309–28.

of the new social movements around the 1960's[57]. A history of feminist publishing at this time serves as example that zines become more than tools and are in themselves rituals and ways of mobilising, key to shaping politics, goals and meanings and transcending dynamics of publication, as they represent discursive communication practices[58]. It is zines' ability to act as a vehicle for marginal voices that can "perform a social function through bringing such individuals together"[59]. In fact, it is the kinship formed by zines that define them, according to Atton, who recognises this medium as a form of social relationship, shaped by the extremely personal nature of their content. Personal networks then become builders of group identity, through their affective character — and it's this capacity that connects individuals to networks and thus to socio-political causes. These type of forces — what Deleuze might call the "expressive formation that resonate and bounce off the bodies" — move dynamics and connections into action, through what can be seen as "affective homophily", or the capacity of "bringing people together through expressions of similar feeling"[60]. Together, the intimacy of homophilic networks around zines, the nurtured feeling of belonging to a promising disruptive community, and the shared sense of ownership over the means of communications makes up zines and other alternative media infrastructures' "affective surplus"[61].

Riot Grrrl letter response



Sniffin' Glue 7, February 1977

[57] Lievrouw, Leah. 2011. Idem.
[58] McKinney, Cait. 2015. Idem.
[59] Bennett, Andy. 2005. Idem.
[60] Sundén, Jenny, and Susanna Paasonen.. "Inappropriate Laughter: Affective Homophily and the Unlikely Comedy of #MeToo." *Social media + society 5, no. 4* (2019)
[61] Berlant, Lauren. 2016. 'The Commons: Infrastructures for Troubling Times*'. *Environment and Planning D: Society and Space 34* (3): 393–419.
[62] hooks, bell. 1989. CHOOSING THE MARGIN AS A SPACE OF RADICAL OPENNESS. *Framework: The Journal of Cinema and Media*, no. 36: 15–23.

Taking marginality as a "site of resistance"[62] countercultural movements thrive on inhabiting opposition, creating mediascapes in which to share marginalised views, while at the same time imagining and planning strategies towards inclusion.

Contemporary DIY: Gateways, challenges and precarity

Alternative new media practices have become largely associated with the so-called "alt-right" is an academic gap worth addressing, as it not only hides progressive and innovative media practices, as it increases platform dependency and normative media usages. Despite this notion, it is also worthy to note that the examples shown previously are not all of the scope in DIY or zine making, as it has historically included both extreme left and right, "with both fighting institutions and industrial capitalism"[63]. Subcultures organise themselves around critiquing the establishment, but when moving to the post-truth contemporary digital landscape, the complication lies in the fact that there is no agreement about what that establishment is — personalised algorithms select which news coverage we see, for instance — and what is "new in the post-truth era is a challenge not just to the idea of knowing reality but to the existence of reality itself"[64]. Platform mechanics came to accelerate already existing political issues, but subcultural movements have and continue to appropriate tactics of subversion, cynicism and irony in responding to the establishment. In the post-Trump reality, academic discourse on vernacular creativity has, for a large part, taken incendiary and even hateful expressions as a direct or even inevitable road when applying strategies of subversion[65]. Venturini (n.d), paralleling online conspiracy theories as following orality storytelling, shows that post-truth mechanics operating "online folklore" "appeal to a different system of sensemaking", and so complicate shared realities.

[63] Cramer, Florian. 2019. 'Does DIY Mean Anything? - A DIY Attempt (= Essay)'. *Anri–kningsverket Journal, no. 1.*
[64] McIntyre, Lee. 2018. 'Chapter 1: What is Post-Truth?' In *Post–Truth*. MIT Press.
[65] Nagle, Angela. 2017. 'Introduction + Chapter 1 + Chapter 2". In *Kill All Normies: Online Culture Wars From 4chan and Tumblr to Trump and the Alt–Right*. London: Zero Books.

This conceptualisation highlights the need to further understand contemporary alternative media usages, also outside of the alt-right sphere — what other "alts" are made possible and visible through the lenses of vernacular creativity, and how might they subvert the overwhelming presence of warfare online, creating instead of destroying?

Subversive infrastructures

Activist gestures towards a critique of the internet not only question its technical infrastructures but the hierarchies, authority and unbalanced relationships created by corporate technologies. In this context, it's important to consider the notion of "technological sovereignty" as a call to "affirm the autonomy of social movements through collective (and sometimes individual) control of technologies and digital infrastructures and especially their power to develop and use tools which have been designed by them and/or for them".[66] Initiatives to give groups ownership over tools also fosters the development to create alternatives to commercial technologies by questioning the technological cycle from resource extraction to social norms[67] as well as problematising notions of ownership in favour of stewardship.

A significant part of cyberculture as formed in the 1990s not only went into big commercial enterprises, but also experimented with the activist possibilities that new media offered. This development can be seen in twofold: in developing new ways of organising and decentralising social movements and activist causes through the "breakaway from the vulgar notion that media are merely tools"[68] and in developing new types of activism online that work with and through the new challenges offered by the novel cyber-world — for instance, Lovink's notion of "tactical media", as in "forms of DIY (do it yourself) activism made possible by digital technology and the Internet (…) expressed in festive forms of data nihilism, joyous negativism that resists reductive and essentialist strategies".[69]

[66] Couture, Stephane, and Sophie Toupin. 2019. 'What Does the Notion of "Sovereignty" Mean When Referring to the Digital?' *New Media & Society 21 (2)*: 1–18.
[67] Haché, Alex. 2014. 'La souveraineté technologique'. *Dossier Ritimo*
[68]—[70] Lovink, Geert. 2002. *Idem.*

Tactical media, through its sense of experimentation, can also be seen as predecessor to contemporary free software and open source culture, key values of this research's object of study, affirm against more classic notions of activism by saying "If I can't hack, I don't want to be part of your revolution".[70]
In its relation to utopia, queerness and ad-hoc approaches, tactical media is useful as it highlights and prioritises "temporary connections" and "hybridity", in opposition to radical marginalisation.

The important developments in open source software during the 1990s are situated as home users started to get more access to computers and the Internet, and as "self-governing volunteers collaboratively produce public goods".[71] These cyber-utopian visions for the digital space as public space included examples such as GNU/Linux, the LibreOffice project and Wikipedia. FOSS (Free Open Source Software) activists and developers bring forward, from the beginning on, the important idea of rethinking infrastructure and centring it in new media developments, bringing forward tool development and ethics. Their concerns with such aspects and involvement in shaping the internet are extremely important and often overlooked — and while this research will not go in depth into the history of Open Source, it's worth mentioning that, while mainstream platforms have developed and grew, alternatives to those infrastructures make up space in the digital landscape as well. On alternative social media, Robert Gehl identifies the key feature of "refusal to participate in the dominant political economy of the corporate Internet", pointing towards modes of production and infrastructure as essential to alternative social media. Like corporate social media, content features such as the like button are present while put in a different light: not to generate advertising revenue, but as "affective exchanges".[72]

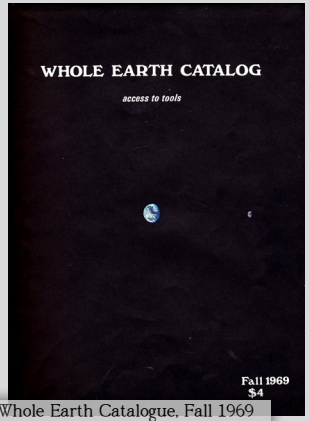
Past and current activist gestures of "refusal" are important to understand resistance from the margins, and are part of the digital landscape. Activist

[71] Neil, Mathieu, Laure Muselli, Mahin Raissi, and Stefano Zacchiroli. 2021. '"Open Source Has Won and Lost the War": Legitimising Commercial-Communal Hybridisation in a FOSS Project'. *New Media & Society 23* (5): 1157-80
[72] Gehl, Robert W. 2015. Idem.

texts such as The Invisible Committee's "Fuck Off Google" lay out the failures of cyberutopianism as well as tracing the manipulative nature in techno-solutionism: "having failed to create computers capable of equaling human beings, they've set out to impoverish human experience to the point where life is no more attractive than its digital modelling".[73] Acts of refusal against a certain digital imperative are described by Wyatt as communities of "rejecters", non-users that have been in contact with mainstream technology and yet choose not to engage with it, "in other words, people who choose not to use digital technologies, remind us all that things 'might have been otherwise'".[74] This notion is coupled with Lingel's call to de-gentrify the internet, imagining other kids of alternative paths that could have been. Another important feature of these acts of refusal lies in the kind of existential questions they pose to the internet and its infrastructures, stepping away from promises of constant connectivity or infinite storage as the desired online futures "just because it is easy to save digital information, should we always endeavour to save it?"[75]

Fluxus Manifesto


Indymedia Cuiabá in Free Radio SBPC, 2004



Whole Earth Catalogue, Fall 1969

De Digitale Stad

Art meets technology

Parallel to activist movements coming out of cyberculture, or perhaps alongside it, unique advancements in the types of imaginaries and visions for technologies are brought up by artistic and cultural projects, pioneers in experimenting with the limits and boundaries of what the internet is and what it can do — digital artworks can often be seen as embodiments of "tactical media" acting as tactics of "going against", "plating with terrain imposed to it"[76] namely mainstream or mass media. Apart from creating artworks and acting on and through new media, artistic and cultural movements have made use of the medium of the Manifesto as discursive practice that envisions and puts forward new ideas for the internet. Examples of early digital manifestos include Donna Haraway's "Cyborg Manifesto" (1991), quoted in the Introduction of this research, Richard Stallman's "GNU Manifesto" (1985) as seminal call to action in open-source movements and, although not containing the term, the important cyberutopian piece by John Perry Barlow

[73] The Invisible Committee. 2015. Fuck off, Google.
[74] Wyatt, Sally. 2008. 'Challenging the Digital Imperative'. Inaugural Lecture, Maasricht.
[75] Idem.
[76] De Certeau, Michel, Fredric Jameson, and Carl Lovitt. 1980. 'On the Oppositional Practices of Everyday Life'. *Social Text, no. 3*: 3-43.

"A Declaration of the Independence of Cyberspace" (1996). Artist manifestos precede digital culture, with multiple examples in the avant-garde art movements of the 20th century. Digital culture manifestos are not only artefacts for understanding alternative imaginaries for new media but also function as "technology to establish certain practices, values and commitments"[77] and as an epistemological tool shaping knowledge production about and on the internet. As subversive discursive tool, the manifesto has been significant in radical feminist visions for technology, that oppose normative technological structures, envision speculative alternatives and can serve as starting point for actions: "radical feminist manifestos diverge, diffract and iterate in a way that seeks to intervene upon the reproduction of technological oppressions and establish new epistemological modes".[78]

Enacting utopias can then be done through creativity, as built on Burgess'[79] conceptions of the term, that frames creativity as a process combining both available resources or references and remixing them in novel and affective ways, useful to rethink "pure" forms of culture and binaries of mainstream and subcultural. An interesting example of artistic and cultural utopias enacted can be seen in the Dutch 1994 digital project "De Digitale Stad" ("The Digital City"), where each user navigated a metaphorical city online in an embodiment of an independent and free cyber-world, and where it was "simultaneously sender and receiver, independent of control by traditional media or official bodies"[80], part of a wider community. Experimental new media may also open possibilities for subversion and subsequent creation, literacy and further dialogue — humour, for instance, may not take solely a cynical or ironic approach but rather seen as "political possibility" stemming from participatory cultures that encourage literacy and active agency instead of passive consumerism.[81]

[77] Foster, Ellen K. 2020. 'Histories of Technology Culture Manifestos: Their Function in Shaping Technology Cultures and Practices'. *Digital Culture & Society 6 (1)*: 57–84.
[78] Idem.
[79] Burgess, Jean. 2006. 'Hearing Ordinary Voices: Cultural Studies, Vernacular Creativity and Digital Storytelling'. Continuum 20 (2): 201-14
[80] 'Life in the Digital City'. 2021. Het Ontwerp van Het Sociale. Het Nieuwe Instituut.
[81] Jenkins, Henry. 1992. T*extual Poachers: Television Fans & Participtory Culture*. New York, NY, USA: Routledge.

Possibility in this sense can also be described as indexes for "collective transformation and social change"[82], where subversive tactics not only critique established and dominant ideologies but unmake, remix, appropriate and circulate. Muñoz' conception of "disidentification" comes as a glimpse into what this might mean in vernacular creativity: unlike a complete refusal of hegemonic culture, disidentification as politics works "on, with, and against dominant cultural forms"[83], highlighting humour as queer resistance to norm and seeing utopias as possibility and solidarity. Acknowledging a lack of shared reality in a post-truth world, imagining and then enacting new worlds becomes both comforting and imperative.[84] Disidentifying with hegemonies of high tech and platforms as infrastructures allows for reconsidering alternative approaches, "focusing on everyday technology means questioning the hierarchies that surround technical objects"[85], as well as opening up possibilities and inventions through and beyond utopia.

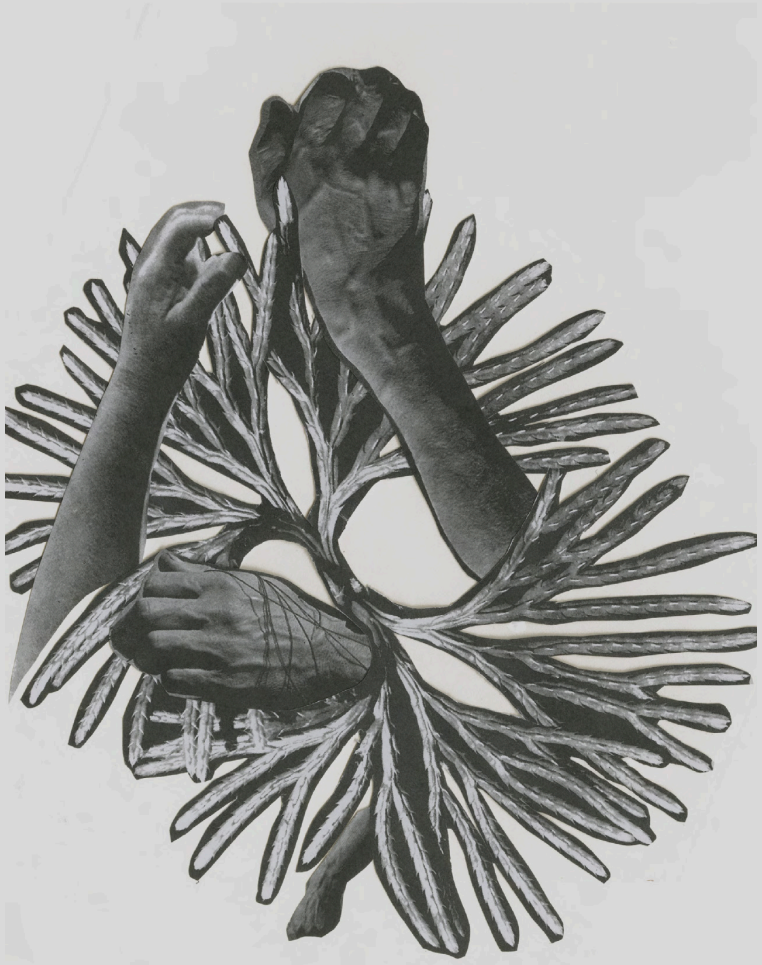
The ideals and the process

But these processes are not without tensions, and contemporary DIY faces, if not similar challenges, the consequences of the ones described in the earliest section of this chapter. Platon and Deuze's field research in Indymedia journalism shows the difficulties lived through the process between utopia and reality and complicating boundaries of alternative and mainstream media: while activist and alternative media had "different ways of coping with ideological or ideal-typical journalistic principles (like truth, ethics and inclusive storytelling)"[86], they share with commercial (or platformised, in contemporary times) media publishing questions

[82] Shrodes, Addie. 2021. 'Humor as Political Possibility: Critical Media Literacy in LGBTQ+ Participatory Cultures'. Reading Research Quarterly 56 (4): 855-76.
[83] Munoz, José Esteban. 1999. *Disidentifications: Queers of Color and the Performance of Politics*. Cultural Studies of the Americas, v. 2. Minneapolis: University of Minnesota Press.
[84] Idem.
[85] Lorusso, Silvio. 2021. 'Everyday Technology Press' In *Vernaculars Come to Matter, (Re)Orienting Language and Technology*, 1st ed. Varia: Rotterdam.
[86] Platon, Sara, and Mark Deuze. 2003. 'Indymedia Journalism: A Radical Way of Making, Selecting and Sharing News?' *Journalism 4 (3): 336-55*

and problems. Interesting to take into account from their research are the ever present negotiations of different axis between ideology and practice, and access and process — where the anti-corporate and decentralisation sentiments of open publishing coexist with moderation and governance, raising questions of hierarchy, accessibility and sustainability. Surprisingly, it seemed that independent media centres were sometimes closer to mainstream media than they aimed to be, while at the same time offering tools and methodologies beyond their political and ideological drivers. Further challenges seen in Indymedia and that are important to highlight is the way alternative media centres community work, usually translated on voluntary labour. Commons-based peer production depending on common ideologies, allow for rhetorics of care and community in which “gifts can come back to participants not as money, but as reputation, artistic pleasure or friendship”[87]. In cultural environments centring collective work, the tendency for care to shift into a precarious situation for those “who care for” can happen swiftly. However, these challenges can be taken upon with new infrastructures and methods, when recognising its shortcomings.

Recognising the “affective energy” and labour[88] between imaginaries and production can put forward regenerative frameworks that deal with the issues surrounding precarity and emotional labour in alternative media. The new gateways for a contemporary, critical and sustainable DIY web will come with recognising the pitfalls experienced in past movements, learning to reinvent infrastructures and literacy, and reflecting on the effects that platform power has when shaping digital activism under its mechanics and logics, while keeping in mind the current vernacular strategies in place online and how can be appropriated for a betterment of culture. What alternative media will we build?



[87] Turner, Fred. 2009. ‘Burning Man at Google: A Cultural Infrastructure for New Media Production’. *New Media & Society 11 (1-2):* 73-94.
[88] Nikunen, Kaarina. 2019. ‘Producing Media Solidarities’. In *Media Solidarities: Emotions, Power and Justice in the Digital Age*, 39–62. 55 City Road: SAGE Publications Ltd.

In its immersive and personal approach, this research follows a methodology stemming from feminist reflexivity that actively and throughout the whole research process works toward "deconstructing power and co-creating knowledge".[89] This is present not only in analysing the case study but in the overall project, for instance in recognising historical and situated contexts that shape contemporary practices today and in the way that the analysis structure followed conversations with participants. In order to study DIY or alternative practices, adopting an immersive research approach allows for not only a deeper understanding of the research subject, as the messiness and ad-hoc nature of DIY "is best understood from within, since it includes personal involvement and entanglement".[90]

To be reflexive is also to insert oneself and reflect on one's position as researcher, highlighting the empowering and empathic possibilities when personal stories are able to exist in conversations about DIY culture, self-organising and countercultural efforts. Past cultural studies efforts in studying subcultures and alternative media have highlighted the "importance of letting people speak of their histories for themselves and the power of weaving together their individual stories"[91], and recovering oral histories and personal recollections can be way a to "challenge the structures of the status quo"[92], including the formal structures that facilitate and dictate research, pushing boundaries of creative approaches to research. Employing reflexivity is not only a more resonant approach, "distinct from simple reflection by moving beyond just 'thinking about' an object to a 'continuing mode of self-analysis and political awareness"[93], but further complicates the research process and my position as researcher — in this case, immersiveness becomes an asset but

[89] Hesse-Biber, Sharlene Nagy, and D. Piatelli, (2012). 'The feminist practice of holistic reflexivity'. In Sharlene Nagy Hesse-Biber (Ed.), *The handbook of feminist research: Theory and Praxis* (2nd Edn). Thousand Oaks, CA: Sage.
[90] Cramer, Florian. 2019. Idem
[91] Robinson, Lucy. 2019. 'Zines and History: Zines as History'. In *Ripped, Torn and Cut: Pop, Politics and Punk Fanzines From 1976*, edited by Subcultures Network. Manchester University Press.
[92] Idem.
[93] Hesse-Biber and Piatelli, 2012. Idem

also a hinderance, when power is shifted in a flexible way, in a perpetual negotiation between interrogation and questioning, but also "recognising participants' agency and resistance".[94] While feminist reflexivity and feminist philosophies of science highlight the importance of situated research that counters assumptions of neutrality, this doesn't eliminate the importance of rational knowledge, rather seeing it as a "process of ongoing critical interpretation among 'fields' of interpreters and decoders".[95] Furthermore, focusing on and researching through situated knowledges means to seek partiality for the sake of connections, serendipity and community, as "the only the only way to find a larger vision is to be somewhere in particular".[96] The topic of alternative media and feminist subversive practices remains urgent to think futures of digital cultures, and observing reflexive and feminist methods remains urgent to think the future of new media research — and this approach was chosen to hopefully contribute to more sustainable, human, and critical ways to develop academic institutions.

With the frameworks described above in mind, this research takes on reflexivity as employed in immersive and collaborative research methods to not only analyse online and public material from the case study but to engage directly with some of its member-organisations. The direct engagement was done in two phases and ways: first, I attended a workshop weekend that marked the first iteration of ATNOFS' programme and research; and secondly, I conducted interviews with some of the network's members. It is relevant to note that my attendance at the workshops coincided with my role as researcher in Het Nieuwe Instituut, National Museum for Architecture, Design and Digital Culture, in a project that was invited to participate as it deals with feminist and decolonial approaches to archives and heritage. I took this opportunity to learn from the network and meet new people, and found myself switching from active participant to researcher multiple times, alongside other practitioners and researchers, confirming that in immersive

[94] Idem.
[95] Haraway, Donna. 1988. 'Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective'. *Feminist Studies 14* (3): 575-99.
[96] Idem.

approaches "the participant and researcher serve as 'co-participants' in the process of constructing meaning and knowledge"[97], in entering a communal space. During the workshop days, research strategies mainly involved immersive participation and observation, which highlights complexities in roles and embodied research methods. Rooted in ethnographic disciplines, Thanem and Knights retell their experiences and challenges: "I continually found myself negotiating my access to the company and to people in the company as well as my role in the field and my own embodied presence and absence" — the researcher as participant is sometimes standing in one place in particular, but that place is constantly shifting. Furthermore, the role of the researcher in immersive methods means that not only we are observing, but are being observed, and our actions have consequences to the group's behaviour and thus the data taken from the research.[98] Serendipitous and open approaches are also a way to centre curiosity as "embodied, sense-making operations that are fundamental to human experience and action"[99] welcoming unexpected research findings and allowing the participants to find "ways to resist and subvert the power structure that is inherent in the research process".[100]

In the interview process, this research engaged with different types of "unstructured" interviewing, such as feminist, active and creative methods. In addition to focusing on subcultural communities and bringing forward "the lived experiences and voices of groups that have traditionally been excluded from the knowledge production process"[101], feminist research also transforms the process into a conversation on "telling about experience"[102], approaching the conversations beyond pre-made structured thematics and questions. These methods have the potential to look beyond a researcher's gaze and counter power relations, experiencing interviewing

[97] Linabary, Jasmine R., and Stephanie A. Hamel. 2017. 'Feminist Online Interviewing: Engaging Issues of Power, Resistance and Reflexivity in Practice'. *Feminist Review 115* (1): 97-113.
[98] Thanem, Torkild, and David Knights. 2019. *Embodied Research Methods*. SAGE Publications, Ltd.
[99] Stevenson, Michael, and Tamara Witschge. 2020. ;Methods We Live by: Proceduralism, Process, and Pedagogy'. *NECSUS* 9: 22.
[100] Linabary and Hamel, idem.
[101] Thanem and Knights, idem.
[102] Idem.

as an encounter that establishes common ground through active listening, maintaining an academic rigour within such immersive contexts: by listening to participants carefully and thoroughly, bias relating to proximity to the research subject can be countered, as it avoids focusing on questions and assumptions too much. This type of mixed method approach between participation, interviewing, and content analysis remained central to the analysis process, and so it entangles throughout it — knots and connections were made between lived experience, conversations and observations, in order to tell a narrative that both complicates but contextualises the different modes of operating in alternative media practices.

In order to research and engage with alternative media projects challenging mainstream infrastructures happening today, A Traversal Network of Feminist Servers (which will be referred throughout this work as ATNOFS) was chosen as case study as it embodies several criteria of relevance in digital culture today, representing an ongoing alternative media initiative that can offer space to reflect on DIY infrastructures and the processes driving them. ATNOFS can be defined as alternative media, meaning they challenge hierarchies of access and are intentionally counter-hegemonic; employ vernacular creativity and artistic experimentation in their process, goals and interventions, making use of contemporary new media strategies around digital native vocabulary, often in a subversive and/or playful manner; are collective and communal, meaning they operate in and for a community, involving dialogue, diversity and multi-vocality in their collective decision making throughout their interventions; and actively operate as cultural organisations challenging institutional knowledge and production.

The key aspects and hindrances that take place between the network's goals and their accomplishments and the analysis on the member-organisations was done two-fold: on one hand, the material published online as distributed will be observed and dissected; on another hand, I attended the first workshop meeting in March 2022, after which some members of the network were interviewed in order to confront the online material and public voice of the project to everyday issues and challenges throughout the process. Therefore, the online material analysed was the server's landing page, some of its Etherpad documentation, radio broadcasts transcriptions, and other tools used for the network's constitution.

The member-organisations approached for interviewing were Constant, based in Brussels, HYPHA, from Bucharest, and ESC, operating out of Gratz, Austria. From Gratz, Autria, ESC provides "their expertise as a media art laboratory which facilitates encounters between artists, scientists, theoreticians and programmers from the most varied disciplines"[103], as well as important historical perspective into digital utopianism as it was founded in the 1990's. Constant, based in Brussels, is an experienced organisation dealing with multiple programmes, publications, and exhibitions, thinking about alternative infrastructures and building them for years, working with feminist research approaches in questioning "how technological tools and initiatives developed as a counter response to the authoritative and capitalist logic widely present in the computer tech sector can align with colonial and patriarchal frameworks"[104]. HYPHA, an organisation in Bucharest and host of the second meet-up, highlights connections to local communities and activists "around self-managed technologies and open-source alternatives to corporate surveillance"[105] with hacktivist attitudes. By aligning these three different perspectives and localities, this research tackles the different strategies, struggles, and goals of an alternative media network and infrastructure.

[103] A Transversal Network of Feminist Servers 2022 website
[104] Idem.
[105] Idem.

What is 'A Traversal Network of Feminist Servers'?

As alternative media practice and project, A Traversal Network of Feminist Servers (ATNOFS) is “a collaborative project that aims to explore alternative engagements with digital tools and platforms”. ATNOFS was initiated in the beginning of 2022 as a shared experiment between small, local and new media centred organisations in several countries around Europe, namely the Netherlands, Belgium, Austria, Romania and Greece. Already aligned and connected through alternative networks of media art, experimental publishing and open-source software, these organisation saw the urgency of providing alternative infrastructures to the digital landscape amidst a total online transition in cultural organisations during the COVID-19 pandemic and beyond, highlighting the importance of strengthening collaborative networks to continue to explore ways to counter the centralised and commercial platforms and providers. ATNOFS sets out to provide a framework to promote and inspire further counter efforts to big tech in cultural production and digital culture. The public debate they wish to begin revolves around questions of engagement with new and subversive digital tools as well as creating them collectively by keeping self-hosted and self-organised online spaces at the core of their priorities. This concern highlights how alternative media practices keep agency, peer support, control and safety as high priorities, aligning with DIY values of self-sustainable and self-reliable networks. To further continue this analysis, it is important to understand the meaning of each term in the project’s title, as ATNOFS signifies a distributed and generative network, and where each member-organisation’s histories and practices influence the project. The title also provides a further framework to come back to the project’s goals and objectives, as the research progressed in its different stages — by combining the project’s public material with workshop participation and interviewing, this research analyses the narratives that construct the field of alternative media practices and how they align with its everyday practice.

Traversal / Transversal

The term "traversal" is defined by "an act or instance of traversing" — which, as action, signifies "to go or travel across or over", "to move or pass along or through ''. It is, suitably just like new media, an ever-shifting notion that is neither static nor belonging solely to one locale, context or person. It is interesting to note, however, how ATNOFS public online material shifts between two words — in some instances referring to "traversal", in others, "transversal" which on the other hand is defined by "a line that intersects a system of lines'' . ATNOFS as a network can be seen as both, it is intersecting or acting upon a system (the world wide web and its infrastructure) but conversely also an ongoing gesture that is moving through that very system — perhaps not so much as a line, but a distributed network of lines. Nevertheless, the "traversal" dimension of ATNOFS refers to the travelling nature of the server at the centre of the organisations' research and practice. The server becomes plural through its different iterations, as the project uses that infrastructure to document, build and communicate the several 2-day live events hosted in each member-organisation, collecting knowledge and generating tools and publishing methods that will eventually collide into one publication about the project and its process.

Because of this expected output, ATNOFS refers to each iteration hosted in the different cities as "chapters". The nomad nature of this travelling server speaks not only to an artistic creativity in subverting a monolithic institution, but also to a need of re-thinking servers as polluting and extractivist infrastructures in data mining and earthly resources. By building a small, travelling, not always connected server, ATNOFS aims to bring both social and environmental sustainability to a digital culture project, adopting a "low-tech" approach, a set of technological practices that "involve some form of technology that has a limited environmental impact"[107]. These characteristics, however, create other types of technical dependencies as the server relies on technical expertise to be connected and turned on between travels. Despite this, the server'ss travelling nature highlights a decentralisation that is typical of alternative media and subcultural practices, that prioritise a collective rather than individual ownership of projects.

[107] Valk, Marloes de. 2021. 'A Pluriverse of Local Worlds: A Review of Computing within Limits Related Terminology and Practices' *LIMITS Workshop on Computing within Limits*, June.

Network

As laid out in previous sections, ATNOFS is a network made up of media organisations across Europe whose practices have been concerning alternative digital culture, media arts, open-source technologies and publishing and media literacy. ATNOFS represents an infrastructure and framework to house the strategies and methods employed at each organisation, as well as a space in which they can be furthered, improved, or expanded. Highlighting the importance of revitalising the term "network" in a post-digital world, ATNOFS rethinks networks imaginaries beyond a platform society, "whether referring to the multiple histories of networks, and/or going beyond networks in their current, established form(s)".[108] In this context, we may also think how the term "networks" brings to the digital landscape forms of communality and collectivity, common in DIY and subaltern communities. The network in ATNOFS is not only the "path" through which the server travels, but also a representation of the nodes that each chapter represents to the project. This term is also interesting to think through lenses offered by this research's theoretical framework, in contrast to the 1990s utopian conceptualisation of network as an organising yet liberating social force with the current networked culture sponsored by Silicon Valley.

[108] Gansing, Kristoffer. 2020. 'Introduction: Networks Means and Ends'. In *The Eternal Network*, 1st ed., 6-13. Institute of Network Cultures, Amsterdam.

Perhaps the most intriguing part of the project's title is the last combination of words, "feminist servers" — what is a feminist server, how is it different from others, how does it operate? ATNOFS understands "server" as "a computer that can be connected to the Internet, run a website and provide file storage"[109]. In a first instance, the member-organisations refer to the server's disruptive nature by serving as a research tool in itself and as a support system of their documentation. The term "feminist server" stems from traditions of cyberfeminism as well as data feminism, and ATNOFS' server is directly inspired by A Feminist Server Manifesto, a text written collectively that outlines and imagines what a feminist server could mean. It followed discussions during the event Are you Being Served?, housed at one of the member-organisations, Constant, in 2014. In an interview for Haus der Elektronischen Künste Basel, Femke Snelling underlines the importance of practising and researching feminist technology, by developing new methods, imagining new futures, and understanding what "feminist technology can be, but also how it can be done"[110] emphasising praxis and tool-making, and reflecting on the relation between "service" and "server". The phrase Are you being served? questions whether a particular service, technology and the people behind it are serving all users, pointing to an implied exclusion of some in favour of others, questioning what parts of technology are not yet catering to particular bodies and identities. Bringing forward notions of disidentification, this signifies a provocation against current modes of operation in mainstream technology and the identities of those operating it, highlighting a potential imbalanced power dynamic between server/served. Beyond identity politics, the manifesto leaves out other inequalities, for instance in literacy, as abilities to "be served" by technology or act upon it.

The manifesto also acts as cultural object, and more particularly as "a tool for establishing new epistemological ground towards world-making"[111], in an artistic expression refusing and opposing technological assumptions of seamlessness, efficiency or speed.
Although the manifesto acts mainly as a conceptual starting point for imagining feminist technology, it does open possibilities for applications in the choices server users can make. A Feminist Server Manifesto is a short series of one-line sentences that describe this imaginary-possible object: Based on this manifesto and its imaginaries towards what

A feminist server...

- Is a situated technology. She has a sense of context and considers herself to be part of an ecology of practices
- Is run for and by a community that cares enough for her in order to make her exist
- Builds on the materiality of software, hardware and the bodies gathered around it
- Opens herself to expose processes, tools, sources, habits, patterns
- Does not strive for seamlessness. Talk of transparency too often signals that something is being made invisible
- Avoids efficiency, ease-of-use, scalability and immediacy because they can be traps
- Knows that networking is actually an awkward, promiscuous and parasitic practice
- Is autonomous in the sense that she decides for her own dependencies
- Radically questions the conditions for serving and service; experiments with changing client-server relations where she can
- Treats network technology as part of a social reality
- Wants networks to be mutable and read-write accessible
- Does not confuse safety with security
- Takes the risk of exposing her insecurity
- Tries hard not to apologize when she is sometimes not available

Feminist Server Manifesto.

[109] 'A Transversal Network of Feminist Servers' 2022, website
[110] Snelting, Femke, Spideralex, and Sollfrank, Cornelia. 2018. Forms of Ongoingness: Interview with Femke Snelting and Spideralex. Video.
[111] Foster, Ellen K. 2020. 'Histories of Technology Culture Manifestos: Their Function in Shaping Technology Cultures and Practices'. *Digital Culture & Society* 6 (1): 57–84.

could a feminist server be, ATNOFS is a project that travels and documents its process on a self-built server, that the network named "Rosa". Rosa will be the term used from now on to describe the infrastructure at work during ATNOFS' chapters, as it was in this way that the member-organisations refer to it. A Feminist Server Manifesto already refers to the then-future server as "her", assigning the feminine human pronoun to the system, focusing embodied technology as central to a feminist technology. The tension then lies on striving for the machine as a body yet refuting the body as a machine. These concerns are part of ESC's plans for Rosa's stay in Austria:

> *So everything that's political, that is technical, that is social [...] everything goes by the body. And if we extend that to technology, which I think is super, super important, we can also think of all these things with, you know, like availability, always functioning, always present, [...] it's as if we were machines, we treat ourselves as if we're machines. So if we think that the metaphor of that, of the feminists, whoever that is, that which is situated and which is not always functional and not always available, that can be like a, it's kind of a back door entrance.*
>
> Interview with ESC, Austria.

Rosa was built by Rotterdam-based organisation Varia, that also hosted the first chapter of the project and introduced the other organisations to Rosa, a small portable server that hosts all of ATNOFS activities: it is accessed through Varia's own server that acts as a hub to Rosa. As host for communities and organisations, Rosa can be here understood as a countercultural type of infrastructure, using its affective capacity to become "a form of social relationship"[112] as well as technical device: Rosa aims to be "a safe social space of learning, speculating and exchanging knowledge that questions technology and its dependencies within the systems it is embedded in"[113]— reflecting the way that ATNOFS is providing infrastructure for organisations while questioning the functions that technological infrastructures have and the way they act on networks.

[112] Atton, Chris. 2002. Alternative Media. London: SAGE Publications Ltd.
[113] 'A Transversal Network of Feminist Servers' 2022, website

Technological access and technological literacy

I was late when the first session kicked off – I got lost in the middle of Rotterdam areas I was unfamiliar with. I ran into the space, where everyone was being introduced to Rosa and her backstory. The coffee breaks would have to do to compensate missing the introduction. Nervously, as I recognised faces I admired and yet tried to not pay attention to, I log in to Rosa's landing home page, as I recalled the Radio broadcast from a few days before, allowing myself to be situated, while listening carefully and juggling my hats of participant and researcher. For now, listening ears a mug full of coffee.

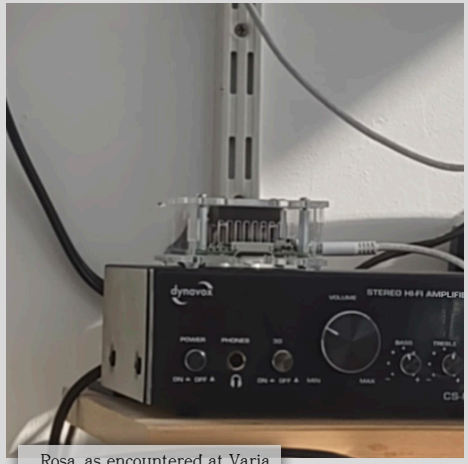
ATNOFS aims to intervene in digital culture mainly on an infrastructural level, as it is immediately present in the title of the project. ATNOFS' approach to infrastructures lies in Haraway's call to "staying with the trouble", as they actively question the invisibility, smoothness and the (proclaimed) neutrality of platforms as infrastructures dictating digital culture today. Shifting to a focus on infrastructure in new media research allows us to question technical choices in the light of societal and historical decisions that influence it: focusing on infrastructure means to reflect on the impact that technology has in everyday lives, in everything we do, coded and invisible. How do they impact sociality, and who controls the systems, hidden and in plain sight? In its activist dimension, ATNOFS moves infrastructure from purely technical decisions to rooting it in systematic forms of power, privilege, and oppression. While centring infrastructure as a site for tension and change can empower users, it still remains an often inaccessible space for those without technical skill sets. The challenge for alternative media practices like ATNOFS remains in the balance between access and literacy, and what tactics to employ to tackle such barriers while building a critique of infrastructure.

In their countercultural and DIY approach to the internet and subsequently building their own infrastructures, ATNOFS realise and work on Rosa using technologies that purposefully respond to the mainstream infrastructures they oppose to, creating mediascapes of tools and methods that embody

the Feminist Server Manifesto, thus relying on that series of lines as “ideological scaffolding” to live in such landscape. All tools and infrastructures are carefully thought out, discussed, collectively agreed on (in different ways and incorporating different tensions), theoretically grounded. Rosa was named after two women activists: Rosa Parks (1913—2005), American civil rights figure and central in the Montgomery bus boycott, and Rosa Luxemburg (1871—1919), Polish philosopher and anti-war marxist revolutionary and activist.

Rosa Luxemburg

Rosa Parks



Rosa, as encountered at Varia.

What I first wanted to know was where was Rosa – a Varia member pointed her out. There she was in a corner, a silent effective Computer, on top of a shelf, about the size of a wifi router. Once I got the landing page link right on my computer, I saw the ASCII art spelling "rosa", with links to different Etherpads and file managers. But it's not time yet, first we got to read the code of conduct: detailing expected behaviours such as openness, generosity and empathy.
It was difficult to cover such wide yet delicate grounds with my assigned buddy of five minutes before– so we started talking about each other's practices. The conversation led to talking about inclusive technology. There we were, all highly educat–ed people speaking of inclusivity and multi–vocality in digital culture, but what if you can't get a computer at home to follow classes on Zoom? What is our role, then?

Stemming from its feminist understandings and ethics of situated and embodied technology, Rosa asks from its users to question what makes up our networks to the very core, from the processing chips and cables used to build it, to the softwares it supports, to the way it is made visible, to its presence online: mainly because of its ad-hoc, makeshift and sometimes undefined nature. Inside the parameters of the manifesto and a basic technical infrastructure, Rosa is very much open to interpretations, usages, changes, but also meta-questions of existential nature, that often lead to more questions and possible speculations. The attention given to conceptualising Rosa makes it a discursive communication practice[114] rather than purely infrastructural, although taking notions of what "network" entails both from a computer engineering logic and feminist analogue publishing practices (such as zines or newsletters), but where mostly "a network is a conceptual model for imagining a kind of utopian feminist politic"[115]. ATNOFS gestures of refusal against infrastructural invisibility foster reflections on how structures drive everyday interactions and systems, and how to imagine their future otherwise. In a interview on speculative technologies, Constant members point out how it's important to make infrastructures visible and actively rougher, particularly as it is a media dimension difficult to critique: "infrastructures are effective when they invisible, and often only interrogable when

[114] McKinney, Cait. 2015. 'Newsletter Networks in the Feminist History and Archives Movement' *Feminist Theory 16* (3): 309–28.
[115] Idem

broken"[116] — yet, it remains particularly crucial to shift narratives and expose infrastructures as much as possible, since "we see that it's when those tools and those infrastructures blend in […] they do their most violent work, cementing norms, making things possible for those who live according to the norm, making things hard for those who are not normative"[117].

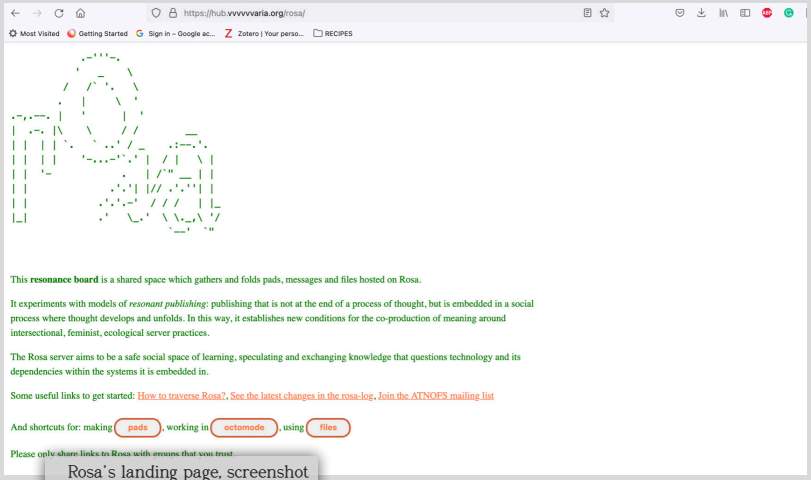
In a conversation for this research with ESC media lab, the tensions between functionality and discourse are present in the very first reflections about a feminist server project: "What does a server need to be functional? Because if it's the thing alone… If nobody connects to a server, is it a server?"[118]. Although, in a later stage of the conversation, conceptual and discursive abilities are made more relevant — staying purely in the technical can often lead to techno-centric solutions, a pitfall in countercultural efforts in the past, by applying the same logic as mainstream platforms in a different setting. Highlighting the conceptual may also mean to take a step back and allowing oneself to question the very core of technology, and thus perhaps make more elementary and ethical changes:

I think [the way we talk about technology is] too much technical and not conceptual enough.
So what I mean by that is that because we think of it in the same way as we think of all the other internet services that we need, this is like, you know, I would rather even compare it to, let's say electricity. […] We're so used to having electricity all the time,[…] And this being used to, it produces a strange way of thinking about as if we had a right to have access to it. And I'm not talking about the political right to have a good infrastructure, which I think everybody should have, and we should fight for that in solidarity with the whole planet so that everybody has clean water and safe, you know, like a certain minimum of living standard, but I feel and I fear that people have this… it just has to be there. So there's, they don't understand that it's a systemic question that these infrastructures have to be built and maintained and taken care of and, and yeah. [It should] be something that we are responsible altogether to actually work.

Interview with ESC, Austria.

[116] Interview
[117] Interview
[118] ESC Interview

Reflecting on servers and technological infrastructures, ATNOFS member Hypha does not put aside the fact that, despite the important conversations on systems and their materiality being extremely important, projects such as these are still embedded in a larger infrastructural ecology and economy “of all the other internet servers we need”. Nevertheless, the fragility of applicability circles back to the discursive strength of the project, particularly in a pedagogical sense in educating future generations and each community. At a time of political turmoil in Europe, the need to “know” becomes even more important, predicting possible future scenarios of failing systems, governments and peace:



Rosa’s landing page, screenshot

So I'm a bit sceptical about the ability of servers. […] In the end, you still use an Internet infrastructure. You need an IP, you need the providers. You need electricity. you're still in the same system. So it's not like you are escaping anything by using [alternative servers]. But I think the knowledge that you gain and the way that this knowledge can be can be used to to coagulate something or to to bring people together. I think this is the important part of the server. So the way that people can organise better. At least whatever they want to, to do in terms of activities, activism and so on. So in a way, I think the role of the server is to, uh, to gain knowledge regarding what technology is, how it is used. How do you build it? What are the steps? So this knowledge is really important. It might not be essential right now, but it might become essential in the future.

Interview with HYPHA, Romania

As tool, a server needs users, a way to communicate, a platform to be seen through: Rosa’s landing page mirrors the Manifesto lines in that it “opens herself to expose”[119] the different components it offers, and it doesn’t rely on sleek renders and shiny images. In an experimental and digital DIY aesthetic, the page is simply a white background behind green letters. The ASCII letters are the most graphical component of the page, referencing early net art aesthetics that, although stemming from earlier typewriter art and coming from the ASCII (American Standard Code for Information Interchange) standard of 1963 and used by hackers throughout the next two decades, it reached its popularity in the 1990’s. ASCII art can also colloquially refer to any net text-based art, working by arranging letters and punctuation of the ASCII character set[120] until pictures or graphical elements are made visible. Beyond being nostalgically transported to the utopian visions for a cyber space where anyone could develop themselves, text-based aesthetic such as Rosa’s landing page also show to be a modernist example of McLuhan’s “the medium is the message” (1964) — in that it works on and about technology, in an intersection between the artistic and the purely technical, in almost extreme self-referentiality that aims to foreground,

[119] “A Feminist Server Manifesto”, 2014
[120] Galloway 2016

even in its visible components, the invisibility behind them, where “the true subject of the work is infrastructure — the cables and lines, the standards and protocols, all the industrial transfer technologies that reside in the space beyond the screen”[121]. The goal behind these referential aesthetics might also be to underline the importance of historical perspectives and experiences that have for long seen media technology with other lenses. ATNOFS is an inter-generational group, including members that have worked with tactics of hacking and creative uses of technology in order to question normative infrastructures, during pre-internet and early internet times:

> *This is maybe why I'm more sensitive to everything that's infrastructure, because I've been part of building one app and have also been part of building the community radio up here. So I, I know, and that also ESC would not exist if it weren't for the people who founded it. […] So I have experience in that. And I think for people who've started living when that already was here and accessible, it's a lot harder to imagine.*
>
> Interview with ESC, Austria.

This landing page is named a “resonance board”, as a way to show how it signals not only an unfinished past web, but also an ongoing process and collective learning, how it might never be finished. In this page, we are presented to Rosa’s basic components, the main tools used in the project to grow the knowledge fostered by it — these tools and pieces of software are what makes up ATNOFS infrastructure: technical, cultural, social, research. In this way, infrastructures like ATNOFS can become practices of digital activism that connect to “infrastructural solidarity”[122] and networking as feminist practice when looked at from their practical possible applications, contributing to empowering social movements and people, particularly when it comes to local communities and groups. Other activist reflections of a self-hosted server are present in the ways in which it counters corporate and state surveillance, exploring encryption and other opacity and counter-surveillance tactics, although decentralisation from platforms can expose fragilities on a DIY server:

> *Initially we thought of a self-hosted server to help us with this mass surveillance, but after discussing with more security oriented people that also came to the meetings, we ended up with the conclusion that what privacy you might get at some point, but the security is a privilege. So security is not something you can have like in or at least not the way we do. You need to be very technical, very well prepared, need to have some sort of. So given this, basically what we hope for is to at least avoid the surveillance of the extractive platforms in the first place. But in case at some point that this was the discussion case, at some point, for example, the state would want to target this. Having a server self-hosted would be very easy to disrupt. So a self-hosted server, if the state wants to block you, steal it from you, come and take it. There's a single point of failure that can come and get it from there.*
>
> Interview with HYPHA, Romania

Nevertheless, the gestures of digital activism that ATNOFS might represent are dependent on not only a certain technical literacy of group members, but also a cultural literacy on critical readings of technology that often build on particular vocabularies pertaining to highly educated individuals, thanks to the focus it brings to technological discourse and technological imaginaries. The server’s users are highly educated individuals belonging to the cultural sector. Similarly to other expressions of alternative media, such activist practices are mostly successful in a small-scale and subcultural setting, where the challenges of high thresholds of access could be overcome by crowdsourcing and sharing knowledge, and where it remains imperative a high commitment to the community and to the “particular structural and ideological scaffolding”[123] permanently negotiated:

[121] Idem
[122] Femke Snelting infrastructure solidarity 2021

[123] Turner 2009

Actually, [we do not want to] create a group of tech who actually gets techies doing stuff together, but to also create some discourse around technology. So to create some kind of language or to put into language some ideas about why we want to do this? What is important to read stuff? So one of the pillars of the server is to actually have hosts, at least have some reading groups and to meet and read stuff and do stuff together. See what other people have read about, yeah, in relation to technology and to digital autonomy and alternative networks.

Interview with HYPHA, Romania

A next step towards more practical activist applications to Rosa are still to be determined within the future of ATNOFS and how the infrastructure is distributed, beyond the initial conversations and Manifesto and across the local groups in the different cities. Members also recognise the problems in "placing a server and walking away"[124], in the sense that many complex tasks are involved in sustaining a network and an infrastructure, in technical, logistical and geographic dimensions, as pointed by member Constant:

So I'm interested in this kind of tension zone of, well, "you should run your own infrastructure!" What does that imply? And "this is so easy!". It's not. And then, you have all the geographical realities that go along with that. That's in certain countries, it's very easy to have a fixed IP address and install your own infrastructure at home and in other countries it's super, super hard. Or in other countries you don't have any companies providing server infrastructure and you rely on France, for example.

Interview with Constant, Belgium

[124] Ringel and Ribak 2020

During the first day of the weekend, we were able to pick one of three different workshops to join. I was attracted to the table on Etherpad and resonant publishing, especially since I regularly use the tool. Sat around the table was a Varia member, my colleague from work, and other people from ATNOFS' member-organisations. As the morning unfolded, the exercises proposed got replaced by conversations around technical steps, definitions and existential decisions behind trust in socio-technical environments. Listening to the different comments, it was clear than even in a workshop like this, the technical expertise varied. I wondered how might we be able to expand on feminist infrastructures while lowering literacy thresholds.

The workshop weekend attended in March 2022 intended to explore tools and continue to develop them in the light of Rosa's needs, focusing mainly on resonant publishing practices through Etherpad. Etherpad is an open-source online editor edit that allows for writing "collaboratively in real-time, much like a live multiplayer editor that runs in your browser" [125], where each user is distinguished by different colours, amplifying multivocality and establishing a collective writing that does not erase voices, but enhances particularities to strengthen collaborations. Resonant publishing is one of the key features and ways to make public that Rosa and ATNOFS are working towards. Rosa's landing page defines resonant publishing as "publishing that is not at the end of a process of thought, but is embedded in a social process where thought develops and unfolds. In this way, it establishes new conditions for the co-production of meaning around intersectional, feminist, ecological server practices"[126]. This type of publishing is made possible by the newly developed publishing tool "octomode", that reflects feminist media understandings of a "tentacular"[127] approach to media and knowledge sharing. Entering a "pad" through "octomode" means that a user can produce PDF files immediately through a combination of Etherpad, Paged.js (a JavaScript library that paginates content in the browser to create PDF output from any HTML content), adding features that expand "the possibilities to make lay outs for specific sections, place content in the margins of

[125] Etherpad wesbite
[126] A Transversal Network of Feminist Servers, website, 2022
[127] Haraway 2016

pages, and render indexes"[128] and Flask, a micro web framework written in Python. Octomode makes writing collectively in Etherpads "publishing-ready" and so without the need of further intermediaries and the capacity to make public co-production ways throughout the process, using publishing as not only an end goal for documentation purposes, but also as method for new media research and practice, and thus developing thought together. Such features reflect a quicker and ad-hoc way of spreading content and knowledge parallel to that of zine making and other DIY practices that reject numerous intermediaries.

Working and publishing in Etherpad also means that the group is relying solely on open-source software and tools, which is an essential part of ATNOFS' infrastructural stand point, and aligning to alternative media ethos of counter-hegemony and non-profitability. Nevertheless, producing a publication using HTML and CSS still demands a technical literacy not quite equivalent to making collages and using a Xerox scanner. These are languages that have to be learnt, and might restrict access to resonant publishing to the ones capable of programming and understanding code, although Rosa's landing page and other links are explicit in providing documentation and tutorials, furthering calls to help improving media and coding literacy in the communities acquainted with Rosa. Remaining in the conceptual, speculative and discursive realm of technology offers cultural and alternative media projects more space for development. Through these conversations, one can see that ATNOFS offers a different way of thinking about technology, refusing a type of imperative relying only on mainstream extractivist platforms. Despite this, such media critique and epistemic infrastructures circulate and hold already literate groups, complicating technological access outside of platform infrastructures.

[128] A Transversal Network of Feminist Servers, website, 2022

Moderation and agreements

Part of being in a network is sustaining it, raising questions of maintenance, sustainability and contracts, as in the questions to be answered— or not — collectively, about the types of agreements and consent we form with and in our technical infrastructures. Even in alternative or subcultural media practices, moderation remains a point of tension and solutions to platform dependency do not always avoid the same questions than mainstream channels — it is interesting to see these discussions in parallel to Platon and Deuze's research into Independent Media Centres providing alternatives to mainstream journalism, and how it concluded that the former was "not that much different from established forms of journalism in the kind of problems, issues and editorial discussions it faces in the practice of everyday publishing"[129]. Rather, we can consider that platform independence and alternative servers also come with using existing technologies that can be transformed and put in a different light and social environments, by transforming the relationship users make with servers, for instance in copyright licences. In another similarity with Platon and Deuze's research, Etherpad hosting and usage also brings up questions of editing, deletion and ways of dealing with the space an organisation wants to give to each pad in their server. In an organisation that aims to be as collectivist and horizontal as possible, hierarchies are not completely out the equation, but what ESC underlines is transparency around it:

> *I don't think that there's actually a lot of nonhierarchical situations around, but I'd throw out to say, okay, if we know about the hierarchies, […] point them out […] where do they come from and just make them visible because the worst that can happen is that it's invisible. Because then if you are you in a certain situation, can't understand what's going on. So for example, what I always do when we open an exhibition and I mean, many people know me, I will always say hello and good evening.*
>
> Interview with ESC, Austria.

[129] Platon and Deuze, 2001

As a space that hosts content, strategies have to be negotiated in and around Etherpad between the ideological and core values of openness and collectivity, with pragmatic issues related to data storage and the energy required for it, connecting and meeting tensions with an even additional ideological goal: that Rosa travelling makes her more sustainable. ATNOFS member-organisations that host pads, such as Varia or Constant, have dealt with such complications by either providing static, no longer editable versions of Etherpads in a different file format and store them in an archive of pads ("Etherdump"); or deleting them after a certain date has been reached, as Etherpads depend on an "ever-growing (and eventually unmanageably large) database size as well as the need to provide continuous access to documents given the server's (and related ecosystem of plugins) open unstable nature"[130]. In the conversation for this research, Constant members point out maintenance problems that go from technical dependencies to everyday moderation practices:

> *But we are quite dependent on some people. Yes, sometimes there's quite a lot of infrastructure, digital infrastructure that we use for day to day organisation and also already methodologies of how to meet, on how to report, the software behind the website is, is at least fifteen years old I think.* […] *So there are these kind of all tools that have been used that then become deprecated and we have to think about how they will be used again.*
>
> Interview with Constant, Belgium

Sustainability-related concerns revolve both around social and technical sustainability, in how the network's applications and critical approaches are going to be used by wider communities, but also environmental sustainability. By travelling, this feminist server is not always on, recognising that it's "not always available"[131]. In a purposefully low-tech and thus more environmentally sustainable approach, Rosa mirrors other DIY initiates "often using limited CPU, memory, disk space and bandwidth by choice, using simple protocols, formats and tools"[132], responding to green capitalism and the way that Big Tech has dominated and moderated an environmentally driven online discourse, while appropriating extractivist and polluting infrastructures in the name of promised infinite connectivity.

As feminist server, Rosa "radically questions the conditions for serving and service"[133], exposing all processes related to its mechanisms, relationships, and contracts. As infrastructure, another important theme that is approached in ATNOFS' public material, workshop sessions and conversations with members is licensing and consent — the contracts that we make with technology and with each other around it. Member-organisations that make up ATNOFS are actively only using open-source software and open licences for content distribution such as Creative Commons, Copyleft and other alterations of them, that actively critique copyright law in its restrictive, single authorship-focused ideology. Just like in the 1990s digital utopianism initiatives that strived for an internet for all and from all, a space freed of ownership rules of the real world, ATNOFS and its members try to achieve a full collectivist approach to digital culture. But it is not without tensions and permanent negotiations amidst technical and human barriers — self-hosted and self-sustained spaces of alternative media often live in the balance between an almost craft-based understanding of authenticity "and its opposite of radical collective and commons practices that give up classical authorship in favour of sharing"[134], and it is in this balance that individuals, organisations and sets of organisations have to live and negotiate contracts permanently.

[130] Murtaugh 2020
[131] A Feminist Server Manifesto, 2014

[132] De Valk, 2021
[133] Idem.
[134] Cramer, Florian. 2019. 'Does DIY Mean Anything? - A DIY Attempt (= Essay)'. *Anri–kningsverket Journal, no. 1*

It was towards the end of the weekend, she said, "I really don't agree with this line of the licence, what do you mean this work never belonged to me?". It started conversations of what authorship means and how to reconcile it with the other urgencies in a feminist network: embodiment, care, feminist ethics of crediting and attributing names to bodies and voices that had been silenced. I listened to the debate and pitched in, recognising the difficulty in agreements. Perhaps choosing one licence for all of the server's contents wasn't going to work out.

Rosa's public material, documentation, and tools are all licensed under CC4r (Collective Conditions for Re-use) written by member Constant. The organisation has always been committed to the use and dissemination of FOSS — Free Open Source Software — a decision that is "as much political, as it is in line with the nature of our artistic and intellectual interests"[135] and that is opens up possibilities of "collaboration rather than individual authorship, which builds on exchange rather than on exclusivity"[136]. The CC4r licence opens up its documentation and set of rules with a controversial paragraph, one sparking more questions and possible negotiations around the licence: "The authored work released under the CC4r was never yours to begin with. The CC4r considers authorship to be part of a collective cultural effort and rejects authorship as ownership derived from individual genius. This means to recognise that it is situated in social and historical conditions and that there may be reasons to refrain from release and re-use"[137]. In line with feminist embodied technology and the importance of situating and contextualising, these types of licences recognise that any type of progress, technical and otherwise, is dependent on not only a set of material and socio-political conditions, but on a group effort that happened historically over time to make culture: rejecting ideas as strikes of genius reserved to privileged few. The CC4r licence, although slightly more radical in approach, is similar to other copy-left initiatives in its conditions, accepting that a certain work can be copied, modified, incorporated and distributed freely, as long as the collective conditions that made it happen and possible are explicitly stated. Regardless of the

[135] Constant website
[136] Idem.
[137] Idem.

seemingly open attitude to licensing content and let it circulate freely online, these agreements are once more dependent on the "ideological scaffolding"[138] and "affective homophiles"[139] around the network agreeing with these conditions. Discussions that may arise around licensing and conditions are seen as a positive step towards better understanding of each other needs, taking disagreements as productive that allow for edits: "The best thing Free Software has to offer its user is conversations, (…) when users are invited to consider, interrogate and discuss not only the technical details of software, but its concepts and histories as well"[140].

The group that joined the third workshop table walked out of the room to talk in the sunshine of the early spring day. I was surprised with myself I hadn't expect this connection that made so much sense to reflect on in relation to feminist technologies: what do we consent with when we log in to servers, when we network, continuously connect? A feminist notion around bodily autonomy that made sense around technical autonomy.

When one agrees with a license to distribute work in a certain way, they are making a technological agreement, transferring a certain autonomy to another entity and consenting to be exposed, copied, modified and distributed. The nature of networks is a highly contractual one, demanding permissions and exchanges in almost constant rhythm. Contemporary big tech platforms rely on such exchanges for monetisation, mining personal data to be re-sold to advertisers as prime revenue[141]. It is questionable whether we are really consenting to all the conditions laid out in small letters across endless documents for accessing communication or other services — particularly as platform dependency grows so asymmetrical and infrastructural, that it becomes difficult to see the extent of its trappings. Rethinking consent with a server and a DIY technology allows for stepping back and rethinking consent with all technical infrastructures around us. Data feminism emerges as a field that can connect to consensual server and service understandings, bringing to light power relations and structural oppression systems

[138] Turner 2009
[139] Sundén, Jenny, and Susanna Paasonen. 2019. "Inappropriate Laughter: Affective Homophily and the Unlikely Comedy of #MeToo." Social media + society 5, no. 4
[140] Constant website
[141] Nieborg & Poell 2018

that allow for uneven relationships between people and technology, creating “a profound asymmetry between who is collecting, storing, and analysing data, and whose data are collected, stored, and analysed”[142]. Although not immune of tensions or hierarchies, alternative infrastructures choose a communal way of belonging online, refusing technology as universal and recognising its trappings hidden in the fine prints:

> *This nudging and this keeping us online, keeping us using a certain software, I mean, this is mind blowing, how much real thinking capacity and all sorts of things, just go into manipulating as individually to actually wanting to be connected. And I think that's, I mean, that's probably one of the most ugly, the ugliest things that actually has been developing around this sort of infrastructure of communication is that it's, let's say at least probably half of it is being used to manipulate.*
>
> Interview with ESC, Austria.

Rosa’s collectively written consensual contracts, although marking a work in progress, places agency back to the users and underlines the importance of informed consent in not only physical, human relationships but also technical, virtual (yet human as well) contracts. Lines from the ongoing draft statement on consent include statements such as “In this space there are also others. Your actions affect their server lives. Listen carefully as you step inside”, and “We consent to commit in the knowledge distribution process (sharing and receiving) when possible, to understand better the implications of our uses of the server, and take conscious and effective responsibility for these”. ATNOFS’ concerns with consent highlights not as much the data or technical agreements but the human implications that sharing a server and digital space have, just like sharing any other kind of space. Building on the previous section, this shows how the network’s main practice is one of building technological discourses rather than technological solutions, acknowledging that their open licensed content co-exists with problematic infrastructures.

[142] D’Ignazio and Klein, 2020

Community and relationships

The intricate conversations around consent and contracts and the way the participant's conversations engaged in notions of the network as community emphasise the fact that networks, not just alternative ones, are mainly about relationships: how they are managed, communicated, hosted and supported.m ATNOFS is formed by a network where each node-organisation also brings up their own network and the communication tools that support them are just as important. The community around ATNOFS is mainly one already settled in the cultural and artistic fields, and the project specifically caters to providing infrastructure to organisations established in their own local communities, and it’s established that “organisations partnering in this project already have practises addressed at increasing inclusivity in technological processes and work to support marginalised and underrepresented groups in their respective contexts”[143]. ATNOFS sets out to address other-like minded individuals and collectives who might benefit from embracing more alternative media practices within their communities, although the list of participants are conceptually and technically literate groups likely to have been already doing so: “self-organised artist/activist collectives (Varia), artists, scientists, theoreticians and programmers who intersect disciplines (ESC), EU cultural institutions, artists, scholars, and art and design educators and their students”[144]

During the conversations with the three organisations that took part on this research, the main topic approached by participants as core value and driving force of the ATNOFS project was indeed the people that make it — united by the motivations to build alternative infrastructures and develop autonomous tools. Similarly to the New Communalists, seeing the “experience of togetherness [that] would allow them to become both self-sufficient and whole once again”[145], the

[143] ‘A Traversal Network of Feminist Servers’, 2022, website
[144] ‘A Traversal Network of Feminist Servers’, 2022, website
[145] Turner, Fred. 2006. *From Counterculture to Cyberculture: Stewart Brand, the Whole Earth Network, and the Rise of Digital Utopianism.* Chicago: University of Chicago Pres

communities engaged in ATNOFS centre the human in technology as priority for Rosa's future and sustainability, even if, at the end, Rosa was just a starting point or a space to gather around. Despite the fact that the communities in question are more looking for a sense of belonging — that "affective surplus" —than an actual server, that feeling is tied with the technologies used to belong in. Opaque, anonymous, advertisement-driven platforms are not compatible with the wishes of the ATNOFS' communities, that build their group identity in the need for self-sufficiency and decentralisation. Beyond building a server, a community elsewhere with the same goals might see and look for other strategies of platform independency:

What I realise it's not that important, the server itself, but the community that first of all, either there is a community or it's forming around the server. [...] And the thing is, if there is no need from the community to have a server, then the server is meaningless. The community can live without the server like they did so far [...] a community dinner is more than enough, you know, an afternoon, have a dinner or some lunch or staying together and talking about stuff is more than enough to keep the community together. There is no pressing need to have a server, but there is a pressing need to to be decentralised.

Interview with HYPHA, Romania

As described in the quote above, member Hypha elaborates how the strategies at the centre of ATNOFS and the different iterations each organisation is hosting mainly deals with communal learning, in focusing on the process of moving beyond platform dependency and into alternative modes of networks and building whatever is necessary for the communities in question without commercial or logistical pressures. The experimental pedagogies present in ATNOFS are possible due to the way it focuses on the groups rather than in the technicalities, and on the visions for technology put forward rather than larger scale practical applicabilities, but also on skill building and literacy that could be carried on in each local context:

And there is a need to sustain a more private or more safe digital space to have a place there. And this server could be such a place. We are still discussing what kind of things to post there. There are several options, but the ideal options would be somehow to, as I said, to not start installing stuff just because we can install, but to see exactly what is needed and to do it together so that everybody learns from the process. And at least at the end, if nobody seems to find the server useful, you learn something at the end.

Interview with HYPHA, Romania

In this way, essential to the communal learning in ATNOFS is how members can add to the network and how the different contexts build the network. Outside of each local community, ATNOFS is a community in itself, although on a trans-national scale across Europe. The differences in geographical, material and social contexts in the several countries make up a possibility within each local instance, as they perceive budget differently — a few thousand euros are not the same in Belgium as they are in Romania, yet they are all being distributed the same way. Although this is a project that aims to connect different European contexts, and perhaps even unify them, the participants recognised the differences in precarity being accentuated by geographical periphery, where the countries with most funding and financial means are in the centre of Europe and so don't face as many issues to travel to the different iterations as the ones in the edges of the continent. Despite this inequality, underlining geographical realities can also be a strategy in alternative media to refuse the universal promise of the "global village" and accentuate the ways in which digital media is situated and embodied, affected by the networks a user moves in, particularly acknowledging the way in which algorithmic recommendation systems affect the ways in which information is selected to each context.

These differences come from our different ages, they come from our different country backgrounds, because even though, let's say, if we would think the internet is the same, but then the people, you know, like of course, technically, but then all this decision making and decision taking can be a bit different and that can also lead to other solutions, or the same ones. And it's always interesting to find out, but for me at least to understand how people approach what needs a solution, let's say, and to connect this.

Interview with ESC, Austria.

Human and technological relationships are essential to maintaining the network, working through resolution and conflict. In their community management, ATNOFS relies on trust between the members that the project will be carried on and disseminated, yet not with everyone: Rosa's landing page states at the bottom: "Please only share links to Rosa with groups that you trust". Additionally, although the group has been developing types of resonant publishing that experiments with access and making public, documenting the project in real-time, it will only be communicated to wider publics through a publication at the end of the year. In the race towards accessibility and platform independence, who are the ones that have a "server of their own" and who has to stay dependent on the ready-made big tech template platforms?

There is a group discussion at the end, debating over network existential questions on Rosa's future travels. I confuse hats, participant and researcher, burst the bubble and say out loud what was just said to different individuals: I talk about this research. All of a sudden, I am not in the community anymore, I am the outsider. I sit quietly examining my privilege and power positions. I can't see them. I thought sharing and open access also meant welcoming different ways of looking – but perhaps it is also not my place to set the conditions.

The technologies and tools used to maintain and host the ATNOFS community are also purposefully designed to care for a local group, not necessarily addressing wider audiences or a general public. The radio broadcast session that kicked-off the first chapter of the network meet-ups was hosted in a platform designed and developed by Varia that actively contradicts notions of broadcasting technologies and the way audience numbers dictate them: "The interface is called 'narrowcast' because its purpose is not to reach as many people as possible but to 'speak' meaningfully to different audiences and contributors. [...] The interface adjusts to each event and the machines of the audiences, by hosting different media sections. In this way it provides different levels of access to the listeners or watchers or participants. It's still in an experimental state"[146]

In their communication strategies to maintaining relationships within ATNOFS, the groups make use of federated platforms that provide alternatives to platform capitalism, what can be considered examples of "platform socialism"[147] and "alternative social media"[148]. In this case, the group uses Mastodon, an open-source alternative to Twitter that isn't run on one single infrastructure but rather "a network of thousands of servers operated by different organisations and individuals that provide a seamless social media experience"[149]. During the conversation with member Constant for this research, the topic of communication platforms and strategies arose often in relation to sustaining the network — and between federated platforms or centralised ones, the dynamics that drive relationships in these environments do not differ that much and similar cycles of information are repeated in social media logics. Participants recognise that a reaction against a system might still repeat that system:

[146] Radio broadcast with danae tapia and spideralex, 2022 for Varia's ATNOFS chapter.
[147] Muldoon, James. 2022. 'Introduction'. *Platform Socialism. How to Reclaim Our Digital Future from Big Tech*. Pluto Press.
[148] Gehl, Robert W. 2015. 'The Case for Alternative Social Media'. *Social Media + Society 1 (2)*
[149] Mastodon website

I think that's where the fediverse and [ATNOFS] is like an attempt, although it's very much leaning on what existing social media [...] And then it disappears into a pit of information that just is there [...] So this is like a, yeah, although I think it's interesting because it connects people, it's social, and so you have this kind of ever descending timeline and things getting on top and your information just being squashed [...] even though it's a reaction against existing platforms so they can't help themselves from like, they can't start from something else, how they seem to model they're reacting against them is still incorporated into the model so... I get it, I can imagine it's hard, I can't imagine to create a social network without following Facebook.

Interview with Constant, Belgium.

Imagining social media "outside of Facebook" social media is difficult, as even those mainstream platforms follow logics of previous networking technology pre-world wide web, such as bulletin boards or the WELL, as previously described. The decentralised, open-source and federated nature of platforms such as Mastodon is what makes it unique and gain more users every day, as an ethical counterpart to platform economies. Instead of a globalised infrastructure, Mastodon reflects a local and often niche context, in that each user will only see the users hosted by the servers connected to the one they are in, repeating in-group dynamics that are less dependent on algorithmic decisions but more on infrastructural components. Purposefully, Mastodon fosters small scale community communication that keeps each user from accessing a community that is not their own: "It's the whole idea that you go to all other little servers and these are hard concepts, you know, of course, because Twitter, the idea is to talk to the world. So, first you could talk to the world. It's just that world... you have to find your world."[150]

When arriving in Rosa's landing page, users are also invited to keep in touch through ATNOFS' mailing list, a low tech, DIY approach dating back

[150] Interview with Constant, Belgium.

to early internet initiatives. Mailing lists embody concepts of solidarity and networking, connecting links, events and people, while presenting themselves as documentation and future objects of study as archives — it allows for a first-hand, primary entry into networks and organisations, examining how they established communities. This type of communication tool can thus be seen as producer of an informative, sociable community, resulting in group authorship and hyperlinked structures[151]. As a member of the mailing list, is not only possible to keep in contact with other members but it becomes a form of social networking in itself, as members use it to share initiatives or promote events. Through the different conversations with members, it is possible to establish that the main function of this network is one of community as learning site. The fluid, horizontal and often unpredictable organisation (or lack there of) gives the ATNOFS community possibilities for future and regenerative usages while navigating in the "almost-there" future utopia of alternative media — and therefore creating not necessarily an established infrastructure for immediate action, but an event that springs knowledge towards future possibilities and a sense of empowerment over digital tools.

But it's not about the instance itself. It's about the knowledge that's being learnt while handling the instance. And through this knowledge you can pass it by to other groups and so on, and you can create more instances and you don't need to have just one single instance that is highly available. And so the point is somehow that the knowledge will be the most important part to, to gain. And then with whether this knowledge can create, extend and contaminate other groups, then the groups can have more empowerment in terms of technology.

Interview with HYPHA, Romania

[151] Lovink, Geert. 2002. *Dark Fiber: Tracking Critical Internet Culture*. Cambridge, Mass: The MIT Press.

Cultural and artistic initiatives in and around media

ATNOFS is a space in digital culture: it aims to be both infrastructural and experimental, technical and artistic, independent and publicly funded. As cultural and artistic project, ATNOFS is made possible through the Cultural European Foundation. The grant of nearly 40 thousand euros enables research and realisation of the different “event-chapters”, as well as material conditions to buy Rosa’s parts, eventual publication documenting the process, and possible development of the tools explored. Within a project related to diversity and radical feminisms, it is interesting to note that its grant, the “Culture of Solidarity Fund”, is aimed at “support[ing] cultural initiatives that, in the midst of turmoil and crisis, reinforce European solidarity and the idea of Europe as a shared public space”, extending and reinforcing borders of what is and what is not European. Recognising that each organisation within ATNOFS had already a willingness to either continue to develop or start a feminist server project, the funding opportunity was a way to actually crystallise it. Whereas the most Western counter-parts of the network recognised the budget as rather small, Romanian Hypha underlines its importance in offering a chance to small and local initiatives to be able to spend time on reflecting about technology, gathering ideas, and develop tools:

And well, having a bit of budget that apparently seems to to do a big difference, at least you have some, it's not the budget to to do the project, but it's the budget to travel and to interact with people and get some energy from this and also to organise something properly for one or two days where people can come and have a chat and discuss and stuff. So this project, I guess, facilitated the, well, these discussions around here, although I know for sure from the discussions with other people for a long time that the need is there and there are people interested in doing stuff and joining these things.

Interview with HYPHA, Romania

Sustainability was an important angle on the project that arose from the conversations with participants. When it comes to the organisers, centring social and financial sustainability of the ones involved in project is key, as ways to recognise cultural and artistic labour as work and trying to counter the nevertheless precarious position of the cultural worker. Constant recognises its biggest achievement as organisation is giving its members the ability to work, while ESC underlines the importance of public support to such alternative media projects as essential for their continuation and development as infrastructural counterpart to mainstream platforms, “to really make them more stable in the sense of economically stable technology”[152]. The more Rosa could be supported, communicated about and developed, the more it could be picked up by wider organisations and eventually a wider public. In this sense, the Austrian member also acknowledges the uncertain place that ATNOFS stands in, as epistemic infrastructure but necessarily infrastructural, as experimental project but not only speculative, leaving in its fluidness a gap through which it could slip. This represents an added challenge when it comes to publicly funded cultural organisations, relying on political paradigms to provide financial sustainability to a project that is often abstract or in-progress, and thus difficult to quantify.

[152] Interview with ESC.

The understanding of the importance of what they are actually doing would be bigger because at the moment it's somewhere in between and it feels like it's neither this really, nor that really. And then that makes it easier to kind of let it fall." [...] And the willingness, you know, the willingness of politics, politicians in general to actually really think about this, conceptualise what it is that we do, it is not very high.

Interview with ESC, Austria.

When it comes to measuring the impact of cultural initiatives in and around digital culture, we must acknowledge where the responsibility lies within culture and where does it not, particularly in the sense of scale and impact. While being an example of a countercultural alternative media practice, ATNOFS acts on infrastructure yet does not and cannot function in a larger scale than its local organisations and subsequent networks. Nevertheless, that is not an obstacle to still make interventions, critique or continue experimenting. Within their place as epistemic infrastructure, cultural projects' responsibilities falls then on the discourse they produce about technology on the visions they project for the future, and the communities they foster around an alternative server.

That's at the same time, the possibility and the pitfall that we have, if we have these kinds of collective projects and it's also [answered] by understanding our responsibility. Yeah, my responsibility is not to develop the new app. That's going to go on the circuit board to do XYZ because it's not my expertise, my expertise, if it's, if we even want to think about it in this way, is to try to understand systems and ways how people in different constellations, how we find out what we want to do. And I think that's, that's a possibility that we have and that we have to make it a reality [...] And then also not saying we should be humble and say, no, I'm too small and I'm not important. That's not what I mean, but I think it's, you know, in order to go against these monopolistic, huge enterprises like Amazon or Google, you know, the big ones [...] So if I, as an individual or we as a smaller group of people say 20 or a hundred or so, if we try to do something that what we want to do is to be in some sort of scale that is possible for us to achieve. And it's also possible for us to articulate because then this also nurtures our process of reflection and of activity.

Interview with ESC, Austria.

Additionally, the member-organisations are often met with different conditions in which they operate out of their lives, either juggling different freelancing projects, teaching jobs or other positions in the cultural scene — funding grants demand unseen and unpaid labour as well as affective labour that often permeates artistic approaches to the internet. It was clear during all conversations that ATNOFS members are extremely dedicated and passionate about alternative media infrastructures and building communities around them, relying on that communal "ideological scaffolding" that allows for services and labour to be seen as gifts to the community. The precarious position of the cultural worker is here heightened by the volunteering aspect of activism, as initiatives such as ATNOFS falls under, where groups of volunteers gather around a cause. Historically, open source software and applications have been developed under this premise, although interactions with older members of ATNOFS shows that contemporary times are much more pressing than the utopian early web. Then, the novelty and experimental "buzz" around the internet gave cultural organisations more sovereignty:

In the 1990s was there was an understanding of the general public and also the political representatives that art and culture is more than leisure [...] there's a lot of pressure on the activists and all the cultural workers also. There's a lot of pressure to work quite a lot for little money. And given this situation, it's hard to give yourself, to allow yourself time to start doing servers or doing extra work for the community and so on.

Interview with ESC, Austria.

In a podcast interview to MACBA , Reni Hofmüller points out that, from her perspective, "art should be useless, in the sense that it shouldn't be commodified"[153] and recognising ATNOFS in such an umbrella — a space for experimenting, listening and questioning infrastructures, without the promise of solutions. Artistic approaches to new media might not only have a "art for art's sake" value, but can also provide strategies for empowering users: in "desidentifying" with mainstream infrastructures, subversive creativity might signify a small glimpse of hope. Creative ways to engage in a group such as bringing disciplines together and keeping the physical and embodied close to the technical through workshopping, performing scores, and sewing a jacket[154] for a traveling server can signify criticality in a productive yet artistic sense.

I actually hate having my eyes closed, I like seeing what's happening around me too much, or I like the illusion of control it gives me. The last activity was an active listening exercise – without seeing, we were drawing the sounds around us, from the clocks to the children playing outside. Traversing seems to be mainly about listening: to space, words, images; and so building intersectionality into the server by accommo-dating a multitude of voices. Like infrastructures, listening is invisible. That's why I needed to pay extra attention.

Situating Rosa and ATNOFS as a cultural and artistic project that develops new media alternatives can then help to understand it not as institution, but rather an in-between space — since it's not precisely an "organised network" but it does represent "people who come together for a common purpose by building strong ties among dispersed individuals"[155] and knowledge and artistic communities — that builds toolkits by providing "cultural alternatives within a system"[156]. ATNOFS then follows both a cyber utopian creative and experimental attitude towards infrastructure and countercultural trends that have since the 1990s gathered on the Internet as "alternative public space"[157]. As cultural project relying on limited funding, ATNOFS faces the challenge of longevity, or ephemerality in this case: and where does this leave Rosa, at the end of the year, once the grant is spent and the iterations complete? Discussions around the afterlives of an infrastructural project lead to the need of further reflecting on responsibility, and might eventually fall on the "knowledge community" side of this server,

[153] MACBA, 'Sonia(i)a #317: Reni Hofmüller - Re-Imagine Europe'.

[155] Dekker, Annet. 2018. 'Introduction'. In *Collecting and Conserving Net Art*. Routledge.
[156] Saemmer, Alexandra. 2016. 'Digital Cultures Alternatives: Introduction'. *Hybrid, 3*
[57] Idem.

that would be responsible for carrying further the tools developed and the dynamics established.

Understanding cultural and artistic interventions in media and the way they shape “alternative media” is also to understand its limitations in power, in resources, but also in ideology. Revisiting the historical perspective of this research, perhaps it’s when media practices become infrastructure that they become invasive and parasitic. Do we desire all technology to be infrastructure, and where do we see alternative media’s role as vernacular vocabulary that stays in marginal spaces? What are the pitfalls of staying in the forever utopia? In this direction, Rosa could go from the speculative to the infrastructure and back around, finding again in its cultural significance a way to inspire future projects. Creativity and artistic freedom give this project not only light and even humorous ways to approach the big infrastructures swallowing us all — but the possible to keep questioning, never resting and never complying. Small art projects can lead to bigger appropriations, small communities could spread throughout borders. And if they don’t, this server is a fertile soil where seeds can sprout in future Springs.

[...] and speculative fiction. Some people call it to just try to imagine where that could go and which direction we, I see that, or we see that, it's going [...] then it goes, but it also could mean to go in a different direction. It does not necessarily have to be real or realistic to trigger a thought process, a real response.

Interview with ESC, Austria.

Networked reality can still be reinvented — or at least, dreams of a network we can name, grasp, care for and build, are still possible. Digital DIY initiatives are bringing new perspectives to gestures of "networking", creating users and communities in charge of the technology they navigate in. In its small, local and experimental way, A Traversal Network of Feminist Servers is an important project as it makes possible (and visible) different and alternative ways of being online that escape platform dependency, by actively questioning and exposing the mechanisms, infrastructures and relationships necessary for a network. It's important to situate ATNOFS in a historical context, as it has been done throughout this research. Projects such as these do not stand alone and are not a single effort — but rather part of a larger attitude and movement that helped create the internet and still continues to shape and influence it. Shifting historical narratives remains crucial in all disciplines, and in digital culture this means de-centring the neoliberal narratives of the successful college drop-out that started a company in his mother's garage, and making way for stories of groups, collectives and activists that envisioned an internet for community and not for financial gain. Historicising otherwise not only gives way to other perspectives on alternative media, both highlighting its successes and its pitfalls and utopian failures. Additionally, this makes visible that mainstream culture's origins are sometimes closer to the margins that one would think. Working with and through history is also a humbling research stand point, observing the often cyclical ways of culture and finding in those past cycles possible lessons for present and future.

Asking what values and processes characterise DIY digital infrastructure and how do such networked initiatives relate to broader tensions in contemporary alternative media production, this research engaged closely with ATNOFS, participating in their meetings and having conversations with their members. As alternative media project, ATNOFS is a network connected around and through a feminist server, Rosa, that embodies visions from

A Feminist Server Manifesto. In this way, it aims to act on technological infrastructures but its impact is rather through developing discourses around technology, meaning the way technology is imagined and envisioned, producing cultural significance. Technological discourse is produced by two main outputs in this network: through publishing and by creating knowledge communities around the server. Publishing has been an essential tool in historical alternative media, such as zines and manifestos that act as a vehicle for marginal voices that can "perform a social function through bringing [...] individuals together"[158]. By engaging with new digital tools, ATNOFS also redefines the act of publishing, by focusing on a collective and "resonant" publishing that happens throughout the process and not as only end goal or documentation tool. The knowledge communities that ATNOFS creates are the main component of this project, that allow for the tools developed and discourse on technology to be reiterated and reiterative, engaging with new media critique once the project might run out of material conditions to continue in its original form.

Reflecting on the processes driving networks such as ATNOFS and their wider impact on media practices, it is possible to describe it as sometimes ineffective but socially significant and technologically productive — that is, its infrastructural impact is often limited to the network of involved members and to the short timeline the project is running, but it does signify a political and social gesture against the hegemony of mainstream platforms by opening up routes to connect otherwise through developing new tools, new servers and new language around technology. Some of the challenges alternative media projects like ATNOFS face are connected to this characteristic, which nevertheless can transform into useful learnings when developing future alternative media interventions.

A nostalgia for utopia, and connection to cyber-utopian ideas of the 1990s of conceiving the internet as a separate and more free version of real-world

[158] Bennett, Andy. 2005. *Culture and Everyday Life. London*: Thousand Oaks, Calif: SAGE Publications.

democracy is often still present in discourse, whereas it as been established that offline and online realities cannot be separated, influencing one another — thus the virtual space is not immune to the same dynamics and problematics of the physical world. Due to technological and social paradigms, an alternative internet will not likely be implemented on a larger scale than outside the walls of cultural initiatives. Although continuing to strive for a wider access and use of open-source tools and software is paramount to their expansion, FOSS mainly offers a lot of alternative choices more than one single alternative infrastructure to mainstream platforms, thanks to the many possible forks developers can launch, and the many niche communities of programmers. To the average user without much technical or media literacy, the search for alternatives ends up as a daunting map of possibilities of encrypted language, falling on the convenience that mainstream corporations offer. It's also important to note that some FOSS projects do end up as industry standards, and this marks another challenge faced by alternative media, namely the negotiations between ideology and pragmatism. Additionally, opaque, anonymous, advertisement-driven platforms are not compatible with the wishes of communities such as ATNOFS, that build their group identity in the need for self-sufficiency and decentralisation. In this way, not being an industry standard becomes a plus for a small group or in local contexts. Despite this, alternative servers like Rosa are not immune to the same challenges and questions permeating mainstream new media — similarly to Platon and Deuze's research (2003), this project observed that permanent negotiations between ideology and practice, individual needs and collective wishes, are still in place when it comes to the network's maintenance, moderation, hierarchies and openness.

The experimental, undefined and fluid features in this project can also be seen as a strength when considering ATNOFS a significant cultural and artistic project. This is an important lens to look through, as arts and culture have since the past century help shape technological advancements and discourses by negotiating and testing the boundaries between art, technology and critique. To consider ATNOFS as a research-oriented cultural project aids to understand the different scales of responsibility and sustainability, a possibility that can be extremely empowering even outside of the cultural scene. While recognising that building and maintaining an infrastructure is extremely difficult, and demands a lot of technical and affective labour and material conditions, this is a project that contradicts that as an impediment to try and make an impact or response to the current digital culture landscape. Reacting against the alienating reality of platforms as infrastructures by building a DIY server is a gesture that says, “we can still feel empowered”, and restores sovereignty in users, communities and technology, rejecting defeat against an homogenous, sleek and overwhelming platformised reality. ATNOFS acknowledges its utopianism, but is not naive to think that is enough. Although not applicable in a larger scale, projects that bring the DIY spirit into digital culture might just be the antidote to cynicism the internet needs.

Image credits

P. 14: “DEC PDP-10 and Applied Dynamics AD/FOUR”
Catalog Number: 102630583, Courtesy of Gwen Bell. Computer History Museum.

P.15: “Bruce Baumgart takes his robot on a tour of Al's computer room.”, in Steward Brand’s “Computer Bums” article in December 1972, Rolling Stone Magazine

P. 16: John Perry Barlow Microsoft founder Bill Gates at PC Forum, 1991., Ann Yow-Dyson/Getty Images

P. 20: New Wave (issue #3)1977, by Ade and Nag from New Barnet, UK.

P. 22: Mark Perry, Sniffin' Glue 7, February 1977, 2 Publication 29 x 21 cm, The Mott Collection & Riot Grrrl letter response. Via Riot Grrrl Collection at the Fales Library at New York University.

P. 26: Whole Earth Catalogue, Fall 1969, via Wikimedia Commons (public domain) & Screenshot of De Digitale Stad Amsterdam (1994-2000), version DDS3.0.

P. 27: fluxus Manifesto, Public domain, via Wikimedia Commons & Indymedia Cuiabá in Free Radio SBPC, 2004. Mato Grosso Federal University, Cuiaba, Brazil. Indymedia Cuiabá via Wikimedia Commons.

P. 31: Collage, Carolina Valente Pinto, 2020.

P.43:Feminist Server Manifesto. Screenshot. Source: areyoubeingserved. constantvzw.org/Summit_afterlife.xhtml

P.47: Rosa the server as encountered at Varia, Rotterdam, photographed by the author in March 2022.

P.51: Rosa's landing page, via https://hub.vvvvvvaria.org/rosa/ATNOFS/ in May 2022.

All the other directions we can go: alternative networks and their infrastructures

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Initially written as an MA thesis at the University of Amsterdam supervised by Dr. Michael Stevenson in June 2022 and edited and designed for this publication in July 2023. Thank you to the interview participants and the ATNOFS network.

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Published by the Institute of Network Cultures, Amsterdam, 2023.
ISBN: 9789083328232