



A Hacker Genealogy

The Origin

The term "hacker" originated in the late 1950s within the *Tech Model Railroad Club* at MIT[07], where the term "hack" described a "clever, elegant, or unexpected technical solution"; the "hacker" was a subject using "playful problem-solving to explore and shape technical systems" to "extend their capabilities beyond their original intent." This ethos later migrated into early computing environments, and it was partially codified in the *Jargon File* (1975)[0809], where "hacking" was framed around technical mastery, peer recognition, and informal sharing of knowledge. At this stage, however, questions of power, control, and the political implications of information technologies were not yet linked to the hacker persona.[1011]

In the mid-1970s, hacking practices developed within West Coast hobbyist computing communities such as the *Homebrew Computer Club* (HCC). These spaces fostered forms of collective experimentation with code and hardware, reinforcing an understanding of hacking grounded in system literacy, creating a first version of what could be defined as a hackerspace. [1213]

The Genesis of the Social Hacker

However, it was within European hackerspaces that hacking acquired a distinctly political dimension. The *Chaos Computer Club* (CCC), founded in 1981 in West Berlin, played a central role in redefining hacking as a civic practice through public interventions, publications, and organization of large-scale gatherings[1415]

A defining moment occurred in 1984 as a response to concerns over data protection and the planned computerized census when the CCC targeted the German BTX (*Bildschirmtext*)[16] system. By entering the system and transferring approximately 134,500 Deutsche Mark to itself, the CCC demonstrated the system's fragility. Immediately after, the money was returned, and the action was made public to reveal an infrastructural critique that exposed the fragility of state-managed digital infrastructures. This successful hacktivist action brought public awareness among German citizens and forced the government to reconsider its policies.[17]

Hackim Bey in his book *T.A.Z.: The Temporary Autonomous Zone* creates a distinction between the "Net", the "Web", and the "Counter-Net" becomes useful for explaining the action and the role of the hacker in the Italian context. In TAZ, Bey describes the "Net" as the hierarchically organized infrastructure in which information circulates: here, power regulates access, transmission, and interpretation. Instead, the "Web" is defined as the medium, the totality of the channels, horizontally distributed, that enable exchanges within the "Net". Lastly, the "Counter-Net" emerges when the channels of the "Web" are strategically mobilized against the hierarchical structure, since it operates from within, opening free spaces to challenge centralized control.[18]

07 ›› The *Tech Model Railroad Club (TMRC)*, was a student organization originally devoted to building and operating complex model railway systems, based at the Massachusetts Institute of Technology (MIT) in Cambridge (USA). Within the club, a subgroup became deeply engaged with the circuitry and control logic behind the trains, using the term "hack" to describe "clever, elegant, or unexpected technical solutions." The "hacker" was defined as a subject that uses "playful problem-solving to explore and shape technical systems" to "extend their capabilities beyond their original intent," Di Corinto and Tozzi, *Hacktivism: La libertà nelle maglie della rete*, 39, translation from Italian by the author.

08 ›› *Tech Model Railroad Club* of *MIT*, "About," TMRC website, MIT Room N52-118https://tmrc.mit.edu/old/hackers-ref.html (accessed February 3, 2026).

09 ›› *The Jargon File* (1975) is an archive created by Raphael Finkel documenting hacker language and practices. It was created as a shared vocabulary for technical enthusiasts, collecting and systematizing the evolving lexicon of early computing cultures, Di Corinto and Tozzi, *Hacktivism: La libertà nelle maglie della rete*, 39, translation from Italian by the author.

10 ›› Arturo Di Corinto and Tommaso Tozzi, *Hacktivism: La libertà nelle maglie della rete* (Rome: Manifestolibri, 2002), 39, translation from Italian by the author.

11 ›› Raphael Finkel, with assistance from the SAIL community, *The Jargon File, version 1.0.0.01* (1976), Stanford University, Jargon File archive, https://jargon-file.org/archive/jargon-1.0.0.01.dos.txt (accessed February 3, 2026).

12 ›› The *Homebrew Computer Club (HCC)*, which was founded in 1975 in Menlo Park, California, was an open platform where engineers, programmers, and enthusiasts could exchange ideas on the design of computer hardware and software, being one of the important places where hacker subculture took shape. Di Corinto, Tozzi, *Hacktivism: La libertà nelle maglie della rete*, 39, translation from Italian by the author.

13 ›› Di Corinto, Tozzi, *Hacktivism: La libertà nelle maglie della rete*, 42, translation from Italian by the author.

14 ›› One of the most significant hacker collectives in Europe, the *Chaos Computer Club* (CCC), which was formed in 1981 in West Berlin, is renowned for having revealed the weaknesses in infrastructure systems such as the BTX hack in 1984 and for a focus in technical transparency, privacy, and free speech. Valerio Mattioli, Novanta: Una controstoria culturale (Turin: Einaudi, 2025), 190–94.

15 ›› Valerio Mattioli, *Novanta: Una controstoria culturale* (Turin: Einaudi, 2025), 190-194, translation from Italian by the author.

16 ›› *Bildschirmtext (BTX)* was an interactive videotex service launched in West Germany in 1983 by the Deutsche Bundespost, allowing users to access information and services over the telephone network via modem. Bazzichelli, *Networking: The Net as Artwork*, 140–41.

17 ›› Tatiana Bazzichelli, *Networking: The Net as Artwork* (Aarhus: Digital Aesthetics Research Center, Aarhus University, 2008), 140–41.



Figure 1 ›› Poster of the *Galactic Hacker Party* 1989. Hacker con organised by *Hack-Tic*, 2–4 August 1989, Paradiso, Amsterdam. The event sparked a series of international hacker gatherings in the Netherlands every four years, a tradition that continued through events like *Hacking at the End of the Universe* (1993) and beyond. Hart Amsterdammuseum. Image from Monoskop, https://monoskop.org/Galactic_Hacker_Party.

The Principles of Ethical Hacking

In *Postscript on the Societies of Control*, Gilles Deleuze explores the evolution of how power is expressed in the Western context suggesting that, in contemporary societies, control no longer functions strictly and primarily through confinement, but through codes, passwords, and continuous variation, in a system that externalizes its power by modulating access or non-access to information.[20]

Within this framework, the hacking action can be further contextualized: the hacker does not intervene outside but within the operational logic of computational systems.

Steven Levy's formulation of the "Hacker Ethic" (1984) formalized this orientation, starting from the "Hands-on imperative" in which the hacker is defined as "opening devices, examining systems, and taking them apart" to expose underlying structures and ultimately challenge systems of control. Here, these technical actors recognize that "access to computers and to anything that can reveal how the world works should be unrestricted", meaning that the hacker understands that power actively produces knowledge and that knowledge cannot be understood as existing independently from systems of power.[2122]

18 ›› Bey, *T.A.Z.: The Temporary Autonomous Zone*, 106–14.

19 ›› Di Corinto, Tozzi, *Hacktivism: La libertà nelle maglie della rete*, 110, translation from Italian by the author.

20 ›› Deleuze, *Postscript on the Societies of Control*, 3-4.

21 ›› Michel Foucault, *Discipline and Punish: The Birth of the Prison*, trans. Alan Sheridan (New York: Pantheon Books, 1977), 27.

According to the "Mistrust Authority — Promote Decentralization" imperative, hacking is a practice grounded in open and accessible systems, where knowledge emerges through a direct interaction with technology.[23] Following Levy's claim, "All information should be free," the direct response is then for the hacker to become a situated mediator that redistributes access to knowledge and, with it, the forms of power embedded within technical systems.[24] Hence, through a shared approach to coding, where code and information are open to circulate, the hacker generates a collective knowledge that reduces the waste of effort and repetition. In this view, knowledge production twists from an isolated activity into a cumulative and collective process.[25]

To ultimately define the hacker figure, we shall extend it in Wark's terms. Here, operating through abstraction, the "hack touches the virtual — and transforms the actual"[26]: the hacking action itself produces something new in the world, constructing "new relations and possibilities out of raw data"; the hacker creates "new informational forms". In this frame, the hacker could be understood as a "hands-on" generator whose interest lies first and foremost in operating for the genesis of spaces where "free circulation of information" becomes possible.[27]

Decoder of the Status Quo

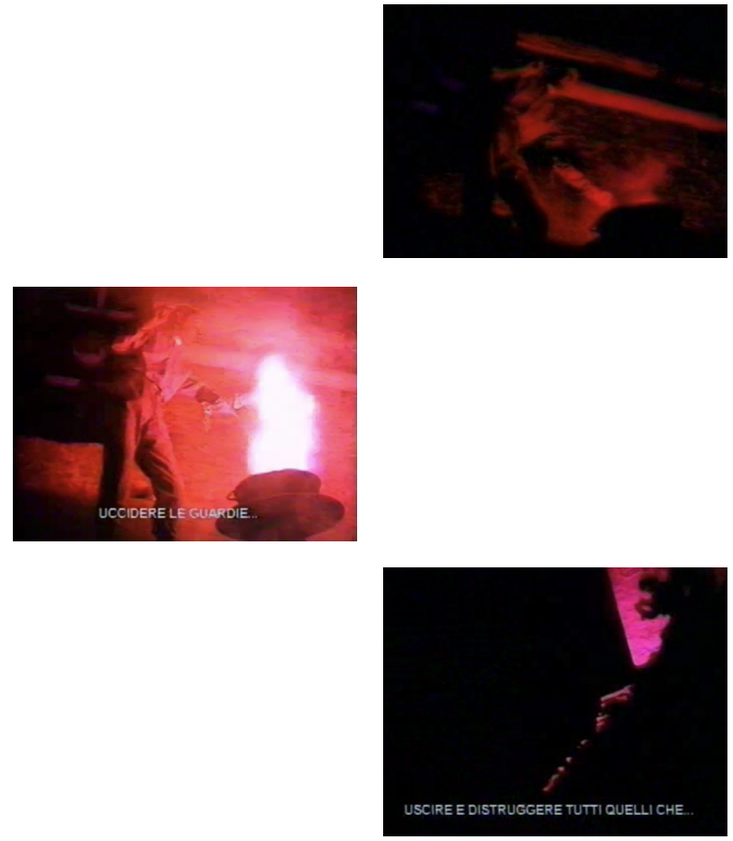
The Italian Cyberpunk

In Italy, hacker subcultures arose from countercultural milieus where technological experimentation intersected with leftist politics and the network of "centri sociali" that spread throughout the country. During the 1980s, a new form of political engagement with emerging communication technologies appeared in the literary framework defined as cyberpunk. Despite its origin traced in American science fiction, the introduction of themes that depicted conflicts between hackers and corporate control in a cyber-dystopian setting resonated with the Italian underground scene. Here, cyberpunk evolved into a radical cultural practice.[28]



Figures 2 ›› Frames from *Decoder*, directed by Muscha (West Germany: Interzone Film, 1984), Italian-subtitled version.

22 ›› Deleuze, *Postscript on the Societies of Control*, 3-4.
23 ›› Steven Levy, *Hackers: Heroes of the Computer Revolution* (Garden City, NY: Doubleday, 1984), 29.
24 ›› Levy, *Hackers: Heroes of the Computer Revolution*, 28.
25 ›› Levy, *Hackers: Heroes of the Computer Revolution*, 28.
26 ›› Wark, *A Hacker Manifesto*, 2004.
27 ›› Wark, *A Hacker Manifesto*, 2004.



From its literary origins, the notion of "cyberspace"[29] particularly inspired the hacker scene where it intersected with popular philosophical discourses in the centri sociali — self-managed, often occupied urban spaces rooted in leftist and autonomist political traditions — of the time, such as the ones introduced by Hackim Bey.[30] Bey's framework around the definition of "Web-hacker" outlined the role of a tactical agent within virtual spaces. Described as a "cybernetician", a smuggler, the web-hacker exploits fractures and hidden passages of the "Web" to generate "Temporary Autonomous Zones" (TAZs), in a parasitic relation within the broader system of control. This "reality hacking," however, is rooted in material and social presence: it is a tactical reappropriation of infrastructures.[31]

Decoder Collective and the Anti-Muzak

A cultural illustration of the "web-hacker" was projected in the 1984 film *Decoder*, directed by Muscha, which became a reference point within European underground and hacker cultures. The movie — set in a cold, dystopian German metropolis — follows FM, a sound experimenter who discovers a form of behaviour-regulation (Muzak) perpetuated through commercial background music. FM acts by decoding the "Muzak" in a countersignal (Anti-Muzak) that, once spread, activated an uncontrollable urge to revolt, exposing the movie's core:

> "Information is like a bank ... our job, your job ... is to rob this bank".[3233]

The movie itself became the original reference that inspired one of the most influential groups of the Italian cyberpunk scene. The *Decoder Collective*, founded in 1987 in Milan, embedded the movie message in its structure as a political method, a tool to interpret the present times.

Decoder created spaces for counterinformation, openly antagonizing traditional media while fostering debates on digital

28 ›› Bazzichelli, Networking: The Net as Artwork, 70-71.
29 ›› The term "cyberspace" was popularized by William Gibson in his novel *Neuromancer* — published in 1984 — although it was initially used in his short story *Burning Chrome*, which was published in 1982. In *Neuromancer*, Gibson refers to "cyberspace" as a "consensual hallucination experienced daily by billions of legitimate operators," a virtual space that represents abstract information from computer systems around the world. Cyberspace, meanwhile, developed as a metaphorical and experiential space within the imaginary of the cyberpunk movement where hackers could "jack in" through neural interfaces and manipulate digital information, Bazzichelli, *Networking: The Net as Artwork*, 70-71
30 ›› Bazzichelli, *Networking: The Net as Artwork*, 70-71.
31 ›› Bey, T.A.Z.: The Temporary Autonomous Zone, 108-111.
32 ›› Decoder, directed by Muscha (West Germany: Interzone Film, 1984).
33 ›› Decoder, directed by Muscha, 49:00–49:26.



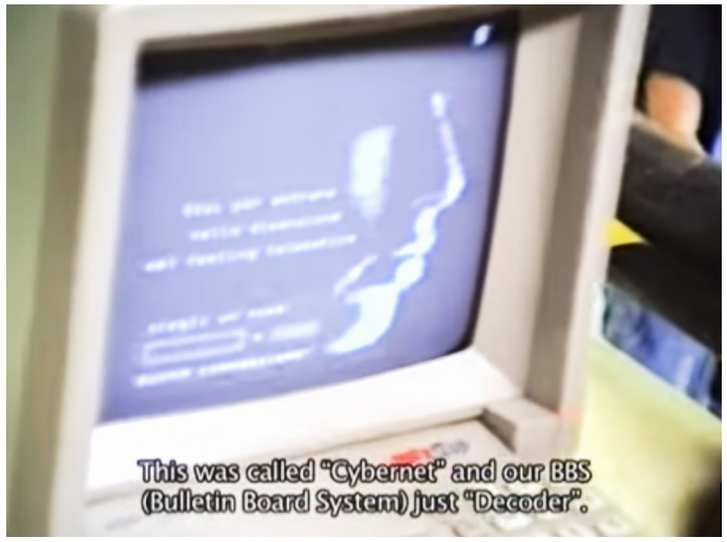


Figure 3 ›› Frames from a documentary on *Decoder collective*, documentary excerpt from the DVD of *Decoder*, dir. Muscha (West Germany: Interzone Film, 1984), uploaded by gommatv, YouTube, September 1, 2011, https://www.youtube.com/watch?v=mY2JfGTbZOU. Also archived at *Nero Editions*, https://not.neroeditions.com/archive/decoder-cyberpunk/.

rights, freedom of information, privacy, and state and corporate control over data. Through the organization of events centered on technological experimentation and knowledge exchange, alongside a strong editorial production, the collective became a key promoter of early debates in Italy on the social uses of telematics technologies.[34][35]

Bulletin Board Systems and the first counter-network experiences

Returning to Bey's theory, the TAZ is defined as "rooted in a material presence," not in a solely virtual existence, but with a tangible impact in the "real world". This idea of TAZ mirrors the experimental mid-80s creation of Bulletin Board Systems (BBSs)[36] networks as counterinformative channels in Italy. These platforms were computer-mediated virtual environments that preceded the widespread Internet and allowed the first forms of distributed, asynchronous communication through computers and modems. Exemplifying forms of "reality hacking" within the hacktivist scene, these cyberspaces generated a form of TAZ that connected spaces of collectivity and political ferment across the country. Supporting alternative information channels, Networks such as *Fidonet* and later *Cybernet* exemplified forms of virtual spaces that were implied in a communitarian political reality [37]

Recalling these earlier hacktivist experiences, Raffaele Petruzzi[38] — during a conversation with the author — highlighted that these virtual environments were never conceived as a separate realm detached from physical reality. Instead, they reinforced existing centri sociali and activist spaces, allowing geographically distant communities to remain in contact and to organize collectively. In this sense, early Italian networking practices can be understood as material articulations of the TAZ: not retreats into cyberspace, but infrastructures designed to sustain and amplify forms of situated collectivity. The heart of these spaces was the communal dimension that they fostered.[39]

As Tommaso Tozzi argues in *Le Radici dell'Hacktivism in Italia*, 1969–1989, a

34 ›› Tatiana Bazzichelli, *Networking: The Net as Artwork*, 68-75
35 ›› Valerio Mattioli, Novanta: *Una controstoria culturale*, 187-189, translation from Italian by the author.
36 ›› Bulletin Board Systems (BBS), a computer-mediated space that predates the Internet, emerged in mid-1980s Italy. BBSs were structured around thematic discussion areas that facilitated asynchronous communication. BBSs were important centers for Italian hacktivism that connected networks across the country and beyond. *Fidonet* was one such BBS that hosted early politicized cyberpunk forums, the European Counter Network (1989), and Cybernet, the first fully Italian cyberpunk network supported by the Decoder collective, Bazzichelli, *Networking: The Net as Artwork*, 75-84.
37 ›› Bazzichelli, *Networking: The Net as Artwork*, 75-84.
38 ›› Raffaele Petruzzi, conversation with the author, January 14, 2026, translation from italian by the author.

"Even when focused on technological architectures and infrastructures, the underlying purpose remained the same: we engaged in these practices to communicate and to share ideas."

Raffaele Petruzzi, conversation with the author, January 14, 2026, translation from Italian by the author.

continuity can be traced between the practices of proletarian expropriation and street mobilization of the 1970s and the emergence of hacker practices, social hacking, and netstrikes of the 1980s and 1990s in Italy.[40]

The Italian Hacker as Generetor of Collectivity

The cyber movement carried a lineage of independent media distribution that included fanzines, free radio, and self-managed communication spaces. Experiences such as *Radio Alice*[41] in Bologna, founded in 1976, exemplified an approach to communication systems that led toward electromagnetic liberation, collective authorship, and refusal of centralized editorial control. In this sense, the Italian hacker scene should not be understood as a rupture, but rather as a reconfiguration of earlier antagonistic forms of action. The cyberpunk intersected with punk's Do It Yourself ethos and extended the pursuit of autonomous and self-organized spaces into the virtual domain.[42]

Tozzi further argues that it was within this framework that cyberpunk thoughts articulated politics that "radicalized the conflict between civil society and dominant elites", by adapting them to new developments that required transformation, advancing "more ethical, egalitarian, horizontal, and democratic" configurations[43]:

> "This perspective seems to revive a Marxist idea according to which the development of production systems would ultimately lead to the triumph of the proletariat."[44]

In the Italian context, the hacker emerged as a collective actor shaped by the integration of Marxist and antagonistic political traditions with hands-on technological experimentation.

As Petruzzi recalls, the digital milieu of the time proved to be particularly transversal, by connecting militant spaces that were usually defined by fixed identities and that tended toward fragmentation. These cyber experiences fostered and sustained exchanges across diverse leftist political thoughts, sensibilities,

39 ›› Petruzzi, conversation with the author, January 14, 2026, translation from Italian by the author.
40 ›› Tozzi, Le radici dell'hacktivism in Italia (1969–1989), 49, translation from Italian by the author.
41 ›› Radio Alice is a free radio station that opened its activities in Bologna in 1976. Being one of the early examples of an unlicensed community radio station in Italy, Radio Alice gained recognition as a significant experience in self-management communications due to such unique aspects as collective authorship and open air. The station was closed down by the police in March 1977 in the period of student riots. Di Corinto and Tozzi, *Hacktivism: La libertà nelle maglie della rete*, translation from Italian by the author, 45.
42 ›› Valerio Mattioli, Novanta: Una controstoria culturale, 60-64, translation from Italian by the author.
43 ›› Tozzi, *Le radici dell'hacktivism in Italia (1969–1989)*, 45, translation from Italian by the author.
44 ›› Tozzi, *Le radici dell'hacktivism in Italia (1969–1989)*, 45, translation from Italian by the author.





Figure 4 ›› Cover of *Decoder* zine, produced by the *Decoder collective* for a screening of *Decoder*, directed by Muscha (Milan: Shake Edizioni, 1995). Source: Grafton9 Archive, https://grafton9.net/.

and subcultural formations, enabling the emergence of a shared yet heterogeneous ecosystem:

> "Even when focused on technological architectures and infrastructures, the underlying purpose remained the same: we engaged in these practices to communicate and to share ideas."[45]

The hacker figure constructed in the Italian country could be defined as a "Decoder" of the status quo: an engaged actor in constant exchange with a community.

Hackim Bey in his book *T.A.Z.: The Temporary Autonomous Zone* describes the creation of "Counter-Nets" as the tactical use of open communication systems (the Web) to subvert hierarchical control (defined by the Net) over information flows from within.[46]

Citing Musha's movie, the cyberpunk operated by decoding forms of "Muzak", and within the "Web", created "Counter-nets" by shaping an "Anti-Muzak". By introducing technical practice with the explicit aim of informing and empowering the collectivity, the Italian hacker enabled distributed forms of knowledge exchange that resisted the concentration of communicative power.

The genealogy of the hacker figure reaching the Italian country reveals a character whose hacking practice purposes are the ones of producing shared technical understanding, sustaining collective spaces, and allowing the redistribution of the means of communication.

By merging the skills of the 'cybertician' with the political ethos of the centri sociali, the figure of the Italian hacker outlines a counter-model in the use of technical skill and informational knowledge, transforming the hacking action from a tool for individual mastery into a common resource aimed at ensuring a collective good. The Italian hacker shaped a new perspective in imagining the conceptual foundations of counter-technological infrastructures by placing the community as their base layer. This counter-model operates from within the communicative medium itself, beginning with the strings of code that make up its technical framework, and moving outwards to expose and reconfigure structures of control embedded in it.

45 ›› Raffaele Petruzzi, conversation with the author, January 14, 2026, translation from Italian by the author.
46 ›› Bey, *T.A.Z.: The Temporary Autonomous Zone*, 108-111.

The
Mutable Net



A Generator
of Collectivity