

# Cyberspace

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The term *cyberspace* was a buzzword in the late 1980s and early 1990s. It was prevalent across both academic and journalistic responses to the emergence of new forms of computer-based media, from virtual reality (VR) to Internet communication. It captured a widely shared sense that these new, computer-mediated channels constituted new spaces of communication and experience, beyond or behind the monitor screen. Many Internet early adopters were struck by the difference between their immediate physical bodies and surroundings and a feeling of “presence” in the digital networks through which they were communicating, often with people in dispersed and remote locations. Though the telephone had, for around a hundred years, brought about a collapse of distance through remote but real-time conversations, new Internet channels, such as bulletin boards, Internet relay chat (IRC), e-mail, and multiuser domains, or dungeons (MUDs), facilitated both group (or collective) communication, as in bulletin boards, and a mix of synchronous and nonsynchronous modes of communication, often regarded as a phase change in the mode and experience of communication. For instance, leaving a message on a bulletin board and returning later to find responses to it gives a sense of persistent presence within the network—quite different from a phone call, which is transient and generally undocumented. Similarly, the terminology and graphic metaphor of *e-mail* evoked traditional, personally written communication (now “snail mail”) and the transit of physical letters through actual space. The playful forms of the MUD, in which remote players conjured up collective imaginative worlds through text interfaces, explicitly figured online interaction as spatial. The later MUD object-oriented (MOO) programming languages constructed persistent online spaces, mapped out virtually.

Academic interest in cyberspace was evident in areas of the social sciences and humanities, particularly sociology, media studies, and cultural studies. The early to mid-1990s saw a boom in publications and conferences on cyberculture and cyberfeminism, names explicitly referencing cyberspace (Featherstone & Burrows, 1996). Proponents of the study of cyberculture asserted that these new digital spaces of communication heralded significant, even revolutionary new cultural practices, politics, and identities. Others were skeptical of these radical claims, drawing attention to the persistence of pre-cyberspace, “real-life” identities and power structures, not least gender.

At this time the study of cyberculture, in both its celebratory and its skeptical strands, was characterized by at least as much attention to fictional depictions of new technologies and practices as to actual, everyday online communication. So cyberspace, in both popular and academic discourse, was a futuristic term in which actually existing

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technologies and practices (bulletin boards, MUDS, VR experiments) were inseparable from both science-fiction texts and other, nonfictional but imaginative predictions of a computer-mediated reality to come. Indeed, the term *cyberspace* itself comes directly from science fiction, having been popularized by William Gibson's "cyberpunk" stories and novels, notably *Neuromancer* (Gibson, 1984). Gibson's fiction was hugely influential on academic cybercultural studies in the late 1980s and early 1990s. His vision of a near future of decaying cities and hypercapitalism with a film noir-inspired aesthetics echoed the contemporaneous film *Blade Runner* (directed by Ridley Scott, 1982)—itself a big influence on cyberculture—while the depiction of new, intimate connections between people's minds and computer networks and data resonated strongly with excitement about actual VR and network media under development at the time. These latter characteristics, of immersion in computer-generated worlds, were fictionalized in Disney's film *Tron* of the same year, directed by Steven Lisberger, in which virtual space "within" a computer becomes a dramatic environment of gladiatorial combat with humanoid and vehicular software agents.

Although Gibson's books at this time featured a range of virtual and synthetic spaces and agents, their narrative and action are dominated by cyberspace itself—a "consensual hallucination" in which corporate and governmental data are rendered as three-dimensional forms, through which the characters navigate as if through a city. The visual aspect of Gibson's cyberspace evoked the experimental computer-generated imagery of VR systems, and the fact that the interface with cyberspace was an "uploading" of the user's conscious mind onto the network through cables inserted into sockets in his or her skull seemed a clear prediction of the immersive interfaces of VR headsets and data gloves. However, at that time VR technologies were experimental, expensive, and rare, only ever accessed by a handful of people, whereas the less visually spectacular Internet media of e-mail, bulletin boards, and MUDs were increasingly a popular everyday experience. Generally overlooked in the early years of cyberculture theory was the significance of computer and video games in the technological imaginary of cyberspace. Gibson himself was inspired by watching young people in an early video-game arcade, and for a decade at least the computer-mediated spaces most people had access to were the interactive immersive worlds of console, PC, and coin-operated games.

Though the cyber- prefix has generally been used rather loosely to denote anything relating to computers and digital networks, Gibson's derivation of the term *cyberspace* itself from his observations of arcade players links it directly to the scientific field of cybernetics. As the study of control and communication in nonlinear systems developed at the end of World War II, Norbert Wiener described cybernetics in terms of feedback loops between and through human, animal, and technological circuits (Wiener, 1948). Gibson's vision of immersive cyberspace is based on video-game play, understood as intense loops of information through electronics, hardware, eyes, nerves, and reflexes. This description—as in Wiener's cybernetics—resists any meaningful a priori boundary or hierarchy between human bodies, minds, and computer technologies.

Initially, then, cyberspace was seen as a graphically rich virtual space, its everyday realities in Internet communication and experimental VR and predictions for its possibilities being inseparable from science-fiction musings on data spaces and VRs. Cyberculture, it was often assumed, was the province of a new breed or generation of

technologically competent youth: cyberpunks, a countercultural mixing of US West Coast hacker culture and East Coast and UK punk and goth subcultures. This picture of cyberculture and cyberspace was popularized by magazines such as *Mondo 2000*. On the other hand, academic attention to cyberculture, while saturated with cyberpunk imagery, was also directed at actual and contemporaneously emerging online media forms, notably MUDs.

The radical novelty and the potential of online groups, societies, or cultures of cyberspace for both academic research and many other early enthusiasts of cyberculture were largely predicated on a deceptively simple fact: One could communicate online without being seen or identified in any way other than through a nickname and whatever one chose to write. Thus significant markers of identity—gender, ethnicity, and class in particular, unavoidable, it was argued, in actual everyday communication—were invisible online. Hence the power relationships built on these identities could be undermined. It seemed, then, that previously marginalized individuals and groups could find a voice and an influence online through merit, not through traditional identity (Rheingold, 1993).

At its most prosaic, this utopian view of cyberspace might simply note the possibility that a tech-savvy child could offer advice to adults on a forum without being immediately dismissed on account of his or her age. However, for many cyberculture theorists, this removal of explicit markers of identity had much more radical implications. Here the meritocracy of early adopters and cybernauts resonated with poststructuralist theories of identity play and with post-Enlightenment assumptions about rational subjectivity (male, heterosexual, Eurocentric) that were played out and undermined online, particularly in the fantastical and carnivalesque role-play of MUDs (Lister, Dovey, Giddings, Grant, & Kelly, 2009). These critiques of humanism found justification in technological change, in an era when the distinctions between the human and the technological seemed more permeable, as human consciousness, communication, collectivities, and identities were distributed across and transformed by computer networks. Cyberspace had the potential, it was argued, not only to mask actual world (“real-life”) identity, but to offer a realm in which identity could be experimented with and multiplied. Women could play out male personae and vice versa, or new genders could be invented.

Subsequent research, for example online ethnographies of MUDs, has pointed out the stubborn persistence of “real-world” norms of identity, sexuality, and behavior in cyberspace, and particularly norms of race and gender. Others have questioned assumptions that virtual communities were as utopian, meritocratic, and inclusive as claimed, noting for example the persistent role of trust in smaller communities, where the sharing of real-world markers (address, actual name, etc.) might be needed before particular sharing of ideas, opinions, or virtual material would be accepted.

Another key theme, albeit not so extensively explored as identity play, was a critical attention to the phenomenological experience of simulated space. Again echoing cyberpunk science fiction, some commentators explored the notion of a separation of body and consciousness—the former being “left behind” as the latter “entered” cyberspace. For some cyberenthusiasts, this was a future to be embraced, a potential liberation, or even immortality. For other critics, this thinking was symptomatic of a reinscription of

Enlightenment thinking and of the Cartesian duality of mind and body, prevalent in Western thought since the 17th century. For cyberfeminists in particular, this fantasy of dematerialization and disembodiment had a distinctly gendered aspect (Springer, 1996).

The term “cyberspace” today tends to refer not to immersive 3D-generated worlds, as imagined by Gibson or pictured by Disney. This aspect was subsumed into VR applications on the one hand and, in some ways, into computer games on the other. It reemerged in the mid-2000s for some years with the Internet-accessed virtual world Second Life, and in recent years VR itself has returned to public attention through developments in gaming technology such as Oculus Rift. So today “cyberspace” carries little of its early futuristic excitement in either academic or journalistic approaches to digital and network media culture. If used at all, it tends to appear as a synonym or shorthand for all Internet-mediated communications and culture, particularly e-mail discussions, social media (Facebook, Twitter), and the like. It is particularly evident in the context of problematic or criminal behaviour online: children’s online bullying becomes “cyberbullying,” and similarly crimes operated online become “cybercrime.”

This waning of the term and of its attendant excitement is no doubt due in large part to the thoroughly mundane and everyday nature of “cyberculture” today. Internet communication has ceased to be the preserve of early adopters and self-styled hackers and cyberpunks. E-mail is now perhaps one of the least remarkable channels of communication, characterizing work pressure rather than identity play. In recent years mobile devices and social media networks have disaggregated and multiplied cyberspaces, while increased network bandwidth and processing power have made video communication commonplace. The 3D and online virtual worlds of massive multiplayer online games such as World of Warcraft are very popular, but little attention is paid to these cyberspaces by those not directly involved with them. The fascination with virtual space has attenuated through familiarity, and perhaps with it anxieties and hopes for the permeability of the boundary between body, mind, and technology. Discussion, in both popular and academic circles, is now least likely to concentrate on communication and community online. Futurology is still evident in the popular attention to network communication, or in new models of the interrelationship of networked and lived physical space such as the experiments of augmented reality systems and applications. However, this is more in the pattern of the commercial prediction of new products and services—exciting at times, but rarely epochal, driven by a logic of upgrade culture and not by the abandonment of “real” and embodied life in the uploading of consciousness.

SEE ALSO: Augmented Reality; Computer-Mediated Communication; Cyborg; Posthumanism; Poststructuralism; Presence; Virtual Reality; Wiener, Norbert

## References and further readings

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- Benedikt, M. (Ed.). (1991). *Cyberspace: First steps*. Cambridge, MA: MIT Press.  
Featherstone, M., & Burrows, R. (1996). *Cyberspace/cyberbodies/cyberpunk: Cultures of technological embodiment*. London, UK: Sage.

- Gibson, W. (1984). *Neuromancer*. New York, NY: Ace.
- Haraway, D. (1991). *Simians, cyborgs, and women: The reinvention of nature*. New York, NY: Routledge.
- Lister, M., Dovey, J., Giddings, S., Grant, I., & Kelly, K. (2009). *New media: A critical introduction* (2nd ed.). London, UK: Routledge.
- Rheingold, H. (1993). *The virtual community: Homesteading on the electronic frontier*. Cambridge, MA: MIT Press.
- Springer, C. (1996). *Electronic eros: Bodies and desire in the postindustrial age*. Austin, TX: University of Texas Press.
- Wiener, N. (1948). *Cybernetics: Or control and communication in the animal and the machine*. Cambridge, MA: MIT Press.

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