

CONTEMPORARY ISSUES
IN
SOCIO-CULTURAL
ANTHROPOLOGY

*Perspectives and Research Activities
from Austria*

edited by

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LÖCKER

CyberAnthropology – Anthropology of CyberCulture

Philipp Budka and Manfred Kremser

After describing the theoretical and historical contexts in which cyberanthropology is embedded, we take a look at its ethnographic domains. In his crucial article, Arturo Escobar (1994) formulated several questions that could guide anthropological and ethnographical research in cyberanthropology. We will connect some of these initial research topics with current projects and theses at the Department of Social and Cultural Anthropology of the University of Vienna.

Cyberanthropology in its Theoretical and Historical Contexts

The term 'cyberanthropology' derives from the notion of 'cyberspace', which was mentioned for the first time in the science fiction novel *Neuromancer* by William Gibson (1984).¹ At the end of the 1940s the mathematician Norbert Wiener established the prefix 'cyber' by using the notion 'cybernetics' to define the science of human-machine interaction. Wiener had in mind the Greek word for 'steersman' or 'pilot' – *kybernetes* – to describe a steering or controlling device for machines. Today, the prefix 'cyber' refers generally to computer and information technologies and how humans interact with and through them.

In order to conduct cyberanthropology it is first necessary to identify the anthropological fields of enquiry. Anthropologist Arturo Escobar did this for the first time in 1994 in his article 'Welcome to Cyberia' in *Current Anthropology*. Escobar created the concept of 'cyberculture' to analyse fundamental transformations in the structure and meaning of modern society and culture due to computer information, and biological technologies:

'As a new domain of anthropological practice, the study of cyberculture is particularly concerned with the cultural construction and reconstruction on which the new technologies are based and which they in turn help to shape' (Escobar 1994: 211). For Escobar, cyberculture refers particularly to new technologies in two areas: computer and information technologies, and biotechnologies (e.g. genetic engineering). The first are bringing about a regime of technosociality, a process of socio-cultural construction activated by the new technologies. Biotechnologies, on

the other hand, 'are giving rise to biosociality, a new order for the production of life, nature and the body' (Escobar 1994: 214). In this paper we will limit the scope of cyberculture to information and communication technologies (ICTs) – the most commonly used term in relation to these new technologies – and how they are discussed in the discipline of social and cultural anthropology.²

Cyberanthropology or the anthropology of cyberculture deals with technologies and how they are constructed and implemented in society and culture. In this respect, cyberanthropology is not completely new. Since the 1950s, anthropologists have increasingly studied technologies and their impact particularly on non-Western societies. One of the best-known examples is Maurice Godelier's (1971) work on the effects of the introduction of steel axes to indigenous groups of Australia and Papua New Guinea. But, as Escobar (1994) among others (e.g. Pfaffenberger 1992) notes, one cannot adapt these approaches to highly complex technological systems in 'modern' societies and cultures.³ For this reason a new scientific project was established: science and technology studies (STS), which should take into account the diverse contexts in which technology and science are situated (e.g. politics and economics).

How should anthropology, as an academic discipline, deal with the new information and communication technologies? What are the consequences of the investigation of ICTs for the theoretical concepts and the methodology of (social) anthropology? At the beginning of the 1990s Escobar identified three different projects that tried to answer these questions:

1 According to the anthropologist David Thomas 'we are witnessing a transition to a postcorporeal stage that has great promise for creative social logics and sensorial regimes' (Escobar 1994: 216). It is inevitable that anthropologists should study how these 'new virtual world technologies' are socially produced (Thomas 1991: 33).

2 'Cyborg anthropology' considers its main goal to be 'the ethnographic study of the boundaries between humans and machines that are specific to late 20th century societies' (Escobar 1994: 216). Both proposals were criticised by the scientific community for predicting the existence of a new era and for founding a new branch of anthropology respectively.

3 The anthropology of cyberculture holds that the discipline of anthropology is well suited to describing 'in the manner of an initial cultural diagnosis, what is happening in terms of the emerging practices and transformations associated with rising technoscientific developments' (Escobar 1994: 216).

The Ethnographic Domains of Cyberanthropology

Perhaps the most obvious domain of ethnographic investigation can be located where new ICTs are produced and used: from computer labs and companies, Internet Service Providers (ISPs), and virtual reality design centres, to homes, schools, and workplaces as areas of consumption and reception.

A second domain is formed by the use of ICTs, such as the Internet, which connects millions of computers and their users.⁴ Within this gigantic network, people are forming specific networks of interest with their own codes of conduct and language. These 'virtual communities' or 'online social networks' offer a rich social field for ethnographic investigation.⁵ Ethnographers can study the diverse relationships between language, social structure, and cultural identity that are produced by computer-mediated communication.

'The political economy of cyberculture' is another field of ethnographic study; it investigates the relationship between 'information' and 'capital' as well as the cultural dynamics and politics that 'information' sets in motion (Escobar 1994: 220). Here the political and economic relations between industrialised and underdeveloped countries must be taken into consideration. How do ICTs influence these relationships? Do people in underdeveloped countries get access to ICTs, and how do they use them?

In his book *Cyborgs@Cyberspace?* the anthropologist David Hakken (1999) looks to the future of ethnography in the context of ICTs. Basically, he identifies a potential of 'cyberspace ethnography for contributing substantially to the cultural construction of this new social arena' (Hakken 1999: 2). In order to study cyberspace, it is necessary to initially outline the 'key issues' in cyberspace ethnography (Hakken 1999: 7–11):

- 1 The basic characteristics of the entities carrying cyberspace.
- 2 The self-identities formed by such entities.
- 3 The micro social relations these entities construct (e.g. with intimates and friends).
- 4 Their meso social relations (e.g. community, regional, and civil relations).
- 5 Their macro social relations (e.g. national, transnational).
- 6 The political and economic structures which cyberspace entities produce and reproduce and which constrain them.

These issues form, on the one hand, a framework that is predestined to be investigated in ethnographic ways. On the other hand the levels of social interaction described above are intended to help ethnographers focus on the next questions that

should be asked about 'this possible new way of being human' (Hakken 1999: 10).

The pioneering book *The Internet: An Ethnographic Approach* by anthropologist Daniel Miller and sociologist Don Slater (2000) was the first holistic ethnographic study of the Internet. They analysed 'how members of a specific culture attempt to make themselves a(t) home in a transforming communicative environment, how they can find themselves in this environment and at the same time try to mould it in their own image' (Miller and Slater 2000: 1). The research took place in the Caribbean, on the island of Trinidad. There, Miller and Slater (2000: 14) investigated how Trinidadians make use of *their* Internet and its applications (WWW, email, newsgroups, etc.) in religious, political, ethnic, social, and economic contexts. Miller and Slater (2000: 193) conclude that the Internet in the Trinidadian case can be understood as material culture rather than technology, since technologies 'have become forms of practice'. In anthropology, material culture is closely connected to consumption and its socio-cultural implications. The first step in consumption is the transformation of objects from impersonal commodities into things with distinctive meanings for the consumer and distinct places in consumers' lives (Carrier 1998: 128–129). And this was precisely what, according to Miller and Slater happened with the Internet in Trinidad.

Cyberanthropological Research in Vienna

Since the introduction of the Internet at the University of Vienna in the early 1990s, an increasing number of teachers and students alike have been engaging in a wide spectrum of relevant cyberanthropological and cyberethnographical topics of investigation. In the following, a brief summary of some of these research activities and results will be given.

A Case Study in ADDR: Parallel Worlds/Double Consciousness

Since 1996, a series of lectures and seminars on selected cyberanthropological themes has been offered by Manfred Kremser at the Viennese department – reflecting his own research interests over the past twenty-five years, especially in the field of African and African-Caribbean religions.⁶

Kremser (1998) methodologically extended the classical concept of ethnographic fieldwork in order to include the emerging cyberspace as a new terrain for investigating his favourite topics of anthropological interest. Consequently, his signifying label *AyBoBo* – African-Caribbean religions in real geographic space (Kremser

2000b) became *CyBoBo* – African-Caribbean religions in cyberspace (Kremser 2004b).⁷

With the advent of cyberspace, the study of *African Traditional Religions* (ATR) and especially *African-Diaspora Religions* (ADR) has gained a new dimension – which could be called the *African Digital Diaspora Religions* (ADDR). In many ways, revealing analogies can be made between these two different forms of the *African Diaspora*. Historically, diasporic circumstances have significantly transformed African religions. The *African Digital Diaspora* (ADD) is once again transforming the transformed in new ways.

Ongoing ‘cyber-transformations’ of ATR and ADR are leading to a number of fundamental changes. Many originally indigenous religious concepts and practices are now ‘leaving’ their local territorial setting and becoming widely available via modern communication technologies. In the process of becoming more global in scope and appeal, African cosmological world views and ritual systems are now being transformed into new forms of world culture – with the whole world now being the potential public.

Witnessing this African ‘CyberCosmoGenesis’ in its *status nascendi* allows some interesting observations to be made regarding the ontological relationship of certain formal aspects of African spirituality with the fundamental principles of cyberspace.⁸

Important to the understanding of the affinity between *Ifá* divination and the computer language is the binary code – the formal basis of both systems of communication. Therefore, some *babaláwos* (*Ifá* diviners) and scientists alike rightfully claim that the concept of cyberspace was anticipated by the *Ifá* numeric system as well as by African Geomancy – although within the context of the ‘technology of the spirit’. From the formal point of view, African geomancy, as the most universal of all divinatory systems based on the binary code, is frequently regarded by African-American authors like Ron Eglash⁹ as the cultural origin of digital computing. ‘In other words, all those ones and zeros, running around in every digital circuit from alarm clocks to super-computers, originate in African divination’.¹⁰ Computer technology is just another transformation of the same principles (Kremser 2001: 7–8).

Shangócentricity is, most likely, the latest and most striking phenomenon in a long chain of transformations and cyber-transformations of African religious concepts: *Shangó* was traditionally revered as the god of thunder and lightning in ancient Yoruba mythology and religious practice. As one of his most significant current metaphors in our postmodern digital age, *Shangó* signifies electric current in the quality of the exponentially growing electronic lightning-thunderstorms

within our computers, transforming present-day civilisation into a radically new sphere of knowledge (Kremser 2004a).¹¹

On the socio-cultural level it can be observed that the new cyberworlds of ATR and ADR do not necessarily replace the old ways of practising the religion, but rather tend to reinterpret old concepts according to new contexts, and add new dimensions to the forms through which religion is experienced. In this way, parallel worlds of religious practice are created. Many *babaláwos*, *santeros*, *mambos*, and religious specialists in other ADRs are now simultaneously engaged in three different social fields:

(1) As priests within their traditional local 'full-time-face-to-face-communities', with all the duties and obligations of their profession for their clients.

(2) As teachers, religious specialists, and spiritual guides within modern international 'part-time-face-to-face-communities', be they scientific conferences, practical workshops, Diaspora community meetings, New Age circles, etc.

(3) As webmasters, computer consultants, and religious entrepreneurs within the postmodern global 'no-longer-face-to-face-communities', the emerging Digital Diaspora has also become their field. They present themselves on the World Wide Web, network with their professional counterparts in Africa and in the African Diaspora, or recruit international clients for consultations and initiations.

More and more protagonists of ADDR are becoming involved in more than one of these socio-cultural fields. Their actions prepare the ground for ATR and ADR to open up vis-à-vis the wider public; this also involves absorbing and 'syncretising' elements from other religious traditions, and finally becoming World Religions in our postmodern CyberAge. With regard to the enormous creative potential of the expressive components of ATR and ADR for multimedia applications, it can be predicted with some degree of confidence that we can look forward to experiencing another quantum leap of religious culture in cyberspace.

In some of his more theoretical contributions Kremser (1999, 2004a) highlights the amazing parallels between the new phenomenon of cyberculture and virtual experience, and the 'old mystical worlds of spiritual experience' – topics of the anthropology of religion and consciousness (Kremser 1999: 284). Accordingly, the basic principle of both is the communicative connection of the human individual with (virtual) bearers of a higher knowledge. Thus, cyberspace is more like a *Leitidee*, a vision of a new society in which everything and everyone is connected (Kremser 1999: 287).

In his work, Kremser tries to answer fundamental questions of cyberanthropology, for example: 'what new forms of social construction of reality and of negotiation of such constructions are introduced by the new technologies?' (Escobar

1994: 214). In this context he held the first theoretical lecture on Cyber-Anthropology in Vienna in the summer term 2000, concentrating on the French media philosopher Pierre Lévy (1999) and his concept of 'anthropological spaces'. Particularly the emerging – not yet realised – 'space of knowledge', which could grow out of the global dissemination of information and communication technologies, such as the Internet or the WWW, provides anthropologists with a highly interesting vision of the human future (Kremser 2000a).

Current Cyberanthropological Theses and Projects in Vienna

Whereas Kremser analyses cyberculture from an epistemological, philosophical, and spiritual point of view, some of his students have investigated specific phenomena and aspects of these emerging cultures. According to Escobar (1994), anthropological cyberculture research could look for answers on appropriations of, resistance to, or innovations in modern technologies by minority cultures.

Philipp Budka (2002) studied, within the scope of his masters thesis, the use of computer networks by indigenous groups.¹² This ethnographic study, which was conducted completely online, searched for answers to questions of use, intention, presentation, and representation: how do indigenous groups use computer networks, such as the Internet, the WWW, mailing lists, and newsgroups? How and why are indigenous groups represented on the Internet? And who is representing these groups? On the methodological level, established ethnographic methods such as participant observation and questionnaires were combined with methods adapted to the textual character of the field of enquiry, such as ethnographic text analysis. The main findings of the research project indicate that indigenous groups use computer networks to disseminate information and to communicate within different networks and communities. Thus, they rely both on the support of indigenous persons and organisations as well as non-indigenous persons. Since this ethnographic online study leaves many questions open, Budka is currently preparing a follow-up project, which will expand the focus of research. On the Internet indigenous groups and organisations are interwoven with diverse non-governmental organisations – from environmental to human rights organisations – forming global networks of support and activism. To study these transnational networks and their cyberculture it is necessary to combine ethnographic on- and offline research, as demonstrated by Miller and Slater (2000).

The best-known example of indigenous activism and resistance on the Internet is the case of the EZLN (Ejército Zapatista de Liberación Nacional/ Zapatista Army of National Liberation) of Chiapas, Mexico (Budka 2002, 2004). This indigenous

movement first attracted media attention on 1 January 1994, when groups of several hundred masked *guerrilleros* occupied four district capitals in Chiapas to demonstrate the indigenous rejection of the Mexican signing of the NAFTA (North American Free Trade Agreement). After recapturing the towns, the Mexican Army followed the Zapatistas into the Lacandóna forest. But national and international media attention and several solidarity demonstrations forced the Mexican Government into negotiations, which have lasted for ten years. In the year of the uprising, state-run companies, such as the biggest TV station Televisa, dominated the Mexican media landscape. Therefore, the EZLN had to rely on national and transnational solidarity networks of NGOs and their technological infrastructure to disseminate their statements and messages. These groups made use of what was at the time a relatively new and inexpensive medium: the Internet and its applications.

Based on Arjun Appadurai's (1996) concept of techno- and mediascapes, the diverse EZLN solidarity networks can be understood as forming 'transnational electronic solidaritiescapes', which are closely related to the 'glocal' distribution and use of the Internet (Budka 2004). These electronic solidaritiescapes create a 'counterpublic' to the Mexican state-run media public and this has significantly influenced the negotiation process between the indigenous resistance movement and the Mexican Government. The case of the EZLN and its electronic solidaritiescapes points out that activism on the Internet influences public opinion and political agency. The Internet can be a powerful tool for indigenous groups and movements to shape processes of globalisation.

Johanna Christine Ahrer (2001) investigated cyberculture from a more political-economic perspective. In her study about Microsoft and Linux, she analyses their 'corporate' cultures by contrasting classical economic concepts with anthropological models. Ahrer performs the difficult task of comparing the big software company Microsoft with Linux, the open source software product of a network of computer experts, by concentrating on their similarities, such as their 'mythical' founders. Finally, Ahrer contrasts the 'corporate' cultures of Microsoft and Linux employing the anthropological concepts of state and nomadism. She concludes that these anthropological concepts can provide useful modes for developing business strategies.

Mark Wilson (2002) performed a critical analysis of one of the most commercial websites on African-American Religions, Ifa Foundation. In his study he investigates the question of whether the historic exploitation of African peoples, culture, and religion in the African Diaspora is continued in the new virtual space of the Digital Diaspora. The business-oriented dimension of this religious entrepreneur site reaffirmed his early suspicion.

Gunda Chiba (2003), another Viennese student, in her MA thesis, searched the German-speaking Internet for sites related to Tibet. After collecting and analysing about 500 websites dealing with Tibet, Chiba concluded that the quality of website content varies greatly and it is therefore hard to verify the information provided by these websites. The majority of analysed sites deal with Tibet in the context of (mass) media and tourism. Particularly on tourist websites, Tibet is reduced to its beautiful, picturesque landscapes, and its critical political situation is faded out. Chiba's study throws light on the relations between countries of the 'First' and the 'Third World' in the context of the World Wide Web – another field of anthropological cyberculture research (Escobar 1994: 214).

In his research project, Martin Slama (2001) investigated the use of the Internet in spheres of student leisure in Indonesia. He conducted ethnographic fieldwork in the city of Yogyakarta, where the country's largest public university is situated. Students there spend a major part of their spare time in Internet cafes, in particular using an Internet Relay Chat program called mIRC to communicate with other users, preferably of the opposite sex. This kind of computer-mediated communication offers young people the chance to 'meet' in private rooms and to exchange intimate thoughts and feelings. On the other hand, Internet cafés also serve as public places where students meet and connect with urban youth culture. Slama concludes that due to the emergence of the Internet, Yogyakarta's young inhabitants have gained additional spheres, online as well as offline, for their leisure activities. Within these spheres students are living, for instance, their love lives in relative autonomy from the older generations, who lack access to the new electronic technologies.

Gertrud Zausnig (2003) analyses female spirituality on the Internet from a discourse-analytical perspective. Out of a sample of websites, Zausnig identifies spiritual types of women (e.g. fairies and witches), which are part of the 'cultural discourse' in German-speaking countries. In a next step she looks for female symbols, implied power relations, and for the skills and attributes accredited to women on the selected websites. Basic results of the study indicate a lack of spiritual roles for women, beyond the traditional role of mother.

In an ongoing project, Walter Poehn discusses the phenomenon of file-sharing on the Internet from an anthropological perspective. Which established anthropological concepts of exchange, gifting, and community building can be applied to this ever-increasing form of online interaction? The question of appropriate anthropological methods and concepts for the study of cyberculture is of great importance and is therefore implemented in all studies and projects discussed above.

New media and technologies are not only subjects of anthropological enquiry

they can also be used as valuable tools for producing and transferring knowledge, and forming social networks (Budka et al. 2004). This is demonstrated by the interdisciplinary learning system Latin American Studies Online (LASON), which was constructed under the project management of Elke Mader from the Viennese Department of Social and Cultural Anthropology.¹³ Besides providing learning content about Latin America, produced by established scholars and students, LASON comprises a database of Latin American research in Austria and a learning management system for *blended learning* models (e.g. at the Department of Social and Cultural Anthropology).

Conclusion

As we have pointed out, cyberanthropology is beginning slowly but surely to find its place in the discipline of anthropology. It is not a new sub-discipline or branch of anthropology however, as cyberanthropology has its own clear-cut domains and areas of ethnographic research.

The variety of studies on cyberculture shows that the discipline of anthropology, with its particular methods and concepts, is predestined to investigate these new, highly dynamic spaces of socio-cultural interaction. Within these spaces, anthropologists deal with phenomena well known to the discipline, such as gender, ethnicity, religion, or trade. Humans produce, use, and consume ICTs by including their offline lives and cultures. Therefore, if the anthropology of cyberculture operates in an open and holistic way it can help to highlight seemingly contradictory phenomena within anthropology, such as the global and the local in the case of the Internet (Miller and Slater 2003).

'Cyberculture, moreover, offers a chance for anthropology to renew itself without again reaching, as in the anthropology of this century, premature closure around the figures of the other and the same' (Escobar 1994: 223).

Notes

- 1 A search for 'cyberanthropology' on the World Wide Web (WWW) finds Steve Mizrach's *CyberAnthropology Page*, where he outlines the domains of cyberanthropology, which basically correspond to the issues discussed later on in this paper (www.fiu.edu/~mizrachs/cyberanthropos.html).
- 2 Synonyms for ICTs include 'advanced information technologies (AITs)' (Hakken

- 1999) and 'computer and information technologies' (Escobar 1994).
- 3 For a discussion of 'modernism', 'modernity', and 'modernisation' in an anthropological context, see for instance Spencer (1998: 376–379).
- 4 A concise overview of the Internet and its applications can be found online at www.livinginternet.com.
- 5 Howard Rheingold, the author of the bestseller *The Virtual Community* (2000: 359–371), states in a revised edition of his book that a more appropriate term for 'virtual community' is 'online social network'.
- 6 These include the following titles: 'Cyber-Transformations of African expressive cultures'; 'Digital Diaspora – African Religions in Cyberspace'; 'Africa's Global Diaspora: Fighting for Religious Culture and Identity in Cyberspace'.
- 7 The research project 'CyBoBo – Cyber-Transformations of Religious Expressive Culture in the Caribbean' was funded by the Jubiläumsfonds der Österreichischen Nationalbank (Project No. 8306). Some of the most intriguing findings have been published in the Routledge *Encyclopedia of African and African-American Religions* (Kremser 2001) and are summarised in Kremser 2003 and in "Transforming the Transformed: African-Derived Religions in Cyberspace."
(http://www.goethe.de/br/sap/macumba/kremser_long.htm
http://www.goethe.de/br/sap/macumba/kremser_long.htm)
- 8 As mentioned earlier, the term 'cyberspace' was popularised by the science fiction author William Gibson in his 'Cyberspace Trilogy' *Neuromancer* (1984), *Count Zero* (1986), and *Mona Lisa Overdrive* (1988), in which he created a new mythology of virtual worlds, using concepts, metaphors, and personifications of the Voodoo religion, correlating them with cyberspace terminology.
- 9 www.rpi.edu/~eglash/eglash.htm www.rpi.edu/~eglash/eglash.htm
- 10 www.rpi.edu/~eglash/eglash.dir/hit.dir/afch7.dir/afch7.htm
- 11 It is, therefore, not surprising that dozens of African-American, and even German and Dutch computer and software companies, have taken names like *Shango*, *Ifa*, *Orisha*, or *Voodoo* as their respective trademarks.
- 12 In conjunction with the written text of the thesis, Budka set up a website – www.philbu.net – on which material additional to his research project can be found.
- 13 The development of LASON was financed by the Austrian Federal Ministry of Education, Science, and Culture (Neue Medien in der Lehre an Österreichischen Universitäten und Fachhochschulen). The website of the learning system can be found at www.lateinamerika-studien.at.

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Abbreviations

ADD: African Digital Diaspora

ADDR: African Digital Diaspora Religions

ADR: African Diaspora Religions

ATR: African Traditional Religions

EZLN: Ejército Zapatista de Liberación Nacional / Zapatista Army of National Liberation

ICTs: Information and Communication Technologies

LASON: Latin American Studies Online

NAFTA: North American Free Trade Agreement

NGOs: Non-Governmental Organisations

STS: Science and Technology Studies

WWW: World Wide Web