

# Anthropology in the Age of New Technologies

Rosa Elena Gaspar de Alba<sup>1</sup>

## Abstract

Digital techniques have contributed to the creation of data storage, which has been a decisive factor in the homogenization of the world and its conversion to a global market. But they are also capable of prompting the singularities of the world, particularly when they contribute to the production of new knowledge.

In this first instance, those interested are primarily the large international corporations. In the second, scientists and educators use such techniques for knowledge as the final result. The real knowledge must be critical and nonlinear. Archaeology and anthropology go hand to hand: the present human communities which are a heritage of the past and a projection of the future, demand knowledge always imaginative in its view of the present and the past.

The question today is how the technique and technologies are used and applied to human societies. Historically, their main goals have been the colonization-subordination, and in certain cases, liberation as well. The critical and nonlinear thought, brings us to this point: the new technologies should not be an instrument of control and oppression, but one used for liberation and education in both developed and underdeveloped societies. Thus social sciences, particularly anthropology and archeology, utilizing cutting edge technology, increase not restrict, the development of human communities.

In the era of information, the new technologies and communication are decisive in the ways in which the information is structured, in the forms of its availability and application in the social sciences, including anthropology. Let us remember that archeology, as a sub-discipline of this science, allows us to understand the past, linking it to the present, being an important way to understand contemporary cultures and their values, above all to understand the genesis of our world and our social relationships.

Digital world: computers, teaching and diffusion of Visual Anthropology enables us to incorporate the use of integrated text, video, audio, animations, virtual reality, simulation, databases, e-mails, discussion lists, newsgroups, digital archiving, electronic publications, research resources and many other possibilities to our daily work.

One of their decisive innovations, consists in the interactive character of information that modifies substantially the simple traditional accumulation of knowledge and promotes the discussions and the exchange of different points of view.

The use of books continues to be fundamental, but now, researchers and students are moving more freely between digital and analogue information sources, mixing

traditional culture with a real postmodern experience, in a wider and more flexible way.

The easy access to any libraries around the world, particularly through Internet, is part of this radical transformation of the ways in which social scientists work today. These innovations of doing research, diffusion and exchange of information are called the "democratization and decentralization of knowledge," and anthropology and archeology are not excluded from this phenomenon.<sup>2</sup>

Theorists in the field of Social Sciences talk of new global structures and communications that rapidly redefine social relationships in general, but especially to those with the goal of knowledge acquisition of, and also those referring to changes in personal identity.<sup>2</sup> Webster, for example, analyzes five areas in the field of social sciences where these changes have been decisive:

1.-The assimilation of new technologies is a social phenomenon, which radically modifies the ways of life even if the use of computers, for example, has different meaning for different people.

2.-The technological revolution has substantially changed the different kinds of production and distribution, not only of products and services but also in the way of making knowledge. Considering that all forms of production implies value judgments.

3.- The "information workers" have replaced the traditional workforce. In the scientific world, the difference can be enormous, from the point of view of productivity and consistency of scientific knowledge.

4.- Essentially, the technological revolution has gone beyond the traditional limits of space and time. The exchange of information in "real time" stimulates the identity with a community for example a scientific community.

5.- From the cultural point of view, a large quantity of information is not always easy to handle, to the point where it is difficult to distinguish what is trivial or important. The danger here is the huge amount of "fake" information created for commercial or publicity purposes.

Globalization has created tensions between the more advanced countries and the "underdeveloped" ones where colonial structures still exist. The "luxurious ways of life" presented by the media and the web generate hopes that cannot be satisfied with local resources. The "global village" has become a "local village," full of contradictions and undesired effects.

In more than one sense, new technologies have reinforced dependency of the poor countries producing more unemployment, and increasing immigrations to the wealthier ones, weakening both sides. This situation has created "gaps" in the development of the Third World, giving an illusion of development that only favors a minority. Researchers in the field of anthropology have equally pointed out the loss of integrity on both sides, presenting additional problems to define the different cultural identities and values, and even eventually creating new hybrid identities.<sup>3</sup>

It has been frequently mentioned that the power of transnational corporations determines the digital future, at the expense of effective human communication. Personal and intellectual contacts are being ignored or destroyed by those controlling

the rush of progress. (Brown, 1997). Additionally, it should be mentioned, that new technologies have a tendency to “kill” the present time by isolating its presence here and now for the sake of another commutative space. This is in fact virtual reality, only a discrete telepresence whose enigma remains forever intact. (Virilio, 1993). New Technologies eliminate the duration; that is, time collapses into “real time”. (Moser, 1995).

Through time, technologies have been defined and manipulated by the social forces. In the case of archaeology, not excluding anthropology, its commercialization is something we cannot control: TV channels and mass media producers are manipulating the information that has been scientifically generated in order to make the story more attractive to the general public. The question is: will only scientific audiences receive full information? Probably they will, but this should not limit our efforts to do scientific research professionally and to divulge it accurately to the public.

Surely there is not an answer to the series of questions presented here. But the main issue is to fully consider these problems and to openly discuss them. Current societies oscillate between the utilitarian and profitable use of new digital techniques and information and its efficient utilization to produce real knowledge. We live between commercial interests and the interest of scientific truth, between sensationalized media and professional presentations of acquired knowledge.

The study of anthropology and archaeology is continually advanced by the use of new and rapidly changing technologies. Our role is to educate regarding these technologies and their potential force. Additionally it is our responsibility to ensure that this new data is presented scientifically and not commercially.

Beyond this, we need to develop the nonlinear and critical thought in our fields and to reinforce it through digital and informational techniques. Critical and nonlinear thinking in analysis and in research, refer mainly to a scientific attitude that requires further research beyond accumulated knowledge. This research is creative and dynamic utilizing all current and evolving technology.

With the new technologies in the field of the social sciences, specifically of anthropology and archeology, specialists must assume ethical responsibilities for a critical analysis of the human phenomenon, where social relations are almost invariably of subordination and control.

For example anthropologists, because of the important role they play in every social relationship, have always studied myths and symbols and that is why they should be clearly considered in the past, present and future, admitting that in many cases they define social structures. Of course, myths and symbols are also present in modern societies. For this reason as social scientists we have to choose between the simple study of a social conditions, or a critical nonlinear study of past and current societies. We should present our studies in a non-prejudicial way.

As an archaeologist I would like to mention one of the most remarkable studies of an ancient remain, an Egyptian mummy. As we all know, mummies are an unparalleled source of scientific data, but applying traditional techniques for their study was destructive and irreversible. Applying X-rays and computerized tomography scanning made possible to look inside the mummy without unwrapping it. Due to the latest computer-generated images, and 3D (three dimensional technology), scientists have

been able to explore inside a mummy's body: a 'virtual unwrapping' of the mummy is possible. Such is the case of Nesperennub's of Karnak, of the collection of the British Museum. Now, after 2,800 years after the burial of this priest, his secrets are available to the world thanks to the new technologies<sup>4</sup>. Today we know his place in history, his role in Egyptian society, the record of his life, what he looked like, his health, and how he was embalmed for eternal life. In this study, the new interactive technologies have been applied for the first time to a complete body, preserving a historical resource intact.

In Mexico, I can refer to the extraordinary experience of the Zapatistas in southeast Mexico—one of the poorest regions of the country—who, from their apparent isolation in the forest, they have been capable of achieving a world presence with liberating messages and a radical democracy directed to people of all ideologies and social conditions. A democracy that the Mexican Zapatistas of Chiapas have practiced through their "Caracoles" (regional and local organizations of self-government); a democracy that for them signifies "command by obeying". The vehicle for the dissemination of these messages has been modern technology.

And what is more amazing, Zapatistas have achieved a world presence with the use of the new information techniques, from their remote geographical location. These messages are now being studied at the most important educational centers of the world as a model of an emerging democracy, and as a model of the role of new communication technologies in social sciences.

With the use of leading edge technologies, scientists will vastly increase the potential yield of data about past and present societies.

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<sup>1</sup> President of the Commission of Visual Anthropology, Mexico

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<sup>2</sup> It has also been said that "democratization" of information is a myth; neither the access nor the contents would comply such goal. Commercial interests are becoming more and more evident: consider that 70% of the population of the world has never made a phone call. On the other hand, Habermas wisely sustains that "the 'public sphere' is a discursive space 'unregulated by authority', that has broken down in western society the increased private and governmental control of the media in western society".

<sup>2</sup> A combination of causes: products from diverse places in the world which are available in remote countries, the advertising of different commercial products through TV, films, radio and printed publicity seen around the planet. Such phenomena have brought the world to fateful simplification and loss of significance. The creation of symbols in all aspects of everyday life, which coexist with a collapse of life meaning, and result in a kind of 'hyper reality' bears no relationship to any underlying reality". . (Baudrillard).

<sup>3</sup> Economically speaking, new technologies demand continuous and growing investments. In order to continue having the opportunities of widening our research, we are trapped in the consumer society. Even while doing our research through internet, which at its origins was free, now a days a subscription fee must be paid in order to have access to most libraries, discussion groups, etc. Here we can underline the "misbalance" between development and underdevelopment.

<sup>4</sup> This project is a result of the collaboration between the British Museum and Silicon Graphics Inc.