



Culture, communication and ecology

## Cultural ecology

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There is an operational difference between Culture for Development and Development of Culture. The relationship between Ecology and Culture has been explained. Cultural Ecology analyzes reality as a cultural entity. The practical application of this concept consists of the symbolic level (cultural) working simultaneously with the other levels or aspects of society. The Sustainability of Culture is an essential aspect of Cultural Ecology, which is basically determined by promoting diversity.

**Key words:** Cultural ecology, culture, communication, sustainability, development.

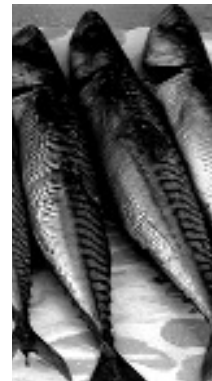
### Introduction

**H**UMAN GROUPS WITH NO CULTURE or communication cannot exist. This essay addresses changes in the concept of development, as it relates to culture and communication, as a new reference point for practical applications of development and cooperation among nations.

The idea of development has changed. Economic development has evolved to mean sustainable human development. This shift in meaning represents an important new cultural paradigm. I start this essay by offering five points to consider. The first point being that development can only be defined and applied in a human, local environment. The concept is cultural but it also affects culture itself. In other words, it both expresses and serves local communities.

Second, if we state that development is supposed to be human and sustainable, then culture becomes relevant. As a matter of fact, there is nothing more human than culture itself and its sustainability. In this essay, the definition of cultural sustainability is the search for pluralism and diversity. This is why culture should be best referred to in terms of plurality.

The third point is to acknowledge that improved efforts have been made in the last few decades to create better indices and indicators of human development. These indices document a broader array of societal attributes than simply economic indicators. *The Human Development Index* is considered to be a turning point in this regard. It added variables which are often difficult



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to measure, such as literacy, and in doing so gives us a much better understanding of societal conditions. Currently, there is quite a big movement to promote the *Information Society's* indices with Sciadas (2005) at the lead.

As a fourth point, we are benefiting from institutional programs and action plans that now establish concrete time frames for the accomplishment of particular goals. Such is the case of Millenium Declaration as well as the objectives that were established in the World Summit of the Information Society and Action Plan on Information Society for Latin America and the Caribbean.

The fifth consideration is that both culture—according to its structure—and communication—referred to as the process that relationships, symbols, behaviors, beliefs, materials, etc.—can be objects, or engines, of development.

### Development of culture and communication based on sustainability

The phrase Culture and Development generally refers to a set of goals: to get rid of poverty, empower human rights, encourage participation and improve health, education and literacy. However, there are two different meanings, depending on which term is used as a noun and which one is used as an adjective. Instead, if we say Culture for Development we make reference to the role culture and cultural processes play to achieve development objectives. It assumes that development is the aim and that culture contributes to achieve this aim. If we say, Development of Culture, that shifts the emphasis once again as shown in the table below.

The same relationships apply when thinking about Communication as the dynamic part of culture, since culture is developed through communication. Communication can be commonly identified with mass media -- radio, press and television. However, it also includes other basic elements such as interpersonal communication and communication arts, such as theatre, dance, music, etc.

The concept of culture as a way to development has been supported by theories of modernization. Theories of modernization conceptualized development as series of defined stages that every economic system would experience, in chronological order. The role of culture in this process was to encourage these changes towards a modern society/economy. Furthermore, culture, through communication, should help overcome any barriers to achieving the 'next' stage.

Rostow's study has the most radical vision of culture as a way to development. In his study, culture resembles a puzzle in which some pieces can be substituted by other pieces in order to advance through the stages of development. It is a matter of exchanging existing cultural values for different ones which, theoretically, will allow for development. According to Rostow, society goes from being traditional, through various stages, to an endpoint of mass consumption. A traditional society, in Rostow's view, is characterized by scarce technology and, therefore, low productivity. The consequence of traditionalism, then, is a static society. Therefore, he suggested that traditionalism should be overcome through advanced means of production adopted from countries going through the last stage of development. Such an adoption would bring new methods and technologies to key societal sectors, such as transportation and textiles. This would lead to a stage of maturity where productivity was applied to all activities. Ultimately, the society is characterized by mass production and mass consumption—a welfare state with an industrialized structure in the style of Ford. According to Rostow, this last stage would be the end of the history of development.



Differences between Culture for Development and Development of Culture

	Culture for Development	Development of Culture
Objective	Economic Growth Social Change	Cultural Change (Participation); Growth of Communication and Culture Industry Encouragement of Pluralism and Diversity
Target Public	Local Communities; Youth/children/minorities/ underprivileged	General Public/Visitors /Consumers/ Buyers/ Local Communities
Aspects of Development	Influence of traditional and cultural patterns Use of Mass Media and y Cultural Marketing for Development	Cultural Growth Development as an aspect of Development Preserving and helping Development of Cultural Infrastructures and Heritage
Cultural Aspects	Personal, Social and Educational Growth and Empowerment; Use of Cultural Activities as non-formal Mechanisms for Education, Communication and Participation for Development.	Fulfillment of Aesthetic and Cultural Needs
Participants	Public and Civil NGOs Backing up Change	Public and Civil NGOs for the Development of Cultures, Employment, Heritage, Easel Arts, Cultural Industries, Tourism, Entertainment, etc.
Instruments	Economic Policies Theatre, Dance, Music,Puppets, Story Telling, Radio, Television, Films, Books, Cinema, Arts and Crafts	Cultural, Communication and Economic Policies, Intellectual Property Rights;Cultural Markets, Private Sector;Development Policies; Human Rights Tools; Governance; Theatre, Dance, Music, Puppets, Storytelling, Radio, Television, Films; Books, Cinema, Arts and Crafts

Source: Arrangements by Epskamp et al. 2000: 8.

This way of thinking has a symbolic parallel in the functionalist school of communication represented by Lerner and Schramm. They believed culture and mass media to be agents of modernization. Media would influence the social change needed to reach development. That would mean leaving behind traditions and introducing modern thought patterns. Modern thinking, as opposed to traditional thinking, was related to urbanization, literacy, and even to learning new ways of behavior which would cause institutional changes. These changes would sustain the modernization process. Modernization, therefore, was synonymous with “going to school, reading papers, receiving a salary, buying goods, casting votes and having an opinion about different topics” (Mowlana and Wilson, 1994: 8).

This way of thinking gives importance to the development of the communication industry and it does so under the name of modernization. It also leaves social, cultural and ecological policies as concerns ‘after development’. The emphasis is on economic growth then, later on, one decides how to distribute its benefits.

This is the situation that, according to Kyong-Dong (1994: 8), occurred in Korea after the *coup d’etat* by Park Chung-Hee. Park’s first priority was to improve the Koreans’ life conditions solely through economic growth. Democracy would come later. Since there was some growth, some intellectuals backed this approach and agreed that democracy could wait. Yet when economic prosperity came to a relative few the Prime Minister said that more growth was still needed before the fruits of this growth could influence society more broadly (Kyong-Dong 1994: 8).



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Fortunately, this concept of culture helping development gave way to a new concept, which opposes the first one. It recognizes the independent role played by culture and communication. It also establishes culture as the frame within which other activities are done and not as an integral part of society. This is Klitgaard's conclusion (1992: 59-64) after analyzing relationships between economy and culture. He concludes that culture affects the production of goods and services (we can add values). Therefore, production is affected by cultural and communication policies.

Traditionally, this production role has been represented like this:  $y=f$  (productive factors, organization, regulation, innovation, culture).  $Y$  represents production, service, which depends on several factors, including culture, a supposedly independent variable. Klitgaard says that culture sets function ( $f$ ) and that culture is affected by the rest of variables. This complex feedback makes you think in cultural omnipresence, that is, culture affecting the rest of the variables and vice versa, that these variables affect culture.

Cultural development wants to develop culture through cultural and communication policies. These can be supply and demand policies. Supply policies seek to create or increase cultural industries, such as cinema, videos, TV; pre-industries, such as theatre and dance; heritage or tourism, actors training, etc. Demand policies seek to increase motivation and training to enjoy and create communication products, even as an amateur. Both amateur and professional products in cultural industries and pre-industries—cinema, music, and theatre—show the richness and variety of human experiences (PEIAPAC 2001).

The concept of culture as a synonym for diversity started in Americacult, an intergovernmental conference about cultural policies in Latin America and the Caribbean, held in Bogota, in 1978, and in the World Conference on Cultural Policies in Mexico, 1982. Both events can be seen as the beginning of an array of new policies related to culture, including cultural preservation, dissemination and administration (Epskamp 2000: 4)

The 1990s saw the concept of cultural diversity reaching institutional maturity and acceptance. Inter-agency forums on Culture and Development sponsored by UNESCO in 1991, Paris, and in 1993, Korea, were held, as well as the Conference on Cultural Policies for Development, in 1998 in Stockholm, where the Universal Declaration on Cultural Diversity was created. Previously, UNESCO had published a Paper from the World Committee on Culture and Development on Our Creative Diversity. All of these events emphasized cultural identity as a right, and that cultural policies should exist to exercise this right (Harvey 2003: 59-71) In Stockholm, the Action Plan for Cultural Policies for Development was passed. This plan shows a move forward toward the Development of Culture. Further, it places the promotion of cultural and linguistic diversity in the hands of the mass media and the communication and information technologies. Specifically, different forms of media are to contribute to cultural development through "the promotion of languages and local and regional cultures, through investigation and preservation of national heritage, and through promotion of diversity of cultural and indigenous traditions as well as national cultural identities." It also guarantees editorial independence for the mass media. (UNESCO 2003: 34)

Such statements are a good example of the desire to promote the development of culture and cultural creativity through the use of new information and communication technologies and services. A key aspect of this is to promote access to the so-called Information Society, as well as the development of cultural industries. The Universal Declaration about Cultural Diversity,

UNESCO, takes it as an objective to “help emergent or consolidating industries in developing and underdeveloped countries, cooperating in the development of the needed skills and infrastructures, enhancing local viable markets, and facilitating the access of cultural products from these countries to the global market and to the international distribution networks” (UNESCO 2003: 38).

Finally, cultural industries play double role when generating markets. They transmit symbols which are needed for identity building and for the development of social and cultural practices that can make cultural aims (heritage preservation and diffusion, enhancing creativity, production and propagation of cultural contents) a reality.

### Culture sustainability. Canclini's hypotheses

García Canclini defines cultural sustainability through three hypotheses about the relationship between culture and development. These are:

The first hypothesis is that cultural sustainability through development places communication and exchange first. Differences are valued and encouraged. Media producers that offer their products to segmented markets through internet and, in some cases, offer even personalized products, have realized this. Such is the case of video supply. Today we see increased diversity in contents when it comes to production. However, when it comes to diffusion, there is a tendency toward uniformity. There is a film industry in South America and Africa, for instance. But the films shown in most cinema theatres are American.

The second hypothesis states that sustainable culture promotes diversity to make it available to future generations in a dynamic way. It does not seek to pass on to the next generation stagnant instruments, legends, languages or traditions. Rather, it seeks to pass on instruments, languages, traditions that have evolved through intra-national and international cultural dialogue. However, this dialogue among cultures and nations becomes difficult when there is a great difference between production and diffusion. While every nation promotes laws to help its cultural industries, often this is not sufficient or is targeted to only a few media sectors, such as cinema and theatre. Other activities like music editing, bibliography, daily newspapers, radio and television are often left to private enterprise.

The third hypothesis explains that the market itself is not able to manage cultural sustainability. As one example, Canclini points to the fact that the North American Free Trade Agreement established between the United States of America, Mexico and Canada, has not enhanced diversity. On the contrary, cultural productivity has decreased. For example, ten years before the treaty, 747 films had been produced in Mexico. From 1994 to 2004, the production decreased to 212 (García Canclini 2005:9). Sustainability should be an international matter. Statistics such as these suggest that the WTO's agenda should include diversity and multiculturalism as aims. For example, which steps to take regarding copyrights and their management should be studied.

### Systems of Culture

The term culture is polysemic. According to UNESCO, there are three hundred entries for the term culture (Zallo 1970: 11). Endo (1996: 77-90) defines culture in a general way, as the result of human activities, including economic, political, social and other aspects. It is interesting as it is applied to five so-





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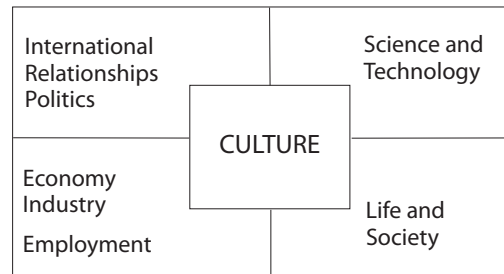
ciocultural systems which describe human activities. These are:

- International relationships and politics (human rights, military matters, political systems, political parties, laws, etc.).
- Economy, Industry and Employment (Trade, Prices, General Budget, Markets, Energy, Transport, Information and Communication Industry, etc.).
- Science and Technology (Mathematics, Engineering, Biotechnology, etc.).
- Life and Society (Ecology, Population, Transport, Education, Mass Media, Public Health, Sports, Tourism, etc.).
- Culture (History, Anthropology, Radio, TV, Cultural Industries, Folklore, Ceremonies, Festival, Symbols, etc.).

[Source: Endo 1996: 83].

This classification places culture in the centre to help understand that all five systems are interrelated. In the cultural system human activity is classified. Culture would incorporate the other systems. For example, the economic system is based on purely cultural assumptions. Castoriadis (1980) points out that the ideas of culture and progress are based on Western values. These values have roots in the Judeo Christian ideology that believes in infinity and therefore the concept of development is not finite, that is, it has no specific aim. Activities and concepts like innovation also have absolute, positive value that must be applied to all spheres. This value in theory is error free, although practice shows otherwise: continued obsolescence, components incompatibility, impossibility to repair computers, mobile phones, etc. There are some exceptions such as the Rome Club (Club de Roma) which in the 70's would try to impose limits to growth, placing emphasis on fair distribution of existing resources. Rome Club pioneered infinite growth, limitless in theory.

Systems of Culture, according to Endo



Source: (Endo, 1996: 83)

### Cultural ecology

According to Bertalanffy, human nature has two sides. The physical or material side is the one in which each human being lives "with a biological body, physically equipped with impulses, instincts and limitations on each species." The other side is broader. Here each person "creates, uses, dominates and is dominated by a universe of symbols" (Bertalanffy 1981). This vision allows for an association between Ecology and Culture. Ecology is usually associated with the physical or material world and this world is interrelated with human being and, therefore, culture.

Along the same lines, Babe remarks that "when we give meaning to the objects of these interactions, people act on them, which affects them." That is

why “ecology blends environmental sciences with human culture” (Babe 1997: 1-2). As such, culture, although created by human beings, necessarily includes dimensions of the material or objective and symbolic or subjective. The *material* dimension of culture consists of a set of goods, utensils, practices and institutions created to face natural or objective physical circumstances. Anthropology defines it describing “culture is a set of tried and proven answers which have been balanced against environmental incitements. It is the functional equivalent to instinct” (Lamo de Espinosa et al. 1987). This material dimension of culture is made up of information technology, the market and political organization, that is, those institutions that allow human beings to satisfy their needs and find fulfillment. The *symbolic* dimension encompasses both the spiritual and the symbolic parts. It consists of the norms that rule each social group, that is, ideas, interpretations, beliefs, traditions and even aspirations. Both material and symbolic aspects allow us to understand that heritage is not only a set of monuments or natural reserves. Heritage also refers to spiritual legacy, beliefs and traditions.

Cultural ecology is constituted by the set of both material and symbolic aspects. We can consider physical and social facts and their interpretation. Any dysfunction in any aspect affects the others. For example, we can see how damage in the ozone creates an environmental hazard that endangers life on Earth. However, the changes brought about by environmental degradation will also create negative effects, or pressures, in social or political spheres.

Guattari explains the parallelism between the different systems, “the same way some mutant and giant algae are invading Venice’s lake...there is another kind of algae, social economy algae, that consists of free proliferation that allows men like Donald Trump to take over entire suburbs (...) to renovate them, increase rents and throw out thousands of poor families, most of which will become homeless. In environmental ecology, this would be the equivalent of dead fish” Felix Guattari (1990:3 4).

Going back to Endo’s systems, this relationship means that a specific problem in one arena would generate dysfunctions in the rest. It is important to state that a specific problem cannot be solved by only one system, especially if only the material aspect is taken into account. The cultural aspect and its symbols are to be considered. Guattari elaborates an *Ecosophia*, based in the articulation of three ecology elements: the environment, social relationships and human subjectivity. These spheres are inextricably linked to create a holistic system; an imbalance in any one area creates an imbalance elsewhere.

There are other elaborate models that show symbolic aspects interacting with material ones. The model known as model of rural community self-sufficiency consists of technology, economy, natural resources, mental resources and socio-cultural resources (TEMS) was a proposed by the Institute of Science and Technology in Thailand, after seven years of talks amongst several participants. The model is based on participation and self-sufficiency and different elements of society are interrelated. It shows a bar with two entries where the five terms TEMS is shown both horizontally and vertically.

All of the above examples of conceptualizing cultural ecology are interesting because they acknowledge the complex links among different spheres. So if, for example, one considers innovations, this should not only be thought of as technological innovations, such as new materials, new equipment or computerization. There are also management innovations, like improvements in human resources, relationship with suppliers and work ethics. Similarly, there are social innovations such as decentralization or improvements in pu-





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blic participation. Finally, mental innovations are another factor, as is the case of self-organization, and development of capabilities.

### Dimensions of sustainability

Sustainable development has four dimensions and they are all related to culture (Xian 2000: 173-6). They are:

First there is a *Symbolic* dimension or ideas that guide human relationships with nature and the world. In some cultures from Africa, India and China, human beings are not separate entities from nature. They are so integrated that some animals, water or some areas are associated with divinity. As a consequence, human relationships with their environment are very respectful (Saraswati 1996: 133-42).

This relationship is deep and wise, born from experience. For instance, many people think the way Peruvian natives organize their crops to be chaotic. The natives explained what they were doing was an imitation of what they saw in the jungle; plants of different shapes and sizes would grow together. Based on this idea, a new way to regenerate exploited lands in the jungle was discovered. Concentric circles of plants in varying stages of growth were planted, similar to what the natives were already doing. This relationship with their environment is a characteristic of traditional societies. One Indian chief expressed it like this: "land does not belong to us, but we belong to her" (Kleymeyer 2003: 155-7).

There is also a *Social* dimension. This is the communal lifestyle and code of ethics. That is, what we consume, how we consume, how we acquire it, recycle it, etc., including how we relate to each other. Education plays a vital role in this dimension.

The *Political* dimension is the way in which sustainability policies are implemented. That is, the way long term and short term goals work together. Political sustainability means that projects are achievable. That is, human, financial and technological resources are taken into account and that these resources are used in a sustainable way. Institutional practices, symbols, norms, values, and other components of the symbolic dimension of culture must be established in a way that supports sustainability.

Finally, there is a *Cooperation* dimension, requiring global and international cooperation. Sustainable development is based on the interrelationship of all natural and human elements. That is why it cannot happen only in a specific geographical area or in only one field of activity.

### Conclusion: Development sustainability implies cultural sustainability

When thinking about new ways to use and create energy in order to preserve natural resources and the environment, such as solar energy or hydrogen, for example, this creation cannot exist without a change in lifestyle. A cultural change becomes a must. There cannot be sustainable development without cultural sustainability.

To measure culture sustainability we must have new meanings of societal wealth and health —with an increased focus on the community, versus individual, level. The comparison between quality and quantity indicators amongst different communities would help establish patterns of change through communication and cultural policies.

Sustainability requires practice in diversity and pluralism. Diversity and pluralism are terms that would stand some improvement. Along these lines,



it is better to talk about increase than about preservation when it comes to these terms —and increase must be seen from both a supply and demand point of view. It is not enough to talk about the availability of web sites or TV programs. It is necessary to emphasize the percentage of the population that has access to those media and what content they seek. For example, it legitimate to ask whether there should only be profitable programs.

Culture and communication must be accessible to make pluralism and diversity effective and to seek cultural sustainability. This access allows members of a community to partake in symbols and values of such a society. This access implies that public institutions make and implement supply policies to preserve some activities such as languages, theatre production, cinema, etc. It also implies demand policies to train and motivate and pluralistic policies that enhance creativity in every sphere, education for peace, dialogue, tolerance, participation, etc. It is in this last level that diversity can be practiced and promoted. Accessibility is a necessary requisite, but not the only one, to make diversity effective.

## Bibliography

- Babe, R. (1997), "Understanding the Cultural Ecology Model", en D. Cliche (Ed.), *Cultural Ecology. The Changing Dynamics of Communications*, IIC, Londres.
- Carretero, A.E (2003). "Postmodernidad e imaginario. Una aproximación teórica", Foro Interno, n. 3: <http://revistas.ucm.es/cps/15784576/articulos/FOIN0303110087A.PDF>. (22-3-2009).
- Casmir, F. L (1991), *Communication in Development*, Ablex Publishing, New Jersey.
- Castoriadis, V. (1980), *Reflexiones sobre el Desarrollo*, Kairós, Barcelona.
- Cortés Carrasco, J.J., (2005), *Modelos de comunicación y paradigmas del desarrollo*. Trabajo de investigación, para la obtención del Diploma de Estudios Avanzados, Universidad del País Vasco-Instituto de Estudios sobre Desarrollo y Cooperación Internacional.
- Endo, N, (1996), "The relevance of International Communication for Socio-cultural Development with Special Reference to the New Methodology vis-à-vis the Application to an Engineering Approach", *Dynamics of Communication and Cultural Change. The Role of Networks*, special issue, Culturelink, Zagreb.
- Epskamp, K. et al. (2000), "Introduction. Outlining the Debate", en *Culture and Development vs. Cultural Development*, IMO, Culturelink, special issue, Zagreb.
- García Canclini, N. (2005), *Todos tienen cultura: ¿Quiénes pueden desarrollarla?*, Conference for the Seminar on Culture and Development, Banco Iberoamericano de Desarrollo, Washington.
- Guattari, F. (1990), *Las Tres Ecologías*. Pre-Textos, Valencia, 1990.
- Harvey, E. R. (2003), "Cultural Rights, Cultural Policy, Cultural Diversity and constitutional Law in Latin American Countries", *Cultural Diversity and Sustainable Development*, IMO, Culturelink, special issue, Zagreb.
- Kleymeyer, Ch. D. (2003), "Cultural Diversity, Sustainable Development, Traditional Stewards, and Community-Based Conservation", *Culturelink, Cultural Diversity and Sustainable Development*, special issue, Culturelink, IMO, Zagreb.
- Klitgaard, R. (1992), "In Search of Culture", *Culturelink*, n. 6, Zagreb.
- Kyong-Dong, K. (1994), "The Culture of Development and the Idea of Cultured Development", in M. Lee et al. (eds.), *Culture & Development in a New Era and in a transforming World*, The Institute for Far Eastern Studies & Unesco, Kyungnam University.
- Lamo de Espinosa, E. et al. (1987), *La Sociología del Conocimiento y de la Ciencia*, Alianza editorial, Madrid.
- Lerner, D. & Schramm, W., eds. (1967), *Communication and Change in the Developing Countries*, The University Press of Hawaii, Hawaii.
- Manila Declaration on Communication and Community, in H.H. Frederick, H. H. (1993), *Global Communication & International Relations*, Hancourt Brace and Co, Orlando.
- Mowlana, H. & Wilson, L, (1994), *Comunicación, tecnología y desarrollo*, Unesco, Paris.
- PEIAPAC, (2001), Primer Encuentro Internacional de Asociaciones profesionales del ámbito de la cultura, 10-13.09.2001, Final Declaration: [http://www.diversite-culturelle.qc.ca/index.php?id=105&L=2&tx\\_bulletinsirre\\_pi2\[year\]=2001&tx\\_bulletinsirre\\_pi2\[article\]=5410&cHash=f88354233f](http://www.diversite-culturelle.qc.ca/index.php?id=105&L=2&tx_bulletinsirre_pi2[year]=2001&tx_bulletinsirre_pi2[article]=5410&cHash=f88354233f) (17-2-2009).
- Rogers, E.M. (ed.) (1976), *Communication and Development: Critical Perspectives*, Sage, Beverly






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Hills, California.

Saraswati, B. (1996), "Intercultural Communication", in B. Cvjeticanin, *Dynamics of Communication and Cultural Change. The Role of Networks*, special issue, Culturelink, Zagreb.

Schafer, P. (2003), "Diversity and Sustainable Development. Contemporary Concerns or Permanent Realities?", *Cultural Diversity and Sustainable Development*, special issue, Culturelink, Zagreb.

Schramm, W (1964), *Mass Media and National Development: the Role of Information in the Developing Countries*, Stanford University Press, Stanford.

Sciadas, G. (2005), *De la fracture numérique aux perspectives numériques*, NRC-CNRC, Orbicom, Québec : <http://www.orbicom.ca/projects/ddi2002/ddi2002.pdf>. (21-2-2009).

Servaes, J. & Malikhao, P. (2004), *Comunicación y Desarrollo Sostenible*, IX Mesa de las Naciones Unidas sobre Comunicación para el Desarrollo, FAO, Roma.

UNESCO (2003), *UNESCO's Basic Texts on the Information Society*, UNESCO, París.

Universidad de Manchester (2005), *Sustainability and the Future of Development*, eDevelopment Briefing n. 10, University of Manchester, November:

<http://www.manchester.ac.uk/idpm/dig/briefings.htm> (22-1-2003).

Von Bertalanffy, L. (1981), *A System View of Man*, Westview Press, Boulder, Colorado.

Xian, G. (2000), "Culture and Development: A Sustainable World in the Twenty First Century", *Culture and Development vs Cultural Development*, IMO, special issue, Zagreb.

Zallo, Z. (1979), *Economía de la comunicación y de la cultura*, Akal, Madrid.