Modes and Models of Global Communication

This paper will start out with the question of which types of global communication can be observed in today’s world and how technologies relate to different styles of communication. A typology of different versions of international communication will be designed, consisting of three variations:

(a) *glocal communication*, driven by markets and based on commercial players, big and small, that are motivated by profit earning (e.g. Murdoch’s News Corporation),

(b) *intercultural communication*, determined by states and organised by state institutions on the tradition of international relations (e.g. BBC World Service) intending to provide quality communication in the public service tradition,

(c) *transcultural communication* that is best practised by members of the civil society who build real or virtual communities that provide for non-commercial and non-governmental media use.

In a second step this typology is developed further to relate these three types of global communication to technologies and combination topographies describing the inner logic of the resulting communication structure and modes of communication. The primary emphasis is on satellites and the Internet, how their topography differs and what this means to actors and the content they provide.

By Way of Introduction: The concept of culture

It is only of limited use for this account to discuss all the various definitions of the word ‘culture’ as today it is being used in a much too vague and multifaceted form: it can mean the office of a minister of parliament (responsible for Culture and the Media) or of a federal state (responsible Science), ‘high culture’ as opposed to the low and despised ‘mass culture’, popular culture, the cultural community of a section of the population, an identity-giving force. It would be easy to find an infinite
number of further senses of the word. In an American textbook on intercultural communication, the following definition is presented. I will adopt this definition in the following:

‘1. A community or population sufficiently large enough to be self-sustaining; that is, the group must be large enough to produce new generations of members without relying on outside peoples.

2. The totality of that group’s thought, experiences, and patterns of behaviour and its concepts, values, and assumptions about life that guide behaviour.

3. A process of social transmission of these thoughts and behaviours over the course of generations.

4. Members who consciously identify themselves with that group. …’ (Jandt 1995: 8)

This definition provides the basis for the following account because the concept of culture outlined is generously sized and can be applied to completely different actors. It is about totally different groups which make up every population - about the constituting quantities of ‘world society’, so to speak. This definition of culture applies neither purely to nations, or parts of them (as in ‘cultural policy’), nor does it make value judgements (an in ‘high culture’). This will prove to be an advantage.

Based on this broad definition of culture, the following account develops a small framework in which - from the starting point of various actors - the field of global communication is divided up into three areas, which each have different qualities and together illustrate the different varieties international communication.

These are:

? Glocal communication

? Intercultural communication

? Transcultural communication.

**On glocal Communication**

In the last 150 years, under the ruling influence of electronic communication - from telegraphs to communications satellites - a largely linear process can be observed: the globalization of news. This took place under the auspices of news agencies operating on a global level, which can be seen as the first form of ‘transnational media corporations’ and as an example for all further developments. (Boyd-Barrett/Rantanen 1998: 2) This trend towards the provision of communication for larger and larger spaces has dropped off over the past few years. That is why a new term has been adopted and introduced into the academic discourse by the American sociologist Roland Robertson. It stems from the Japanese term for ‘global localization’: ‘dochaduka’, which means glocalization. ‘Glocalize is a term which was developed in particular reference to marketing issues, as Japan became more concerned with and successful in the global economy, against the background,..., of much experience
with the general problem of the relationship between the universal and the particular.” (Robertson 1992: 173f) This concept emphasises that localization and globalization stand on the one hand in irreconcilable contradiction to each other, but on the other hand remain inextricably linked to each other through continual and massive interdependencies.

Part of the bargain that comes with progressive global homogenisation under commercial auspices, a ‘McWorld’, as the American political scientist Ben Barber describes it, is that people are not primarily addressed as culture bearers but are reduced to consumers. (Barber 1997) The people concerned react to this commercial pressure, which according to Barber they perceive as external control, with separatist and fundamentalist movements, which are epitomised by the holy war of Muslims, the ‘Jihad’. ‘That what grows to become the ‘Jihad’ may have arisen out of a simple search for local identity, for common personal attributes, which are needed to counterbalance the maiming and deafening unification in the form of industrial modernisation and cultural colonisation, McWorld style.’ (Barber 1997: 13) At the same time it becomes clear that too much commercially produced communication causes a current in the opposite direction and gives cultural (and in particular non-commercial) communication a boost. The central consideration regarding the typology, which is being used here, is that a large part of global communication does not pertain to cultural interests of any definition. Rather it simply serves commerce, in the sense that it is the product of commercial enterprises that act with the intention of making profits. From the perspective of these companies, culture in itself contains no value, in fact it is something more like a sign of local adversity, like an awkward obstacle which needs do be dealt with in the acquisition of new markets. It would, of course, have dangerous consequences for these companies, if they simply ignored it. Despite all their global intentions, global actors are bound to the principle that ‘all business is local’; i.e. a sales transaction always takes place in one specific place.

The basic motive of the maximisation of profit with its immanent logic evokes a drive in the direction of a large transnational, and ultimately global, market. In its way, though, there lie countless local peculiarities, customs and taboos, which we interpret as an expression of the different cultures of this world. Global actors, such as CNN and MTV, have pushed their way onto the world market, e.g. with their commercial television production and remained successful on this large scale until regionally oriented companies that took local interests into account went into competition with them (e.g. the music channel ‘Viva’ competes against MTV on the German-language market). Under the pressure of the changing market, they ‘localised’ their initially global product. Here, however, local does not
refer to the individual community, but means an area which may seems relatively small from a global perspective, e.g. the area in which the inhabitants share a common language.

The American music and youth broadcaster MTV, which had its twentieth birthday in 2001, is a good example of glocalization: Originally conceived for the US market, it expanded worldwide. In 1987 MTV Europe took off. In 1997 the channel started to produce programmes in German. Today the MTV network is active in 140 countries in 17 languages and reaches about 350 million households per day (with a whole bunch of channels, such as MTV 2, VH 1, Nickelodeon, TNN, etc.). (Rohleder 2001) The Indonesian subsidiary of MTV Asia, on air since 1995, reaches about 75% of their target group of young people (aged 15-24) with access to a television. It has its own MTV radio broadcaster and MTV Stores and is supposed to be the most important factor influencing young people, as far as music style, life style, clothes and consumerism in general are concerned. (Diani/Edmond 2001) Its influence there is definitely greater than MTV’s influence is in Europe or in the USA.

Of course the glocalized views of nation states play a part, e.g. as licence distributors, but the focus of the business dealings does not lie within state borders, but in commercially oriented communication areas, i.e. in markets. An example of the consequent tension between commerce and culture in wide-scale communication can be seen in the European media politics of the 80s. It endeavoured to create a unified audio-visual area within the European Community of the epoch (EC, now EU) through legislative harmony (‘Television without Frontiers’). This approach saw itself as neoliberal, but in the end it merely demonstrated a lack of comprehension of government. The effect that was actually induced was a different one: Commercial providers were ruined fast by taking Europe to be a closed market, as there are no ‘European television viewers’. On the contrary they became divided up into different markets in which the communication spaces became determined by a shared language. (Humphreys 1996) Consequently the German-language space was taken over by the German media groups around RTL and Kirch. The English-speaking space, including Ireland and part of Scandinavia, was ‘conquered’ by London. The behaviour of local actors is determined by markets not states.

The term glocalization is introduced here with specific meaning: the global economy and marketing are absolutely central to this, which is why the term demonstrates a natural incompatibility with the phenomenon of global cultural exchange. One can argue about whether the values communicated are those of ‘the American way of life’ or whether they prove to contain universal components - they are probably a mixture of the two. To be sure, a glocalized provider like MTV is not appropriate for the
task of offering the cultural periphery a ‘world stage’: Indonesia’s cultural specialities would have a chance neither on the American nor on the German local market. On the one hand the term glocalization emphasises that communication can manage without culture. On the other hand, regarding the dichotomy of commerce and culture, it underlines that culture, with its non-profit intention, often counterbalances or complements commercial action. Both terms, commerce and culture combined, constitute the most important manifestations of communication in an emerging ‘world society’. It should be noted that Robertson and in particular the German sociologist Ulrich Beck also include other aspects. For example, when Beck connects the term glocalization with a ‘transcultural production of worlds of meanings and cultural symbols’, which is able to open a new ‘world horizon’. (Beck 1997:88) In the context of the systematics developed in this text, glocal communication is always market-oriented, hence it is commercial communication.

**On Intercultural Communication**

Research into intercultural communication assumes that there is a not clearly definable number of cultures in the world, which differ from each other sufficiently and are distinguishable from each other along more or less clearly cut lines. ‘Think of culture as everything you would need to know and do so as to not stand out as a ‘stranger’ in a foreign land.’ (Jandt 1995: 6f) A concrete example of this way of thinking in the form of a metaphorised journey through 17 different countries and their particular culture exists under the title ‘Understanding Global Cultures’ by Martin J Gannon. Some chapters in this book are e.g. ‘The Traditional British House’, ‘The Italian Opera’, ‘The German Symphony’, ‘French Wine’.... (1994) It is evident that the aim here is to use national stereotypes to discover the secret of how cultures differ from each other. Gannon, an American professor for International Management and Behaviour, emphasizes in his approach a central assumption of the School of Intercultural Communication (which is not always mentioned explicitly): in many different ways it equates culture with nation, the common interests of a culture with state boundaries. Precisely this element was the basis for the beginnings of scientific research into intercultural communication. For decades American diplomats had been criticised for their ignorance towards their host states. When the US congress reformed the diplomatic service with the Foreign Service Act in 1946, the Foreign Service Institute was created. It offered cultural and anthropological training to future foreign diplomats. A lecturer at this institute, Edward T. Hall, counted with his scientific writings to the founders of the science that comprises all aspects related to intercultural communication. The members of this school see their task as in principle sensitising future American diplomats to delicate issues in their host countries and teaching them how to show the appropriate
respect: Americans, traditionally rather unrefined in their behaviour, were supposed to be trimmed in cultural respect and politeness. Its scientific message was that culture is communication and communication culture - and that globally speaking these cultures are drastically different from one another but need to communicate with each other nevertheless. (Hall 1959) Consequently Intercultural Studies focuses on the many misunderstandings, which arise between different languages and cultures, when the signals that are transmitted between people are misinterpreted and, as a result of this, people fail to understand each other. It is informative for the Americans (while it is rather amusing for the Germans) to learn that Kennedy’s statement of 1967, ‘Ich bin ein Berliner!’ can also be understood as, ‘I am a jelly doughnut!’ (Jandt 1995: 4) This is given as a warning example in textbooks on Interculturalism - which again represents a miscalculation. In Berlin, and only in Berlin, a jelly doughnut is called a ‘Pfannkuchen’, i.e. a ‘pancake’, probably to prevent continual misunderstandings amongst the inhabitants of a town of the same name. In other words: the presumed national structure of communication does not actually exist, so Kennedy had expressed himself comprehensibly as far as regional peculiarities are concerned. This story of the origins of Intercultural communication makes it very clear that its beginnings focused above all on the subject of national cultures and their communication with each other. This was a completely new and certainly important approach, which is however based on the logic of the nation state and the intercourse between nation states. A typical field of Intercultural Communication can be seen in all the forms of play of cultural exchange between countries. When the element of interaction has little importance, and the self-representation of a particular state and its culture is central, we talk about foreign cultural policy. Foreign radio services, used as an example later on, fall into this category.

**On Transcultural Communication**

The Latin prefixes ‘inter’ and ‘trans’ convey, even though they are often used synonymously in colloquial usage, something principally different: ‘Inter’ implies between, for the relationship between two units but also for the that located in the middle. ‘Trans’ represents beyond, the other side (whereas one’s own side is termed *cis*), but it also refers to that what lies above.

This difference is significant for the concept of culture developed above. Culture and nation are connected in a natural state of tension. Cultures are bound to people who share similar communication habits. These can but do not have to coincide with state boundaries. Kennedy’s Berliner problem described above reveals for example that regional cultures have distanced themselves from national language usage. Other dividing lines that have nothing to do with state boarders are also thinkable. If we focus on a society which divides itself into above and below, then
we find one particular culture pertaining to the top ten-thousand people and another one for the simple people (e.g. workers’ culture). We find a dominant culture, and cultural peculiarities of minorities. We find a leading cultural taste, and a consciously dismissive subculture. From this point of view we separate culture from nation. These pluralize in a new view on the matter in which people are no longer influenced by a national culture but by a collection of different fragments of culture, which give them a ‘polyidentity’, as the French historian Edgar Morin (Morin 1988) called it. According to this meaning, culture disassociates itself from nation and its state constitution. It describes common traits within a group of people, who feel that they belong together, even if they live far away from each other (such as the Chilean national who feels German even when he is in his own country).

If this is our basic approach, then it seems obvious that cultural areas can lie across state boarders. People who pertain to the rich upper class in the metropolises of a country have much more in common with their like in other countries than with their own countrymen and women in a peripheral province. Indians living in the USA, Great Britain or Germany possess specific common traits, which make them look like an isolated cultural island. Professional sports-people, managers in transnational companies or gays usually possess a large amount of common characteristics despite frontiers, while their values differ immensely from those of their fellow citizens. This cultural pluralization creates a completely new network of cultural relations, whose constituting factor does not consist of state boarders but the borders between cultural communities. This relationship is summed up by the words of Horst Reimann: ‘In transcultural communication the process that crosses boarders of one cultural unity to another is the focus of observation.’ (Reimann 1992: 14) In this case it is not state boundaries that are central but cultural boundaries.

In the end, this type of global communication also corresponds with the currently emerging ‘transnational civil society’, which depends on a new type of world citizen whose biography crosses state borders and has thus been globalized. ‘The globalization of a biography means: The contradictions are not just taking place in the outside world but at the centre of one’s own life, in multicultural marriages and families, in companies, within a circle of friends, at school, at the cinema, whilst shopping for cheese, while listening to music, at dinner, in sexual relations etc. (Beck 1997: 129) When the kind of people described above communicate across cultural borders, we are moving within the realms of transcultural communication, in a ‘polygamy of places’ (‘To be married to various places is globalization’s gateway into one’s own life’), and a ‘cosmopolitan viewpoint’ (Ulrich Beck) allows a new kind of civil society to emerge. This transnational civil society has
distanced itself through its ‘global subpolitics’ from the conventional society of state dwellers, which mainly communicates interculturally with the peoples of other countries, in a kind of diplomatic ritual, as it were.

This understanding of transcultural communication is also somewhat similar to the nomenclature of the United Nations, which uses the term transnational companies in its documents when talking of companies which do business in various countries and on various markets (and which in Germany are often less precisely called ‘multinational’). Based on this concept we can say that globally active media corporations are mainly involved transnationally. ‘Transnational corporate actors and their superpower state underwriters have at their disposal such transborder communication apparatus as communication satellites, submarine cables, television programming, multimedia advertising, and public relations outlets…’ (Sussman/Lent 1991: XI) In the communications sector, which we are interested in at this point, we are talking about ‘transnational media corporations’ (Demers 1999: XXIV) whose activities can be maybe summed up by the prefix ‘trans’. However, as the core of their activities is commercially oriented, the nomenclature is not linked with the word culture. On the contrary, behind this understanding of transcultural communication, lies an anti-commercial, i.e. a cultural component which provides the basis for visions of a culturally characterised future of communication, as the McBride report which was written for UNESCO in 1980, has postulated: ‘We can conceive of a richer cultural future only in a pluralistic form, in which cultures representing the world’s diversity connect with one another while sedulously reserving their originality.’ (McBride 1980: 30)

**Types of Global Communication**

What I have said so far can be summed up in a simple chart, which organises the different manifestations of global communication in a table:

<table>
<thead>
<tr>
<th>Types</th>
<th>Actors</th>
<th>Structures</th>
<th>Motivation</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>glocal</td>
<td>corporations</td>
<td>market</td>
<td>profit</td>
<td>global company</td>
</tr>
<tr>
<td>intercultural</td>
<td>state/public</td>
<td>nation</td>
<td>quality</td>
<td>public service, organization</td>
</tr>
<tr>
<td>transcultural</td>
<td>citizen</td>
<td>civil society</td>
<td>community</td>
<td>community radio, internet virtual communities.</td>
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</table>
This framework is meant to serve for an initial orientation. The terminology employed is not free from contradictions, some concepts are used differently in scientific writings. In principle it is about transforming the logic of a three-tiered media system, from the national to the global level, whilst emphasising central differences of the three ‘pillars’ of every media system, insofar as the actor, the structure and the motivation (dedication) are concerned.

What this framework is not able to describe is the aspect of symmetry, or rather the asymmetry in international communication, i.e. the intensity and the direction of each specific stream of communication produced by the three actors/structures. Surely the international news flows today are as asymmetrical as in the 1970s, when this fact was often explained and criticised. The USA constitute the centre of the output, while at the same time they register only little input. While Western Europe assumes an active role towards other parts of the world, it is a passive region as regards the USA. The countries which are completely inundated from outside, are to be found in the poor regions of the world. One could (without looking at that this aspect in great depth here) pair up the three types of communication with the streams of communication and at the same time take the North-South-divide into consideration:

Symmetrical and asymmetrical global communication

<table>
<thead>
<tr>
<th>glocal communication</th>
<th>=</th>
<th>highest asymmetry</th>
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<tbody>
<tr>
<td>intercultural</td>
<td>=</td>
<td>moderate asymmetry</td>
</tr>
<tr>
<td>transcultural</td>
<td>=</td>
<td>lowest asymmetry</td>
</tr>
</tbody>
</table>

The various forms of global cultural exchange can be classified in yet another way, depending on whether they take the form of a dialogue or a monologue. If the Greek origins are examined, then the word dialogue refers to a two-way conversation, while the monologue is a lecture, a speech or a soliloquy. Translated into the language of the topography of communication, the word dialogue describes a balanced exchange of contents, during which the roles of broadcaster and receiver change constantly. All those involved in the process of communication have the possibility to decide whether they remain passive or whether they become (inter)active. In the case of a monologue, on the other hand, the roles of broadcaster and receiver are irreversible, the roles of speaker and
It is not difficult to see the element of the monologue in the technical arrangement of the conventional radio. The internet, however, provides a technique, which, at least from the point of view of its technical possibilities and the protocols employed, potentially enables a dialogue.

**Technologies and Communication Topographies**

<table>
<thead>
<tr>
<th>Types</th>
<th>Technology</th>
<th>Topography</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>glocal</td>
<td>broadcasting</td>
<td>high asymmetry</td>
<td>one-to-many</td>
</tr>
<tr>
<td></td>
<td>esp. satellite</td>
<td></td>
<td></td>
</tr>
<tr>
<td>intercultural</td>
<td>broadcasting/</td>
<td>moderate asymmetry</td>
<td>one-to-many</td>
</tr>
<tr>
<td></td>
<td>internet</td>
<td></td>
<td>one-to-few</td>
</tr>
<tr>
<td>transcultural</td>
<td>internet</td>
<td>low asymmetry</td>
<td>one-to-one</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>few-to-few</td>
</tr>
</tbody>
</table>

This table aims to classify existing and related terms in order to create clearly cut categories. It is obvious that in the real world, spheres are not so clearly separated and that communication on a global scale constantly reveals impure forms. The existence of clear dividing lines is not asserted here. Rather it is a question of tendencies and affinities.

**‘New Technologies’ and Developments in Global Communication**

Different media techniques develop different levels of closeness to possibilities and potential of global communication. The historical review had already shown, that in the past only very few people went to the trouble of long distance travel. So long-distance communication was actually possible, but very few people were involved in this. Conquerors, explorers, missionaries and international business people shaped communication in the epochs of colonialism and imperialism. Mass emigration, which reached its peak in the nineteenth century and involved millions of people, in the search for new kinds of, and more humane, living conditions contributes to this communication. In fact, long-distance travel and global communication stand in close reciprocal interaction. Up until this very day, electronic mass media and mass tourism complement each other.

Towards the end of the nineteenth century there were already nets, which made immediate global communication possible, above all in the form of telegraphy and the telephone, via overland and underwater cable. At the beginning of the twentieth century the wireless technology joined them.
Access to these nets usually belonged to nations and their Post Offices, which acted on behalf of the government. Diplomats, the military and imperial bureaucracy were the main customers. Other users of these were also large companies which at that time operated transnationally to a certain extent, e.g. in areas of the exploitation of raw materials or financial services. However, these companies were based in a nation state from which they extended their business relations. They were not really transnationally organised as is today very characteristic. Apart from the state and commerce the media sector, above all the few globally active news agencies, used the new communication technology. They divided the world up between them and created a kind of monopoly over the supply. Decisive for this analysis is: private individuals were to a large extent prevented from having access to the new means of communication, above all by the prohibitively high costs. This is also likely to be the reason why radio and later television mainly established themselves at the national level. There they could be politically controlled and reliably financed through fees or advertising. There were nevertheless exceptions to this rule. First of all in the form of foreign broadcasting, which was used as an instrument of foreign politics and was therefore financed by the state. Further below we will deal more in-depth with this subject. Another exception to the pattern described were radio amateurs, who ran their own little broadcasting stations and built up world-wide radio contact with like-minded people on short wave, which they were allowed to use. In politically unrestricted countries like the USA this hobby could be followed and supported in a radio club and needed to have nothing to do with state interests. In authoritarian states, such as Germany, amateur broadcasting licences were denied for a long time and some activists even became victims of political persecution. A safe, legal basis was not created in West Germany until 1949.

If we stick to the typology described above, we can say that global electronic networking was developed primarily on the basis of national effort, accompanied by a network of international cooperation in world organisations, which were dominated by governments such as the International Telegraph Union (ITU) in the telecommunications sector or the World Radio Conferences for agreements on frequencies. These approaches to the politics of international communication were basically determined by state actors (the ITU has 187 member states). Therefore they moved within the field of intercultural communication and were accompanied by commercial activities, which at that time, however, acted much more strongly from their national bases and were glocalized to a much lesser extent than today. In view of the prohibitively high costs, the transcultural sector was still in its embryonic stage. Its beginnings were to be found in the communication of migrants with their people back home or the activities of radio amateurs described above.
At the peak of this government-controlled global communication at the end of the 1920s, foreign broadcasting emerged representing from both the technical point of view and its programmes something like the essence of intercultural media-conveyed communication. States organised, financed and broadcasted radio programmes for the rest of the world, while borders between the domestic world of the nation and the rest of the world were carefully preserved, if only to prevent the medium from being abused for internal political purposes. Nonetheless, the rudiments of transcultural communication can be found here as for the first time its addressees are not (as in the case of diplomatic communication) other states, but their citizens in their role as radio listeners. The access roads remains nevertheless in government hands.

**Further developments in media technology, state withdrawal and global communication**

For decades the situation outlined above remained remarkably stable. Although the telephone was ‘democratised’ in the wealthy areas of the world after the second world war, in other words it reached every household, its use remained within national boundaries for a long time. Television followed the radio of the twenties. In nearly every country it has a remarkably similar form of organisation to existing radio stations. The leading broadcasting technologies, the transition to the short-range UKW, in the case of radio, and the similar arrangement of the transmission of TV programmes in the VHF and UHF broadcasting sphere permitted them to become classic nationally controlled media. Of course, there was an overspill in border regions, which, however, were mostly unintentional or (example of commercial RTL radio in Europe) were relatively meaningless.

An important exception can be seen in the escalation of the cold war between the East and the West, which - precisely because the conflict did not take place on a military, i.e. ‘hot’ level, but on an ideological, i.e. ‘cold’ level - determined global communication. Foreign broadcasting services fought worldwide with their products over the sovereignty on the ether, above all in short wave broadcasting and to a lesser degree in long wave broadcasting. With the progression of the development of media technologies, these areas of broadcasting became progressively marginalised - at least on the northern hemisphere, where the enemies of the cold war stood in deadlock. The real influences more often came to be felt in border areas, via terrestrial television and VHF transmissions; certainly so in divided Germany, as nearly everywhere in the GDR it was possible to receive West German programmes, which consequently preserved something like a common space of communication. In the last phase of the cold war satellites, videorecorders and the first digital nets penetrated more and more of the politically ordered security measures. This probably speeded up the dissolving of the ‘socialist’ world camp.
The situation of international communication, that had remained stable over decades, was shaken up massively since about 1970 by two kinds of technology. These are to be analysed in more depth (see also: Kleinsteuber/Thomaß 1999):

- Radio satellites since the 1970s
- The internet since the 1990s.

**Satellites and Global Communication**

Communication satellites are being used for the transmission of television (and to a lesser extent also for radio) programmes since the 1960s. However, in the beginning several technical problems had to be solved, before satellite transmission could become a truly global phenomenon. Geostationary placement in orbit and the raising of the level of broadcasting energy were of great significance, so that satellites can beam into households directly (that is by-passing cable networks) into the receiving antennas of individual households. Geostationary satellites are fixed in the cosmos, where they act like transmitter masts extended into the cosmos, 36 000 km above the surface of the earth. Their transmitting energy is so strong that small antennae, which can be installed cheaply and are hardly noticeable (like the astra-dishes of about 50 cm in diameter) are sufficient for reception. The areas provided for by satellites (footprints) stretch over the space of a continent. Three carefully placed satellites succeed in covering all inhabited parts of the Earth.

The commercially active satellite companies all over the world (in Europe: Astra and Eutelsat) today still mainly work with analogue technology. They are, however, in the process of a fast conversion to digital transmission. Digital transmission means that signals can be reduced in size so that per each satellite transponder instead of currently one analogue programme, six to ten digital programmes can be transmitted. As a consequence in the year 2001 in every village Europe-wide, it is possible to tune into over one thousand channels. Many are locked with codes or only for internal use (of for example transnational companies). In 2001 Astra alone presents the figure of 1100 TV and radio programmes, that are transmitted either in analogue or in digital form by twelve satellites, thus reaching eighty-seven million households in Europe. (Astra 2001: 6)

While terrestrial TV reception was the norm in the 1970s, satellite television has now become a world power. In Germany currently over 90% of households receive their TV programmes solely via satellite or by cable via satellite, which almost exclusively belong to Astra. It is, however, a German peculiarity that nearly all public and commercial, national and regional programmes (3rd programmes of ARD, i.e. the regional programmes of the national radio and television network in Germany), are not only broadcast in terrestrial form, but also (or only) via satellite. Consequently, dozens of
German-language programmes can be received freely from North Africa up to the Urals, even partly (in Eutelsat transmission) as far as Central Asia. As far as broadcasting stations from other countries are concerned, this is more of an exception, although e.g. the whole range of the Italian RAI can be received freely in Germany and Spanish regional TV programmes, including those of the Canary Islands (Canal Canarias), can be watched digitally. Today, in Germany products from all parts of Eastern and Western Europe, the Arab world and Western Asia can be watched via digital satellite. Special programmes in many languages, e.g. Chinese and Thai, are put together for migrant groups. Due to the great language barriers and copyright problems the broadcasting space covered by these programmes is currently small. This is a sign that the technical possibilities have progressed beyond actual demand.

Due to its very high financial requirements satellite television, which aims to reach a large public, is not just oligopolised as regards the transmitters (Astra, Eutelsat), but also as regards the contents of the suppliers (ARD and ZDF, RTL and the Kirch group). The enormous costs of copyrighting, production and transmission limit forcefully the number of companies involved. On the part of the international programme suppliers, two distinct groups are currently active: on the one hand large, globally active media corporations, and on the other publically funded, nationally-owned foreign broadcasting stations. (Kuhl 2000; Köhler 1988) The News Corporation of the media mogul Rupert Murdoch represents the first variant. With its subsidiary Sky Global Networks it has built an almost worldwide network of satellite television, starting in Murdoch’s home country Australia with digital TV, with the British BSkyB in Europe and its participation in Kirch’s Pay-TV, in Asia with Star TV and in Latin America through involvement, above all, in Brasil and Mexico. In August 2001 a total of 85 million households were reached by News Corporation. To corner the North American market Murdoch is making a great effort to buy out one of the digital satellite TV suppliers. (Baumann 2001) The second variant is represented by the German, public foreign supplier Deutsche Welle (DW). DW TV started up at the beginning of the nineties and today it puts out a 24 hour programme via a total of eight satellites in analogue and digital quality, though the reception areas partly overlap. This programme, produced in English and German alternately, with a two-hour Spanish programme during the main reception time in Latin America as well, reaches almost every corner of the world. As the Deutsche Welle is currently the only global player ‘from Central Europe’ (from their advertising), that is from Germany, in the small circle of global suppliers, it will later be analysed in greater depth.
At least in the area of radio and up to this day the technology of the satellite is organised monodirectionally. Consequently, it only offers monologue communication topologies. It is a case of a medium that is characterised by the many transmitting stations above the Earth (Uplinks) and many receivers down on the Earth (Downlinks). Satellites have no problems penetrating borders. This is why they can be introduced for commercialisation from the outside, which for some time was discussed critically as ‘intended overspill’ (as happened in Sweden, for example). Satellite reception requires a visible receiving antennae which is difficult for the user to hide. This lead to the temporary prohibition of satellite reception in Iran. Satellite transmission also plays a considerable role outside the realms of the western world: in the Arabic-speaking communication space TV programme bouquets are wide-spread, in Latin America pay-TV suppliers. In order to avoid the rigid state control of almost all Arab states, some suppliers run their studios outside this world region (e.g. in London) and the miniature state Catar caused a stir in 2001 with an unusually critical programme selection.

Altogether it is true that the implementation of satellites is linked to massive hurdles. Even if the costs have been reduced by digitalisation, it is still only large media companies (glocal suppliers) and public broadcasting stations (intercultural suppliers) who use this technology. The whole of the transcultural area has remained almost completely absent until today. Although nowadays the first breakthroughs show up, recognisable in certain special-interest suppliers and public services programmes catering for regional needs, nevertheless satellite communication has remained out of bounds for the complete transcultural area. A second set of circumstances results from the structural closeness of satellite technology and the company strategy of glocalized actors: above all the digitalisation of television has (since 1996) resulted in the transmission of pay-TV bouquets. The essential decoder (the set-top-box) was to be an accounting machine with a chip card. The large pay-TV suppliers mount their own company technology into the boxes, which were specifically designed to shut out competition (example: Premiere World and the d-box), thus effectively limiting a potentially global kind of technology to regionally manageable markets. We will return to this subject later.

**Internet and global communication**

In contrast with all transmitting technologies that have been used to date in mass media, the internet offers possibilities which go way beyond the ‘transmission logic’ of radio prevailing until today. In that respect we are talking about a universal medium of a new epoch, in which globalization, digitalisation, the convergence of technology, programmes and interaction provide completely new possibilities. The internet follows the logic of digital, decentrally linked networks, which allows a
network topology, that is completely different to previous broadcasting, to emerge. From the outset it was conceived as a global medium (hence ‘inter...’) and every attempt to tie it down to a limited area proves to be useless because of the flexibility of the medium.

The internet makes it possible to carry very different media forms, which were previously separate from each other, in its stream of data: text, sound, picture (still or moving) and graphics. These components can be integrated or ‘unlinked’ from each other at whim. World-wide ‘surfing’ means that one can in seconds leave one provider and break out into new worlds. Digital data and therefore all the media contents mentioned above can also be stored whenever wished. This makes the setting up of data banks and electronic memories possible, which allow individual access. These can likewise be located by a search machine.

At the moment the internet only competes to a certain extent with conventional media, online newspapers, for instance, have not pushed the previous paper medium off the market. With regards to the global communication that we are interested in here, it shows its unique qualities, by showing its characteristic capacity of abolishing distances. Contents, that are put onto the internet in one place in the world, can be called up anywhere. Anyone, who wishes to, can read an African daily paper online in Germany, listen to a samba radio station in Brazil or call up the television programme of the Deutsche Welle on any computer linked to the world network. Regarding the aspects of global communication the question about old and new media and the difference between the old, printed newspaper and the new online paper seems futile; the first is limited to a previously defined area of distribution, the second unlimitedly accessible. Even if the printed version and the internet version of a newspaper from Dakar/Senegal provide the same content, they differ fundamentally in the space that they cover. While the first one mentioned is a closed space, the second is wide open.

Television pictures (or even radio programmes) can be picked up live, that is simultaneously) with streaming technology. In the same way TV sequences can be selected and called up from data banks. At the moment the low transmission speed of the digitalized networks is still proving to be a hindrance. Consequently, the DW-TV supply on the Internet seems small and rickety; it is sometimes called the ‘mouse cinema’. It is, however, only a question of a few years until the broad banded high-speed nets are available that will facilitate global transmissions down to feel-good TV films. At present in all accessible communication infrastructures people are working feverishly at making these broad banded transmissions possible. However, it is not yet clear which means of transport will find acceptance: telephone networks (with DSL), digitalized cable networks (with a cable modem) or
maybe even electric cables (Powernet), interactive satellites which are currently in development or
even future generations of mobile communication (UMTS).

The internet is based, according to its technical logic, on dialogue and interaction. It constructs two
streams of communication in place of radio’s one. While the latter only permits *one-to-many*
communication, the internet allows various topographies, hence along with *one-to-many* also *one-
to-one, few-to-few* etc. As a medium of dialogue it makes it possible for every user to be a
broadcaster or a receiver, as they choose. Whether it is actually used interactively remains a
completely different question.

The ‘technological logic’ of the Internet is orientated towards dialogue and interaction by building up
two flows of communication instead of only one, as is the case in radio broadcasting. While the last-
mentioned only allows for a form of communication that can be named *one-to-many*, the Internet
allows for varying topographies, i.e. *one-to-one* and *few-to-few* are complementing forms of
communication on the Internet. As a medium orientated towards dialogue it allows every user to
choose whether to become a transmitter or a receiver. Whether or not it will really be used
interactively, remains, of course, an open question.

Furthermore, the internet is a medium that cannot really be controlled and that, due to its
decentralised and chaotic basic structure, resists the whims of state censorship, which are easy to
impose on television. (Reporter ohne Grenzen 2001) Attempts in a few Asian countries (China,
Singapore and others) to keep out unwanted contents, using filter programmes, have shown little
success up to the present - other paths have always been found. For Europe these kinds of
restrictions to freedom of speech are unthinkable of anyway.

Two central conditions hinder the global introduction of the internet. One is that the individual’s
entrance into cyberspace requires investments up-front. On top of that communicative competence is
necessary in order to be able to move properly on the net. The problems referred to are termed a
‘digital divide’ in the discourse on the subject and they describe a chasm, which is arising within
developed societies on the one hand, but at the same time has an even greater effect in the global
north-south-divide. Large regions in Africa can still only be reached by radio and not even by
terrestrial television (which there has remained up to the present day a medium of the urban elite). In
such places everyday use of the internet in the foreseeable future is almost unthinkable.

Until now at least it has been impossible for a small number of actors to oligopolised the internet (like
satellite television), even though global players make use of it. The biggest online provider worldwide
is AOL, which, however, only uses the ‘net of nets’, i.e. the Internet, but did not construct it (as is
the case with satellite companies), and therefore does not possess an in any way comparable monopoly position. In the end the internet seems to be - despite the problems of the ‘digital divide’ - a cheap medium with an incomparably low threshold for participation, at least in comparison with satellite communication. ‘With nothing more than a computer and an Internet connection, a single person, in their living room or in a cybercafe, can tell the whole world what they think.’ (Reporter ohne Grenzen 2001: o. S.) This low-threshold medium permits wide participation which, because of the millions of those bursting to communicate, means that on the other hand much global transport will go uninvited.

Without doubt the Internet has become the medium of an emerging global civil society, of which the self-organised non-government organisations (NGOs), virtual communities and global networking are characteristic. In its technical structure the Internet resembles the decentrally connected, yet globally present organisation structures of large civil-rights organisations, who consequently use the Internet massively for information, for the mobilisation of supporters and for campaigns (like, for example, the environmental organisation Greenpeace). Globally these organisations are gaining in efficiency. Their importance is to be clarified in the example of a few NGOs that are relevant to the subject of mass media.

Practically speaking, global transcultural actors have been involved since the first days of the Internet; as early as 1990, for example, the Association for Progressive Communications (APC), a ‘network of networks’, that sees itself as an ‘International Internet Community for Environment, Human Rights, Development and Peace’. (www.apc.org) APC has linked up its network activities with transcultural actors dating from the pre-internet era over the past few years, for example with the world association of Community Radios, AMARC. Together the two of them have built up a website, which can be used by more than 2000 radio stations linked up to exchange programme material in all parts of the world and use a programme databank.

One of the contradictions of the so-called opponents to globalization which is often conjured up is their global network. In connection with the protest against uncontrolled globalization processes in the style of the WTO in Seattle, an Independent Media Center of activists emerged. It uses sites all round the world ‘as a network of collectively run media outlets for the creation of radical, accurate, and passionate tellings of the truth’. This ‘centre’ (without a centre) was constructed ‘by various independent and alternative media organizations and activists for the purpose of providing grassroots coverage of the World Trade Organization (WTO) protests… The center acted as a clearinghouse of information for journalists, and provided up-to-the minute reports, photos, audio and video
footage through its website.” (www.indymedia.org) Along with this global supply, a German branch offers complementary information. (www.indymedia.de) In the meantime Indymedia has become the most meaningful (but of course not the only) supplier of critical information on globalization, based on a structure that stems from glocalised organisations, which, however, is orientated transculturally. A further example of this is the work of the International Press Institute (IPI) in Vienna: A ‘global network of editors and media executives with members in over 110 countries’ that particularly supports the freedom of the media, reporting and of journalistic work and distributes its newsletter via the internet.

**Technology designs and their Global Meanings**

The Internet as a highly flexible, actually a downright fluid medium, is appropriate for all three types of global communication presented here. As a glocal medium it can be used commercially. Terms such as New Economy, E-commerce reveal this, just as the myriad of media companies who romp around in it with mixed results. In the area of intercultural communication nearly all state actors are active online, even though many inconsistencies crop up. In the case of intercultural communication, all the institutions mentioned below involved in German foreign culture politics are active on the internet; the Deutsche Welle, the DAAD, the Association of University Presidents and others have got together in order to present the website ‘Study in Germany’, which provides information about conditions of study in Germany to those interested worldwide on the internet.

Through the gateway to the Federal Republic of Germany, bund.de, for example, a German tax form can be called up and filled in worldwide. For some time now there have been quarrels about political competency over the symbolically important domain address, deutschland.de, which even in name underlines that a state is representing itself in the internet, as it is unclear to what extent the gateway should serve internal communication purposes in Germany or whether it should serve worldwide information about Germany.

The examples mentioned have proved that the internet is an ideal medium for transcultural communication. At an unbeatably low cost, which is even affordable for many private people, it is capable of providing contacts between people and groups, who live large distances apart geographically speaking. It can help them to provide information for each other and for the world at the same time. Of all available media technology - maybe with the exception of the very economical amateur radio - it has the greatest global and transcultural potential.

A rigid technological determinism is not intended here. Technological logics alone do not decide the fate of open or closed access, of communication architectures in the form of a monologue or a
dialogue, it is essentially the actors who define the area of interests of the specific technology involved. At the same time it can be seen that globally developing digital television is tightly in the grips of large media actors. A first generation of digital television (that dated from 1996) started above all as a pay-TV and runs over their privately-owned Set-Top-Boxes, which permit perfect control over broadcasting paths, keep competitors out and - although it would be easy to do so from a technical point of view - do not provide access to the Internet. (Kleinsteuber 2001) In fact the current suppliers of pay-TV, in Europe and the rest of the world, have divided up the markets amongst themselves, e.g. Premiere World has a monopoly of the German-speaking area. They thereby artificially regionalised and factually ‘crippled’ a potentially globally functioning technology. Glocal actors operate in closed markets and often have no interest in the strengthening of open world communication that is free of discrimination.

This could be quite different: A broadly based TV platform in Europe is endeavouring to establish a discrimination-free Multimedia Home Platform (MHP), which would allow anyone interested access to the world supply of television programmes. These open and universal standards for Digital Video Broadcasting, that is digital transmission, was presented for the first time at the radio exhibition in 2001 in Set-Top-Boxes: the Nokia Media Terminal is the prototype, an infotainment centre that DVB connects with the internet and hard disk storage. Other models offer provisions for the deciphering of pay programmes and other interactive extras in addition. (Deutsche TV-Plattform 2001) Important actors, supporting this new, often digital architecture are the competitors of the pay-TV industry, as well as the state-owned suppliers, with their intercultural focus. Only when equipment of this kind makes its breakthrough, will satellite television have a chance to return to the original state of global communication as it was at the beginning of the development of radio: before the triumph of small-scale VHF transmissions, any good radio (with short, middle and long wave) was a potential receiver for the world supply, or at least a medium of European dimension. (This lost state is revealed by an old tuning dial, which lists transmitters from all over Europe, like Monte Carlo, the Vatican, Moscow.) With the direction given by MHP, television would reach the global level that already distinguishes the Internet.

Conclusion

The communication historian, Peter J. Hugill has analysed the last 160 years of world media history and, on the basis of this, mapped out the tendencies he expects as follows: ‘As transfer and transportation costs drop, a return to a system of smaller, megapolitan politics, bound together by information systems as well as flexible transportation systems thus seems plausible,’ (Hugill 1999:
Only this glance back in history makes it possible for us to relativise the current euphoria about the globalization of communication. Only then does the forecast of the return to previous, less centralistic structures make sense. The contours of a world, in which density, intensity and manifestations of global communication attain a completely new quality while at the same time much remains estimable on the basis of prior experience, are being revealed.

This analysis comes to the result that the world of global communication stands obviously under heavy influence of commercial global players like AOL time Warner, New Corporation, Viacom or Bertelsmann. To find a counterweight to these dominating market forces it appears necessary to strengthen the two other types of actor (intercultural and transcultural) and increase co-operation between both. It will be the primary duty of national as well as global communications policy to support more diversity and to prevent the world from the dominance of one type of actor. This implies that active policy has to concentrate on the revival of intercultural as well as transcultural activities in the world.

Bibliography


