The Polish Humboldtian University in the Face of Paradigmatic Change

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CONTENTS

INTRODUCTION

THE UNIVERSITY AT THE CROSSROADS

The Polish university system today stands at the crossroads of two operational paradigms. One is the hermetic Humboldtian model of the elite independent university, a temple to knowledge embracing high ethical standards. The other is the Bologna model (after the Bologna Declaration of 1999), which advocates an open, challenging university, co-operating with various interests acting on behalf of society in general, with attention to entrepreneurship and the labour market.

This situation poses both a threat and a challenge. It would seem that the traditional ideal of the learned academic is passing into history, to be replaced by a multitude of so-called „academics", engaged in analysing specific problems within a narrow segment of reality. This popularising of higher education has revealed some fairly specific expectations in relation to the university as an educational institution. Likewise, the state is putting forward new requirements in connection with the realisation of the Bologna Declaration. In the final analysis, however, nobody can be satisfied with the current state of affairs, because conflicting demands mean that neither of these two paradigms can be realised to the full.

An analysis of the research presented in the following chapters reveals a picture of an institution whose initial mission has been to a certain degree lost, gradually surrendering to various pressures without at the same time developing new operational standards. This may often be observed in the pronouncements of professors who have ceased to fulfil the role of a figures of authority, becoming instead media stars, fighting for the votes of an electorate. Academics who appear in the media may often shock with their lack of impartiality and aggressive language, and the question arises - what has happened to the moderate, well-behaved university, scrupulous in avoiding biased opinion?

The traditional ideal of the liberal university, combining research with education, is being supplanted by a new technocratic order based on purely

economic demands and the deification of management procedures. The learned academic is being replaced by the teacher-instructor. The university is ceasing to be a hotbed for the elite, instead becoming a centre for mass education with minimal programming based on the national qualifications framework, while the students are increasingly questioning that content of their education which does not appear in the syllabus. They are unable (or unwilling) to understand that the syllabus is merely an outline of the educational programme which can in no way reflect the complete range of education offered by the university, otherwise education becomes a caricature.

The word „qualification" is becoming fashionable, and vastly more important than the „truth" which was once at the top of the hierarchy of academic values. Paradoxically, this ministering to students" „skills" reflects poorly on the attractiveness of graduates in the job market. The university is also ceasing to be a meeting place for the exchange of ideas, instead becoming merely a degree factory.

Some are exasperated and rebel, and in their accusations point to the numerous injustices which are creeping into the stature of new principles of the university's rationale. Various aspects of the university's operation are coming under critical scrutiny, such as communication, „manufactured" knowledge, the competence of both academic teachers and graduates, administrative practices, co-operation with the local environment, and even the overall „image" of the institution. This excess of criticism, however, does not lead to the formation of a common viewpoint and the construction of a holistic vision of the development of the university.

The following work attempts an empiric diagnosis of the mistakes made by universities in fulfilling their basic functions, separating those which are real from those which are imagined. Such acute observations lead us time and again to the basic conclusion that the university has bowed to surrounding pressures, not in those areas in which it ought to, but those in which it has hitherto observed its traditions. In short, the university has lost its way.

From its very beginnings the university was a community of communication. Now, in the global society, it could become one of the most important forces driving that society. In itself the university no longer constitutes a community, although in my opinion it still has potential when it comes to the regeneration of its prestige and communication

supremacy. The utilitarian function of humanist and social studies, which depend on the cultivation of inter-personal relationships and are subjects which are perpetually communicative (either synchronously or asynchronously), may be fully realised in the society of the Fourth Wave. To this end, however, we need a rebuilding of community ties, so-called invisible faculties, which reach beyond the framework determined by the institution itself and by the true authority figures of science, dedicating themselves to research, taking care to preserve scientific humility and something which can only be described as *insecuritas humana*. Openness to alternative forms of communication in the society of the Fourth Wave, dominated by multimedia and new technology, may assist this process and redefine the place of the university by placing it firmly within the community's sphere of influence. Here I have in mind first and foremost the natural (for the global society) crossing of institutional boundaries and the strengthening of communicative relationships between subjects of various cognitive status or experience. This is to a certain extent already happening before our very eyes, but few of us are able to notice the wave of change engulfing us.

In concentrating on what still needs to be done and the areas of institutional weakness within the university, we should not lose sight of the fundamental truth that the university has been, and still is, one of the most prestigious institutions in the world, populated by people dedicated to their work, educators, seekers after truth, and creators of ground-breaking ideas. Among them we find both good and bad managers, people ranked at both the top and bottom of the Polish education system, and renowned academics alongside incompetent lecturers. We also find varying levels of competence and quality when dealing with mass education. This is worth bearing in mind, as well as the fact that the margins should not obscure that which is most important - the essential idea of the university from its very inception. On the other hand, a pretence that the situation is perfect prevents us from remedying the situation - we need an accurate diagnosis of the situation and a clear programme for its modification. One proposition for correcting this dysfunctional system is to take advantage of the possibilities offered by the community of the Fourth Wave.

This work is an expression of the concern of those connected with the university for the future of the institution in which they have found their place, and with which their future is entwined. The majority of the analyses tackling the operational problems of the modern university

concentrate on specific questions, such as education, management, plagiarism, and new technology. Without taking anything away from those studies which have been profusely quoted in the following work (thanks to which a precise acquaintance with the issues has been made possible), it should be stated that in order to analyse the whole we need a wider and fuller view, one which deals with details whilst simultaneously tackling the issue as a whole. This is only possible through the use of inter-disciplinary analysis, which has been adopted in the first part (Chapters 1 to 4). Here the reader will find references to publications concerning higher education teaching, as well as the fields of media studies, the philosophy of science, higher education management and sociology. When these various concepts are juxtaposed a picture of the university's situation becomes complete, and specific phenomena attain an importance which can be seen in their true light and in their proper place.

Detailed studies rarely make reference to a wider analysis of cultural and civilizational transformations. As a rule they take into consideration only selected aspects of change in civilization, culture and world view. In the following work these divisions have been examined as a whole, and form a starting point in outlining the demands of the world beyond the educational institution. In the society of the BC (before computer) era, the university was an important link in the knowledge society - long before that term was defined and came into use. In the current world of new technologies it appears that the possibilities of the university are lagging behind those who can at least offer simple open source programs. Of its kind, this lagging behind is not, however, a cause but a symptom, or rather an element of a wider complexity of issues - a limited understanding of the meaning of communication in the contemporary world, a lack of knowledge on the subject of new media-speak and the possibilities of disseminating research results (e.g. via social media for academic specialists), and an ambivalent attitude towards technology. This is also accompanied by a lack of knowledge on the subject of misgivings concerning traditional educational paradigms and a partial failure to adapt educational results to the local environment.

The lack of uniformity between the university's programme and the demands of its environment are also the subject of detailed analysis in the leading chapters. The second part (Chapter 5) is dedicated to an analysis of a collection of research material exploring the opinions of people most closely connected with the university, as to its functionality and effectiveness. The aim of Chapter 5 is first and foremost the verification of

the most important conclusions emanating from the multi-disciplinary theoretical analyses, and also to define the size and extent of the incompatibility between the university and the new technologies of the Fourth Wave.

It is worth emphasising that the Fourth Wave of change is only just gathering, and for this reason has not yet been fully described in the literature on the subject. I have tried to define the fundamental elements which pose a challenge to the university, inasmuch as this is possible given the present stage of conceptualisation. I am well aware that this approach may be controversial and I welcome objective and constructive discussion.

In formulating specific requirements from their academic teachers, the youngest generation of students use the language of the new technology, and already pose a significant challenge to those masters who are unable to use the new communication technologies in the correct way. A lack of media savvy may condemn us to becoming a laughing-stock, and ignorance of our student's internet communication behaviour will be a pedagogic catastrophe for us. To avoid this, it is worth reading this book and drawing the appropriate conclusions.

CHAPTER ONE

THE CULTURE OF THE NEW MEDIA

1.1 New technologies and new media

If we accept that media are nothing other than a means of communicating information, then we should at the same time understand innovation as a distinctive characteristic of enormous - not to say essential - importance. Innovation affects first and foremost the so-called „objects" or elements of which the communication is composed. Lev Manovich (2002) distinguishes five such characteristics: numerical representation, modularity, automation, variability and transcoding.

Numerical representation means that each object is written in the form of numerals and can at any time be transformed into binary code. In comparison to objects in older media (also frequently referred to as analogue), we are dealing here with sampling and quantisation, which means that we can change data which is for the most part continuous into noncontinuous. We are always able to cut, slice and re-compile the communication.

The principle of modularity means that a typical object is composed of a series of smaller integrated modules / parts / fragments, which can be used to compile other communications.

Automation stems directly from the previous two characteristics, and permits the replacement of the human being in the execution of the simplest repetitive actions, such as image correction, noise interference elimination and change generation. At its lowest level automation can, for example, correct spelling mistakes whilst using a text editor. At an advanced level it could be an intelligent camera, tracking the action on a film set or even a virtual theatre.

Variability denotes that objects are not rigidly defined once and for all but can be continually modified, allowing specific media products to be

personalised and adapted to the needs and tastes of the user. Examples are websites, user versions of programs, databases arranged according to the personal criteria of the user, older and newer product versions, and hypertextualisation.

Cultural transcoding depends on an osmosis between the technological matrix (Ostrowicki 2006) and layers of cultural code - the computerised layer interacts with the cultural layer. When using this concept in the field of new media, one could say that they are a composite. As a result, a new computer culture arises which is a mix of human and computer values - traditional methods of simulating the world through a humanistic approach are combined with the means of presenting that world which are specific to the computer (...). In the language of the new media, „to transcode" means „to translate something into a new format". The computerisation of culture is gradually leading to the transcoding of all cultural categories and concepts. This means that these cultural categories and concepts are, on a language and/or value level, being transformed into new ones originating from computer ontology, epistemology and pragmatism. The new media are therefore a harbinger of a significantly wider process of cultural reconceptualisation (Manovich 2002). This process can also be adapted to education, which after all springs from culture and is closely connected with it. One can say that the coming together of the technological and educational layers is transcoding.

It is characteristic that the language we use to describe the phenomena pertaining to the new media is drawn more and more by the vocabulary of ICT, since only in this way are we able to comprehend completely the new phenomena generated through the use of the technological matrix. It is also worth pointing out that interpreters of the new media (Filiciak 2006) more often point to the form and construction of the communication rather than to the attributes of the media itself. This arises from the fact that the new media differs above all from the old media in the digitalisation of the communication. In this case it means that the majority of principles relating to the functioning of traditional communication can also be applied. However, digitalisation (the afore-mentioned sampling and quantisation) introduces new interpretational possibilities regarding the potential, processing and application of cultural content. This is the fundamental reason why it is absolutely necessary to consider the potential of the new technologies contained within the technological matrix.

Here it is necessary to point to yet two more relevant facts concerning the character of the interaction between most modern electronic media. Firstly, the media form a kind of media system, which can be either consistent (in totalitarian states) or inconsistent (in democratic states). It' is worth recognising that the more liberalism there is in social life, the less we should expect communication to be cohesive, since in a diverse society where the unrestricted diffusion of content can take place, there are a great number of parties publishing their own content or interpreting media messages - from the typical (such as book publishers, website creators and owners of television stations), via the organs of state (ministries and offices), to those which are totally ephemeral and rarely subject to any kind of control (societies, discussion groups). It would also seem inappropriate to admit that the right to construct media systems belongs solely to institutional initiators and disseminators (Mrozowski 2001). The openness of the Internet means that anybody can become both creator and publisher of content, if they have access to the web and sufficient knowledge to set up their own server (Gripsrud 2002). This opens up unbelievable possibilities for freelance teachers, enabling them to create and publish their own content such as lessons and courses, whether with paid access (enabling them to earn money) or with essentially free access.

In view of the fore-going, any discussion of the media should be based not on a definition of the role, influences, interactions, limits and possibilities, priorities and function of an institution, but rather on an accurate and thorough analysis of the so-called media discourse which is created by various types of multi-faceted cultural texts, and widened by an interdisciplinary study of the contexts and determinants of the reality created by that discourse. An analysis of media communications should pay particular attention to their language and „texture" (compare linguistic approaches with semiology). It should also contain a thorough analysis of performances and sound effects (compare semiology and social semiology with other approaches) (Fairclough 1995). In this connection, as the author emphasises, a combination of knowledge of sociology and linguistics is most important in this type of analysis, with the aim of extracting hidden structures and meanings contained within the communication, the existence of which we would previously not have been able to suspect. In the analysis of problems with the media, including those of an educational character, an interdisciplinary knowledge is essential (otherwise it would not be possible to decipher all the different contexts), which poses a difficult task for the average researcher.

The effect of the new media on post-modern culture should be seen in two ways. One is to look at cultural phenomena through the prism of digitalisation, which causes existing means of conveying information to be not only more efficient, but above all qualitatively different. They form a digital world which fills our everyday life with binary code. I am not an advocate of technological determinism, but in order to view cultural and educational phenomena from a suitable perspective we must be aware of the specifics of cyber-culture. We must know its language and be able to use it in order to communicate with the ICT specialists, technicians and engineers who create the technological matrix.

On the other hand, the digitalisation of culture supports (and is in turn supported by) a revolution in the autonomous entities which are becoming both creators and interpreters in the new world of the electronic media. If we can only perceive these perspectives, then science stands before great challenges and opportunities for development. We are acquiring new learning tools, and the possibilities for forming our own world by ourselves are now more accessible to the average person than ever before. We should not be afraid of the argument that ever more power is being dispersed to the small social setups and relationships which are being created by ordinary people in the post-modern society. In this case, the only thing we have to fear is (paradoxically, to put it plainly) the fear of the educationalists themselves, all too often frankly expressed in relation to the new technologies, which leads them to retreat from any considered analysis, and instead to a narrow-minded concentration on the very dangers which use of the electronic media might bring. In the longer perspective this will lead to the creation of an atmosphere of persecution, witch-hunts and burning at the stake, where demonic means of mass communication attain the status of witchcraft.

If we accept the argument that electronic media and its messages - on very diverse levels and directed at a very diverse audience - have become part of our every-day lives, then the non-educational concepts of Michel de Certeau, Roland Barthes, Jaques Lacan and Slavoj Žižek are able to explain much more than simple psychological experiments and pedagogical analyses focused on the manipulative character of media interaction. Here, it is not only about the fact that these are higher concepts, but that they show us how to take advantage of the minor incidents in our every-day lives which in themselves are neither good nor bad, nor even neutral (to paraphrase Kranzberg's first law). Likewise, (as Kazimierz Krzysztofek writes) "each of us is both creator and consumer" (Krzysztofek 2007).

1.2 The technological matrix and a new cultural dimension

To return for a moment to the question of the divide between old and new media, acceptance of the thesis regarding the digital character of contemporary society inevitably leads us to the conclusion that this divide is ceasing to be of any great importance. We are undoubtedly witness to the digitalisation of existing media, which in turn leads us to the conclusion that everything is „new".

> "Media and communications studies have found themselves facing the necessity of outlining the autonomy of the discipline in the computer age, where the creator and disseminator of information becomes a supplier of digital services. What we now call media and communication is more and more frequently replaced by the term cultural industries, or - in its broadest conception - information industries. Moreover, the division itself between 'old' and 'new' media is becoming ever more anachronistic, if we accept that what was once the distinguishing feature of 'media novelty' - CMC (computer mediated communication) - is becoming the standard in media communication. The media are becoming multimedia, which are marketed by the media industries corporates" (Krzysztofek 2007 a, p. 223).

Thus, the technological matrix is becoming ever more important (not to say essential) in every stage of contact with culturural interests - production, dissemination, consumption and transformation. In turn, the technological digital matrix increasingly provides an opportunity to advance the convergence of various means of communicating information.

> "Convergence is the introduction of information technology, capable of processing multimedia content, to every form of media, thanks to their digitalisation (...). In effect, various electronic communication networks attain the capability of transferring the content itself, as well as providing various types of services" (Jakubowicz 2008, p. 74).

The Internet, a phenomenon which is both a product of culture and simultaneously a modifier of culture (Hine 2008), is without doubt the type of communication medium which imposes upon us a profound reflection on the reality of communication and a general redefinition of the accuracy of communication. As a technological phenomenon it is merely an assembly of connections and relays, but its potential has long since far outstripped the technical interpretation as a communications network. Above all, it has shown that, even on a basic technological level, it has an amazing capacity for unifying all other existing media in an "integrated digital topology of inter-connected networks" (Jakubowicz 2008, p.75),

thus creating a so-called „metamedium".

Metamedium is a means of communicating information which simultaneously contains within itself characteristics of both interpersonal and mass communications (Cardoso 2006). This blend of private and public communication makes it possible for us to obtain additional qualities - the consumer, in the role of user, is able to introduce new content in the communication process, or at least change or modify that content which is available to him. This then becomes a form of game, either with the media or within the media. Associated with the wider possibilities of participants in the communication process is the first substantial level of change in the figurative area.

> "Digital communication differs fundamentally from the traditional notion of mass media. It also creates new communication scenarios and changes the relationships hitherto existing between participants in the communication process. In place of the active sender and passive recipient, new participants are appearing, with varying degrees of influence on the communication and its content and occurring in various inter-relationships (...) 'Allocution' is the one-way transmission of data, or a linear program created by the broadcaster and disseminated in a time-scale and structure defined by the broadcaster himself (also known as 'push'). 'Consultation' is the circumstance of a linear program delivered by the sender at the user's request. The user decides on the conditions, the timing and the content, whether it be data transmitted live or stored on a server (also known as 'pull'). 'Registration' is the situation in which the broadcaster selectively collects information from the user on a topic defined by the broadcaster, in the form of voting, questionnaires, plebiscites, competitions and games, and also by making use of the registered preferences of the user with the aim of delivering a personalised service. 'Conversation' is, of course, the exchange of information or content between users in conditions defined by the users themselves" (Jakubowicz 2008, p.76).

In education, all of these forms - from allocution to conversation - are possible when using the new media. However, a mixture of all the aforementioned types of digital communication provides the greatest educational possibilities.

The third level of change, and simultaneously the second in the figurative sphere, is the circulation of symbolic values within the network. In effect technology, by improving communication, leads to a fundamental cultural change on a macro scale.

> "Contemporary society, steeped in technology, is a social structure formed as the result of the billions of interactions which are daily entered into by its members. Today's technologies allow a return to the times of spontaneous communication and its specific re-archaisation. Billions of emails and text and picture messages, and tens of thousands of discussion groups, blogs, etc., lead us to believe that we are giving birth to some form of collective intelligence. New cultures are arising whose research demands a new anthropology, as the old model may be insufficient. Culture flows through the network - a culture clearly more ephemeral than that in Gutenberg's universe, although obviously leaving its electronic footprint. It is a return to the culture of conversation - abbreviated, simplified, perfunctory, and without standards. It is the culture of social activity rather than of an institution. Social energy is flowing into the network from the institutions. It is the "communication society" (Krzysztofek 2007 a, p.232).

I would prefer to use the term „natural communication" rather than u„re-archaisation", which suggests a return to archaic forms. Paradoxically, the complex technological matrix is used in making our everyday communications simpler, easier and more natural (sic!). The teacher, hitherto distant and aloof, can become less monumental and more human and intimate, the kind of person with whom one can talk about ordinary issues, much in the same way as with a neighbour.

So now we proceed from the technological matrix, with all the new communication possibilities it has to offer the average person with an interface, to the first changes in the media themselves and their methods of treating culture. The first, and possibly the most important of these changes is the fact that anybody can become a creator of culture. Before the advent of the Internet, the possibilities for individuals to create culture were very limited. Above all, new concepts and values introduced into a given society had to be accepted by that same society. Nothing new could pass into social currency without first being acknowledged by a narrow group of specialists, axiologists and local authorities. (Witness to this are the misunderstood poets and bards who were way ahead of their time and were only later recognised with a change in the elite responsible for deciding what was proper and innovative, what was suitable and what was reasonable). For a time, the media fulfilled the role of such authorities, particularly in the so-called"paleotelevision era", when they could be used as a tool in furthering the activities of various interest groups, and first and foremost - in cases where the media were centralised or under state control - in instilling a notion of national identity and a conviction of the infallibility of the government. However, the era of man with an interface

is, for various reasons, the era of critical man, who is able to express his criticism openly and publicly, and whose views of the world and proposed values are able, without much difficulty, to reach societies distant in both time and space. It is the era of man who feels comfortable with informal education.

Here we are dealing with a plexus of factors and truths, which will be described separately later in the work. It is only worth mentioning here the growth in criticism which contemporary media must cope with. This is not about the simple truth that older media acted as a prophet, which not only decided the epistemological perspective or cognitive disposition / attitude, but also the existence or non-existence of phenomena (a phenomenon often existed and was important if it functioned within the media). Currently, the average onlooker is generally accustomed to a multitude of possible views and perspectives in tackling a given problem, and distinguishing pseudo-truths and pseudo-meanings, so-called „media facts".

In cases where institutional restraints and symbolic power are ineffective, more subtle methods of influence are required, such as website positioning. Anybody who is interested, even on an amateur level, in the construction of websites knows full well that you should prepare the site to be viewed in all the popular browsers, and this cannot be done without the help of specialists in the technological matrix - programmers and engineers. In media studies, the term „positioning" is also used in relation to defining the role of the user, an appeal to his specific character ("on the meaning potential of texts and conceptualisations of the reader/listener/ viewer who engages with it") (Talbot 2007).

Both these phenomena provoke appropriate reactions on the part of scientists. In the first case the academic is even more critical and wary of formulating judgements, so much so that sometimes the research process occupies a whole lifetime (Bard and Söderqvist 2002). The second case shows us how subtle methods of manipulation lead to complication in reception and in response the use of even more subtle tools of analysis in humanistic studies.

In the post-industrial information society, great economic-cultural complexes (production, consumption, life-style) are no longer born so much as the result of inventions which are later used in the production of material goods (cars, for example), but rather from inventions which serve

the creation and processing of symbols, the best example of which is the computer and the cellphone. And "symbols are culture" (Krzysztofek 2006, p.25). Currently, these symbols can be created far more easily by individuals, as long as they are supported by others who share their views. The Internet makes it easy to put unique values and opinions into social circulation, and the media are no longer the sole creators of opinion and a tool of influence wielded by the powerful for the privileged. The media are thus becoming a means of expression and „prosumption" (the simultaneous production and consumption of culture) which is accessible to the ordinary user. "The new technological media give the owner of a personal computer the possibility of creating and disseminating narratives, photographs, graphic images, music and websites, frequently with the aid of free software" (Kowalski and Jung 2006, p.264). On the other hand, these products frequently become material providing an opportunity for a more thorough analysis of the virtual world and the psychology of the Internet.

There is yet one more important characteristic phenomenon of the symbolic sphere to deal with, which has been strengthened by the introduction of new technologies - re-mediation. An example of this typically technological procedure might be the creation of larger hypermedial applications. It is easy to see that these hypermedial applications are - and always will be - a typical re-mediational function, because they act as an example of what the older media offered to the fabric of the digital sphere. First they perform a critique of the initial material, then its processing, and finally its renovation. And although digital media attempt to achieve transparency and directness (such as virtual immersion reality and virtual games) they are nevertheless also subject to re-mediation. Hypermedia and transparent media are manifestations of the same desire - a desire to perceive the limits of representation which already belong to the past, and to perceive reality. The do not attempt to attain reality in any kind of metaphysical sense, but reality is instead determined by categories derived from the experience of the viewer, in order to trigger a direct (and thus authentic) emotional reaction (Bolter and Grusin 1999).

The technological matrix, when properly applied, leads to the emergence of a whole range of cultural incentives for the average traveller through the virtual world. The concept of technological depth, applied by Michał Ostrowicki (2006), provides us with some potential in interpreting post-modern cultural phenomena, but without of course exhausting the

whole issue. The history of the Internet is barely a quarter of a century old, but the amount of scientific literature presently devoted to the subject is huge. It can be said that although we are still at the beginning of a long road, the intensive research being conducted on the Internet and virtual reality will, in the not too distant future, most probably bring about the necessity of changing our perspectives and relationships to art, culture, education and everyday life, and above all the creation and development of science. As Alvin Toffler (1991) writes, a digital revolution is taking place before our very eyes, which in turn will cause a revolution in all spheres of life as well as a power shift. We can, as does Jeremy Rifkin (2001), approach this revolution fearfully by concentrating on a black scenario and interpreting the signals of coming change as nothing but an approaching apocalypse. We cannot fail, however, to perceive the technological matrix, so often mentioned here, as already something more than a mere database of intention (Battelle 2006), and that so-called multimedia are increasingly absorbing traditional cultures (and culture as traditionally understood) (Castells 2009), constructing a hyper-modern and post-modern educational potential for the suitably prepared recipient.

1.3 The specifics of the communication process in the post-modern network

The creation of the technological conditions necessary for free communication has become the basis for the formation of a new communication philosophy and the perception of post-modern man as *homo mediens*:

> "New technologies, referring mainly to the language of image, trigger diverse mechanisms in creating the structure of the *id*, and thus affecting its structure. This fact warrants our speaking of a new form of 'updating' mankind, and to speak of *homo mediens*" (Kwiek 2008, p.51).

In order to undertake a thorough discussion on the role of new technologies in changing post-modern culture, we must be aware of the boundaries of such a discourse. It is worth looking at the new technologies as a set of tools which broaden our experience, strengthen our perception and make us more competent in various disciplines, enabling us to lead a more comfortable life. They also mean that the possibilities for learning and study are undergoing a significant change. However, the most important philosophical questions are still valid, because we are still people:

> "Humanity, rooted in common experience of these same philosophical questions and existential dichotomies, remains unchanged. First and

> foremost, the scenario in which the human drama takes place is changing. Mankind's 'right to be' is the history of support (or the relinquishment of support) in the process of 'socialisation'. A condition of 'socialisation' is the continual sustaining of the *vita contemplativa* at the highest level" (Kwiek 2008, p.53).

At this point it is worth adding that the social consumption of the media depends first and foremost on the expectations of the consumers themselves. Some are seeking in media communications something which might be termed the *vita contemplativa*, whilst others are seeking the *vita immersiva*, - a reality lost in images of images.

Thus, new communication strategies, dealt with in the previous sections, need to be viewed above all as extending the possibilities for mankind's self-realisation, and not as a limitation of potential or as a threat, although it is sometimes worth considering such a view (Kobylarek 2008). In my opinion, the sequence of changes forms a certain regularity. Here we have new technologies, introducing minor changes on a micro scale in selected spheres, causing a modification of the communication process and leading to a profound change in the structure of communicative processes. At the same time we are compelled to make certain changes in social ties and relationships, because interpersonal communication has a social dimension. The relationship between these two phenomena is neither simple nor obvious (Levinson 1997).

One of the fundamental characteristics of communication via the Internet is, as indicated by the majority of researchers, hypertextuality. The web provides each creator with possibilities hitherto undreamed of. Thanks to the Internet, the creators of virtual communications have direct access to an enormous potentially interactive audience such as no single speaker could command. The audience of an author publishing on the web is world-wide. One obstacle to achieving this might possibly be the language barrier, but considering that the English language dominates in science and is at the same time the language of the new technologies, in reality such a barrier does not exist. In the field of science and education we can transpose these same truths to contacts between scholar and beneficiary, professor and student, thus increasing the quality and speed of communication.

Hypertextuality, which is the continuous referral to ever more diverse texts (for example through the use of live links, or through footnotes, as in this work), provides an opportunity for access to many other possibilities in interpreting communications which even the author himself never suspected existed. The receiver-interpreter is always able to extend the communicative possibilities of the text by adding further hypertextual material, thus building additional layers of communication. In this way, many „mirrors" arise, leading to an infinite number of theses, antitheses, syntheses and sub-threads. In practice, we are not capable of making use of the whole interpretational potential which such an ergodic text offers us. We should be aware that new electronic changes in text and textuality constitute a challenge to hitherto traditional concepts of both text and reader.

> "Early hypertext theorists - Jay David Bolter, Stuart Mouthrop and Michael Joyce - concentrate mainly on the convergence of post-modernist theory and interactivity. Currently we are dealing with a strand of solutions which I would describe rather as 'the poetry of interaction' than a pure theory on the this subject. An example of such an approach to the problem is the concept of cybertext, as put forward by Espen J. Arseth. Propounding the concept of an ergodic system, he describes dynamic, open texts in which the user performs a range of specific functions, of which interpretation is but one" (Prajzner 2005, p. 58).

Cybertext, as described here, needs to be viewed from a completely new perspective as variable possibilities in making use of textuality. Such an interpretation would seem to be a very useful tool, both theoretical and practical, which

> "allows us to understand and describe non-linear representations of reality, which we come across in traditional, literary and film narratives, as well as in the sphere of new varieties of textuality, such as hypertextual narratives, interactive cinema, digital art and computer games" (Prajzner 2005, p. 58).

The last two quotations indicate the necessity of a variable approach to the object of interpreting cybertext in the post-modern era, and its ontological status as an entity interpreting the text. Focussing only on the interpretational possibilities (as many authors emphasise) would limit our options in perceiving the riches of the world of audio-visual culture. From the statements above we can sense a conviction that only in the best case does the interpreting object yield to imperfect translation (Rewers 1998), although more often it is, at the decoding level, embroiled in much subtler communication mechanisms, such as hybridisation and reflected meanings (Kosińska 2005).

Manuel Castells (2003) states that a combination of sound, graphics, text, animation or film does not exhaust the nature of the multimedia operation. Only with a combination of the Internet (with all its possibilities) and television do we get the appropriate effect which allows us to speak of a higher level of multimediality and hypertextuality, and simultaneously a greater complexity in the situation of the subject which it is interpreting, learning, or generally exploring.

1.4 Togetherness of the web

The modern Internet society is a society of individuals; nevertheless the creation of the majority of projects requires social co-operation and involvement. This has remained unchanged for centuries - we are individuals with personal ideals and interests, but we may realise them within legitimate and ethical frameworks which are socially defined and acknowledged. Leszek Koczanowicz points to the fragility and instability of interpersonal bonds in the post-modern reality

> "We are dealing in the modern world with fluctuations which often lead to dramatic results in the form of terrorist aggression, both group and individual. In setting emancipational potential in motion, the democratic society must simultaneously draw upon communal resources in order not to become merely a group of individuals, externally connected by legal regulations and political institutions" (Koczanowicz 2005, pp. 206-207).

Does the web society possess within itself such a potential? Or rather, are we moving inevitably towards the total collapse of social bonds in the traditional understanding? Here it is generally possible to distinguish at least two basic points of view. One of the less popular views in the literature on the subject is put forward by K. Krzysztofek, who states that society in the Internet era is moving towards „algorithmisation". He points out that "the absorption of the bio-social sphere by the bio-technical sphere is an evolution which has its own logic" (Krzysztofek 2006 a, p. 36). In the opinion of the author, this revolution is both morally and axiosocialogically neutral. This concerns not so much a leap in civilisation as an escape from technological stagnation, or even its collapse.

> "It is the creation of order, a defence against chaos and a chance for the survival of established structures, because the approaching epoque will not be an epoque of simple systems which *per se* contain inbuilt algorithms, but rather an epoque of dynamic non-linear systems, also known as structured systems, in which the structure itself is not as significant as its

> chaotic non-algorithmic influences, links, complexities, disturbances, chaos, instability, disorder, globalisation, turbulences, the erosion of norms, multiplicity, dialogue, fragmentations, disintegrations, networks, bifurcations, attractions, fractals, streams, levels, tensions and conflicts, non-continuities, disconjunctions, deconstructions, connections and dependencies. In a word, the world as a 'magnetic storm' (...)" (Krzysztofek 2006 a, p. 37).

According to K. Krzysztofek, this change in the technological perspective is not so revolutionary, because in essence it is based on the same principles as every other technological change. It is possible to talk about a certain extension, improvement and enhancement, but not about the transformation and development of a completely new approach, as we find in the views of other authors concerning, at the very least, the problem of intellectuality:

> "We can perfectly imagine the information society as an extension of the 'electronic conveyor belt' and as forms of control over mental functioning; it must operate within a specific algorithm (...). The computer demands disciplines in order to manage the 'flow of work'. These disciplines take place between computers and can be achieved on a global scale (global team works). If we don't understand this we behave like a defector relinquishing the industrial conveyor belt. The difference between the two conveyor belts does not appear to be qualitative, but the important difference is that with one of them we work with mechanical tools, but with the other we work with symbols, which call for more complicated actions (...), but we have the tools at hand - in the first case in our overall's pockets, in the second case on our hard discs or in the Internet" (Krzysztofek 2006 a, p. 37).

Much more frequently, however, we hear statements to the effect that we are heading towards an alternatively organised web society, in which social bonds will have a specific character. Communities will be more virtual than real, which will permit the harnessing of man's natural pursuit of total emancipation and individualism, and will lead to the creation of some kind of hyper-bonds based on the previously discussed hypertextuality (Kobylarek 2009 a). Many authors express the conviction that the Internet constitutes a distinct social environment which is changing existing social bonds in the real world, whilst simultaneously creating qualitatively new ones. It is also necessary to view the interaction of real and virtual bonds in appropriate proportions, as well as their wide spectrum of possibilities for transformation, from reinforcement to severance.

> "It appears that the virtual space makes the forging of social bonds possible, allows them to develop and leads to a different dimension in inter-personal relationships (more openness, honesty, and an absence of first impression judgemental errors), but at the same time it is only a communicator, because if the network of connections between individuals sitting in front of their computers is in any way damaged, that contact is broken. On the other hand, the virtual space allows us to form relations which with time may be transformed into more permanent social bonds, thanks to additional forms of communication, both virtual (communicators, e-mails, websites) and real (physical meetings or phone calls) (Przywara 2005, p. 314).

Here again, as in the case of the problems discussed above, we have two basic positions (or approaches) to the creation of social bonds on the basis of those new technologies which are best integrated by the Internet. A good example of such an Internet-supported phenomenon which may be perceived ambivalently is Wikipedia, the famous Internet encyclopaedia, which is accessible to everybody in all the most popular languages, and which can be edited (extended, improved or corrected) by anybody. At the very beginning (in 2000), the idea seemed amazing, not to say brilliant. After some time, however, it turned out that not all was functioning as it should: On the basis of his experience with Wikipedia, Sanger (co-founder of Wikipedia - *author*) understood that the democracy of information doesn't work. In reality, expert knowledge in fact outweighs the „collective wisdom" of amateurs. Sanger observed that an encyclopaedia created by open-source programming, such as Wikipedia, can only function effectively when there is a place for authorities who can control and edit anonymous entries. Sanger understood that totally democratic networks using open-source programming inevitably become corrupted by lunatics (Keen 2008).

Does this mean that Wikipedia is just a collection of incomplete information which is of little use? It all depends on which level we need the knowledge which interests us. For the layman who has no grasp of specialist knowledge at all, an ordinary encyclopaedia, Wikipedia and various types of dictionary (including virtual) fulfil a very significant role. Even for specialists, such knowledge can sometimes be very useful, with the appearance for example of new extra-disciplinary and sub-disciplinary phenomena, which have only been vaguely described in the literature and which have hitherto been outside their sphere of interest. There are many such examples and probably none of us is ashamed of taking advantage of such forms of informal education The co-founder of Wikipedia (already mentioned) himself uncovered its imperfections and tried to introduce

modifications, eventually leading to a new solution which he called Citizendium. Sanger describes this service, inaugurated in September 2006, as „experimental", a new wiki project combining public participation with subtle cues from experts. In other words, the project is an attempt to combine the virtues of such a trusted source as the Encyclopaedia Britannica with the energy of Wikipedia, and with the participation of all users. The Citizendium service gives experts the right to analyse, confirm and resolve disputes concerning articles in their particular sphere of expertise. A selected group of „policemen" keep order in the service and punish those who break the rules or create problems (Keen 2008).

The Citizendium project proves that the Internet need not necessarily be a rubbish dump and a paradise for dilettantes, freaks and mutual appreciation societies. Properly organised and published under the supervision of knowledgeable specialists, it can lead to the creation of something in the way of a collective intellect or an algorithmical intellect, as described at the beginning of this section. Perhaps a metaphor which much more effectively describes the state of society and knowledge in the future would be the philosophy of „open gardens", a kind of collective wisdom which was the inspiration for Web 2.0. Here again it is worth drawing particular attention to the arrangement of interactions between the new technologies, social bonds and culture.

> "It seems that an institutional change is essential, which will allow for a civilisational 'update' and eliminate cultural deceleration (...). If changes take place in the instrumental layer of culture (tools), then they must inevitably be transferred, albeit with some delay, to the remaining layers - expressive (art, literature, entertainment), cognitive (science, knowledge, education) and prescriptive (morality, social ethics). The (the sphere of ideas, meanings and values) must catch up with the technosphere, whilst also interacting with it. The cultural lag is at the same time an institutional lag, which blocks the development of knowledge and thus the development of a society which is based on knowledge (...)" (Gawrysiak 2008, p. 12).

The need for an essential institutional change also applies to universities, the current hubs of the knowledge society. When it comes to the new technologies, they should adopt the role of leader rather than consumer if they want to play a key role in the knowledge society.

> "A tendency is gathering pace which will become one of the motors of a great civilisational change. The spawning of a multitude of open digital knowledge platforms is leading to its socialisation. Universities, which have not undergone any radical reforms (in Europe at least) since the

> Humboldt reform, today stand in the vanguard of this civilisational change. The essence of this change depends on the ability of universities to adapt to the spirit of the age, whose presence manifests itself in the web. The problems hitherto experienced in taming IT were the result of a lack of institutional adaptability. That which is now taking place in world education - the initiatives being adopted by the world's greatest universities - indicate that an adaptable model of the knowledge society is being born, which constitutes a great cultural shift" (Gawrysiak 2008, p. 12).

As much as the effect of technological change on cultural change (in this case an adaptable model of the knowledge society) is indisputable, the role of universities (and higher education generally) is not so clear. We can only look at the whole problem in a reliable and competent fashion after a more accurate analysis of the current situation of the university, as well as its role and and significance in the post-modern world. Expressing opinions on the basis of individual successes in taming technology can be deceptive, especially if the standards of the world's biggest and most prestigious universities are applied to Polish universities, which after all remain a long way behind the world leaders.

1.5 The era of interaction

Long before the rise of the Internet, and even before the widespread use of the computer, Gillo Dorfles, professor of ethics from Milan, made some interesting observations which were way before his time, and which in my opinion did not come true until the era of the web society. From reading his writings it is possible to derive the impression that every technological revolution has two basic dimensions, that is:

- an increased possibility of mastering external reality. "Only thanks to technology - or rather to specific technologies, each of which possesses its own influence, its own particular structure and its own distinct „code" - has mankind been able to attain the position in the world which he currently holds" (Dorfles 1973).
- a broadening of personal abilities, or emancipation. "Every scientific discovery, every technical (and technological) and artistic invention initially has a cathartic function, freeing mankind from a state of dependency, subordination and servitude" (Dorfles 1973).

From these statements it is possible to draw the conclusion that technology is first and foremost a broadening of mankind's possibilities, leading to emancipation. This would be in agreement with earlier