Information culture as a new perspective for information science

1 author:

Małgorzata Kisilowska-Szurmińska
University of Warsaw
68 PUBLICATIONS   **123** CITATIONS

Some of the authors of this publication are also working on these related projects:

Public libraries in pandemic Poland View project

Media and Communication Science in Poland View project

Information culture as a new perspective for information science

Abstract

Introduction. The aim of this text is to present the concept and definition of information culture (IC) as a research field within the information science. Development of an information society provokes to analyze role of information as a culture-forming factor in wider context of audiovisual culture and the role of information and communication technologies. The concept is discussed referring to other important ones in the LIS development (like cultures of orality, print, or book), as well as in a modern society (information and network society, audiovisual culture).

Methods. This is a theoretical, discussion paper which uses conceptual analyses in combination with a discussion of research ideas.

Results. The author offers a brief description of information culture limits, it's material and immaterial artifacts, like values and rules, as well as benefits and menaces. There are also a few new concepts defined shortly, as representative for this research field.

Conclusion. The quantity and quality of information, requiring advanced competencies and methods of either retrieval or implementation, justify introduction of the concept of information culture as a research field within information science.

Introduction

What is a culture? Brief comparison of a number of definitions leads to a general conclusion, that it is a sum of characteristics (features) specific for a given population and differentiating it from among the others. In both communication and information sciences perspective at least several types of culture have been distinguished: oral culture (Ong 1992), print culture (Eisenstein 2004), book culture (Migoń 1984) or literacy culture. All of them were described referring to a leading method (and mean) of communication and dissemination of information or knowledge: either oral or written. Cultural character of any information activity is emphasized by M. Buckland, who says: "The simplest assumption then, is that the uses of information, when we speak of information-as-thing, are properly seen as an active engagement in the cultural sphere" (Buckland 2012,1). However, the concept defined and

described below does not refer to the method of communication, but to the role information plays in an individual, community or society life. The concept has been used several times in different texts and contexts, presented briefly in the following section.

The concept of information culture – a literature review

As Lev Manovich says, he is the author of the *information culture* term.

> This term can be understood as parallel to another, well-known one – the visual culture. It encompasses methods of presenting information in different cultural places and objects – beacons, airport and railway information boards, menus on TV screen, graphic order of TV news, order of books, journals, and magazines, banks', hotels', and other commercial or recreational spaces' décor, airplanes' and cars' interfaces, computer operational systems, and software interfaces. Similarities between visual and information culture include also historical methods of information organization and retrieval (equivalents of iconography), as well as patterns of the users' interaction with information objects and screens (Manovich 2006,72-73).

As Manovich emphasizes – information culture is synonymous to visual culture or information esthetics (info-esthetics), and perceived as "a new culture of information society, different from an old culture of industrial society" (Manovich 2006). This is not a holistic interpretation, as the author focuses on visible, visual aspect of information objects and aspects, *per analogiam* to elder forms of cultural records, in the context of the risk of globalization leading to unification of presentation forms. He also presents potential changes in behaviour of the new media users, saying that "access to information becomes not only a main form of work, but also a new category of culture" (Manovich 2006). Thus the postulate of further research of cultural aspect of information and information processes remains valid.

The information culture term has been used in literature for a dozen or so years, to describe phenomena and processes in organization and management, and in particular – organization culture (Stefanowicz 1998, 2007; Owens, Wilson and Abell 1995; Davenport 1997; Ginman 1998; Widen-Wilff 2000; Jarvenpaa and Staples 2000; MArchand, Kettinger and Rollins 2001; Ryznar 2001; Borowiecki and Kwieciński 2002; Furmanek 2002; Curry and Moore 2003; Kolegowicz 2003; Łukasik-Makowska 2004; Khan and Azmi 2005; Widen-Wullf and Suomi 2007; Choo et al. 2008; Oliver 2008; Meyer 2009). It has been and is being explored as a part of the latter, influencing quality and effectiveness of a company's communication (both external and internal), as well as processes of information and knowledge management. A

number of other IC definitions have been so far proposed, including interpretations listed below:

- "socially shared patterns of behaviour, norms, and values that define the significance and use of information" (Choo et al. 2008) within an organization,
- IC represents values and attitudes against information: what to do and what not to do in regard of information processing, publicizing, and communicating (Davenport 1997),
- "culture, in which transformation of intellectual resources is maintained alongside the transformation of material resources. The primary resources for this transformation are varying kinds of knowledge and information. The output achieved is a processed intellectual product which is necessary for the material activities" (Ginman 1998), adequate functioning, and development; M. Ginman mentions positive correlation between well-developed information culture and effective business activity, which means, that IC is either an aim or a strategic asset, and shall be planned as other, material resources;
- "culture, in which the value and utility of information in achieving operational and strategic success is recognized, where information forms the basis of organizational decision making and Information Technology is readily exploited as an enabler for effective Information Systems" (Curry and Moore 2003);
- a part of organizational culture, sometimes perceived as "a social intelligence on an organizational level" (Widen-Wulff 2000);
- "a system of attitudes against the role of information and ICT in life, a level of social development depending of a range of nature overcome, knowledge reached, and artistic creativity, as well as social co-existence forms using ICTs" (Furmanek 2002).

Although referred to organizational reality only, these definitions focus on an increasing role of information for their effectiveness, on its variety and abundance, on indispensable information competencies (including the key ones – selection and choice). Further, they refer to information influence on the users' behaviour.

Information culture can be then a form of organizational culture – particularly in so-called knowledge organizations, where information belongs to the fundamental resources (Curry and Moore 2003) – and a fundament of any activity (Khan and Azmi 2005), intrinsically linked to effective communication policy and democratic relations within a group. IC in organizations is seen as a system of values and behaviour being developed in the result of changes in accessibility and role of information in economic in social life; it is neither static nor

homogenous phenomena. However, research findings confirm, that its implementation and improvement support business success, in particular in unstable environment (Widden-Wulff and Suomi 2007; Owens, Wilson and Abell 1995).

Information culture in LIS literature

Introducing the concept of information culture as a new perspective for information science research requires broad LIS literature review. IC has been mentioned or defined in the following contexts and forms.

- IC as intellectual and manual skills indispensable in using ICT to answer information needs (Jaskowska 2005).

- IC on the information ecology background – as knowledge, habits, and skills related to processing information being an important element of a human information environment (Babik 2006).

- In an organizational context - IC being shaped by information processes within an organization and people involved in them. It also positions information, supports expected information behaviour and motivations (Materska 2007,193-198).

- In information literacy context – IC as "a sphere of human activity being shaped by his/her information awareness, values supporting the need of information literacy, attitudes emitting behaviour of mature users. The latter is subordinated to social patterns of ethical information usage, they refer to objects connected with information activities and processes" (Batorowska 2009b). Batorowska says, that "particular components of reading, library, media, and ICT culture refers to the culture of usage of any printed, audial, visual, audiovisual or electronic media, and information culture integrates them all" (Batorowska 2009b). It seems then, that *de facto* this term is being used in a *competence context*, in particular regarding information education and literacy. Information culture can be understood as a natural adaptation of reading culture to technological and social changes resulting from ICT and Internet development. She focuses on behavioural correctness, as well as observation of norms and values.

Concluding this short review of *information culture* interpretations in Polish and foreign literature, two aspects shall be emphasized: individual information literacy as an indispensable condition of its development, and *information environment* as surroundings where these competencies are indispensable to live in.

Definition

The idea of information culture comes from observation of social, technological, and economic changes, new products, values, norms, lifestyles, which we are facing every day in information and/or network society – depending on sociological interpretation. I focus on new activities and objects resulting from increasing technological efficiency and skills in information transmission, and changes in lifestyles resulting from information accessibility and influence.

> *Information culture can be then defined as the men's way of aware and active functioning in information space, and its consequences.*

Referring to classic explanation of the term *culture*, understood as a collection of permanently enriched human skills in a given field, this definition – in the part concerning aware and active functioning – considers, or even assumes possessing, developing, and acquiring new information competencies, which are (according to the authors cited above, and many others) indispensable for functioning in modern, technological society, moving most of its activity to a virtual world, as well as information resources and digitalized version of cultural heritage.

Aware and active human presence in the infosphere does not consist only of using available offer. Active attitude assumes initiative, co-creation of an information space. This activity is decisive for the concept of information culture, as opposed to the time, when most of people used information offer passively, consuming only presented contents, sometimes with hardly any reflection. The concept of an information space is defined as "multidimensional, dynamic, open set of contents (data and information), their carriers and users" (Kisilowska 2011). This space, also known as *infosphere* (Floridi 2007, 59), is open for interaction with other systems a man live within, influencing them mutually (like changes in economic systems caused by a possibility of virtual financial transactions). Decisive role of information in modern world has been mentioned for example by Luciano Floridi (2007) or Adam Briggle and Carl Mitcham (2009). Both Floridi and Borgmann (2000) emphasized different types of information, including – science information (describing reality), engineering information (created for the real needs), and information as reality (including digital cultural artifacts). The latter category makes a kind of culture either (Briggle and Mitcham 2009).

In the result of human activity within an infosphere, different kinds of artifacts emerge – physical (like information products on enduring external carriers – printed or electronic), behavioural (virtual activities, using mobile phones, etc.), immaterial (norms, standards, rules – like netiquette, copyright, etc.). As Bogdan Stefanowicz says: "information in an immaterial

culture is a material from which new elements of spiritual culture are built – new cultural facts" (Stefanowicz 2007). He interpreted information culture as "knowledge, habits, and skills concerning information as an element of reality, equally important as matter and energy, as a factor influencing behaviour and successes of both individuals and populations" (Stefanowicz 1998).

There are the following characteristic features, forms and tools indispensable in describing IC research field:

- docuverse, i.e. global metadocument (Wikipedia 2011); which seems to be a required (or at least significantly supporting) condition; however, it is not the only place (form, carrier) of information processes, but it seems that docuverse can be seen as catalyst of acceleration, intensification, and dissemination of the latter;
- audiovisual culture, defined by Maryla Hopfinger as the one in which different types of communicates (text, image, sound) are equally important, as well as related cultures,
- ICTs – indispensable for the virtual sphere,
- information society – particularly in its economic dimension, i.e. the one where information and its processes are fundamental factors generating income,
- prosumerism – as a creative usage of available contents and tools, in consequence influencing these entities, their products or services,
- alinearity and fragmentarity – hypertext instead of linear presentation of the contents.

Information culture can also be perceived as a method of people's *coping* with a surrounding reality – and virtuality, in this case. Its selection and definition enables us to find and name these specific processes, behaviour, or objects, which could not develop, emerge, or be noticed unless a man starts aware and cautiously usage of infosphere. Proposed definition is neither limited with normative barriers, expecting adequate attitudes or activities from the users, nor narrowed to information literacy. Instead, I would like to emphasize the necessity of *finding oneself* in an such an environment and conscious development of the rules life within it – not as the imposed norms. Such an expression is of synthetic character, including attitudes, norms, or information artifacts in a social perspective.

Background

The concept of information culture has not emerged from nowhere. It is grounded in current theories of information science and related disciplines. In this section I would like to refer to a few of them, drawing a theoretical and research background for information culture. The first field is the philosophy of information, represented by Luciano Floridi (2002-2008). Floridi defines it as

> a part of philosophy engaged in (a) critical analysis, conceptual core, and fundaments rules of information, its dynamics, usage and research, and (b) development and application of information science and computer science methodology in solving philosophical problems (Floridi 2002a-2002b, 2004).

Information dynamics Floridi perceives as: creation and modeling of information environments – their properties, interactions, internal development, information lifecycle, computation – either algorithm processes or information processing in general. Library and information science becomes then

> an applied philosophy of information, concerning documents, their lifecycle, procedures, techniques, devices used in their development, management, and organization. Fundamental rules and techniques of philosophy of information are applied in LIS practice to solving practical problems and acting with concrete phenomena. Empirical research are being conducted for practical aims (services – like conservation, valorization, education, surveys, communication, cooperation), contributing to development of fundamental research in philosophy of information (Floridi 2002a,46).

Information culture can aspire to one of fundamental LIS approaches, among orality, script, or print cultures. Script culture has been separated as a form developed in the result of tools and skills used in recording contents originally transmitted orally. W.J. Ong (1992,29) listed the following key changes: possibility of expression and exploration of information (impossible in an oral culture), searching for new information, and social consequences, like decreased role of a *wise old man* for the benefit of a *young explorer* (Ong 1992,67). A key sentence for the script culture is the Ong's one: "script intensifies feeling oneself and supports more aware interaction between persons. Script increases awareness" (Ong 1992,233), refers to optimal realization of human potential. Print culture is another fundamental term, defined usually as social phenomena and processes developed in the result of wide dissemination of literature and information in numerous copies of books, newspapers, journals, etc. W. J. Ong (1992), E. Eisenstein (2004) and M. McLuhan (1975) named main features of print culture, which are:

visualization of a word, its reification and commercialization – recording and dissemination in this exact form (as opposite to earlier oral transmission), underlying its construction (as a set of letters in a specific composition), and dependency on technological printing process. Words' registration has had serious consequences – like development of concepts' definitions, edition of information publications (encyclopedias, dictionaries), construction of auxiliary elements in texts (indexes, references) (Ong 1992, 74), and in general lead to knowledge externalization. E. Eisenstein (2004) described more social consequences of the latter – connected with reformation, capitalism, geographic and science discoveries, education development, changes in power systems, and copyright introduction. She also emphasized changes in information flow resulting from print, like shape, standarization, and reception of a book, text structure, or durability of print materials (Eisenstein 2004,51-93). M. McLuhan underlined consequences for an individual – awareness changes referring to text visualisation and linearity, development of analytical skills (Mc Luhan 1975). The book culture is the concept known in literature from more than 100 years, popularized in Poland by Krzysztof Migoń (1984, 2005, 2011), as a synonym of the *book science*. He underlines (1984,114; 2005,50) active (and activating) role of a book as a culture carrier and tool, and a *book culture* he defines as "a set of phenomena and processes, material and spiritual resources connected with a book" (2011,48). He often refers to Paul Raabe's definition of "a book culture as historically shaped, covering a large part of cultural life, lively active entirety and presence of the books' word, focused on a book production, dissemination and functioning" (2005,54; 2011,52). Among its numerous applications, he listed studies on a book as a subject (thing), tool, and cultural function, in particular geographical or historical areas, regarding individual, group, or social behaviour (2005,54-55). A book culture is then a main cognitive category of book studies, central concept and research subject.

Another set of relative concepts encompasses information or network society, and audiovisual or convergence culture. Let's recall – information society has been originally defined in economic aspect (information as a main resource of income, information services as fundamental aspect of economy), regarding also ICT development and social consequences (changes in employment structure, audiovisual industry, etc.). Network society is the Manual Castells (2000) term, indicating that the main social effect of ICT infrastructure development is not information (which has always been a subject of human activity), but communication and interpersonal relations. An individual's position in a network society depends on one's membership in different groups, access to dominating cultural codes, and access to virtual

environment. Convergence culture (Jenkins 2008) is "a phenomenon or a process, when we can observe changing and mutually permeating dependancies between media, cultural, and commercial contents, their authors and receivers" (Jaskowska 2008). Each of us can be an author of a new object. These are often low-quality products, however this argument is answered many times with advantages of so-called crowd-intelligence, as a synergy effect of intellectual effort of many people. Audiovisuality "becomes in the 21st century a dominating way of orientation in culture" (Hopfinger 2005,9). It neither refers to image's primacy over text, nor threatens cultures of script, print, or book.

> Modern culture integrates verbal and nonverbal, visual and audial, written and iconographic information in an audiovisual syndrome. (…) Audiovisual culture not only does not resign from natural language, but also cannot be even thought without languages as the main cultural code (Hopfinger 2005, 9-10).

An essential condition of its development is technology and its applications – as without technological development there would be no visual or audiovisual documents, or digital documents of any type. Technology supports also democratization of cultural transmission, increase a range of its influence, influences in form and quality of research. For example Oya Rieger focuses on so-called *digital humanities*, where digital media change research communication (repositories), activities, creativity, and art creativity (analytical tools, multimedia, visualization), have social (Web 2.0), cultural (digital copies of cultural heritage) and political effects (Rieger 2010). According to Wojciech Siwak (Hopfinger 2005,157), new technologies of information recording and processing changes status of information itself, give it new sense, enriched with specifics of mediating between sender and receiver. Such a statement encourages to change attitude, to focus more on information features (and in consequence – on information culture) than on its technological determinants.

Short comparison of all these terms shows differences in interpretations and definitions. For example, the effects of inventions are seen as condition and key element of its appearance and role in social life. This difference is rooted in the essence of fundamental parts of *definiendum* – in analyzed concepts this is the name of a technology of registering and communicating contents on an external carrier, out of human brain, also often a name of its products (script, book, print). Analysing culture in its technological aspect, including tools and products, in fact we analyse influence of these inventions on human life – individually or socially. The point of view in information culture is quite different. It comes from perception of *information omnipresence* – so intensive, that provoking to define the term *information space*.

The way and intensity of human functioning and usage of this relatively new space is the subject of analysis, not only information per se. Studying information culture, we focus on what a man does with information, and *what information does with a man* stays at background. Answering the question concerning a need of a new term, we can refer to Jadwiga Woźniak-Kasperek, who says:

> Presentation of social character of information and its role in development of social structure and group functioning, communication, knowledge development, relations between informational aspect of individual experiences and social communication aspect, is still a challenge for humanistic and social disciplines, in particular library and information science (Woźniak-Kasperek 2011).

Research potential

Definition of a new information field requires delineation of its limits. The first one concerns existence of "*an information space as a multidimensional, dynamic, and open set of contents (data and information), their carriers, and the users*" (Kisilowska 2011). The need for such a space is confirmed by intuition and synonyms being used in literature, like information environment, or infosphere. We assume, that men live in an information-rich, permanently changing environment. It's dynamics and openness result from manipulations on data or information – like interpretations, corrections, actualizations, supplements, etc. The second assumption says, that a man is an active participant of an information space – as a creator, receiver, or user. Then comes the third one, that this activity is of conscious character. And the latter assumption concerns its inevitable consequences.

IC offers new research categories to discover. The first one, coming directly from the IC definition, is an information consciousness – a term used in journalism and research literature. There are several concepts of this, a few of them listed below:

- "consciousness of an information society is radically different to the one of industrial of agricultural society. Its first phase is defined by developing knowledge, skills, aspirations, and attitudes towards ICT applications. The second refers to perception of problems, risks, threats, disadvantages. The third one will probably be defined by aspiration to overcome negative effects an to maximize positive ones" (Zacher 1999).
- "a human brain's potential to reflect reality of information society functioning in it's objective and subjective dimensions" (Szewczyk 2004,53; Batorowska 2012).
- "a consciousness regarding essences of ICT applications" (Szpunar 2006).

- „an individual's or group's orientation regarding functioning in an information world, joined with general knowledge of this subject" (Batorowska 2009a).

Mostly it is seen as "a capability to realize what is being perceived or experienced; brain's skill to reflect objective reality, conditioned by social forms of human life and shaped during its historical development" (Szymczak 1989). *Information consciousness in LIS would be realization of the essence of information, multiplicity and complexity of its manifestations or processes; mind's potential to reflect information space in its diversity and dynamics.* Consequences of this interpretation include questions of developing and training this state of mind, internal conditions of this process, and external influences, as well as patterns and development trends of information consciousness.

Another important, emerging concept is that of *information activity*, concerning *information behaviour, their differentiation and intensity*. One can say intuitionally, that the latter is actually the first being referred while individual's actions in an information space, and makes a basis of a term naming a contrary status, i.e. *information passivity*. The question arises then, what makes a limit between information activity and passivity? And the others: does passivity mean complete lack of activity? Or maybe it covers our everyday, even unintentional reception or dissemination of information? What kind of information do we include – only verbal, or also non-verbal communicates? Can information passivity be a kind of self-defense against information overload (Szlendak and Pietrowicz 2008)? If yes – then information activity would comprise of either intentional information searching, its usage, or dissemination of own information? Is (and how) information activity influenced by the level of information skills? Can the codependence of the above be observed in any information activity, or is limited to education and professional life only? If and how does it correlate with socio-demographical variables, and technological background? As we can see, many questions can be asked at the very beginning of describing this research category, and all of them remain open.

Observation of our everyday life provokes to discuss another concept – of *information consumerism*, defined as unreasonable, excessive usage of information and information sources. In it's pure form, consumerism refers to unreasonable, and expensive (in both individual and social, and even ecological dimensions) purchase of goods and services. A culture of consumerism (Wikipedia 2011) is a kind of reaction for its negative effects, promoted and researched by cultural studies. The above statement, *per analogiam*, encourages

to study an antinomy between information culture and information consumerism. The latter has many negative connotations and effects, including: wasting time lost among internet links; awakening information pseudo-needs (desires, or even caprices – as Bauman (2011) says; burdening mind with redundant or poor quality information; problems with concentration, inability to process to many data; difficulties in decision-making; information overload; economic and social costs. Information consumerism as a research category would require analyses aiming in precise delimitation of an information activity. Expected impossibility of delineating such a limit for a whole population would direct research into surveys concerning exploration of potential conditions and activities characteristic for unreasonable and excessive consumption of information (Johnson 2012). However, one cannot forget about research and practice of information ecology – regarding either human information space, or ergonomic and health information economy.

The better information consciousness and culture, the easier and more precisely we would be able to perceive, name, and study their particular phenomena and processes. Though the concepts mentioned above are not the only ones among those concerning cultural changes.

Information culture – limits of the research field

Three research trends can be found within an information culture. The first one concerns material information artifacts. A set of very different objects, including data carriers and ICT devices. The first subset would include either documents created intentionally, or those from which we can now extract or read information, thanks to new knowledge, modern technologies or devices. Exploration skills enable us to broaden and enrich information space. Detailed interpretation of such artifacts remains a subject of studies of other disciplines (like archeology, anthropology, sociology, history, paleontology, etc.), however information aspect can by analyzed by information specialists as well (Borgmann 2000). Research of modern information carriers are also of interdisciplinary character. Books, films, iconographic materials etc. are being studied by book or film specialists, art historians, etc. There is also an atypical category of artifacts potentially material, secondary material, or being materialized, i.e. all objects digitally born. Actual place of their storage stays unknown for the users, and has no significance.

Classic example of an immaterial artifact of information culture is language – new words naming following products, services, or tools developed along with information space

development. Another examples include changes in forms and conventions, like shortening communicates, decreasing care for correctness, emoticons, democratization of relations. In information-retrieval languages – evolution of grammar systems of indexing languages, development of folksonomies. Behavioural artifacts make the largest and most complex category of immaterial ones, including: information searching, creation and publication, so-called information imperative (Woźniak-Kasperek 2011,1), personal information management, reactions on information received unintentionally, and many others. These artifacts influence mutually other changes of social and individual life, like those concerning family/ group patterns (individualization, isolation, mobile and electronic communication), everyday life (electronic banking and shopping), structure of cultural objects (for example structure of TV serials). Democratic movements initiated and coordinated via Facebook or other social portals belong to the most important and spectacular behaviour of information background.

Along with the new ones, the old forms of a lifestyle has been evolving. The information culture lifestyle consists of many information activities, many of which are convergent with netiquette and a *network man* practices. The most characteristic are:

- general acceleration, an imperative of immediate access to (e-)sources,
- possessing and usage of electronic devices enabling this access,
- regular checking one's emails, webpages, and other communication channels,
- information literacy,
- accelerated cognitive activity, so called cognitive spiral (Krzysztofek 2012),
- development of so-called coding skills (not only reading/receiving, but also creating and dissemination information in different forms), information culture makes a basis for a remix (or read-write) culture (Lessig 2007-2010),
- creation and usage of different identities in network communication,
- electronic form of identity verification (like electronic signature),
- personal information management,
- free exchange of audiovisual materials (photos, films),
- artistic and cultural activities within infopshere (Faza Delta 2012),
- changes in public and official procedures, ex. diplomacy (Black and Bryant 2011),
- moving official documents onto more convenient carriers (school registers, academic files, electronic patient records).

The IC rules consist of several elements: values observed in an information space, norms regulating our life, traditions and lifestyle. Information activity shall be adapted to the fundamental humanistic value – the truth. It is a kind of starting point, an assumption accepted by most participants of communication processes. Among huge volume of communicates, instead of aiming at the Truth, we often publicize our subjective versions. A *public truth* is then not an objective information, but the one with the largest group of the followers. Edward Howlett Spence (2010) discussed this ethical aspect of information (including *interformation* – an Internet information), pointing its internal normative structure, influencing a shape of the agents' activities. This structure is based on the truth – without this value information becomes misinformation or disinformation. This requirement is followed by ethical rules to be accepted by information agents, like honesty, truthfulness, reliability. From the other hand, information ethics has also its external aspect and reason, resulting from universal human rights, in particular these of freedom and wellbeing (Spence 2010,153). Other risk related to the Truth and information accessibility is a multidimensional relativism. Not only each of us can present his/her opinions, but they are made of contents of numerous sources. Depending on its selection, one's truth will have this or that dimension. Moreover, less experienced users are tempted to manipulate arguments or select information according to their current needs, benefits, or moods.

Truth, reliability, and topicality (Nicholas 2001), safety and confidentiality belong to criteria of information evaluation. Another value refers not only to the contents, but also people. Trust and confidentiality are the more difficult, as a client has often hardly any direct contact with anonymous service provider, there is also no possibility to monitor data storage and protection. Piotr Sztompka (2007,109) names it as *technological trust*, and emphasizes it as an actual requirement of modern life. In the effect of common accessibility of information (also on mobile devices) freedom become also a value of information culture – perceived particularly as an unconstrained movement. *Space freedom* requires fulfillment of many conditions – like adequate economic level, professional and language competencies, favourable legal regulations. Social changes support development of the Bauman's nomadism phenomenon (Bauman 2006). Free access to information indispensable in everyday life supports journeys –leaving places physically, with no losses for quality of realization of one's functions. Apart from geographical and spatial dimensions, a free access defined as a lack of barriers (particularly economic ones) in accessing and usage of digital information must be mentioned here. Uniqueness and democracy are also important values in an information

culture. However, the first one is threaten by a risk of manipulation of easy accessible information and difficulties in proving novelty of one's statements. Intensification of information processes being realized in virtuality is a premise for the rule of equality of reality and virtuality as the spheres of public, research, professional, and private communication.

Let's assume information itself as a value for a modern man. Something without which a normal life is difficult, or even not worth-living? Are we information imperative-driven? Does this compulsion of information searching, using, creating is socially important and valuable? Positive verification of this hypothesis is confirmed by economic and social role of information in a postmodern world. The value of information refers not only to its material dimension. It has become a tool of socialization, a kind of a pass to a human community (Castells 2000). It has then also a great immaterial value, its accessibility meets our fundamental human needs – of intimacy, affiliation, esteem. However, we begin to feel a need of moderation in this field either. Nowadays we can observe, that skills of selection and decision making are more important than accessibility. These skills I would like to perceive as symptoms of information culture – competencies of conscious and benefitting for an individual (and in general) usage of an information space.

Three general rules of creating objects and institutions in information culture can be indicated: success, giving sense of life, and confirmation of one's value (Kozielecki 1997,21). They are realized on different levels. A man – depending on his/her competencies, age, life or current situation – can perceive either finding an information or participation in development of tools of searching or storage of information, or information activity giving satisfying profit and/or prestige as a success. J. Nolin (2010) offers three basic rules of virtual communication: standard packages of information in the Internet anonymous transmission (so-called boxism), unique identification and processing of these packages (so-called markism), and care for speed and effectiveness of high-quality transmission (so-called speedism). The rule of information verification results from searching for the truth, the need for quality, and accessibility of the sources. Either it refers to local events, modern world, homework, or cooking recipes – we have already learned to check which and how data or facts are presented and interpreted by different authors. Copyright protection is also one of the most important rules of information culture, in particular regarding precedence of gaining and publishing valuable, unique information, as well as access to the others' intellectual property. Free access to the Internet contents, and free publication are perceived as obvious and intuitive by the

digital natives (Filiciak 2010). However, in particular the first aspect is often linked to violation of a binding law, and resistance of the authors, also of financial nature. Introduction of a rule of prosument freedom requires at least a few conditions: respect for the law and values binding in the information culture, and accepting activities not harmful to other people.

The above examples are manifestations of the information culture. As one can see, this culture covers all spheres of human life – private, educational, professional, or public. In each and every of them one can observe changes in human behaviour resulting from dominating role of information.

Conclusions

The discussion on the essence and provenance of information science is still vivid in literature (Hjørland 2002; Robinson and Karamuftuoglu 2010; Buckland 2012). We can observe an evolution of this field along with other disciplines, cultures, and tools improving realization of information processes. Can we agreed, that information science, previously strongly linked with science communication, now has developed to a broad, social research of either analytical or synthetic character, being realized in specific or interdisciplinary projects? Our research includes any kind of information, its processes, and behaviour. This tendency has been forecasted decades earlier by Krzysztof Migoń (1984), who expected broadening limits of the discipline, enhancing (not menacing) its relations to the book science.

Cultural nature of information (Buckland 2012) and documentation (defined by Suzanne Briet (1951) as *a new cultural technique*) has been perceived and discussed in literature also. M. Buckland wrote: "information science is concerned with cultural engagement. Formal and quantitative approaches are extremely valuable, but the field itself is incorrigibly cultural. Formal and quantitative methods, however useful, can never be more than in highly valued auxiliary roles" (Buckland 2012,7). This confirm the thesis of the need of information culture, covering all different "aspects, varieties, and contexts of information" (Wilson 2010), as a new perspective for information science.

References

Babik, Wiesław. 2006. „O niektórych chorobach powodowanych przez informacje." In *16 Ogólnopolskie Sympozjum Naukowe „Komputer w edukacji". Kraków, 29-30.09.2006.*

Kraków: Akademia Pedagogiczna. Accessed February 13, 2013. http://www.up.krakow.pl/ktime/ref2006/

Batorowska, Hanna. 2009a. "Czym jest kultura informacyjna?" In *EMPATIC Workshop*. Accessed February 13, 2013. http://skryba.inib.uj.edu.pl/~cisek/Information%20Literacy%20in%20Schools,%20the%20Krakow%20EMPATIC%20workshop/EMPATIC%20Batorowska%20cz1.ppt.

Batorowska, Hanna. 2009b. Kultura informacyjna w perspektywie zmian w edukacji. Warszawa: Wydawnictwo SBP.

Batorowska, Hanna. 2012. Information literacy powinnością w społeczeństwie informacyjnym. *Bibliotheca Nostra*, 2, 12-30.

Bauman, Zygmunt. 2006. Płynna nowoczesność. Kraków: Wydawnictwo Literackie.

Bauman, Zygmunt. 2011. Kultura w płynnej nowoczesności. Warszawa: Agora.

Black, Alistair, and Bryant, Antony. 2011. Knowledge management and diplomacy: Reflections on the demise of the valedictory despatch in the context of an informational history of the British Diplomatic Service. *First Monday* 16(1-3). Accessed February 13, 2013. http://www.uic.edu/htbin/cgiwrap/bin/ojs/index.php/fm/article/viewArticle/3339/2757

Borgmann, Albert. 2000. Holding on reality. The nature of information at the turn of the millennium. Chicago and London.

Borowiecki, Ryszard, and Kwieciński, Mirosław. 2002. „Koncepcja wywiadu gospodarczego w przedsiębiorstwie przyszłości. Kulturowe i organizacyjne uwarunkowania jej realizacji." In *Przedsiębiorstwo przyszłości – wizja strategiczna*, edited by Wiesław M. Grudzewski and Irena K. Hejduk, 262-89. Warszawa: Difin.

Briet, Suzanne. 1951. What is documentation? Paris. Translated and edited by Ronald E. Day and Laurent Martinet, with Hermina G.B. Anghelescu. Accessed February 13, 2013 http://ella.slis.indiana.edu/~roday/what is documentation.pdf

Briggle, Adam, and Mitcham, Carl. 2009. From the philosophy of information to the philosophy of information culture. *Inform. Soc.*, 25, 169-175.

Buckland, Michael. 2012. What kind of science can information science be? *J. Am. Soc. Inf. Sci. Tec.*, 63(1), 1-7.

Castells, Manuell. 2000. The rise of the network society. The information age: economy, society and culture. Vol. 1. Ed. 2. Blackwell Publishing.

Choo, Chun W. et al. 2008. Information culture and information use: An exploratory study of three organizations. *J. Am. Soc. Inf. Sci. Tec.*, 59(5), 792-804.

Curry, Adrienne, and Moore, Caroline. 2003. Assessing information culture: An exploratory model. *Int. J. Inform. Manage.*, 23(2), 91-110.

Davenport, Thomas H. 1997. Information ecology. Oxford University Press, Oxford, England.

Eisenstein, Elisabeth L. 2004. Rewolucja Gutenberga. Warszawa: Prószyński.

Faza Delta – spektakl Teatru Powszechnego. 2012. Accessed February 13, 2013. http://kultura.gazeta.pl/kultura/1,114548,11891327,_Bedzie_sajgon___Bluznierczy_spektakl_z_pilka_nozna.html

Filiciak, Mirosław et al. 2010. Młodzi i media. Nowe media a uczestnictwo w kulturze. Warszawa. Accessed February 13, 2013. http://www.platformakultury.pl/files/2011-01-17/modzi_i_media__raport_copy1.pdf

Floridi, Luciano. 2002a. On defining library and information science as applied philosophy of information. *Social Epistemology*, 16(1), 37-49.

Floridi, Luciano. 2002b. What is the philosophy of information? *Metaphilosophy*, 33(1-2), 7-8.

Floridi, Luciano. ed. 2003. The Blackwell guide to philosophy of computing and information. Blackwell Publishing.

Floridi, Luciano. 2004. Open problems in the philosophy of information. *Metaphilosophy*, 35(4), 554-582.

Floridi, Luciano. 2007. A look into the future impact of ICT on our lives. *Inform. Soc.*, 23(1), 59-64.

Floridi, Luciano. 2008. "Trends in the philosophy of information." In *Handbook of philosophy of information*, edited by Pieter W. Adriaans and Johan van Benthem, 113-132. Amsterdam – Oxford: Elsevier.

Furmanek, Waldemar. 2002. "Kultura techniczna i kultura informacyjna. Eksplikacja pojęcia. Konsekwencje metodologiczne." In *Techniki komputerowe w przekazie edukacyjnym*, edited by Janusz Morbitzer, 53-72. Kraków: Wydawnictwo Naukowe AP.

Ginman, Mariam. 1998. Information culture and business performance. *IATUL Q.*, 2(2), 93-106.

Hjørland, Birger. 2002. Domain analysis in information science: eleven approaches - traditional as well as innovative. *J. Doc.*, 58(4), 422-462.

Hopfinger, Maryla, ed. 2005. Nowe media w komunikacji społecznej XX w. Warszawa.

Jarvenpaa, Sirkka L., and Staples, D. Sandy. 2000. The use of collaborative electronic media for information sharing: an exploratory study of determinants. *J. Strategic Inf. Syst.*, 9,129-154.

Jaskowska, Bożena. 2005. „Biblioteka w kulturze – kultura w bibliotece: procesy informacyjno-biblioteczne na tle polskiej kultury narodowej." In *Biblioteki naukowe w kulturze i cywilizacji: działania i codzienność, Poznań (Poland). 15-17 czerwca 2005*, 30-43. Poznań: Biblioteka Główna Politechniki Poznańskiej. Accessed February 13, 2013. http://eprints.rclis.org/bitstream/10760/7132/1/elis.pdf s. 10.

Jaskowska, Bożena. 2008. O kulturze konwergencji słów kilka. *EBIB* 1(92). Accessed February 13, 2013. http://www.ebib.info/2008/92/a.php?jaskowska

Jenkins, Henry. 2008. Convergence culture. Where old and new media collide. New York: NYU Press.

Johnson, Clay A. 2012. The information diet. A case for conscious consumption. O'Reilly Media.

Khan, Mohammed N., and Azmi, Feza T. 2005. Reinventing business organizations: The information culture framework. *Singapore Management Review*, 27(2), 37-62.

Kisilowska, Małgorzata. 2011. Przestrzeń informacyjna jako termin informatologiczny. *Zagadnienia Informacji Naukowej*, 2, 35-52.

Kolegowicz, Konrad. 2003. „Wartość informacji a koszty jej przechowywania i ochrony." In *Informacja w zarządzaniu przedsiębiorstwem. Pozyskiwanie, wykorzystanie i ochrona (wybrane problemy teorii i praktyki)*, edited by Ryszard Borowiecki, and Mirosław Kwieciński, 53-68. Kraków: Wolters Kluwer Polska.

Kozielecki, Józef. 1997. Transgresja i kultura. Warszawa: Wydawnictwo Akademickie Żak.

Krzysztofek, Kazimierz. 2012. Big data society. Technologie samozapisu i samopokazu: ku humanistyce cyfrowej. Kultura i Historia 21. Accessed February 13, 2013. http://www.kulturaihistoria.umcs.lublin.pl/archives/3626

Lessig, Larry. 2007. Larry Lessig on laws that choke creativity. TED conferences, LLC. Accessed February 13, 2013. http://www.ted.com/talks/larry_lessig_says_the_law_is_strangling_creativity.html

Lessig, Larry. 2009. Remiks. Aby sztuka i biznes rozkwitały w hybrydowej gospodarce. Warszawa: Wydawnictwa Akademickie i Profesjonalne.

Lessig, Larry. 2010. Re-examining the remix. TED conferences, LLC. Accessed February 13, 2013. http://www.ted.com/talks/lang/en/lessig_nyed.html

Łukasik-Makowska, Barbara. 2004. „Społeczny wymiar kultury informacyjnej." In *Koncepcje i narzędzia zarządzania informacją i wiedzą*, edited by Elżbieta Niedzielska and Kazimierz Perechuda, 58-77. Wrocław: Wydawnictwo Akademii Ekonomicznej we Wrocławiu.

Manovich, Lev. 2006. Język nowych mediów. Warszawa: Wydawnictwa Akademickie i Profesjonalne.

Marchand, Donald A., Kettinger, William J., and Rollins, John D. 2001. Information orientation: The link to business performance (pp. 121-126). New York: Oxford University Press.

Materska, Katarzyna. 2007. Informacja w organizacjach społeczeństwa wiedzy. Warszawa: Wydawnictwo SBP.

McLuhan, Marshall. 1975. Wybór pism. Warszawa: Wydawnictwa Artystyczne i Filmowe.

Meyer, Hester W.J. 2009. The influence of information behaviour on information sharing across cultural boundaries in development contexts. *Information Research* 14(1), paper 393. Accessed February 13, 2013. http://informationr.net/ir/14-1/paper393.html

Migoń, Krzysztof. 1984. Nauka o książce. Zarys problematyki. Wrocław: Zakład Narodowy Ossolineum.

Migoń, Krzysztof. 2005. Bibliologia – nauka o kulturze książki. *Nauka*, 3, 49-57.

Migoń, Krzysztof. 2011. „'Kultura książki' – wyrażenie potoczne, kategoria badawcza, czy specjalność naukowa?" In *Ludzie i książki. Studia i szkice bibliologiczno-bibliograficzne. Księga pamiątkowa dedykowana prof. Hannie Tadeusiewicz*, edited by Ewa Andrysiak, 47-57. Łódź: Wydawnictwo Ibidem.

Nicholas, Dave. 2001. Ocena potrzeb informacyjnych w dobie Internetu. Warszawa: Wydawnictwo SBP.

Nolin, Jan. 2010. Speedism, boxism, and markism: Three ideologies of the Internet. *First Monday*, 15(10). Accessed February 13, 2013. http://www.uic.edu/htbin/cgiwrap/bin/ojs/index.php/fm/article/viewArticle/2566/2630

Oliver, Gillian. 2008. Information culture: exploration of differing values and attitudes to information in organizations. *J. Doc.*, 64(3), 363-385.

Ong, Walter J. 1992. Oralność i piśmienność. Lublin: Wydawnictwo KUL.

Owens, Ian, Wilson, Tom D., and Abell, Angela. 1995. Information and business performance: a study of information systems and services in high-performing companies. *Information Research*, 1(2). Accessed February 13, 2013. http://informationr.net/ir/1-2/paper5.html

Rieger, Oya Y. 2010. Framing digital humanities: The role of new media in humanities scholarship. *First Monday*, 15(10). Accessed February 13, 2013. http://www.uic.edu/htbin/cgiwrap/bin/ojs/index.php/fm/article/viewArticle/3198/2628

Robinson, Lyn, and Karamuftuoglu, Murat. 2010. The nature of information science: changing models. *Information Research*, 15(4), colis717. Accessed February 13, 2013. http://InformationR.net/ir/15-4/colis717.html

Ryznar, Zygmunt. 2001. Nieodzowny wstęp do informacji. *CXO Magazyn Kadry Zarządzającej*, 2, 60-66.

Spence, Edward H. 2010. The normative structure of information and its communication. *J. Inf. Comm. Ethics in Society*, 8(2), 150-163.

Stefanowicz, Bogdan, ed. 1998. Wstęp do informatyki. Warszawa: AOW PLJ.

Stefanowicz, Bogdan. 2007. Rola informacji. *e-mentor*, 5(22). Accessed February 13, 2013. http://www.e-mentor.edu.pl/artykul/index/numer/22/id/480 dostęp 18.03.2011

Szewczyk, Agnieszka. 2004. „Świadomość i kultura informacyjna." In *Dylematy cywilizacji informatycznej*, edited by Agnieszka Szewczyk, 39-96. Warszawa: PWE.

Szlendak, Tomasz and Pietrowicz, Krzysztof. 2008. Kultura konsumpcji jako kultura wyzwolenia? *Dziennikarze Wędrowni*. Accessed February 13, 2013. http://www.dziennikarze-wedrowni.org/index.php?option=com_contentandview=articleandid=6:kultura-konsumpcji-jako-kultura-wyzwoleniaandcatid=2:prawa-szpalta

Szpunar, Małgorzata. 2006. „Społeczeństwo informacyjne – problemy pomiaru i problemy definicyjne." In *Rola informatyki w naukach ekonomicznych i społecznych*, edited by Krzysztof Grysa, 153-164. Kielce: WSH. Accessed February 13, 2013. http://www.magdalenaszpunar.com/_publikacje/2006/mszpunar_spoinformacyjne.pdf

Sztompka, Piotr. 2007. Zaufanie. Fundament społeczeństwa. Kraków: Znak.

Szymczak, Mieczysław, ed. 1989. Słownik języka polskiego. Warszawa: PWN.

Widen-Wulff, Gunilla. 2000. Business information culture: a qualitative study of the information culture in the Finish insurance business. *Information Research*, 5(3). Accessed February 13, 2013. http://informationr.net/ir/5-3/paper77.html

Widen-Wulff, Gunila, and Suomi, Reima. 2007. Utilization of information resources for business success: The knowledge sharing model. *Information Resources Management Journal*, 20(1), 46-67.

Wikipedia, 2011. Docuverse. Accessed February 13, 2013. http://en.wikipedia.org/wiki/Docuverse

Wilson, Tom D. 2010. Information and information science: an address on the occasion of receiving the award of Doctor Honoris Causa, at the University of Murcia, September, 2010. *Information Research*, 15(4), paper 439. Accessed February 13, 2013. http://InformationR.net/ir/15-4/paper539.html

Woźniak-Kasperek, Jadwiga. 2011. Wiedza i język informacyjny w paradygmacie sieciowym. Warszawa: Wydawnictwo SBP.

Zacher, Lech W. 1999. „Świadomość społeczeństwa informacyjnego – niektóre ustalenia pojęciowe." In *Społeczeństwo informacyjne – w perspektywie człowieka, techniki, gospodarki*, edited by Lech W. Zacher, 3-7. Warszawa: FE Transformacje.