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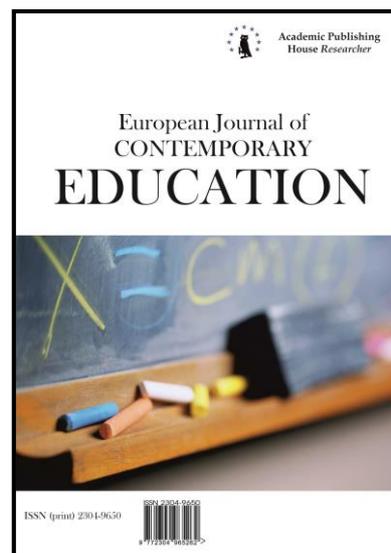
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## **The Shadows of Reading: Reasons for the Bad Results of Bulgarians in PISA studies**

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### **Abstract**

The subject of this article are the factors and reasons for the bad results in reading of the Bulgarian 15-year-old students in PISA's international studies. The reference points of the analysis are the critical results from the last four studies – 2000, 2006, 2009 and 2012. The aim of this analysis is to bring up for discussion unformulated topics and reading angles which have not been covered, which may explain the reason for the critical results in reading, including in the European Union as a whole. The goals of the report are to look for arguments and evidence in communication theory, in the conclusions of sociological studies and to summarize the factors which may lessen the ongoing preoccupation with “mass non-reading” or the “drop in reader's literacy”. Eight reasons for the critical state of reading literacy have been drawn: 1) basic illiteracies which stem from the incorrect attitude towards reading as a cultural technology; 2) the stereotype “book = literature”; 3) the stereotype “book = paper”; 4) helplessness of sociological tools; 5) the manipulative side of reading; 6) the harmful side of reading; 7) reading mutations; 8) the erroneous statement “Young people do not read”. The scientists are presented with proposals to concentrate on two academic points: “Theory and practice of reading” classes on each educational level and focusing research efforts to improve readership culture of adults, including development of the so called “Acmeology of reading”.

**Keywords:** PISA, reading literacy, functional illiteracy, sociology of reading, psychology of reading, reading professionals.

### **1. Introduction**

PISA (Programme for International Student Assessment) is the most representative international comparative assessment of student reading skills. Bulgaria's performance from 2000 to 2012 is one of the worst among the OECD countries and this trend is maintained for too many

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years. Each time, the percentage of students who have results for reading skills below the critical level of PISA's scale is alarmingly high and a lot lower than the average achievements for OECD. In PISA 2000, when Bulgaria was included in the international comparative study for the first time, a total of 40.3 % of students turned out to be functionally illiterate, which means they lack elementary reading skills. The difference with the education in other countries was seen then for the first time – in Bulgaria, students do not work with integrated text and different media; they cannot read graphic images; they cannot relate two types of information; they cannot transform one type of information into another when provided with clear written instructions; they cannot manage the contents of a text in order to reach a correct conclusion. According to PISA 2006, a total of 51.1 % of Bulgarian students have insufficient reading skills, and according to PISA 2009, 41 % of Bulgarian students have reading skills below the critical threshold. In PISA 2012, a total of 39.4 % of Bulgarian students are determined as functionally illiterate. Despite the slightly improved results, the study of reading literacy at each stage showed the same thing – that Bulgarian education is focused on memorizing and reproducing information and that Bulgarian students face greater difficulties when they need to process and interpret information presented in tabular or graphical format. There is also the alarming conclusion that traditionally boys do worse in reading assignments than girls (Petrova Svetla).

**Table.** Percentage of Bulgarian students with reading skills below the critical threshold (PISA 2000–2012) (Bulgaria)

PISA Bulgaria	2000	2003	2006	2009	2012
%	40.3 %	—	51.1 %	41.0 %	39.4 %
score	430 p.	—	402 p.	429 p.	436 p.

## 2. Materials and Methods

The research method of the present study is the systematic review. The subject of critical analysis are the factors and invisible reasons for the bad results in reading of the Bulgarian 15-year-old students in PISA's international studies. The reference points of the analysis are the critical results from the last four studies – 2000, 2006, 2009 and 2012. The aim of this text is to uncover a different aspect of the problems of the reader and reading in Bulgaria, which we believe need to be studied and reviewed. The goals of the report are to look for arguments and evidence mostly from a communication point of view and originating from the conclusions of sociological studies, and to summarize the factors which may be causing the ongoing preoccupation in Bulgaria with regard to “mass non-reading” or the proclaimed “fall/drop in reading”.

Our personal stand is reduced to a minimum, although the researchers of reading could hardly remain impartial. The study is driven by the belief that if we want to coexist and work with rationally and proactively thinking people, if we want to establish a ruling elite in the knowledge economy, we need to eliminate or at least debilitate the factors which hold back reader's intelligence.

**1. Our illiteracies.** In his/her first contact with the newly enrolled students, for an university professor it is important to understand what kind of readers they are, how and what kind of texts they read. And in order to understand what kind of a reader a person is, you have to make them write. Following this principle, several Bulgarian universities, first among them being the Veliko Tarnovo University, recognized a serious weakness in the students completing their secondary education – **the illiteracy in Bulgarian and Bulgarian spelling**. In 2014 Veliko Tarnovo University, and in 2016 also New Bulgarian University in Sofia and the South-West University in Blagoevgrad have urgently introduced obligatory “supplementary” classes in the curricula of all academic disciplines.

My systematic work on academic assignments with the students for 15 years has convinced me there are a lot of gaps in secondary education and their visibility is constantly increasing. I am referring to basic for the highly technological XXI century fundamental, social and civic literacies. Depending on the secondary school they graduated, most students are partially literate or completely illiterate in several spheres.

1.1. The first sphere is the indispensable **general culture** or the possession of the so called common knowledge. By definition, these are the facts which can be found in various sources and are feasibly acquired by most authors and readers. Legally, they are called “notoriously known facts” or the facts which are known by an unlimited number of people. It is known that for social communication and consensus it is fundamental to have a knowledge of common facts, phenomena and circumstances, precedent texts and sources (i.e. historical events, geographical sites, biological, chemical and physical laws). One of the assessment criteria in the entrance examination for the specialties in the Public Communications field in Sofia University is the general culture. However, personally, I have never found an university applicant who knew what is “general culture”.

1.2. The second sphere is **computer literacy** for writing into word processors and creating grammatically correct printed text, for multimedia and creating an interactive product by citing graphical materials and video-citing, for e-mail correspondence and electronic exchange of documents.

1.3. The third one is **administrative literacy** for writing business correspondence, cover letters, applications, claims, and autobiographies which are different from the standard CV form.

1.4. The fourth one is **legal literacy** which refers to both knowing the basic laws of the state and Internet and knowledge of the rights of the student, citizen, consumer, author, and reader.

1.5. The fifth is **financial literacy** which includes minimum skills for drafting a budget or an expense chart.

1.6. The sixth one is **scientific and research literacy**. The scientific literacy of an adolescent with secondary education would be sufficient, if they are familiar with the classification of sciences, the specifics of each science and its methods, as well as, for example, the nature of the Nobel Prize and the contributions and names of Nobel Prize winners. Being research literate means to know how to write as an investigator, what is argument and evidence, which are the research methods and tools. And last but not least, it means to have library-bibliographic and information-research culture, and to have knowledge of citation techniques.

It seems that schools in Bulgaria inspire marginality of life, technical and social sciences, and favor artistic knowledge, i.e. aesthetic, emotional, entertainment and fictional content. With some more research and empirical evidence, we could confirm the hypothesis that mass schools cultivate our emotional intelligence, but neglect the rational intelligence. Bulgarians meet their coming of age with a **disbalance between their artistic and scientific literacy**. It was no coincidence that a nuclear physicist reacted strongly against this education policy: why it should be obligatory to know who painted the Mona Lisa or who wrote Romeo and Juliette, and not know, for example, why the sky is blue?!

**2. The stereotype “book = literature”.** The asymmetry between the Bulgarian literature and general scientific literacy is the negative result of a type of socialist stereotype (typical for the “sick” societies and the societies under “pink” regimes). This is the stereotype “book = literature”. I will clarify the issue. The scientific categories “book” and “literature” are in a “general – particular” ratio because there is subordination. In general theoretical aspect, the book is a tri-unity of code, channel and content, and literature is only one of the content types.

Where do I see the connection between our illiteracies and equating the “book” category only to literature?

2.1. There is a relation to and it is reflected in the discussion for the need to separate the Bulgarian Language classes from the Literature classes in primary education.

2.2. There is a relation to the basic knowledge of Bulgarians – they lose track of the difference between “fact” and “fiction”, between “knowledge” and “imagination”, between “information” and “opinion”, between “term” and “metaphor”, between “knowledge” and “point of view”, between “truth” and “version”. Science encompasses the first one and literature covers the second one of the abovementioned opposing terms. Literature is a platform for flight, unlimitedness, sensibility, dreaminess, and no one wants it to meet the scientific criteria for evidence and assist the economical growth of the country. Literature is the superstructure. However, it gets frightful if the base – science is missing.

2.3. There is a relation to the information and technical literacy in writing of Bulgarians, which is demonstrated by:

Inability to quote and general non-comprehension of citing mechanics – a sign that we do not read texts which include quotes (scientific, supporting, argumentative, research).

Inability to write a preface, plan-concept – a sign that we do not read instruction, methodical texts, manuals and handbooks.

Inability to write a conclusion – a sign we do not read synthesized, summarized, secondary information texts.

We are taught how to write freely, in a literary manner, aesthetically, but we have missed on key skills – how to produce a headline, to define, to quote, to order, to list, to visualize knowledge into graphs, schemes, tables, diagrams, etc.

We are taught how to analyze, but not how to make a synthesis. This is evidenced by the inability of students to make intermediate summaries, to produce chapter conclusions and recapitulative statements to an entire study.

We are taught how to narrate, but not how to write in accordance with the rules and with discipline – autobiography, business correspondence. We are not taught how to write projects, how to win money through written report and argumentation.

We are widely ignorant of the different writing styles – literary and scientific style, colloquial and specialized style are not identical.

We are also ignorant to a large extent of the differences between the genres in the various scientific fields. Literary genres are one thing, scientific-theoretical and academic genres are another, and information and secondary information genres (annotation, summary, essay, overview, review) are a third kind. In this regard, we also observe identical “functional illiteracy” among 15-year-old students (according to PISA), and in adults – inability to read technical, economic and other non-linear text; inability to read music, tables, diagrams, medical records; inability to understand and read even bibliographic source descriptions (they are narrated freely, instead of strictly following punctuation, abbreviations, the order and structure of the bibliographic format). In terms of PISA’s tightened requirements and in view of the practice of the other international system for assessment of reading, PIRLS, the change in the education system for reading should start obligatorily in primary school, where the focus should be shifted from literary to non-literary texts and information genres.

When reading is identified only as contact with literature, there also appears the natural collision between the genders of the readers. Literature is read mainly for pleasure and international data shows that at all ages men read less frequently for pleasure than women. Reading problems in boys are more serious because their hyperactive attitude to information and predisposition to an instrumental, game-based reading do not find any magic in the predominantly “feminine” reads in the school’s curriculum. The same conclusion has been reached in the report of the EU High Level Group of experts on literacy (Sept. 2012) ([Ekspertna komisiya, 2012](#)). Primary education in Bulgaria has been neglecting the “male” non-literary reading for decades. Here lies the fatal mistake of our education system, because more important than the content itself is the spontaneous attitude to knowledge and the wish to receive information in a written format. Which by definition means reading.

**3. The stereotype “book = paper”.** Equating book only to paper is one of the most insuperable habits of Bulgarians. Such bias shows unfamiliarity with the pre-paper and post-paper stage of book development. In the Bulgarian linguistic environment, especially frequent are the following preposterous word combinations that achieve this paradoxical effect: “book book” or “book-based book” (Bulg. translit. “knizhna kniga”), “book banknotes” (Bulg. translit. “knizhni banknoti”), “book string” (Bulg. translit. “knizhna vruv”), “literature on book medium” (Bulg. translit. “literatura na knizhen nositel”), “book magazine” (Bulg. translit. “knizhno spisanie”), “book newspaper” (Bulg. translit. “knizhen vestnik” – in the report “Online media behavior of young audience”, Bulgarian agency Mediana, March 2012).

The problem of the stereotype “book = paper” stood out strongly when in 2010 in Bulgaria were reported the unfavorable results of PISA 2009. According to them, 41 % of Bulgaria’s 15–16-year-old students are still below the critical minimum for quality reading skills. The most controversially interpreted result was that 26 % of the students have between 26 and 100 books at home, 20 % – up to 10 books, and just 7 % – more than 500 books ([Uchilishche, 2009](#)). The worries of most analysts were a symptom of deep unfamiliarity with the spectrum of information media of teenagers. Is this percentage really negative? What if these same students own book collections which are much wider than the ones of each adult bibliophile, but in digital form? The reproach, outrage and indignation at teenagers’ neglect of the personal paper library are

rather a reflex of the general unfamiliarity with the attitudes and characteristics of next generations, and they also demonstrate the lack of adequate communication with them.

The paper book is just one book format. In its turn, paper is the base of three more media formats – paper book as a scroll (East-Asian), paper book as a concertina or harmonica (the Maya codices), and paper book as a sheet codex (the printed book from the Gutenberg era). Today, the printed paper book – the master of the past five centuries of reading and writing, is only one of the formats distributed, coexisting with talking books, audio books, video books, e-books, cross-media books, hybrid books, augmented reality books, etc.

If one book format starts to take the place of another one of its formats, it means war. Although at first sight the coexistence of old and new formats seems to be stable, on a global scale the book begins to dematerialize. Which is completely natural. Even 2000 years ago there were format wars. If we want to know which one will be tomorrow's ruling book format, we need to take into account the following correlation – the winner is always not the most harmless, but the most convenient format. This is how it was in the dispute between papyrus and parchment. For a long time it was believed that the parchment is more contrasting and this is why the papyrus should be used for reading – it is less harmful. However, the papyrus, as we know, is rolled up into a scroll, while the parchment could be custom made and ordered sheet by sheet into a codex, i.e. it looked like the modern book. The dispute between papyrus and parchment was in fact a dispute between the scroll and the codex. The codex won. And the discussion about the harm to the eyesight or the shortness of animal skin ended by itself. On the other hand, the format of the mass book should also be convenient for the ambitions of the new authorities or the new religion, which means it should be suitable for expansion with regard to the users. This is how, in ancient times, the scroll was taken down from the ring and the book in codex form ended victorious – spreading Christianity was easier and smoother by means of a codex. In line with that logic, tomorrow the victor will not be the less harmful or more aesthetic book format, but the more convenient.

**4. Helplessness of sociological tools to reveal the actual reader situation.** Why do we say that sociological methods do not have the power to reveal the actual reader situation? Why do we say that statistical and sociological empirical methods (surveys, consultations, questionnaires, interviews) present an incomplete or twisted picture of the actual “reading” process? The reason lies within our conviction that science still lacks knowledge about the nature and technology of the “reading” process. These are some of the most popular formulations:

4.1. The social aspects of consumption still do not include reading. Statisticians and marketers do not study and do not have the toolkit to study actual “reading”. Instead, they can only look at the buying and owning of books or other reading objects.

4.2. Reading is an exclusively mental process. “Stopping” one’s behavior, slowing down, and delaying reactions is typical for each intellectual activity, and most of all for concentrated reading. If s/he could see herself/himself from the side, the reader would register alienation between their mind and body. In the here and now, however, each observer actually notes their external inactivity and “absence”.

4.3. Reading is an asocial activity, which includes alienation – a detachment from reality. It is done in solitude; it is realized invisibly (in the cranium) and therefore it is uncontrollable.

4.4. The reader is almost invisible to the sociological eye also because of the circumstance that fully concentrated reading is a process of self-communication. And “social isolation” is an important condition for self-communication. It limits the quantitative participation of the subject in social life and slows down the rate of assimilation of social facts.

4.5. Solitary reading is a loss of social time and intellectual energy for the society. Therefore, it is socially ineffective.

4.6. Statistical charts for the time spent reading and the competition between “reading” and “non-reading” world nations stopped making sense a long time ago. People from underdeveloped countries with high rate of illiteracy are politically motivated to announce loudly they read a lot. The opposite is true for the economically developed countries, where no one is impressed by literacy. The man in the developed world would hardly boast with the time spent in routine reading of technical and scientific texts, guides, textbooks and manuals. It will be difficult to calculate as especially dedicated the time one spends on print media, taking it daily and silently. The busy individual does not even count reading on a monitor and surfing the Web, for which it is still said that are not reading. Subconsciously, the modern man throws out all of the above as “text noise”

and in order to answer the question “how much do you read”, he counts only the time purposefully dedicated to reading “prestigious genres”, for the reads imposed by tradition or the bestseller charts. In other words, the way down along the statistical research ladder – on the amount of reading, is actually a way to “rise” to the level of the club of the goal-oriented, where reading is no courtesy, but makes cultural and economic sense.

**5. Reading is anti-manipulation and auto-manipulation.** It is said that reading is an anti-manipulative filter against manipulations, insinuations and indoctrinations from any source – written, oral, audiovisual. In general, the main anti-manipulative factors in the reading process are two – the rich reading experience and intellect as a constant “generator of understanding” (Tsvetkova Milena, 2000). However, even under these circumstances, not everyone can read anti-manipulatively.

Literate, well-mannered reading is a slow and self-controlled process. The experienced reader can decide to enter into a state of conscious unreceptiveness which is typical when reading “weak” or “questionable” works. The occurrence of this useful inactivity is a defense mechanism of sorts, a refusal to become the author’s target, stemming from the previously acquired experience and internal information excess. The “active” passivity is good tactic for defense against manipulative influences.

Anti-manipulation in reading is also possible when we spend enough time dissecting, reviewing, and checking the messages entering through our eyes. This filtering happens in phases, in accordance with the reading algorithm as communication. Hereby, I would like to mention that reading should indeed be done according to an algorithm. In order not to allow the text’s manipulations, one should go through five consecutive phases – perception, understanding, rationalization, interpretation, reality check. The step-by-step movement along the reading ladder guarantees stage-by-stage filtering of manipulations.

Reading, however, is also a auto-manipulation. The Russian bibliopsychologist Nikolai A. Roubakine has a postulate that says: text content is not a physical, but a psychic category and there are as many contents to a book, as many are its readers (Rubakin, 1924; Rubakin, 1929). Content acts as a reagent or irritant to the reader’s receptive system. Every one of us sees in a sentence whatever we want or anything we manage to extract. Thanks to the ability for “selectivity”, human perception filters out the signals of subjective importance from the general information, passes them through the “filter of apercception” and turns them into information of the “just for me” type. There are several self-manipulation filters in reading and all of them have an individual admission barrier – the eye, the nervous system, the brain gender, hormonal and emotional state, linguistic competence, semiotic competence, the social matrix - habits, prejudice and stereotypes, professional affiliation – level of education, level of professionalism and relevant knowledge (with a disposition for continuous learning or refusal to continue studying). Books are shops for unique pieces of work – they mold completely different readers and unmatched reads. Something more. Each reader goes through the same work in one way, in a given period, and in a completely different way 2 or 20 years later. The reader places the work (and its author) on that level in her/his scale of values, which has been determined by her/him alone, and in parallel, his/her reader personality changes on the scale of time. The result from reading – the reader’s memory of the book contents – is filtered by their personal psycho-social matrix, simplified by their own memory, ideologized by their personal idols and edited by their own forgetfulness.

Today, on social media we can recognize the unique reader types which have formed in the **manipulative reading** practice: uncritical reading (over-trusting the written word), shortsighted reading (uncomprehending or unseeing the word definitions and the meaning of the sentences), over-interpretive reading (putting nonexistent meaning in messages), symptomatic reading (aiming to highlight the text’s flaws) or speculative reading (looking only for imperfections, just factual errors, spelling and punctuation mistakes), hate reading, etc.

**6. Reading books can be harmful and dangerous.** When we say that the book is a mighty force, we should know this also includes a dangerous force. The book is a classical means for manipulation of literate multitudes. Among literary characters alone, there are quite a lot of examples of reader-manipulators. Starting with the classic example of Don Quixote, passing through the mental states of Pushkin’s Tatyana (“Eugene Onegin”), Madame Bovary or Tom Sawyer, and stopping at the literalism in the behavior of the modern “soap” housewives, “chick lit” ladies, “action” policemen and superheroes.

It is important to know that the harm in reading comes from the very way of reading. This harm can be both mental and physical. First, there are the cognitive deviations among the readers, which have been studied actively for ideological reasons in the socialist countries in the 20<sup>th</sup> century. These deviations stem from the split between book and life, between theory and practice. Reading dependency and separation from reality gives birth to types like “book thinking” and “empty speaking”. Bad reading, cynical reading, mannerless reading form two other deviant types: phraseman and a man whose “mind is a mess”. Second, there is the physical and mental harm that comes from reading. Medical professionals note that the habit of “devouring” books can cause a headache. It can provoke development of neurosis or neurasthenia, and it can also become one of the reasons for physical illnesses, which are caused by impairment of the activity of the nervous system. The bad way of reading might impede the normal development of cognitive skills and even impair them. Examples include hyperactive imagination, reduced attention span, impaired memory, weakened willpower and ability to reason. In 2013, a study conducted with the help of the Google Ngram tool by a team at Bristol University added more “fuel to the fire” (Acerbi et al., 2013). It was established that for the past 100 years, emotional words in books have decreased by 14 %, which means that reading influences our moods less and less. Instead, paranoia has settled in today’s books – there is an increase in the content which has a destructive effect on the mind, as a nutrient media for mental diseases in unstable readers.

The book is the most preferred means for manipulation by intelligent manipulators, because, by default, man has trust in the written word. However, these manipulators know that the effect will be bigger, if they duplicate the manipulation using alternative channels – radio, TV, cinema and computer games. This is the premise of the movie “In the Mouth of Madness” (1994). The main character – an author of books which posses and brain-wash the mind, has a strategy for value added global manipulation. He is not content with having only a reading audience, but also counts on the film adaptation of his books:

*“I want to flood the whole world with my books”.*

*“What about the people who don’t read?” – his publisher demanded.*

*“There is a movie.” (In the mouth of madness)*

The book can also be dangerous in its role of a “subversive” media, according to Alvin Toffler. Subversive media are the illegal channels for exchange of confidential information and they are used by people and organizations which carry out unauthorized or criminal activities, or want to “bypass the system”. Subversive media are hardest to control by the official authorities. These conditions are met by non-mass channels which are at the two ends of the media spectrum – the oldest and the newest media, the out-of-date channels and the still not popular ultramodern channels. Subversive media are especially attractive to terrorist groups. The book fulfills the function of a subversive media mostly in a 30–40 page format, i.e. as a brochure, because this way it is faster to produce and distribute. Today, sects are the organizations which rely mostly on brochures.

**7. Reading mutates.** So far, science has no answer to the question about the long-term effect from reading on a screen or a display. But it is a fact that reading as a technology is mutating.

Reading from a monitor or a display creates problems for the eye and the diagnose “computer vision syndrome” was proven a long time ago. Reading on a computer can impede the reader also if s/he is online – connected to the Internet. This has a negative effect on memory and leads to distractions. Currently, systematic researches agree on two conclusions: first, information media do not influence the time for reading a text, especially if it is a short one, and second, memorizing and reproducing the text is easier, if reading was done from a print media, instead from a tablet.

However, reading on a computer, tablet or e-book reader with e-ink in offline mode and with a good book-reading hygiene does not interfere with assimilation, thinking or understanding. Even if there are differences with conventional reading, they are in favor of e-reading. I am thinking of the world’s first study which looked for the truth about reading on three devices: paper, e-ink reader and LCD display. It was conducted at the Johannes Gutenberg University in Mainz, in 2011, and outlined three conclusions (Unterschiedliche Lesegeräte). First, the belief in the mass statement that only the paper book brings “pleasure from reading” and that reading from a tablet or a reader is second-rate has been shaken. Second, even though almost all study participants said they like most of all reading a paper book, this did not match the data obtained. It shows that tablets have an advantage, because it is easiest to assimilate the information from the screen.

Otherwise, regarding performance, there is no difference between reading on paper and from an e-book. And the third conclusion – it was proven for the first time empirically that subjective preferences for the printed book are not an indicator of the effectiveness of the reading itself – how fast and well the information is processed. It turns out that the tension between the supporters and adversaries of e-reading is a knee-jerk reaction – a matter of habit.

The computer, however, has extended the comfort and capacity of scientific reading, of reading for academic and research purposes. For the first time in history, the scientist can work on the main law of nature – to have maximum information at minimum energy and time spent. Professional readers and researchers were the first to sense the new modality of reading on a computer – multi-channel sources, multi-modality of text production and distribution, limitless cognitive operations with documents and discussions with live people, and everything else we call epistemological jump in the scientific discourse.

We can compare the multi-channel behavior of the contemporary reader to practicing many sports at once. Practicing one type of sport could hardly harm our achievements in another sport.

**8. “Young people do not read” is not a very intelligent statement.** Despite the abovementioned flaws in secondary education, I believe that “not reading” does not exist. The negative results from sociological studies on reading stem from our different understanding of the action “reading” and the term “book”, which is limited only to fiction. Because they automatically see “book” and “literature” as synonyms, the respondents' answers are biased. I mean the following statements: today, young people do not read; less and less people read in libraries; there is a decrease in reading; I have not read anything for a long time; I have last read a book at the beach; the book has been replaced by computers, Internet, technologies, etc. And because of their negative connotations, these are the statements which are published most often by the media.

In my opinion, generalized sociological conclusions about “not reading” are derived from four irrelevant conditions in the methodologies. Sociological surveys are only interested in:

1. reading in one's free time (but not during working hours or while studying);
2. reading books (but not other reading materials);
3. reading fiction (but not scientific or any non-fiction texts);
4. reading for pleasure (but not for other basic functions).

I will focus on the last item. If reading should only be for pleasure, it would mean we shall only read for entertainment. However, reading is communication. And communication, both in theory and in practice, has not just one, but four functions: information, educational, persuasive and at the very end – entertainment. A worthy motivation for the readers is if they read in order to keep up with current events, if they read for the purpose of making a research on a certain topic, if they read for business or career purposes. The leading reasons for reading, at least I believe so, should be the need for information, professional and student needs, and the pleasure part should be set aside for vacation and free time.

My opposition to the statement that young people do not read also takes into account the ignorance of the changed media reception of the new generation of readers. The old “analog” reader has been studied in detail even before the industrial era. All of his habits, preferences and manners are known. However, he is different from the “digital” reader.

The intensive reader of the 21<sup>st</sup> century is a nomad who takes the load off distances and volumes. It is unacceptable to say that the digital generation is illiterate or ignorant, bad or not reading. Indicative in this respect is the following case: During a science seminar, a video of a 2-year-old girl playing on a computer was shown. The kid was browsing freely among menus, creating and deleting files, drawing pictures, filling in programs. The computer specialists had clarified that, while the child was not able to read at all, it demonstrated 80 % computer literacy. They did not believe this to be surprising, because the girl was born in a world full of computer links and communications (Tsvetkova, 2001: 73-74). In it, the written forms of communication cannot exist on their own. This is a multi-modality generation which communicated through an orchestra of cognitive channels. These young people see the printed morpheme in an electronic format. They live in the rapidly developing virtual reality, the holistic media environment, in which they experience events as a package, instead of linearly seeing, hearing and reading about them.

### 3. Conclusion

In accordance with the plastic brain theory of Norman Doidge (Doidge Norman, 2015), we should acknowledge that the human receptive organ today self-trains itself and mutates intensively; books and texts are perceived in a completely new way. Today, in the context of Internet and virtual options, “a new composite figure is being formed actively: “reader-viewer-listener” of books (texts), whose activity should not be evaluated in accordance with the norms of the past” – writes the Russian professor in theory of reading Yulia Melentieva. “We should also renounce the strict characteristics for reading assessment, which have been imposed under the conditions of an ideologically monolithic society and whose aim was to unify the reader.” (Melentieva, 2010: 26-33). If a contemporary child does not like paper books at all, but is knowledgeable and speaks and writes grammatically correct and nicely, the worst thing to do would be to force it to take in information via unnatural means.

The main conclusion from this critical analysis is that there is no clash between the reading subcultures. And if we observe a clash between the generations of readers, we assume the reason lies within their mutual illiteracies and ignorance with regard to the development of reading. There are rather unformulated topics and reading angles which have not been covered that cause the drop in PISA's results for reading literacy not only in Bulgaria, but also in the entire European Union. In this case, the leading role belongs not to the teachers and mentors, but to the people of science. For example, it is necessary to study the topics on the reading/reader gender (male and female reading), the writing/author gender (male and female writing; male and female text), the gender of the mediator/teacher (male and female perceptions and behavioral models). The below suggestions we make to the scientists include concentrating on two academic points:

1. To have “Theory and practice of reading” classes on each educational level. However, it should not be a routine education in “Media literacy”, but an acquisition of systematic competence qualification – school reading, student reading, doctoral reading, teacher reading, reading for scientific purposes, leadership reading, etc.

2. To direct our research efforts to the strategies and techniques for improvement of readership culture of adults, especially towards the so called “Acmeology of reading” – the art of the highest reading skills.

It is imperative that reading becomes the subject of intensive scientific research, in order for it to remain the most widespread cultural technology in the technocratic age.

### References

Acerbi et al., 2013 - Acerbi A., V. Lampos, P. Garnett, R.A. Bentley (2013). The Expression of Emotions in 20th Century Books. [online]. *PLoS ONE*, Vol. 8, №3, e59030. doi:10.1371/journal.pone.0059030

Bulgaria - Bulgaria: Student performance in reading (mean score). [online] // OECD: PISA 2012 Results. 2012-2013. URL: [http://gpseducation.oecd.org/CountryProfile? PrimaryCountry=BGR](http://gpseducation.oecd.org/CountryProfile?PrimaryCountry=BGR) (accessed 25.05.2016)

Doidge Norman, 2015 - Doidge Norman (2015). *The Brain's Way of Healing. Remarkable Discoveries and Recoveries from the Frontiers of Neuroplasticity*. New York: Viking, 2015. 432 p.

Ekspertna komisiya, 2012 - Ekspertna komisiya na ES po vuprosite na gramotnostta: Rezyume, septemvri 2012 g. Lyuksemburg: Sluzhba za publikatsii na Evropeiskiya suyuz, 2012. 16 p.

In the mouth of madness - In the mouth of madness. Directed by John Carpenter; written by Michael De Luca; based on tales of H.P. Lovecraft; produced by Sandy King. London: BBC 1, New Line, 1995. 1 videocassette (90 min.).

Melentieva, 2010 - Melentieva Yu.P. (2010). *Chtenie: yavlenie, protsess, deyatel'nost'*. Otdelenie istoriko-filol. nauk RAN; Nauch. sovet RAN Istoriya mirovoi kul'tury. Moskva: Nauka, pp. 26-33.

Petrova Svetla - Petrova Svetla. *Uchilishte za utreshniya den: Rezultati ot uchastieto na Bulgariya v PISA 2009*. Sofiya: Tsentur za kontrol i otsenka na kachestvoto na obrazovaniето, MON, 2011, pp. 8-9.

Rubakin, 1924 - Rubakin N.A. (1924). *Chto takoe bibliologicheskaya psikhologiya?* Leningrad: Kolos, 1924. 61 p.

[Rubakin, 1929](#) - *Rubakin N.A.* (1929). *Psikhologiya chitatelya i knigi*. Moskva-Leningrad: Gosizdat, 1929. 308 p.

[Tsvetkova Milena, 2000](#) - *Tsvetkova Milena* (2000). *The reading – antimanipulated filter*. Sofia: Gaberoff, 2000. 150 p. doi: 10.13140/RG.2.1.2833.8166

[Tsvetkova, 2001](#) - *Tsvetkova M.* (2001). *Information Culture: The Name of Reading*. Sofia: Gaberoff, 2001, pp. 73-74.

[Uchilishche, 2009](#) - *Uchilishche za utreshniya den. Rezultati ot uchastieto na Bulgariya v PISA 2009. Tsentur za kontrol i otsenka na kachestvoto na obrazovaniето: Dokladi. 7.12.2010* [online]. URL: <http://www.ckoko.bg/images/stories/book-2010.pdf> (accessed 25.05.2016)

[Unterschiedliche Lesegeräte](#) - *Unterschiedliche Lesegeräte, unterschiedliches Lesen? Forschungsschwerpunkt Medienkonvergenz legt weltweit einmalige Lesestudie mit neurowissenschaftlichen Ergebnissen zum Lesen auf E-Readern vor. Johannes Gutenberg-Universität Mainz. 12.10.2011. 6 S.*