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WOJCIECH WALAT 

## *Homo interneticus* – a challenge for modern education<sup>1,2</sup>

ORCID: 0000-0002-3158-1923, Ph.D., Professor UR, University of Rzeszow, Faculty of Pedagogy, Department of General Didactics and Educational Systems, Poland

### Abstract

This paper presents the three characteristics that constitute the modern type of Internet man – homo interneticus – easily lead to the rapid development of functional illiteracy. Therefore, education faces a great challenge in the era of dominant and widely accepted functional illiteracy.

**Keywords:** education, homo interneticus, literacy, functional illiteracy

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### Introduction

On a daily basis, we have a great tendency to take advantage of everything that concerns education, especially education. In the media information stream, one can often hear that things are bad with modern schools, that thousands or even millions of “educated” people, despite the completion of formal education,

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<sup>2</sup> The article is a revised and supplemented version of the publication in the journal *Education – Technology – Information Technology* No. 4/18/2016 and thematically similar articles: Walat, W. (2016). Three degrees to functional illiteracy of homo interneticus. In: *New Horizons of Education. Modern Education, Science, Technology, Innovation. Via Ferrata Publishers*, 1(14), 22–30; Walat, W. (2017). Homo interneticus – functional illiteracy of contemporary man. In: E. Smyrnova-Trybulska (Ed.), *Effective Development of Teachers’ Skills in the Area of ICT and E-learning. E-learning*. Vol. 9 (pp. 13–22). Katowice, Cieszyn: University of Silesia; Walat, W. (2019). Homo interneticus as functional illiterate in the field of human rights. *Politics and Society*, 1(17), 1–22; Walat, W. (2020). Homo interneticus – problems of education in times of functional illiteracy. In: M. Tanaś, S. Galanciak (Eds.), *Cyberspace human education. Open educational resources from a pedagogical point of view* (pp. 181–194). Kraków: Impuls Publishers;

remain illiterate in the strict sense of the word, and above all functionally illiterate. In practice, this means that they cannot make rational use of the knowledge they have acquired. It seems that the reasons for this state of affairs can be found primarily in the dominant modern network communication. Probably this is the reason for the description of modern man as a man connected to the Internet, that is: *homo interneticus(internetus)*<sup>3</sup>.

Today, in a computerized world, traditional literacy is far from sufficient and there is an urgent need for universal functional literacy<sup>4</sup>.

### **Cognitive distraction of homo interneticus**

Hearing the term Internet man (*homo interneticus*), one may smile at first, as it is a fairly new term for classifying humans from a sociobiological point of view. In fact, *homo interneticus* means, in the shortest terms, a person connected to the global social network.

Based on available written and electronic sources, it can be assumed that the term first appeared on the BBC Two portal in a tab run by Krotoski (2010). Analysis of the terms appearing mainly in popular science publications leads to the conclusion that the Internet man is a new form of human evolution, the basis of which is the high state of his communication abilities, and the basis for the implementation of life functions is the connection to the network. The occurring lack of connection not only hinders, but even prevents his functioning in every dimension: personal, social, and professional.

Taking an evolutionary point of view and emphasizing the exceptional communication abilities of thinking man (*homo sapiens*), it is legitimate to distinguish four terms classifying his development as: speaking man (*homo oralis*), writing man (*homo literalis*), printing man (*homo typographicus*) and internet man (*homo interneticus*).

The term “thinking man”, which is basic here, refers to humans who appeared more than 1.4 million years ago and, with the help of handmade tools, including communication tools, were able to record the course of events, e.g. with the help of cave drawings, ornaments that distinguish and distinguish objects according to their purpose and their social status – but without the accompanying narrative (story) they were and are completely illegible (we can only guess at their meaning). Talking man is defined as a human species with a narrative (story) communicative mode, actually developing concurrently since the

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<sup>3</sup> The names *homo internetus* and *homo interneticus* appear interchangeably in the relevant literature. For the purposes of this publication, I have decided to consistently use the term *homo interneticus*, which is much more common in Polish and foreign literature.

<sup>4</sup> “Alphabetization – pedagogical educational activity aimed at the acquisition of literacy and numeracy skills by illiterates”. “Functional literacy – a method of literacy that combines learning to read and write with the acquisition by learners of knowledge directly needed in life and work”. Retrieved from: <http://encyklopedia.pwn.pl/haslo/3867725/alfa-betyzacja.html> (12.2023).

emergence of homo sapiens. It was linguistic communication that was probably the only mode of cultural transmission until around 4000–3000 BC. That's when writing man appeared, i.e., humans efficiently communicating through writing. Printing man, on the other hand, refers to people using the modern mode of mass communication fully formed over the past 150 years<sup>5</sup>.

The Internet man of today came to us with the invention of the World Wide Web<sup>6</sup>. On a daily basis, people still speak, write, and use printed works, but the transmission and creation of culture has fundamentally changed and moved to the virtual world.

From early childhood, the man in print had to deal with a never-ending string of printed, admittedly symbolically coded, but nevertheless realistically existing works. His life began in a world that was realistically determined: every event, every action, every war and its outcome, every accident, every crime, mistake or misjudgment, and even every thought (state of mind) had definite causes that could be calmly traced back and forth. Thanks to this constancy of the world's narrative, education has always been built – hence, for literacy, the basis was learning to read, write, and count – today for functional literacy this is only of causal importance. Likewise, an earlier oral man had every reason to believe in destiny, to think that every story has a certain form and only that one certain form, even though in oral culture there is less constancy in the story telling and less complex causality – one follows from one instance to another (Goldhaber).

Implementation and with it the ability to communicate is always a key component of culture, and when the mode of communication changes, the culture changes as well. Today, the internet man always does everything he has to do with ten fingers on the keyboard. At the same time, he has a sense of unlimited knowledge, memory, time and space, and this is because the Internet knows no distance – there are no spatial relations on the Web. Another important point is that modern man is mainly guided by mimic free attention, because in the virtual

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<sup>5</sup> Certainly, the invention and use of movable printing type by Gutenberg in 1450 can be considered the initial date of the emergence of homo typographicus. However, it took another nearly 500 years for printed materials to become the basis of mass communication. It was not until the second half of the 19th century, with the spread of magazines and primary education based on school books printed for this purpose, that writing became the basis of human communication: man both read and transferred his speech to paper.

<sup>6</sup> T. Berners-Lee came up with a project proposal in 1989 to build a worldwide computer network based on hypertext – called the World Wide Web. It was to allow collaboration by combining information from multiple authors into a network of hypertext documents. T. Berners-Lee also developed his first server, called simply HTTPD, and the first “World Wide Web” client application – a WYSIWYG hypertext viewer and editor running in the NeXTStep environment. The “World Wide Web” program was made available on the CERN network in October 1990, and on the Internet in general in the summer of 1991. The first WWW site published by T. Berners-Lee was <http://info.cern.ch/> (the first WWW site in the world, still is still active – it contains information about the computer on which it was written and pictures of the PC, the first “surfer” and the WWW creator himself. Retrieved from: [https://pl.wikipedia.org/wiki/Tim\\_Berners-Lee](https://pl.wikipedia.org/wiki/Tim_Berners-Lee) (12.2023).

world people are placed in personal perspectives, which are often radically different from each other. The knowledge of modern man is indeterminate, because in the virtual world information is updated on an ongoing basis (continuously and permanently), so there appears the so-called appearance of knowledge, which is the basis of the posited culture. The prevailing belief is that what I know today may change tomorrow. The basis for the establishment of identity is the indeterminacy resulting from the constant variability of time and place of my being.

Today's electronized culture is institutionally immaterialized because people can manage it via the Internet. Therefore, it is no longer necessary to take notes, printouts, and in-person meetings (in the real world) are unnecessary. Such a culture of virtual communication affects human interaction, positions towards objects and living organisms become very different. Moreover, in the world of the Internet, gender and ethnicity are not distinguished, as they are also changeable, human senses change with cultural changes. Internet man is sensually distracted, as his bodily functions are realized only in appearance – after all, Internet communication does not reveal facial expressions when interacting with other people.

### **Cognitive distraction – the first principle of homo interneticus**

On a daily basis, an online person is afraid of missing out on something, accompanied by a constant sense of discomfort due to the fear of overlooking an important piece of information, a chance to have an interesting experience or engage in social interaction. This is directly related to the spread of mobile devices and the development of social networks. Researchers of this phenomenon estimate that up to 70% of adults from developed countries who are constantly using, i.e. connected to the network, may suffer from it. The phenomenon was first named and described in 2010. Herman in his article *The Fear of Missing Out (FOMO)*. The prevalence of the phenomenon is evidenced by the fact that the term “OMO” was added to the renowned Oxford Dictionary in 2013: “Anxiety, of knowing that an exciting and interesting event may be currently happening somewhere else where I am not, a common phenomenon in social media”. The primary reasons for the FOMO phenomenon are:

- social networks (e.g. Facebook) flattering the ego of the Internet user, who feels that he is among his own – nice and intelligent people,
- on the Internet is the willingness to answer any questions,
- and if one does not look at the Internet, there is a great longing and all thoughts and actions go to check the Internet account, after checking again and again... and so on ad infinitum.

The Internet man is constantly checking something on his phone or laptop and cannot focus on his work – this wears him out and depresses him – eventually neurosis and depression sets in.

It seems that from today's point of view, prospectively, this will cause some significant changes in our culture, and to a special degree, it may change today's

common sense perspective on the world. In the future, there will be even more changes in human cognitive abilities, progressing in the wake of cultural changes. And for this we must be prepared, including for this situation, the school must be prepared.

### **“I am not thinking and yet I am” – the second characteristic of homo interneticus**

Cognitive distraction leads to the disappearance of the value of knowledge *sensu stricto*, and thus the disappearance of understanding, the ability to relate facts, to build an individualized and internally and externally coherent narrative of the world – what matters is the literalness and attractiveness of the message of information measured by the number of clicks (so-called “likes”). Homo interneticus is convinced that information (equated with knowledge) is something naturally present in the environment and does not need to be sought, acquired, and nurtured – there is simply no need to learn.

Examples of this are plentiful, for example, the online channel “Matura to nonsense” (MTB) provides “hits” showing deficiencies in elementary knowledge and the ability to use it: “What is inflation? – The title of a movie with Leonardo Di Caprio” (presumably, the caller confused “inflation” with “infiltration” – such is the title of a famous film starring the aforementioned actor). Another example: “On whose side did the Americans fight at Grunwald? – On ours” (film adaptations appearing on the Internet show a distortion of the time and place of the events taking place – any historical event can be set in any time and place).

In modern school, learning facts, acquiring the basics of knowledge has become extremely difficult due to the fact that for students the primary source of knowledge – and the oracle as to its veracity – has become the Internet. There, everything is arranged not according to logical relationships, hierarchical structures, but on the basis of free hypertext associations.

### **Functional illiteracy – the third trait of homo interneticus**

Philosophical illiteracy is embedded in a person’s “readership”, and it is not about reading paper books, but books in general, not just blogs and online hypertext, because the latter without knowledge of the reading canon leads to chaotic thinking. This is clearly evidenced by research conducted by the National Library, and concerning the state of reading in Poland in 2015 (Rakoski). They show that up to 63% of Poles have not had any contact with a book, and 37% of their compatriots have read only one reading.

“People who are completely sane, less educated or have a college education, cannot cope with the reality around us. Small problems, which can be solved on the fly with a minimum of resources, grow exponentially to the size of a massive tsunami of life. The person is incompetent, unmanageable, confused, but... often after

frustration sets in, he or she becomes demanding, impulsive, postulatory and increasingly seething with aggression. Such functional and life illiterates are unable to articulate what the problem they face is, do not understand it, and look everywhere a'la help, displaying aggression with demandingness" (*Functional Illiteracy...*).

**Economic illiteracy** – in a study conducted by Millward Brown for the Liberty Institute and Raiffeisen Bank in 2014. (Report: Polakom brakuje podstawowej wiedzy ekonomicznej – rp.p) is surprising not only for its belief in the power of sevens and thirteens, which is intertwined with the Polish borrower's failure to distinguish between a percentage and a percentage point (and this applies to 92% of those surveyed). Only one in three Poles knew that there are currently two tax thresholds in our country, and barely one in five grasps the principle that entering a higher threshold does not mean a change in tax assessment for all income earned in a given year. The level of inflation last year was rightly reported by one in four respondents.

There are already social problems arising from economic illiteracy, for example, the Spanish Entrepreneurs' Association proposes that unskilled workers be paid below the minimum acceptable wage. In Spain, one million people have no training for a profession, yet they must be paid like skilled people. During the years of the economic boom, thousands of students dropped out of school to work in construction or services and earn up to two thousand euros a month. Now they belong to the so-called "neither-neither generation" – young people who neither work nor study. Among other things, it is due to them that the youth unemployment rate has exceeded 50% in Spain. The Entrepreneurs' Association proposes that they be paid the lowest of all. "If people who are now 25–30 years old did not finish school as children, they cannot be paid at the same level as those prepared for a profession" – believes Monica de Oriol, president of the Entrepreneurs' Association (Spain's way out of the crisis...). Almost every area of life today involves some kind of illiteracy. We are dealing with political illiteracy (Maciejewski, 2010), social illiteracy (Rymszewicz, 2013), health illiteracy (Olejniczak, 2016), and technical illiteracy (Wincza, 2008).

## Conclusion

Nowadays, the source of functional illiteracy is primarily the cyberspace of the virtual world, which gives people the illusion of interacting with the real world – the illusion of learning this world – not only writing, reading, counting, but the illusion of understanding and living in this – supposedly – real world.

As the most common indicators of functional illiteracy can be mentioned after Rymszewicz (2013):

- reading less than a few dozen books a year,
- not knowing any foreign language,
- inability to write precise, concise e-mails, reports and reports,

- preaching arguments full of aggression and personal attacks instead of substantive discussions,
- ignorance regarding cultural and substantive commenting on texts and statements,
- failure to understand written texts: instead of sound analysis and drawing conclusions, conducting pseudo-interpretations lined with the immortal statement “because it seems so to me” or “because I think so”.

## References

- Analfabetyzm funkcjonalny – surrealizmem postmodernizmu*. Retrieved from: <http://napolowe.blog-spot.com/2015/01/analfabetyzm-funkcjonalny-surrealizmem.html> (12.2023).
- Cichowski, B. (2003). *Analfabetyzm czy analfabetyzm?* Retrieved from: [http://www.sprawyna-uki.waw.pl/?section=article&art\\_id=418](http://www.sprawyna-uki.waw.pl/?section=article&art_id=418) (12.2023).
- Goldhaber, M. *The Mentality of Homo Interneticus: Some Ongian Postulates*. Retrieved from: <http://firstmonday.org/ojs/index.php/fm/article/view/1155/1075#author> (12.2023).
- Hiszpański sposób na kryzys: minimalna płaca tylko dla wykształconych*. Retrieved from: <https://odysynlaertesa.wordpress.com/tag/analfabetyzm-ekonomiczny> (12.2023).
- <http://www.fbbva.es/TLFU/tlfu/ing/home/index.jsp> (12.2023).
- [https://pl.wikipedia.org/wiki/Tim\\_Berners-Lee](https://pl.wikipedia.org/wiki/Tim_Berners-Lee) (12.2023).
- Krotoski, A. *Virtual Revolution. Homo Interneticus?* Retrieved from: <http://www.bbc.co.uk/programmes/b00n4j0r> (12.2023).
- Maciejewski, K. Retrieved from: <https://wzzw.wordpress.com/2010/04/22/funkcjonalny-analfabetyzm-polakow-a-populizm> (12.2023).
- Olejniczak, D. (2016). Praktyczne wykorzystanie health literacy – analfabetyzmu zdrowotnego, jako narzędzia osiągnięcia celów zdrowotnych. *Journal of Education, Health and Sport*, 6(2), 248–243. Retrieved from: [https://zenodo.org/record/46654/files/2016\\_6\\_2\\_238-243\\_3383.pdf](https://zenodo.org/record/46654/files/2016_6_2_238-243_3383.pdf) (12.2023).
- Oxford Dictionary. Retrieved from: <http://www.oxforddictionaries.com/definition/english/fomo> (12.2023).
- Program Międzynarodowej Oceny Umiejętności Uczniów (PISA). Retrieved from: <http://www.ibe.edu.pl/pl/projekty-miedzynarodowe/pisa-2015> (12.2023).
- Rakoski, M. Analiza raportu Biblioteki Narodowej o stanie czytelnictwa w 2015 roku. Retrieved from: <http://arete.media.pl/analiza-raportu-biblioteki-narodowej-stanie-czytelnictwa-2015-roku> (12.2023).
- Raport: Powinności państwa wobec obywatela i obywatela wobec państwa. Retrieved from: [http://www.cbos.pl/SPISKOM.POL/2013/K\\_104\\_13.PDF](http://www.cbos.pl/SPISKOM.POL/2013/K_104_13.PDF) (12.2023).
- Raport: Przesady wciąż żywe. Retrieved from: [http://www.cbos.pl/SPISKOM.POL/2011/K\\_130\\_11.PDF](http://www.cbos.pl/SPISKOM.POL/2011/K_130_11.PDF) (12.2023).
- Raport: Polakom brakuje podstawowej wiedzy ekonomicznej - rp.pl.
- Raport: Stan wiedzy finansowej Polaków. Raport z badania ilościowego dla Fundacja Kronenberga City Handlowy. Retrieved from: [http://www.citibank.pl/poland/kronenberg/polish/files/fk\\_badania\\_01.pdf?zoom\\_highlight=raport+wiedza+ekonomiczna+Polak%C3%B3w#search=%22raport%20wie-dza%20ekonomiczna%20Polak%C3%B3w%22](http://www.citibank.pl/poland/kronenberg/polish/files/fk_badania_01.pdf?zoom_highlight=raport+wiedza+ekonomiczna+Polak%C3%B3w#search=%22raport%20wie-dza%20ekonomiczna%20Polak%C3%B3w%22) (12.2023).
- Rymaszewicz, V. (2013). *Czy jesteśmy analfabetami?* Retrieved from: <https://natemat.pl/blogi/rymaszewicz/57047,czy-jestes-my-analfabetami> (12.2023).
- Walat, W. (2006). *Modelowanie podręczników techniki-informatyki*. Rzeszów: Wyd. UR.
- Wińcza, M. (2008). Analfabetyzm techniczny – problemy etyczne. Part 2. *Przegląd Spawalnicy*, 10. Retrieved from: <http://www.rywal.com.pl/vademecum/36-vademecum/inne/72-analfabetyzm-techniczny.html> (12.2023).