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PLUTARCH IN THE GALAXY OF NEW MEDIA.
MECHANISMS OF RECEPTION

SUMMARY: The aim of this article is to present the most important mechanisms of appearance Plutarch's texts on the Internet. The author, referring to the scale-free network theory, identifies three overlapping each other spaces of reception: ancient literature, literature and popular culture, new media. The last one represents in the frame of Lev Manovich, whose book *The language of new media* complements Henry Jenkins in the concept of Convergence Culture.

KEYWORD: ancient literature and culture, reception studies, new media, popular literature and culture, Plutarch's works, the scale-free network theory

Let us imagine a space created by all ancient texts and their authors. In such a space we cannot find authors more and less privileged, as in the structuralist approach to myth by Claud Lévi-Strauss: "On the contrary, we define the myth as consisting of all its versions; or to put it otherwise, a myth remains the same as long as it is felt as such" (Lévi-Strauss 1963: 216-217). Due to the finite number of works, the space could be described as closed, however the key is held by researchers of new scrolls and parchments. Every new discovery enhances the collection and replenishes it with new parts. The space is therefore static and can be easily described, using for example a proper division. What will happen though, if a researcher implements a relational element in the collection? An element of this kind could refer to a specific story

or literary motif, a historical or mythical character, etc. In that case, the space will become dynamic – a relational element will create a set of connections (relations) between authors and their works. A characteristic feature of that set will be the number of links and their relevance. One author will be connected by many paths, whereas the other will have only one path, and there will be authors who will remain on the periphery, without any links. Some paths will be wide and other will be narrow. If a relational element becomes Aeneas, then obviously most paths will lead to such works as virgil's *Aeneid*, Homer's *Iliad*, Dionysius of Halicarnassus' *Roman Antiquities*, Ovid's *Metamorphoses*. There will be also works which in spite of only a few paths will create broad and meaningful connections. An example of it can be Hellanicus of Lesbos' *The Priestesses of Hera at Argon.* It is only one excerpt quoted by Dionysius of Halicarnassus (*Roman Antiquities* I 72), but truly important – Rome was founded together by Aeneas and Odysseus (or according to Odysseus), the name of the Town comes from Trojan Women, Roma.[1]

The space that has been built thanks to the relational element can be depicted with a graph. The parts of such a graph will constitute its vertices (texts of particular authors from a given era) and the links. We can also notice its various qualities, e.g. a graph path (a series of vertices connected by edges), path length (a number of vertices included in one path), graph vertex degree (a number of edges joining at one vertex), joint weight (thickness of an edge joining particular vertices) and many other. We are able to achieve in this way a view of multiple relations between individual threads and motifs of a tale about Aeneas. What is interesting, the image will appear outside the time (periods within one space have no meaning) and it does not include canonical texts (Czeremski, Dominas, Napiórkowski 2013: 59-61).

Regardless of the relational element used in the ancient literary space, we are dealing with texts which always create a vast number of links. Speaking metaphorically, they are the brightest stars in the

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[1] „ὁ δὲ τὰς ἱερείας τὰς ἐν Ἄργει […] Αἰνείαν φησὶν ἐκ Μολοττῶν εἰς Ἰταλίαν ἐλθόντα μετ᾿ Ὀδυσσέα οἰκιστὴν γενέσθαι τῆς πόλεως, ὀνομάσαι δ᾿ αὐτὴν ἀπὸ μιᾶς τῶν Ἰλιάδων Ῥώμης" – according to Müller 1891: 52 (fragment 53).

galaxy of antiquity. Such a star undoubtedly involves the works of Plutarch of Chaeronea.

Each literary period can be described by means of a graph theory. Each of the spaces will be both static and dynamic. Much is to depend on a researcher and the relational element used by him. The most interesting space, however, will be literature and contemporary culture. It is the only fully open space – a number of elements is beyond estimation, due to the fact that new ones are being created all the time. It is also a space which, in an unusual way, delves into new media, actually at many levels. It is not coincidental that Henry Jenkins calls contemporary culture a Convergence Culture: "By convergence, I mean the flow of content across multiple media platforms, the cooperation between multiple media industries, and the migratory behavior of media audiences who would go almost anywhere in search of the kinds of entertainment experiences they wanted. Convergence is a word that manages to describe technological, industrial, cultural, and social changes, depending on who's speaking and what they think they are talking about" (Website 1; see: Jenkins 2006: 4-10).

In such an adopted convention of mathematical and literary character, the greatest challenge for researchers of different sciences might be not so much building of connections within one individual space, but many spaces. In this manner, the reception of Greek-Roman literature becomes a study of relations taking place between antiquity and any other selected number of spaces. A starting point – the heart of that research – should always be antiquity, no matter of how much it will be processed and how many paths and transformations it will need to go through.

It turns out that there is not one perception but there are many. An exact understanding of it is presented by Lorna Hardwick and Christopher Stray in the introduction to *A companion to classical receptions*: "By 'receptions' we mean the ways in which Greek and Roman material has been transmitted, translated, excerpted, interpreted, rewritten, re-imaged and represented. These are complex activities in which each reception «event» is also part of wider processes" (Hardwick, Stray 2008: 1).

A study of individual threads and literary motifs at the level of multiple spaces seems to be a part of interdisciplinary, complex studies,

which embrace more and more often cultural and media theories. It is particularly visible in the context of Plutarch and his *Parallel lives*. Tanja Kinkel, the author of *Synowie wilczycy* (*Die Söhne der Wölfin: Roman*), which corresponds to a dozen of resources telling mythological and historical beginnings of Rome. It is a tale of Rhea Silvia, her marriage with Faustulus and her children: Remus and Romulus. The German writer reaches for *The Life of Romulus*, which is confirmed in the preface (Kinkel 2010: 463). Every classical philologist or a historian of antiquity might wish to juxtapose historical facts with literary fiction and investigate how much *Synowie wilczycy* confirms or denies a particular source of literary periods and their texts. We could therefore build two spaces around the main heroes: one of ancient literature and the other one of popular literature. The most valuable part of the analysis will deal not with a work on the sources – it is a beginning point – but a discussion on mechanisms of reception of stories and ancient motifs. One of them is told by the author herself, quoting the novel *The King must die* by Mary Renault (first published 1958). It is a mechanism well described in *Degradacja mitu w literaturze fantasy* by Bogdan Trocha (2009). It functions in the way that it de-mythicizes various tales and presents them with a resemblance to historical events. A similar mechanism was constructed by David Benioff in the screenplay to the movie *Troy* by Wolfgang Petersen from 2004 and David Gemmell in the trilogy of the same title.[2] A Kinkel tale is also a perfect example of a growing relevance of female characters in popular literature including ancient history subjects and mythology. It is worth to appreciate in this context *The Memoirs of Helen of Troy* by Amanda Elyot (2005), the already mentioned *Troy* by Gemmell (the character of Andromache) and most of all *The Penelopiad* by Margaret Atwood (first published 2005) and *Lavinia* by Ursula K. Le Guin (first published 2008). The references to antiquity constitute the foundation of the analysis, whereas the mechanisms responsible for the way of their interpretation must be sought in literature and popular culture and in the new media.

It seems that the relationship of Greek-Roman heritage with popular literature and culture are embedded in studies on reception. It is testified by such publications as *Reception studies* by Lorna Hardwick

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[2]   Gemmell 2006a; Gemmell D. 2006b; Gemmell, Gemmell 2007.

(2003), *Ancient Greece in film and popular culture* by Gideon Nisbet (2006), *Classical myth and culture in the cinema*, edited by Martin Winkler (2001), *Classics and the uses of reception*, edited by Charles Martindale and Richard F. Thomas (2006), and *Classics for all: Reworking Antiquity in mass culture*, edited by Dunstan Lowe and Kim Shahabudin (2009) and many others.[3]

However, it is difficult to find a work at a methodological level which would refer to the reception of antiquity in new media, which is best expressed by Lev Manovich "the translation of all existing media into numerical data accessible through a computer" (Manovich 2001: 40). Perhaps the reason for it is the answer to the question whether in the context of cyberspace we are actually dealing with the process of reception. The Internet can be regarded as a new space for representation of antiquity, however more and more often it is being depicted as a digital platform that enables readers and authors to post their works, to search and browse the material at random, etc. Therefore a question about Plutarch in new media is not only a question about reception. The reason is the already mentioned methodological matters and the network character of new media.

Research of antiquity reception in new media could rely on the analysis of a route that every given thread travels from antiquity to modern times and of a degree to which it is processed and of its average route. Unfortunately, there are not many such works. Research of it depends only on registering different examples – more or less known in ancient literature – according to the principle that only the act of paying attention to something, e.g. to various websites, is already sufficient. The Internet is becoming in this way a mere supplement to traditional methodologies. Whereas registering hundreds of instances occurring in the space, which as assumed is highly dynamic (feature of hypertext), might be at most a starting point for research. In the case of new media, what becomes relevant is an exact analysis of mechanisms (media, cultural, marketing, etc.) responsible for multiple processes of reception. Reception is a process in

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[3]   It is worth to take note of these series: *Companions to Literature and Classics* (Cambridge University Press), *Blackwell Companions to the Ancient World* including M. Beck, 2014, *A companion to Plutarch*, Chichester, as well as *Brill's Companions in Classical Studies*.

which the appearing element of ancient literature becomes influenced by particular mechanisms of digital environment. These mechanisms allow the message to be influenced by numerous transformations, for example changing its primal meaning. The onset of such process is arbitrary and depends by and large on the perspective of the researcher who begins the analysis (Dominas 2014a: 104).

Another equally important element is the character of media itself. The space of the Internet can be presented by means of a graph theory, although the network character of WWW is extremely specific. Applicable in this case could be a scale-free network theory and a small-world network model, developed by the researchers from the University of Notre Dame: Albert-László Barabási, Hawoong Jeong and Réka Albert. These scientists have proved that the web of WWW documents builds one entity thanks to only a few sites with a great number of references. On a map of websites which they created, those with fewer than 4 links constituted over 80%. A pattern that appeared from the research was determined as a scale-free, which means that the distribution of links is exponential (Barabási Jeong, Albert 1999: 66-67). Internet websites focus therefore around the centers which can have even millions of connections (the so-called clustering coefficient). Two relationships of the theory are pivotal: exponential growth and the so-called preferential attachment, which was named by sociologist Robert K. Merton as the effect of Saint Matthew – the rich get richer and the poor get poorer (Matt 25:29) (Watts, Strogatz 1998: 440-442). It means that newly created internet sites are more likely to be connected to the already existing centers in which the so-called strong nodes are prevalent, with a peculiarly great number of links.

HOW MUCH OF PLUTARCH IS THERE ON THE INTERNET?

Apparently answering that question is childishly easy. With only a Google search website, which is accessed by 96,24% of Internet users in Poland,[4] we can estimate the number of sites that we get after typ-

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[4]   Data comes from the period 09-15.03.2015. Source: Gemius, http://www.ranking.pl/pl/rankings/search-engines.html (21.03.2015).

ing in the word "Plutarch". The search website will display in less than a second approximately 960,000 web pages,[5] mainly in Polish, English and German. To the right of the screen we will see also basic information on the Greek writer – the source is Wikipedia (Fig. 1): "Plutarch was a Greek historian, biographer and essayist, known primarily for his *Parallel Lives* and *Moralia*" (Website 2). Comparing, after typing in the phrase "parallel lives Plutarch" we get 991,000 websites and for the word "Caesar" over 22 million search results. What these results actually mean? The answer includes one of the most vital mechanisms of contemporary media: popularity. That word has been given by two Google search website founders – Sergey Brin and Larry Page, a completely new meaning. In computer lingo these results mean that there are nearly a million websites which contain the above-mentioned words. Due to the fact that we are dealing here with computer programs which rely on some algorithm, the subject of a website does not matter much at this level (Morville, Rosenfeld 2006: 158-161).
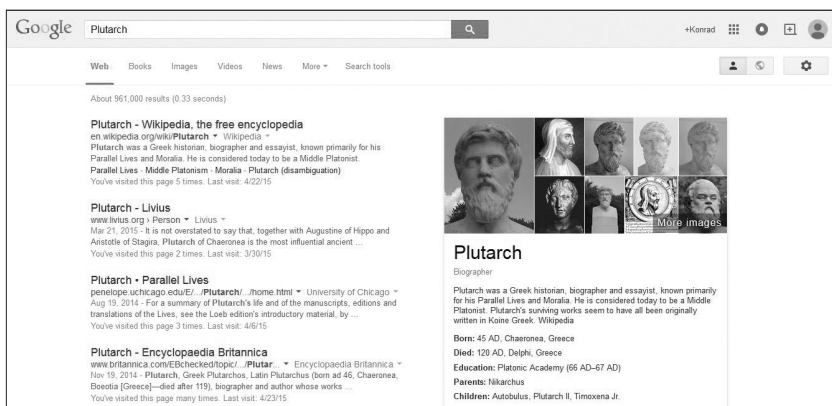

Fig. 1 A fragment of screenshot from Google website with information about Plutarch

Just a few years ago, the algorithm PageRank was responsible for displaying the results of a search in a sequence. Its operation was based on the idea of quoting – the more frequently a website with the word "Plutarch" was quoted, the higher was its position in the ranking

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(Website 3). One should not wonder therefore that first in the ranking are websites coming from the multilingual Wikipedia, one of the most popular websites on the Internet. In 2012 the policy of th esearch website was changed a lot. These days the ranking depends not only on the algorithm PageRank but also on the information that the website extracts from our computer's cookies files.[6] In this way another network mechanism comes to life, which is described currently with the term personalization – adjusting the websites to the interests of a user. In conclusion, one might say that the more often we browse through some material, the more probable it is that it will be the point of reference for the search tools. Speaking metaphorically, we are looking all the time at our own reflection. If we are historians or classical philologists and we navigate frequently through the web pages connected with our profession, we will get websites exactly on that subject. Such a short experiment reveals to us one more mechanism, namely the skill of making queries for the search website. The more it is accurate, the better results we get. So if we want to begin research on Plutarch and we are going to use for that purpose a Google search tool, then we should be aware of the principles of operations of that tool, which in this case will average the message, according to the basic views of Toronto School of communication theory – the medium is the message (Mersch 2010: 106-127). Here appears a question, who actually creates a query – a search site or a human? That question can be answered in the following way:

> a human thinks of a word or phrase and writes it in the tool – the search website delivers results on the basis of words and phrases relying on a few hundred complex algorithms – a human looks through the results and makes the analysis.

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[6]   The Privacy Policy of Google has greatly changed on 01.03.2012 and its recent version comes from 25.02.2015. We can read on the company website in *Information we collect*: "We collect information to provide better services to all of our users – from figuring out basic stuff like which language you speak, to more complex things like which ads you'll find most useful, the people who matter most to you online, or which YouTube videos you might like. We collect information in two ways: information you give us […] and information we get from your use of our services" (http://www.google.com/intl/en/policies/privacy/#infocollect [21.03.2015]).

What is interesting, the last step is not always done. Many internet users believe, no matter of their education, that content quality delivered by the search tool is flawless.

WHAT DO WE REALLY GET FROM THE GOOGLE SEARCH WEBSITE?

The internet web pages devoted to the author of *Parallel lives* can be divided into three basic groups. The first one is made up of scientific web services hosted by academic centers and university staff. Among many there is one which deserves more attention, it is frequently cited, the Website of The International Plutarch Society hosted by Utah State University (Website 4). The service includes a sophisticated bibliography of Plutarch (last update 5ᵗʰ of May, 2014) (Website 5) and a number of current information to the subject of conferences, meetings, symposiums, etc. (Website 6). It is also worth to mention Stanford Encyclopedia of Philosophy (SEP) (Website 7). The author of entry "Plutarch" together with the bibliography is George Karamanolis; the last update was done in November 2014 (Website 8). Here we can recall some important statistical data connected with SEP. Service Compete, Millward Brown Digital informs that in February 2015, the web page SEP was visited by over 466,000 unique visitors (Website 9). That is even more by 100,000 than a year earlier. It is hard to say what percentage of this number refers to Plutarch, but even assuming that we are dealing with a mere half per cent of that number, it stands for the result of 2,330 users (Website 9).

Truly interesting in the context of reception is the website with Rosalie Kaufman's book *Our Young Folks' Plutarch* (Website 10) within *The Baldwin Project. Bringing Yesterday's Classics to Today's Children* (Website 11). This work includes fifty retellings from Plutarch's *Lives* skillfully adapted for children.

Services of scientific nature make an example of using the internet not only as a space for publishing information but they also meet the needs of various environments which demanded from computer networks a new, digital Alexandrian library. For many researchers they can be a space for communication, particularly when they are enhanced

by functionality of popular social networks. Unfortunately, apart from representatives of the science world or literary and cultural fans, that kind of website is visited by only a scant percentage of users, even though they are ranked at high positions. Interesting as well is the fact that they constitute a platform for many entries created in Wikipedia.

The second group embraces services of encyclopedic kind with some fundamental information on the subject of the life and creative output of Plutarch. The best example is Encyclopedia Britannica.[7] The author of a three-page entry divided into several subcategories is Frank W. Walbank, Rathbone Professor Emeritus of Ancient History and Classical Archaeology, University of Liverpool, author of *A Historical commentary on Polybius* (first published 1957) (Website 12, 13). Additionally, Britannica has at its disposal a bibliography and some basic data on the edition and entry update. The editors make also available a version for elementary and junior high schools, although such information is accessible only to subscribers (Website 14). It might seem that this kind of information should become the basic knowledge for the majority of internet users, and what is more important, this knowledge should be repeatedly checked and verified. Unlike in Wikipedia, we get an author's name, surname and an exact, academic bibliography. Unfortunately, it is all denied by the statistics. The most important and in the same way the most popular source of information on Plutarch is Wikipedia. Permanently, the two first positions for the word "Plutarch" in the Google ranking are occupied by Polish and English Wikipedia. In February 2015, Britannica was checked by nearly three and a half million unique visitors (Website 15), but Wikipedia by almost a hundred million (Website 16). The Service Alexa which monitors the internet users informs that directly before Britannica, web surfers visited Google (66,6%), and at the second place Wikipedia (2,9%) (Website 17). Although the percentage is not high, it means that almost three million users visited Wikipedia in the first place.

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[7]   In Poland one of the most popular services of this sort is encyclopedia WIEM from the Onet web portal. It was developed on the basis of the Popular Common Encyclopedia of the Fogra Publisher. See http://portalwiedzy.onet.pl/encyklopedia.html (21.03.2015).

The last group representing the services with Plutarch's works, especially *Moralia* and *Parallel lives* are in the original as well as in translations. It is worth to take note here that a good deal of publications, translations, comments, etc. are situated in the so-called public domain, which means that owing to the expiry of a copyright they are legally available for every web surfer.

About 10 years ago, texts written in Greek language belonged to a rarity. Responsible for that were chiefly printers which had great problems in displaying all characters properly. The Development of internet technologies and web applications make it possible these days that the works of Homer in Greek are as popular as in Latin. Among hundreds of websites of this kind the most renowned is the service Perseus Digital Library, led by Gregory R. Crane from Tufts University (Website 18). The beginnings of the largest database of ancient texts on the internet go as far back as the year 1985, which means that the project had been launched four years before the creation of World Wide Web and six years before the birth of first internet browsers! Plutarch texts' database counts about 300 links, all works are in Greek language and in English translations. As an example, Greek *The life of Julius Caesar* originates from the following version (original bibliographical record) (Website 19):

> Plutarch. Plutarch's Lives. with an English Translation by. Bernadotte Perrin. Cambridge, MA. Harvard University Press. London. William Heinemann Ltd. 1919. 7.

Plutarch's works can be also found in the service *LacusCurtius* belonging to Bill Thayer (Website 20). It is another impressive database with 575 webpages, 752 photos, 739 drawings and engravings, 119 plans, 122 maps (counted in late 2014) which are connected with ancient literature and culture (Website 20). Another example is *Theoi Greek Mythology: Exploring Mythology in Classical Literature & Art* guided by Aaron J. Atsma from New Zealand (Website 21). We can discover here mostly Plutarch's texts which refer to mythology, e.g. *Life of Theseus* and many other. In February 2015, it was visited by over 200,000 unique visitors (Website 22). To compare with, Perseus Digital Library attracted in the same period slightly over 100,000 (Website 23).

Theoi Greek Mythology is cited by over three thousand other web pages (Website 24), whereas Perseus by over 23 thousand (Website 25).

The above-mentioned websites publish texts of Plutarch in XHTML or HTML 5.0 which means they are fully adjusted to the digital environment, being a perfect example of new media. They can be processed freely by editors, as well as sophisticated computer programs, e.g. search engine robots. Thanks to that they can be easily found and made use of. The process of digitalization means in this case either re-writing of particular issues or scanning a text and converting it in OCR software to the digital form. The latter can be the cause of some errors, misspellings, repetitions and so on.
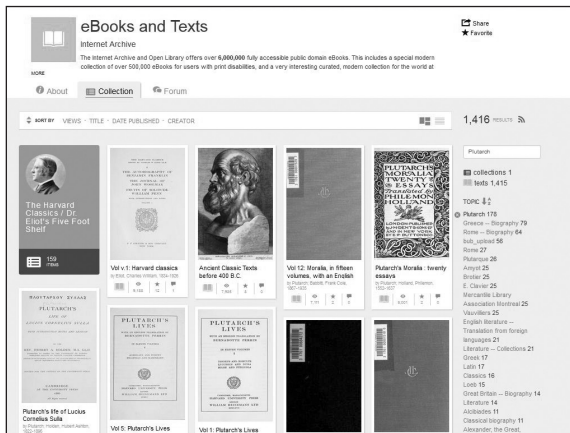

Fig. 2 A screenshot from the Internet Archive website (eBooks and Texts) with Plutarch's collection

Recently, more and more ancient works are being published on the Internet in a PDF form. In the lead is mainly one, *The Internet Archive* – a San Francisco-based non-profit digital library (Website 26) and Google Books (Website 27). The database of *The Internet Archive* contains 1415 works corresponding to Plutarch: critical publications, translations, studies, etc. (Website 28). The texts mainly come from American and Canadian libraries, but also from a few European institutions (Fig. 2). Posting of texts in the form of the so-called post-script files offers a few advantages. Among these it is worthwhile to take note of a possibility of storing an entire text on a computer hard disk,

tablet, phone, etc. and what is more important, without any errors in the text. The only difficulty is associated with the fact that a search site is capable of indexing only the title and some additional information about a given text (the so-called metatags). Indexing of the PDF content of the 19th and early 20th century books is currently impossible. Extremely troublesome is also browsing and searching through a file, mostly because of its large size – a file can occupy even 200 MB of hard disk space.

PLUTARCH AND SOCIAL NETWORKING SERVICES

Present computer technologies equipped with modern software make it possible for almost all web users to become authors of texts, their editors and reviewers. The only limitation is a lack of access to the Internet. These changes are commented by Paul Levinson, who very consciously entitles his book from 2009 *New new media*: "Every Consumer Is a Producer" – the author writes (Levinson 2009: 3). The examples of new new media, according to Levinson, are among others: Facebook, Twitter, YouTube, Wikipedia.

Wojciech Orliński, author of the work *Internet. Czas się bać*, calls such media scientists as Lev Manovich, Paul Levinson, Henry Jenkins, Marshall McLuhan, Alvin Toffler cyber-optimists (Orliński 2013: 192-193). For this journalist of "Gazeta Wyborcza" the most relevant features of the new media, for example so much praised by Jenkins collective intelligence, is not a blessing but a punishment which we have to face for having too much trust in technology and large media corporations – Google, Facebook, Microsoft. In effect, we are losing gradually freedom of choice, rights, access to information, privacy, freedom of speech, work, culture and transparency. Orliński's theses fit well in Nicholas G. Carr's views presented in *The shallows: What the Internet is doing to our brains*. The American journalist mentions all that in the first chapter of his book: "Calm, focused, undistracted, the linear mind is being pushed aside by a new kind of mind that wants and needs to take in and dole out information in short, disjointed, often overlapping bursts – the faster, the better" (Carr 2010: 10).

Leaving aside the quarrel about the values of media to the social scientists, it is worthwhile to ask a question in the context of Plutarch in cyberspace and in a broader context of the entire ancient literature and culture, if together with the birth of new new media, of the social network era, thousands of web users around the world have begun to post texts, make movies, write blogs or web sites devoted to the ancient times?

The conviction about a major role played by new media users in content creation is the largest myth of the contemporary media culture (Dominas 2014b: 144-146). Internet users comment various kinds of information, discuss topics at forums, exchange views and knowledge on Facebook, post films on YouTube, review and describe them. Do they make any new knowledge by that? The answer is easy. No, they do not. The earlier mentioned websites of a scientific and encyclopedic character are still much liked and appreciated, despite the fact that media have undergone a transformation or convergence. Web services containing ancient texts and commentaries are still often visited. It is also worth asking if the number and level of information on WWW would be the same if it were not for traditional media? With no radio, television, press or books, the internet would still be rather a platform chiefly of communication or solely information character.

Another myth is the apparent ease of website creation, various texts, films or blogs. Even if we have access to the right tools and software, making materials on the internet is not a simple thing, unless we treat a short forum comment or a post on a commercial blog as a quality of new new media. Web users, no matter if they are scientists, college students or school students, have at their disposal a great potential which contemporary technology offers, but only possessing it does not make them really producers.

Perhaps one of the greatest examples of the reception of Plutarch in social media is Wikipedia – the largest non-profit[8] service of this

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[8]   According to the Alexa web service, Wikipedia ranks sixth in the world among WWW websites with the highest number of users (http://www.alexa.com/siteinfo/www.wikipedia.org), according to Compete, Millward Brown Digital its 7th position with 98461327 users (https://siteanalytics.compete.com/wikipedia.org/#.VSPKB-Ggrng [21.03.2015]).

kind. The history and importance of that tool, as well as content-related analysis of individual entries and categories referring to the author of *Parallel lives* is according to me of secondary significance. In Polish and English subject literature alike, we can find quite many publications dealing with the Encyclopedia, and analyzing the entries does not, in my opinion, make much sense, especially at the scientific workshop level. It does not mean though, that Wikipedia poses no interesting research goals, particularly if we look at it in the context of popular cultural and literature. Worth noticing is also a quite complex bibliography which includes both academic knowledge and reception. It is worth an effort to study carefully the most essential statistics referring to the English entry of "Plutarch", to have an idea how well it is inscribed into the trend of new new media. Are we talking about a collective intelligence or about a hobby of creating, developing and updating the knowledge using traditional sources of information or exclusively the network itself?

The English-language entry "Plutarch" was made on 9th of November, 2001. The author of the short biography was a user nicknamed MichaelTinkler (Website 29). He posted the following information (without bibliography, annotations, etc.; original spelling) (Website 30):

> Plutarch, historian, around A.D. 46-120, born at Chaeronea, Boeotia, in Greece during the Roman Empire. Plutarch travelled widely in the Mediterranean world until he returned to Boeotia, becoming a priest at the temple of Apollo at Delphi. His most important historical work is the Parallel Lives, in which he arranges 46 biographies of leading Greeks and leading Romans in tandem to illuminate their shared moral virtues or failings.

The entry was 476 bytes long at that time, today it is over one hundred times larger (48 222 bytes of data). In the period of 14 years, there have appeared 1290 entry versions (about 92 versions a year), over which 717 editors have worked. The number of editions (logged-in users and users identified by an IP address) reached 64,7%, the remaining 35,3% were the so-called minor edits. Most intense works on the entry were carried out in 2006, where 237 editions were created. The average number of edits per user as of today reaches 1,8, average time between

edits is 3,8 days. There are 2842 inbound links and 585 outbound links for the website. The entry contains also 48 external links (Website 31).

Most interesting though, are the figures confronting the number of editors with the total number of readers of the entry. In order to show it well, I have taken into account the year 2008 (Website 31). As a matter of fact, the entry was edited by 96 writers, with 149 changes saved together with the new information and also with the already existing updates (Website 31). At the same time, the entry was pulled up by 243 872 web users. The ratio of editors to readers was 0,039%, and at that time 4,61% (2207,072 bytes) of the today's entry was created (Website 32). If we look at the above relation, it is worth to pose a question in this context if we really are dealing with a social media based on the so-called collective intelligence? Does that percentage of editors entitle us to calling that project the biggest database in the world created by crowds of web users? The problem gets even more complicated if the material content is compared with popular encyclopedias and guidebooks of antiquity. In effect it will turn out that the new text, bordering on plagiarism, is a mere copy of already available knowledge. The only difference though, is accessibility or interactive and multimedia features, in other words digital media mechanisms.

Wikipedia raises interest for a different reason – as one of the most significant objects of pop culture. In the context of antiquity reception, important become such relationships as: chronology of adding new motifs and threads to the main entry and their dependence on a movie, popular literature, mass media, etc., relations between the entry and individual categories and subcategories. Knowledge in Encyclopedia – material many times processed and derivative to the original – constitutes also a starting point for new information on the internet. Web users quote other web users without any reference to ancient literature or culture.

INSTEAD OF AN ENDING – PLUTARCH AND GRAPHS

Shahar Ronen, a worker of Microsoft Corporation (Program Manager II, MSN Analytics) and a graduate of Massachusetts Institute of Technology created The Petit Plutarch Project (Website 33). The project

was built in the course of classical philology studies which Ronen started after the computer college. The aim of the project was investigating relations between institutions and characters of late Roman Republic and the cult of goddess Venus based on *Parallel lives* of Plutarch. For that purpose he created a graph (by means of NodeXL application) which
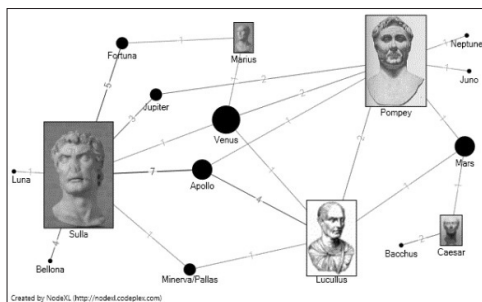

Fig. 3 A visualization of the connections between Roman generals and the gods associated with them in Plutarch's *Lives* from The Petit Plutarch Project by Shahar Ronen

presented connections between Roman generals and the gods associated with them in Plutarch's *Lives* (Website 33). Ancient literature became for Ronen a foundation for research – a graph became an opportunity to present results and introduce the right methodology based on mathematical and computer-related laboratory (Fig. 3).

The following example fits in the presented in this article convention of graph theory and computer networks. Research on reception of antiquity in new media requires therefore an interdisciplinary approach which will grasp not only the gist (literature and culture of antiquity) but also the transmission (medium), and some mechanisms responsible for the process of reception. Such research becomes useless though, if they are not backed by a thorough analysis of convergence of individual motifs and threads. However, the analysis is not possible without proper studies. If we strip the research on reception in new media from the classical philology knowledge, then that research will become in itself another reception – a reception of the reception.

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