Do young people trust Wikipedia?

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Abstract—Wikipedia is a repository of Open Educational Resources. There are many misunderstandings and false information about the Open Educational Resources. It is a worrying situation for us because the Open Educational Resources bring numerous benefits to society. Accordingly, the survey was conducted at the Faculty of Social Sciences, University of Gdańsk, the aim of which was to learn the opinion of students on Wikipedia.

Keywords—Wikipedia, Open Educational Resources, new media.

I. INTRODUCTION

Wikipedia is a multilingual, free-access and free-content, Internet encyclopedia. Everyone can access it and edit its articles. It is commonly used by high school and university students as a source of information about the world.

The most important advantages of Wikipedia, which determine its popularity among young people, are its around the clock availability to all Internet users, free of charge and constantly updated information contained in it. However, there are a lot of negative reviews on Wikipedia. Wikipedia’s critics believe that it is an unreliable source of information, the articles published on its pages are of poor quality, and that it is susceptible to all sorts of manipulation and biased presentation of the facts.

Wikipedia is a repository of Open Educational Resources (OER) [1]. Open Educational Resources are defined as those materials that are publicly available on the Internet (without access control), published along with the right to further use (for this purpose it is recommended to use the so-called free licenses) and mostly developed in an open manner [1]. In other words, the concept of OER describes any educational resources that are openly available for use by students and educators, without an accompanying need to pay license fees or royalties [2]. OER are the practical realization of the idea of open education built on the belief that knowledge around the world is a public good, which is why everyone should have the freedom to use, customize, improve and redistribute educational resources without constraint to make education both more accessible and more effective [1].

The OECD published a report “Giving Knowledge for Free. The Emergence of Open Educational Resources”, which showed that in 2007 there were over 3,000 open training courses worldwide at over 300 universities [3]. Open Educational Resources are therefore quite large and still widening. The consequence of the growing number of initiatives related to the sharing of open educational content was the emergence of Open Educational Resources movement [1]. In Poland, 13 institutions and organizations are concentrated around the Coalition for Open Education. The goal of the Coalition is to promote methods, ideals and good practices related to OER [1]. A founding member of the Coalition, among others, is the Association Wikimedia Poland (this is a non-profit organization), whose statutory purpose is to promote and support Wikipedia and other Wikimedia Foundation’s (which is a non-profit organization) projects.

Educational resources are often quite expensive. This is because they are treated as a commodity that can be bought or sold on market. Open Educational Resources are associated with a completely different philosophy, according to which educational resources are seen as the common good. All people benefit from the access to this common good (relatively the most benefit is for the least privileged people) [4].

Wikipedia is a phenomenon that has a huge impact on our society, but at the same time is not entirely understood [5]. Several years ago, nobody could have predicted that project of online free content encyclopedia will prove to be realizable. Many people believe that people are selfish and they will not work for free. Wikipedia has proven that people are willing to work for free for the common good. Today, Wikipedia is one of the most popular websites in the world. Wikipedia have reached a whole new community of people ready to perform unpaid work for the common good [5]. It is important from the perspective of studying anything that was once thought inconceivable but then proved to be possible [5]. What was previously thought to be true about the people turned out to be only a superstition.

To understand the phenomenon of Wikipedia, it is necessary to appeal to many different disciplines, including economics (Wikipedia distributes a social good, which is knowledge and information), political science (Wikipedia encourages egalitarianism and strengthens the position of ordinary Internet users, weakens the position of experts) or history (Wikipedia can be seen as another step in the history of increasing access to knowledge for everybody) [5]. Open Educational Resources (including Wikipedia) can play a fundamental role in supporting educational development throughout the world [6].

There are very few scientific publications on Wikipedia in Poland. This might wonder, especially if one takes into account that it is a significant source of knowledge about the world for a large group of young people in Poland. There are many misunderstandings and false information about the Open Educational Resources [7]. Wikipedia’s slogan “The free
encyclopedia that anyone can edit” is the source of much controversy and confusion [8]. It is a worrying situation because the Open Educational Resources bring numerous benefits to society [9]. Wikipedia can be seen as an educational innovation. Innovations in education are associated with both new opportunities and new threats [10]. However, modern education systems need changes and pedagogical innovations [11]. Our society needs a much wider access to knowledge and education.

Wikipedia meets the challenges of arising knowledge-based economy and knowledge society. One of the main advantages of Wikipedia is that it contains much more information than any traditional, printed on paper encyclopedia [12]. In spite of the fact that Wikipedia is right now incredibly large, the number of articles in Wikipedia is increasing every single day [12].

Accordingly, the survey was conducted at the Faculty of Social Sciences, University of Gdańsk, the aim of which was to learn the opinion of students on Wikipedia. The most important question was: Do young people trust Wikipedia?

II. METHODS

A. Sample

The sample comprised 206 undergraduate students at the University of Gdańsk (183 females and 23 males) with a mean age of 21.50 (SD = 3.21 years). The majority of respondents (149 people, 73.0%) were residents of the city. Fifty five people (27.0%) reported countryside as a place of residence. Two people did not report where they live. Data on course of study, mode of study and year of study is presented in Tab. 1.

<table>
<thead>
<tr>
<th>TABLE I. DESCRIPTIVE DATA ON SAMPLE</th>
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<tbody>
<tr>
<td>Course of study</td>
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<tr>
<td>Pedagogics</td>
</tr>
<tr>
<td>Psychology</td>
</tr>
<tr>
<td>Social Work</td>
</tr>
<tr>
<td>Journalism</td>
</tr>
<tr>
<td>Philosophy</td>
</tr>
<tr>
<td>Economics</td>
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<tr>
<td>Other fields of study</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mode of study</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full time</td>
<td>160</td>
<td>77.3%</td>
</tr>
<tr>
<td>Part time</td>
<td>47</td>
<td>22.7%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year of study</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>72</td>
<td>34.1%</td>
</tr>
<tr>
<td>Second</td>
<td>104</td>
<td>49.3%</td>
</tr>
<tr>
<td>Third</td>
<td>34</td>
<td>16.1%</td>
</tr>
<tr>
<td>Fourth</td>
<td>0</td>
<td>0.0%</td>
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<tr>
<td>Fifth</td>
<td>1</td>
<td>0.5%</td>
</tr>
</tbody>
</table>

One person did not report his field of study. Four people did not report their age. One person studied full time and part time at the same time.

Two hundred six students were enrolled at 210 fields of study, because five people studied at two faculties: one person studied journalism and law, one person studied psychology and biotechnology, one person studied pedagogy and history of art, one person studied pedagogy and psychology, and one person studied pedagogics and political science.

B. Research tool

The only research tool used in the study was the original questionnaire. The questionnaire was designed for conducting survey on Wikipedia among students. At this stage of research particular questions were used as indicators of students’ attitudes to Wikipedia. Because there were no repeated measurements, test-retest reliability could not be estimated so far. Future studies should determine validity and reliability of this measure as a potential tool for assessing attitudes to Wikipedia. Within the questionnaire respondents were asked to assume an attitude to 12 various statements about Wikipedia:

- I believe that Wikipedia is valuable, needed.
- I believe that encyclopedias should only be created by experts.
- Wikipedia increased people's access to knowledge and information.
- There is a lot of misinformation in Wikipedia.
- For the most part the contents of Wikipedia are reliable.
- Information contained in Wikipedia is constantly updated.
- Wikipedia is a useful teaching aid for pupils and students.
- Information in Wikipedia is presented in a biased manner, articles express the opinions of specific editors.
- Using Wikipedia by pupils and students has a detrimental effect on them.
- Because of Wikipedia there is more plagiarism in schools and at universities.
- Young people can expand their horizons and gain new knowledge through Wikipedia.
- In Wikipedia you can find information not available in other sources.

Respondents in the survey provided answers in the following format:

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Rather disagree</th>
<th>Undecided</th>
<th>Rather agree</th>
<th>Strongly agree</th>
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</thead>
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<td></td>
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Furthermore, survey participants were asked:

- How often do you browse or read articles on Wikipedia? Respondents’ answers were limited to a fixed set of responses: Everyday; Several times a week; Once a week or less; Never.
- Have you ever participated in editing Wikipedia, which is to create new articles or change existing articles? Respondents’ answers were limited to a fixed set of responses: Yes, I am an Wikipedia reviewer, Yes, I edited...
Wikipedia’s articles, but I do not have the status of Wikipedia’s reviewer; No, I have not.

- Do you frequently use Wikipedia or traditional, printed on paper encyclopedia? Respondents’ answers were limited to a fixed set of responses: More often I use Wikipedia; I use Wikipedia as often as printed encyclopedia; More often I use printed encyclopedia.

Moreover, respondents were asked: How trustworthy are - in your opinion - information from the following sources? The study participants responded their answers on a scale from 1 to 10, where: 1 - in general are not trustworthy, 10 - are fully trustworthy. Respondents assessed how reliable - in their opinion - there are television, radio, press, encyclopedia PWN (Polish Scientific Publishers PWN) and Wikipedia.

C. Procedure

Data collection used nonprobability sampling. Opportunity sampling was applied. The vast majority of study participants were students of pedagogics, psychology, social work and journalism. The most interesting group of respondents were students of pedagogics, because they represent the future staff of schools and educational institutions. Their opinions on Wikipedia may have an impact on how they will relate to the use of Wikipedia of their students and pupils. Therefore, there is an overrepresentation of pedagogics students in this study. The survey was conducted from 25 May to 31 May 2015 at the Faculty of Social Sciences of the University of Gdansk. Participation in the survey was voluntary. The survey was anonymous.

All respondents were students of the University of Gdansk. 8 people have studied at other faculties of the University of Gdansk, but during the survey participated in optional classes at the Faculty of Social Sciences.

III. RESULTS

Almost all study participants (99.5% of respondents) reported that they use Wikipedia at least once a week or less. Eleven people use Wikipedia every day (5.6% of respondents), 61 people several times a week (30.8%), 125 people once a week or less (63.1% of respondents), while one person never uses Wikipedia (0.5% of respondents). Eight people did not report how often they use Wikipedia (Fig. 1).

Frequency of use of Wikipedia

Figure 1 Frequency of use of Wikipedia (N=198)

One hundred forty eight people agreed with the statement I believe that Wikipedia is valuable, needed (96 people marked Rather agree, while 52 people Strongly agree). Eighteen people disagreed with this statement (15 people Rather disagree and three people Strongly disagree). Thirty nine people marked the answer Undecided. One person did not answer the question (Fig. 2).

I believe that Wikipedia is valuable, needed

Figure 2 I believe that Wikipedia is valuable, needed (N=205)

One hundred sixty five people agreed with the statement I believe that encyklopedias should only be created by experts (68 people marked Rather agree, while 97 people Strongly agree), while 15 people disagreed (14 persons Rather disagree and one person Strongly disagree). Twenty six people marked the answer Undecided (Fig. 3).

I believe that encyklopedias should only be created by experts

Figure 3 I believe that encyklopedias should only be created by experts (N=206)

One hundred seventy two people agreed with the statement Wikipedia is increasing people’s access to knowledge and information (85 people Rather agree, 87 people Strongly agree). Ten people disagreed with this sentence (six people Rather disagree, four people Strongly disagree). Twenty-three people marked the answer Undecided. One person did not answer the question (Fig. 4).

Wikipedia is increasing people’s access to knowledge and information

Figure 4 Wikipedia is increasing people’s access to knowledge and information (N=205)

One hundred nine people agreed with the statement There is a lot of misinformation in Wikipedia (37 people Rather agreed, 72 people Strongly agreed). Seventeen people disagreed with this sentence (15 people Rather disagree, two people Strongly disagree). Seventy-seven people marked the answer Undecided. Three people did not reply (Fig. 5).

Wikipedia is increasing people’s access to knowledge and information (N=205)
There is a lot of misinformation in Wikipedia (N=203)

- Strongly disagree: 1%
- Rather disagree: 15%
- Undecided: 36%
- Rather agree: 38%
- Strongly agree: 7%

Figure 5 There is a lot of misinformation in Wikipedia (N=203)

Ninety-two people agreed with the statement For the most part the contents of Wikipedia are reliable (85 people Rather agree, seven people Strongly agree). Thirty-one people disagreed with this statement (26 people Rather disagree, five people Strongly disagree). Eighty people did not have a clear opinion (answers Undecided). Three people did not reply to the question (Fig. 6).

For the most part the contents of Wikipedia are reliable (N=203)

- Strongly disagree: 3%
- Rather disagree: 3%
- Undecided: 42%
- Rather agree: 39%
- Strongly agree: 13%

Figure 6 For the most part the contents of Wikipedia are reliable (N=203)

Seventy-two people agreed with the statement Information contained in Wikipedia is constantly updated (56 people Rather agree, 16 people Strongly agree). Twenty-three people disagreed with the above-mentioned statement (22 people Rather disagree, one person Strongly disagree). One hundred eleven people marked answer Undecided (Fig. 7).

Information contained in Wikipedia is constantly updated (N=206)

- Strongly disagree: 8%
- Rather disagree: 27%
- Undecided: 54%
- Rather agree: 8%
- Strongly agree: 11%

Figure 7 Information contained in Wikipedia is constantly updated (N=206)

One hundred forty six people agreed with the statement Wikipedia is a useful teaching aid for pupils and students (94 people Rather agree, 52 people Strongly agree). Thirty four people disagreed with this statement (26 people Rather disagree, eight people Strongly disagree). Twenty-four people marked answer Undecided. Two people did not reply (Fig. 8).

Wikipedia is a useful teaching aid for pupils and students (N=204)

- Strongly disagree: 25%
- Rather disagree: 46%
- Undecided: 12%
- Rather agree: 13%
- Strongly agree: 4%

Figure 8 Wikipedia is a useful teaching aid for pupils and students (N=204)

Forty-four people agreed with the statement Information in Wikipedia is presented in a biased manner, articles express the opinions of specific editors (39 people Rather agree, five people Strongly agree). Sixty-eight people disagreed with this statement (61 people Rather disagree, seven people Strongly disagree). Ninety four people did not have a clear opinion in this matter (answers Undecided) (Fig. 9).

Information is presented in Wikipedia in a biased manner, articles express the opinions of specific editors (N=206)

- Strongly disagree: 19%
- Rather disagree: 46%
- Undecided: 30%
- Rather agree: 2%
- Strongly agree: 3%

Figure 9 Information is presented in Wikipedia in a biased manner, articles express the opinions of specific editors (N=206)

Twenty eight people agreed with the statement Using Wikipedia by pupils and students has a detrimental effect on them (23 people Rather agree, five people Strongly agree). One hundred twenty nine people disagreed with this statement (85 people Rather disagree, 44 people Strongly disagree). Forty-nine people marked answer Undecided (Fig. 10).

Using Wikipedia by pupils and students has a detrimental effect on them (N=206)

- Strongly disagree: 3%
- Rather disagree: 24%
- Undecided: 11%
- Rather agree: 21%
- Strongly agree: 41%

Figure 10 Using Wikipedia by pupils and students has a detrimental effect on them (N=206)

One hundred and one people agreed with the statement Because of Wikipedia there is more plagiarism in schools and at universities (66 people Rather agree, 35 people Strongly agree). Forty people disagreed with this statement (31 people Rather disagree, nine people Strongly disagree). Sixty-four people did not have a clear opinion (answers Undecided). One person did not answer the question (Fig. 11).

Because of Wikipedia there is more plagiarism in schools and at universities (N=203)

- Strongly disagree: 39%
- Rather disagree: 27%
- Undecided: 19%
- Rather agree: 8%
- Strongly agree: 6%

Figure 11 Because of Wikipedia there is more plagiarism in schools and at universities (N=203)
One hundred forty one people agreed with the statement *Young people can expand their horizons and gain new knowledge through Wikipedia* (109 people Rather agree, 32 people Strongly agree). Twenty-one people disagree with this statement (14 people Rather disagree, seven people Strongly disagree). Forty-four people marked answer Undecided (Fig. 12).

Forty eight people agreed with the statement *In Wikipedia you can find information not available in other sources* (37 people Rather agree, 11 Strongly agree). One hundred and one people disagreed with this statement (84 people Rather disagree, 17 people Strongly disagree). Forty-seven people marked answer Undecided (Fig. 13).

Nobody from 206 respondents had the Wikipedia’s reviewer status. Eleven people declared that they edited Wikipedia’s articles, but do not have Wikipedia’s reviewer status. One hundred ninety five people said they never edited Wikipedia. The vast majority of respondents (95%) are passive users of Wikipedia. Their contact with Wikipedia comes down to reading or viewing articles. Wikipedia serves as a medium for quick access to information. Those who actively co-create Wikipedia, changing the existing articles or creating new, are in the minority (only 5% of all respondents) (Fig.14).

Respondents were asked about whether they frequently use Wikipedia or rather traditional encyclopedias printed on paper. One hundred fifty eight people declared that they more often turn to the Wikipedia. Thirty-one people said they also frequently use Wikipedia as well as printed encyclopedia, and 17 people more often use printed, traditional encyclopedia (Fig.15).

Respondents considered encyclopedia PWN as the most reliable source of information (mean 8.91 on a scale from 1 to 10). The Wikipedia was the second most reliable source (mean 5.75), the radio (5.49) was third, press was fifth (5.18), and the least reliable was television (mean 4.50) (Fig. 16).

**IV. CONCLUSIONS**

The study confirms that Wikipedia is commonly used by students of the University of Gdansk. However, the group of regular users of Wikipedia is relatively narrow.
Generally, the majority of survey participants have a positive attitude to Wikipedia. On the other hand, survey participants considered encyclopedia PWN to be much more reliable than Wikipedia. Although the majority of respondents consider the PWN encyclopedia as more credible, most of them admitted that they more often make use of Wikipedia than the printed encyclopedia. Most likely this is because Wikipedia allows faster access to information and knowledge. Wikipedia is considered less reliable source of information from the PWN encyclopedia, but more reliable source than mass media: radio, press and television. This is interesting, because these media are created by professionals: journalists, operators, publishers, radio presenters and TV presenters, commentators etc. Furthermore, Polish mass media are supervised by National Broadcasting Council (Krajowa Rada Radiofonii i Telewizji), and therefore they are under the authority of the constitutional guardian of freedom of speech, the right to information and interest public broadcasting. In spite of the authority of experts and institutions, these media are considered less reliable than Wikipedia, encyclopedia created by Internet users. Why is this happening? It certainly requires further, more in-depth research and analysis. It should be clearly noted that Wikipedia is not simply a new source of information like television, radio or newspaper. The difference between Wikipedia and other media is fundamental. In Wikipedia there is no distinction between the creator of the information and the recipient of the information [8].

Respondents’ opinions about the Wikipedia seem to be not entirely clear. On the one hand, the majority of survey participants agreed that Wikipedia is valuable and necessary. On the other hand, most people agreed with the statement that encyclopedias should only be created by the experts. Almost all people use Wikipedia, but does not recognize it as a fully reliable source of knowledge. This begs the following question: if students believe that encyclopedias should be created only by the experts, why use an online encyclopedia created by Internet users? Perhaps the respondents did not perceive Wikipedia as an encyclopedia comparable to printed PWN encyclopedia, but rather as a specific source of knowledge, not completely reliable and secure, but still - despite this - useful knowledge.

Many Wikipedia’s users do not have specified opinion on Wikipedia. It is difficult for them to estimate how reliable is Wikipedia or whether information in Wikipedia is presented in a biased manner or not. Most of the surveyed people have no idea about whether the information in Wikipedia is regularly updated or not. One of the reasons why people do not have a clear opinion on Wikipedia is because Wikipedia is not only constantly changing but changing very quickly. The number of articles in Wikipedia constantly increases. The quality of the articles is generally improving.

The study confirms that Wikipedia can be seen as a part of Open Educational Resources. The majority of respondents actually perceive Wikipedia as a useful teaching aid for pupils and students. Young people do not fully trust Wikipedia, but they recognize the opportunities that it provides. Results of the study refute the claim that young people treat information from Wikipedia uncritically.

On the basis of these conclusions several further research questions can be put:

1. What determines the positive or negative attitude to Wikipedia (or other Open Educational Resources)?
2. What decides that some people edit articles on Wikipedia for free and some not?
3. What is the relationship between the quality of Wikipedia articles and the level of trust in Wikipedia?
4. How students use Wikipedia to learn?

Probably more and more people will trust Wikipedia as a result of increase in the quality of articles. It can be assumed that the gap between trust in printed encyclopedia and Wikipedia will decrease in next few years.

There should be more research on Wikipedia in the context of education. Whether we like it or not, Wikipedia is commonly used by young people. Therefore it is necessary to investigate what is the impact Wikipedia on students and on the process of education.

REFERENCES