

## Social media marketing tools among Polish public higher education institutions

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This paper analyzed deployment of the most significant social media marketing tools among public and Polish higher education institutions. This paper aims to define a level of implementation of these tools among subjects. The methodological approach was designed and prepared in line with the list of social media and public higher education institutions in Poland. Therefore, dissemination of each tool by institutions was analyzed to validate the findings. Research included various statistical data describing institution activity and their clients' responses. This was further comparatively analyzed to identify institutions with the highest level of social media marketing tools dissemination. The findings of this study present the current state of social media marketing in that area. Some of analyzed services are well spread, while others are just gaining popularity or aren't favored at all. Among the most important findings, the growing acclaim for visual content marketing services can be noticed. Still, for some part of researched population, social media marketing tools are not implemented in their communication process or there is a lack of cohesive strategy noted. The originality and the value of this research is that it includes all public higher education institutions in Poland and this is the first kind of research conducted in the country which analyzes within this sector according to social media marketing. Results can be used by these institutions to improve strategies and discover the potential of social media during communication with their consumers. Also private higher education institution and other schools can benefit from findings. This research furthermore will contribute to other countries with the findings that were illustrated in this research within a Polish education sector which may bring an improvement in their performance.

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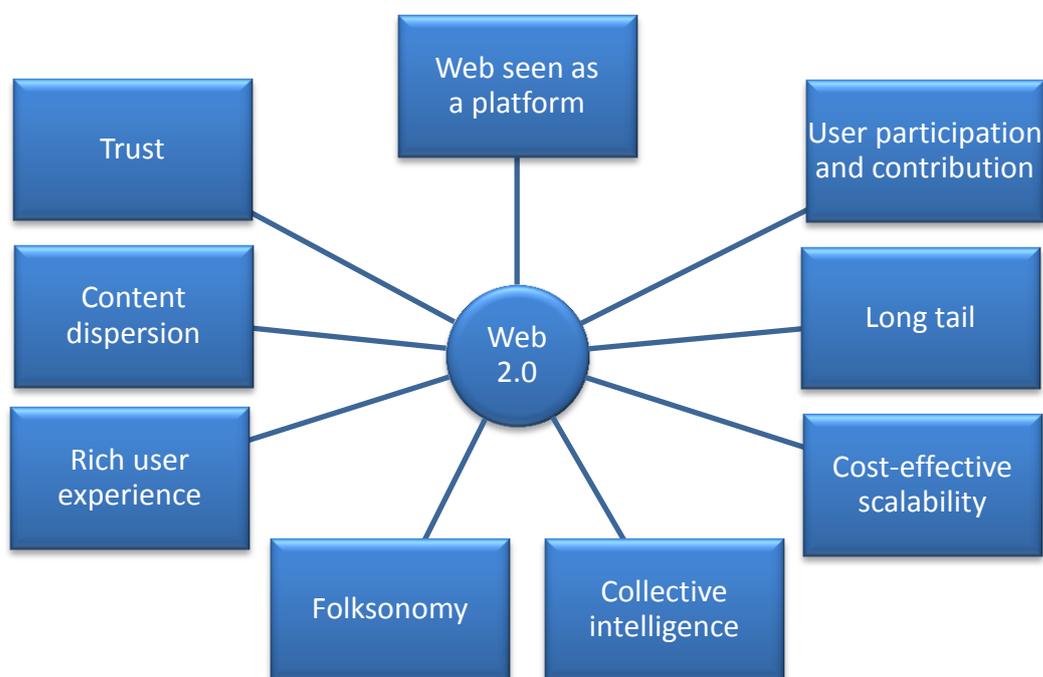
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**Abstract**

## INTRODUCTION

With dynamic dissemination of the internet and Web 2.0 tools, numerous business activities have been brought online. Since 1991, when commercial traffic in the cyberspace was allowed, marketing was one of the most important and natural internet's application for companies. Nowadays, internet marketing tools evolved significantly contribute to social media marketing. Traditional, static, passive website is no longer sufficient form of communication with company's clients. In the beginning of 21<sup>st</sup> century, Web 2.0 tools were popularized. The term emphasizes user-generated content, usability, and interoperability of these tools. From "read-only" content, Web 2.0 moved to the "read-write" model in which anyone can be both: receiver and author. This contributed to the beginning of so called social media marketing, which is present in almost every business sector; now it also enters public domain.

The term Web 2.0 was originally coined by Tim O'Reilly. It all began with a conference brainstorming session between O'Reilly and MediaLive International where Dale Dougherty, web pioneer and O'Reilly VP, noted that the internet was getting more and more influential as new applications and websites were popping up with astonishing regularity. O'Reilly, in his article from 2005, described the concept as a set of principles and practices that bind together a veritable solar system of websites that reveal selected (or every) of new principles, at a varying distance from that core (O'Reilly, 2005). These principles were presented at Figure 1.



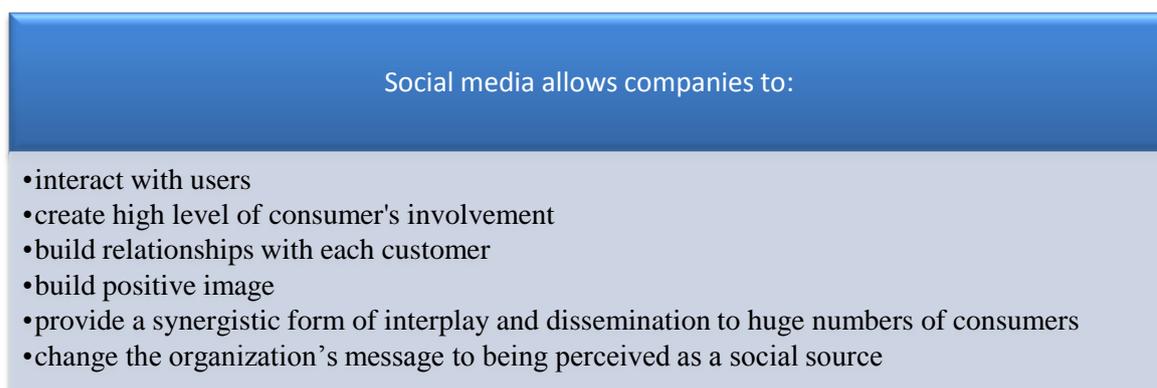
**Figure 1.** Web 2.0 main features

Further deployment of Web 2.0 services, especially social networking sites, blogs, content sharing communities or even virtual worlds contributed to the beginning of social media marketing. As social media recently has become almost ubiquitous, thanks to their reliability, stability and instantaneous features, which plays a key role in marketing strategies. Thus, social media marketing can be defined as marketing activities that occurs via social media (Nadaraja and Yazdanifard, 2013). In the opposite of passive, one way communication present on traditional websites, Web 2.0 services enable companies to engage customers more deeply, create stronger involvement and bond with the brand. This can be achieved by encouraging potential customers to form an emotional attachment to brand because once this connection has been established, possible clients are more likely to purchase products (Kasavana *et al.*, 2010). Social media allow companies to share information, ideas, opinions, and communicate online with their current and potential customers (Guillet *et al.*, 2015). It is also important that strategy and all activities based on social media, need to be harmonious and therefore, aligned with the different needs of social media users (Zhu and Chen, 2015).

Social media marketing strategies differ from these based on more traditional medias. Two-way communication allows customers to react instantly to published content. So, engagement, brands advocates, posts, likes, positive comments, shares may come along with criticism, hating, flaming, jeering and other negative feedback. That is why, social media marketing strategies should include not only abilities to create appealing, interesting, high quality content, but also dealing with negative comments in a proper way that will strengthen brand image.

As number of companies present in the social media grows increasingly, drawing customer's attention is getting more complicated. That is why content marketing has become an important feature of social media marketing strategy. The main aim of content marketing is to help create a brand audience who engages constantly with company's content and recommends brand to others via social networks (Leibtag, 2013). In other words, content marketing can be defined as a management process where a company recognize, analyze and gratify customer demand to gain profit with the use of digital content distributed through electronic channels (Rowley, 2008). Though, content marketing – to be successful – requires several features like: personalization, localization, emotions, diversification, co-creation, trust and honesty (Kee and Yazdanifard, 2015). In Web 2.0 era, consumers request for truthful, accurate and valuable information to support them in decision making process, thus the aim of content marketing is to share such information with target audience (Wong and Yazdanifard, 2015). Due to massive scale of internet marketing, it is also getting more and more common that customers decide to believe or reject information they receive online (Hipwell and Reeves, 2013).

The fact that social media play core role in nowadays organizations communication strategy has been outlined in various publications, i.e.: Holm (2006), Khang *et al.* (2012), Mangold and Faulds (2009), Weinberg and Pehlivan (2011) or Hanna *et al.* (2011). The reasons of such influence were presented at Figure 2.



*Source:* Own elaboration based on Booth (2011), Calder *et al.* (2009), De Vries *et al.* (2012), Kaplan and Haenlein (2010), Kietzmann *et al.* (2011).

**Figure 2.** Social media features for organizations.

This study raises a question, if public domains, for example, higher education intuitions, are interested in opportunities of social media marketing. This enabled in conducting this study to define range and methods of Web 2.0 tools deployment in higher education intuitions' internet marketing strategy. The findings will be presented and discussed further research problems.

In this study, the first section presents previous literature regarding social media and content marketing. The second section is dedicated to the role of the internet marketing in higher education institutions' marketing strategies. This is further followed by the construction and realization of the research through reviewing. The third section describes findings and the finally discussion leading towards the need for future analysis.

## **1. Previous work on social media and content marketing**

Social media marketing has grown rich in numerous publications. That fact seems to prove the importance of this field of study. Among papers about social marketing following reviews are illustrated. Zhu and Chen (2015) writes about social media and human need satisfaction influence on social media marketing. Yadav and Rahman (2015) analyze future research directions of social media marketing based on lengthy literature review. In Nadaraja and Yazdanifard (2013) advantages and disadvantages of this phenomenon have been explained and Rohm (2014) described a strategic approach to social media marketing. Selected aspects of social media marketing were presented in Todua and Jashi (2015) and Atwong (2015), while its key factors were described by Go-Eun Choi *et al.* (2015).

Works dedicated to social media marketing are also devoted to implementation of such strategies in particular industries. Among them following can be mentioned: airline industry

(Knoblich *et al.*, 2015), aviation industry (Sigurdsson *et al.*, 2016), healthcare (Koumpouros *et al.*, 2015), tourism industry (Park and Oh, 2015) (Khuong and Huong, 2016), hotel industry (Guillet *et al.*, 2015), politics (Ayankoya *et al.*, 2014), fashion (Ananda, 2015) or shopping (Boon-Long and Wongsurawat, 2015).

Content marketing which can be perceived as an important factor of social media marketing strategy is also a wide-concerned issue, present in numerous studies. Among papers conducted to overall subject following can be named. Wong and Yazdanifard (2015) present new trends, Azad and AliAkbar (2016) describe factors stimulating that phenomenon and du Plessis (2015) explains its essential elements. Factor of providing a successful content marketing strategy were described in Hickey (2015) and Springer (2015) wrote about employees' attitude towards it. B2B content marketing strategy was presented in Joel and Taiminen (2015) as well as in Holliman and Rowley (2014). Unconventional humour usage in digital content marketing was a subject in Oikarinen *et al.* (2015). Vollero and Palazzo were exploring the key dimensions of the construct and Leibtag (2013) concentrated on content marketing strategy and branding. In addition, a co-author of this paper has published research papers related to social media marketing, Web 2.0 services and content marketing, analyzing i.e.: Web 2.0 tools in B2C communication on energy market (Jabłońska, 2015).

## **2. Role of the internet marketing in higher education institutions marketing strategies**

Majority of contemporary students have never lived times without the Internet. In fact, a recent study by Chuck Martin (2012) shows that almost 95% of college students routinely access social media. Most of them accessed with mobile devices like smartphones or tablets. Over the last several years, research series has tracked the use of social media by college-bound high school students. Universities and colleges spend some time on appearing on the Internet and social media.

The share of prospective students who used social-media Web sites to learn about colleges they were considering has grown in the last years. Even so, a majority of the students surveyed said they had not used such sites in their college search. Forty-four percent of prospective students surveyed in 2012 said they had used social-media sites to inform their college search, up from 18 percent in 2008 [I]. That's according to a report based on the latest student poll from the Art & Science Group, a higher-education consulting firm. Of students who did use social media in their search process, only half said the sites had influenced their decisions of where to apply. Prospective students who did make social media part of their college search tended to use the sites to learn about a college's social scene and student body rather than its academics or reputation [I].

In the quest to find better and more creative ways of recruiting students and increasing retention of students, universities found the best resource any campus has - its employees.

Faculty members have a broad and lasting impact on the success of the organization and its brand in the market. Engaged employees of the university (Wankel, 2011):

- Understand the key role they play in the success of students;
- You can see that their day-to-day work is valued;
- Go out of their way to help individual students;
- Share the positive feedback from the community, and
- Feel loyal and connected not only with their division, but also to the institution as a whole.

Universities keep evaluating their employees, as it is one of the most effective ways to keep employees happy in the campus and maintain a high level of morale. It is similar to the advantages of assessing student experience, where you can learn the areas, as well as a strong challenge to build on. In addition, the appraisal campus, and then acting on the basis of the data obtained shows commitment to their satisfaction, which can further improve morale.

We can find examples of two marketing strategies amongst universities. Some delegate marketing decisions to their departments, especially when university is a large structure and they have many departments which are financially independent. Other universities unite departments under one and coherent marketing strategic, which is typical for smaller universities (Kaczmarek-Śliwińska, 2006). However; in both situation, special team is created which foremost goal is to promote university. This is typical for big enterprises but many universities followed commercial example and have their own marketing departments. Festivals, radio and TV commercials, open days and many more became more and more popular in last few years that it became obligatory to advertise universities.

In time, it has become not enough and in order to be one step ahead of the others, educational marketing reached Internet. Many examples of classic internet marketing become popular (banners, emails, SEO) as well as more risky techniques (virus marketing). In last two years, social media became a new way of spreading the news about educational offers of universities. Demand on team that will focus on presence of university in social media occurred.

Social media is increasingly touted as a crucial part of the marketing mix, but things can go terribly wrong if campaigns are poorly executed. If someone wants their company to engage in social media, they need to put together a team of outgoing, passionate people to act as the digital face of your company. Members of such team must be chosen carefully, as it will represent the whole company. They must work as a team, as a tight-knitted team which will always outperform superstars acting as individuals. Company must be willing to experiment in order to grow, but must also must make sure not to waste the resources on things that don't work (Evans, 2008), (Jacobson, 2009).

Social media can introduce the company to potential customers or clients who are high up the sales funnel, or it can drive sales by advertising offers. Shopping website ASOS uses its Twitter and Facebook pages to drive sales by picking out their favorite pieces of clothing

or by offering a percentage off if followers purchase selected products during a specific time [III]. Social media can also act as instant customer service, or it can be a place for your community of customers can discuss your products or services. Dell pushes the utility of Facebook Apps to the next level. On their Facebook page, people can rate Dell products, ask an expert their tech questions and just generally interact with the brand (Lipsman, 2012).

The most important thing is that the social media team should be passionate about social media and your company. They also need to be able to integrate completely with your current processes, so that the right department can address issues – whether positive or negative – immediately. A single person may well be able to fulfil more than one of the roles, and whether or not, all of these roles filled, will depend on your objectives and goals.

Many universities have marketing departments that manage their social media profile. Some go further engaging in viral marketing actions like making lip dub music clip with cooperation of their students. There are numerous marketing actions involving Internet or simply spread using Internet. Social media team should track trends in the Internet and act when some idea is spread quickly and can be adapted to influence image of university. At the same time, this team should observe competitors' actions in this field and try to stay ahead.

## METHODOLOGY

The research was conducted among Polish, public higher education institutions. Distribution of this population is presented in Table 1. Each public higher education institution was analyzed due to application of selected Web 2.0 tools. Only official profiles were taken into consideration.

Table 1. Distribution of researched population.

| Type of public higher education institution | N         |
|---------------------------------------------|-----------|
| University                                  | 18        |
| Technical university                        | 18        |
| Agricultural university                     | 6         |
| School of physical education                | 6         |
| Business school                             | 5         |
| Pedagogic school                            | 5         |
| Theological school                          | 1         |
| <b>Total</b>                                | <b>59</b> |

The main aim of this study was to define range and methods of Web 2.0 tools deployment in higher education intuitions' internet marketing strategy. To reach this aim, all public data about official profiles on every Web 2.0 service in contemplation were gathered and analyzed. Among these tools, following were taken into consideration:

- Facebook, Twitter, YouTube, Google+,
- Pinterest, Instagram, Flickr,
- Others not typical for higher education intuitions like internet radio, Goldenline or LinkedIn.

Facebook, Twitter and Google+ are commonly used for content marketing purposes. Thanks to vast number of young users, they can be considered as a proper communication tools. Yet, nowadays it seems that presence of numerous companies on these services and their dynamic campaigns, make potential customers resistant to such form of marketing. That is why, visual content marketing services are getting more and more popular, i.e.: YouTube, Pinterest, Instagram or Flickr. They are concentrating not on published text but mainly short videos and photos. Marked with so called ‘hashtags’ (words preceded with symbol #), they are more easily to find on the Internet, basing on a phenomenon called folksonomy (classification system based on hashtags – derived by users – and their frequencies). So, one of the auxiliary research aim was to define a level of text-based and visual content marketing tools deployment among Polish, public higher education institutions. The second one was a comparative analysis of their usage.

## **FINDINGS and DISSCUSSION**

The first analyzed tool was Facebook. With number of active users exceeding 1 669 million [III], that is probably one of the most popular social media service around the world. To improve analysis results, an online tool for social media analytics and monitoring was used [IV].

58 out of 59 institutions possess an official Facebook profile. 55 published at least one post within a month, two within 3 months and one institution hasn’t published anything for over three months. 51 institutions have placed an information about Facebook fan page on their official websites. Facebook profiles statistics were analyzed considering four parameters [IV]:

- Users’ engagement that shows an average amount of how often a fan interacts with the posts of a page and it is calculated by dividing the daily amount of likes, comments and shares by the number of fans;
- Page Performance Index (PPI) is a combination of user’s engagement and growth including the number of fans. PPI combines both figures to provide an estimate value for a pages success and is defined by calculating values between 0 and 100% for the engagement and growth. Then engagement and growth are multiplied, the square root is extracted;
- Number of fans;
- Total number of likes, comments and shares.

The following tables are presenting the top 10 Polish, public higher education institutions considering each of the above parameters.

**Table 2.** The best 10 Polish, public higher education institutions by the users' engagement level.

| Rank | Higher education institution                       | Page Performance Index | Number of fans | Engagement | Total Likes, Comments, Shares |
|------|----------------------------------------------------|------------------------|----------------|------------|-------------------------------|
| 1    | University of Wrocław                              | 57,0%                  | 19626          | 1,47%      | 7951                          |
| 2    | AGH University of Science and Technology (Kraków)  | 47,0%                  | 49788          | 1,0%       | 13621                         |
| 3    | SGGW / Warsaw University of Life Sciences          | 40,0%                  | 27497          | 0,73%      | 5490                          |
| 4    | Tadeusz Kościuszko Cracow University of Technology | 40,0%                  | 18847          | 0,73%      | 3786                          |
| 5    | Warsaw University of Technology                    | 33,0%                  | 23212          | 0,49%      | 3107                          |
| 6    | University of Warsaw                               | 33,0%                  | 42422          | 0,49%      | 5683                          |
| 7    | Jagiellonian University (Kraków)                   | 19,0%                  | 53528          | 0,45%      | 6655                          |
| 8    | Koszalin University of Technology                  | 30,0%                  | 4480           | 0,41%      | 505                           |
| 9    | Wrocław University of Technology                   | 29,0%                  | 14767          | 0,39%      | 1561                          |
| 10   | University of Warmia and Mazury (Olsztyn)          | 29,0%                  | 29153          | 0,38%      | 3018                          |

**Table 3.** The best 10 Polish, public higher education institutions by the Page Performance Index level.

| Rank | Higher education institution                                 | Page Performance Index | Number of fans | Engagement | Total Likes, Comments, Shares |
|------|--------------------------------------------------------------|------------------------|----------------|------------|-------------------------------|
| 1    | University of Wrocław                                        | 57,0%                  | 19626          | 1,47%      | 7951                          |
| 2    | AGH University of Science and Technology (Kraków)            | 47,0%                  | 49788          | 1,0%       | 13621                         |
| 3    | SGGW / Warsaw University of Life Sciences                    | 40,0%                  | 27497          | 0,73%      | 5490                          |
| 4    | Tadeusz Kościuszko Cracow University of Technology           | 40,0%                  | 18847          | 0,73%      | 3786                          |
| 5    | Warsaw University of Technology                              | 33,0%                  | 23212          | 0,49%      | 3107                          |
| 6    | University of Warsaw                                         | 33,0%                  | 42422          | 0,49%      | 5683                          |
| 7    | Koszalin University of Technology                            | 30,0%                  | 4480           | 0,41%      | 505                           |
| 8    | Wrocław University of Technology                             | 29,0%                  | 14767          | 0,39%      | 1561                          |
| 9    | University of Warmia and Mazury (Olsztyn)                    | 29,0%                  | 29153          | 0,38%      | 3018                          |
| 10   | The Jerzy Kukuczka Academy of Physical Education in Katowice | 29,0%                  | 3720           | 0,37%      | 380                           |

**Table 4.** The best 10 Polish public higher education institutions by the number of fans

| Rank | Higher education institution                       | Page Performance Index | Number of fans | Engagement | Total Likes, Comments, Shares |
|------|----------------------------------------------------|------------------------|----------------|------------|-------------------------------|
| 1    | Jagiellonian University (Kraków)                   | 19,0%                  | 53528          | 0,45%      | 6655                          |
| 2    | AGH University of Science and Technology (Kraków)  | 47,0%                  | 49788          | 1,0%       | 13621                         |
| 3    | University of Warsaw                               | 33,0%                  | 42422          | 0,49%      | 5683                          |
| 4    | Maria Curie-Skłodowska University (UMCS) in Lublin | 16,0%                  | 30579          | 0,11%      | 947                           |
| 5    | University of Warmia and Mazury (Olsztyn)          | 29,0%                  | 29153          | 0,38%      | 3018                          |
| 6    | SGGW / Warsaw University of Life Sciences          | 40,0%                  | 27497          | 0,73%      | 5490                          |
| 7    | Warsaw School of Economics (SGH)                   | 18,0%                  | 27177          | 0,31%      | 2379                          |
| 8    | Warsaw University of Technology                    | 33,0%                  | 23212          | 0,49%      | 3107                          |
| 9    | The Nicolaus Copernicus University in Toruń        | 24,0%                  | 22743          | 0,26%      | 1640                          |
| 10   | Wrocław University of Economics                    | 9,0%                   | 20051          | 0,13%      | 701                           |

**Table 5.** The best 10 Polish public higher education institutions by the total number of likes, comments and shares

| Rank | Higher education institution                       | Page Performance Index | Number of fans | Engagement | Total Likes, Comments, Shares |
|------|----------------------------------------------------|------------------------|----------------|------------|-------------------------------|
| 1    | AGH University of Science and Technology (Kraków)  | 47,0%                  | 49788          | 1,0%       | 13621                         |
| 2    | University of Wrocław                              | 57,0%                  | 19626          | 1,47%      | 7951                          |
| 3    | Jagiellonian University (Kraków)                   | 19,0%                  | 53528          | 0,45%      | 6655                          |
| 4    | University of Warsaw                               | 33,0%                  | 42422          | 0,49%      | 5683                          |
| 5    | SGGW - Warsaw University of Life Sciences          | 40,0%                  | 27497          | 0,73%      | 5490                          |
| 6    | Tadeusz Kościuszko Cracow University of Technology | 40,0%                  | 18847          | 0,73%      | 3786                          |
| 7    | Warsaw University of Technology                    | 33,0%                  | 23212          | 0,49%      | 3107                          |
| 8    | University of Warmia and Mazury (Olsztyn)          | 29,0%                  | 29153          | 0,38%      | 3018                          |
| 9    | Warsaw School of Economics (SGH)                   | 18,0%                  | 27177          | 0,31%      | 2379                          |
| 10   | Poznań University of Economics                     | 27,0%                  | 19190          | 0,32%      | 1693                          |

Five institutions were present in all tables: AGH University of Science and Technology (Kraków), SGGW / Warsaw University of Life Sciences, Warsaw University of Technology, University of Warsaw and University of Warmia and Mazury (Olsztyn). The results presents that Facebook is well disseminated among public higher institutions in Poland. Only one of analyzed subject do not use this service and the rest of them post marketing content regularly. The average parameters for all population amounts to:

- PPI 20,97%,
- Number of fans 13 535,
- Engagement 0,25%,
- Total comments, likes and shares 1 327,5.

Twitter is a microblogging platform, a social media network allowing users to publish short messages (up to 140 characters). All entries are available to both registered and unregistered users. Twitter was created in 2006 and now has more than 500 million users around the world, with more than 332 million being active [V]. Twitter has also mobile application which is available on Android, Apple and Microsoft phones. Twenty subjects didn't have official account on Twitter. Eleven higher education institutions out of 39 didn't link to their Twitter accounts from their websites. It is understandable in six cases where posts last where older than 6 months and can be considered as abandoned by subject. Detailed statistics on ten most active institutions, based on number of followers were presented in Table 6.

**Table 6.** The best 10 Polish public higher education institutions by number of followers

| Rank | Higher education institution                          | Followers | Tweets | Date of last tweet <sup>1</sup> | Registrati on date |
|------|-------------------------------------------------------|-----------|--------|---------------------------------|--------------------|
| 1    | Wrocław University of Technology                      | 3709      | 9890   | 2016-01-19                      | February 2012      |
| 2    | University of Silesia in Katowice                     | 2319      | 4806   | 2016-01-19                      | April 2010         |
| 3    | AGH University of Science and Technology              | 2305      | 1088   | 2016-01-18                      | February 2012      |
| 4    | Jagiellonian University in Kraków                     | 2102      | 914    | 2016-01-15                      | December 2013      |
| 5    | Wrocław University of Environmental and Life Sciences | 1994      | 9382   | 2016-01-19                      | May 2010           |
| 6    | University of Lodz                                    | 1904      | 3482   | 2016-01-15                      | July 2009          |
| 7    | Warsaw University of Technology                       | 1547      | 1157   | 2016-01-15                      | August 2013        |
| 8    | SGGW - Warsaw University of Life Sciences             | 1457      | 2007   | 2016-01-19                      | October 2010       |
| 9    | Lodz University of Technology                         | 1339      | 1344   | 2016-01-15                      | April 2011         |
| 10   | Nicolaus Copernicus University in Toruń               | 1336      | 324    | 2016-01-13                      | December 2009      |

<sup>1</sup> Measured on 2016-01-20

However, my opinion, the activity on Twitter can be measured not only by number of followers. Next table shows top ten subjects by Retweet Rank percentile [VI]. Percentile score indicates how do subject score relative to other Twitter users. It ranges from 0 to 100. Top ten subjects are listed in Table 7.

**Table 7.** The best 10 Polish public higher education institutions by Retweet Rank percentile

| Higher education institution                | Retweet Rank percentile |
|---------------------------------------------|-------------------------|
| Pedagogical University of Cracow            | 99,89                   |
| University of Silesia in Katowice           | 99,78                   |
| Cracow University of Economics              | 98,51                   |
| Gdańsk University of Technology             | 98,51                   |
| University of Physical Education in Wrocław | 98,49                   |
| Cardinal Wyszyński University in Warsaw     | 98,49                   |
| University of Lodz                          | 98,47                   |
| Poznań University of Economics and Business | 98,46                   |
| Lodz University of Technology               | 98,43                   |
| Kazimierz Wielki University                 | 97,98                   |

Twitter analysis so far presented doesn't show how well subject perform in time. As Table 6 shows there big difference in how long subjects profiles exist. That is way authors decided to present another statistic mean count of tweets per month. Top ten subjects are listed in Table 8.

**Table 8.** The best 10 Polish, public higher education institutions by mean count of tweets per month.

| Higher education institution                          | Mean count of tweets per month |
|-------------------------------------------------------|--------------------------------|
| Wrocław University of Technology                      | 207,77                         |
| Wrocław University of Environmental and Life Sciences | 136,76                         |
| University of Silesia in Katowice                     | 69,05                          |
| Maria Curie-Skłodowska University in Lublin           | 55,13                          |
| University of Lodz                                    | 44,38                          |
| University of Rzeszow                                 | 42,25                          |
| Warsaw University of Technology                       | 39,26                          |
| Jagiellonian University in Kraków                     | 35,89                          |
| Warsaw School of Economics                            | 31,84                          |
| SGGW - Warsaw University of Life Sciences             | 31,56                          |

Two subjects, University of Silesia in Katowice and University of Lodz, are in top ten places in all presented statistics. Based on these three analyses, we can tell that they are not only active on Twitter but also they are effective with their tweets. The average values for all population were:

- 1230 tweets,
- 851 followers,
- 28 tweets per month,
- June 2012 when user was created.

YouTube is a video-sharing platform, one of the visual content marketing tools. Institutions may publish videos and users may like, share or comment them. Only four subjects out of 59 haven't implemented this tool into their marketing strategy, and the rest have possessed official profiles. 42 higher education institutions have placed an information about YouTube channel on their official websites. Detailed results about ten most popular (by number of subscribers and video views) channels were presented in Tables 9 and 10.

**Table 9.** Ten most popular YouTube users among analyzed subjects (by number of subscribers)

| Higher education institution                          | Uploads | Subscribers | Video Views | User Created |
|-------------------------------------------------------|---------|-------------|-------------|--------------|
| Wrocław University of Technology                      | 239     | 7781        | 2037398     | 2008         |
| University of Silesia (Katowice)                      | 255     | 4686        | 1761457     | 2010         |
| AGH University of Science and Technology (Krakow)     | 121     | 1112        | 527499      | 2009         |
| Jagiellonian University (Krakow)                      | 377     | 1064        | 430780      | 2010         |
| University of Warmia and Mazury (Olsztyn)             | 705     | 1003        | 1176131     | 2009         |
| University of Warsaw                                  | 103     | 854         | 205847      | 2011         |
| Gdańsk University of Technology                       | 141     | 559         | 113157      | 2009         |
| Poznań University of Economics                        | 65      | 504         | 270985      | 2008         |
| Wroclaw University of Environmental and Life Sciences | 104     | 425         | 276110      | 2009         |
| Lublin University of Technology                       | 60      | 401         | 245780      | 2013         |

**Table 10.** Ten most popular YouTube users among analyzed subjects (by number of video views).

| Higher education institution                          | Uploads | Subscribers | Video Views | User Created |
|-------------------------------------------------------|---------|-------------|-------------|--------------|
| Wrocław University of Technology                      | 239     | 7781        | 2037398     | 2008         |
| University of Silesia (Katowice)                      | 255     | 4686        | 1761457     | 2010         |
| University of Warmia and Mazury (Olsztyn)             | 705     | 1003        | 1176131     | 2009         |
| AGH University of Science and Technology (Krakow)     | 121     | 1112        | 527499      | 2009         |
| Jagiellonian University (Krakow)                      | 377     | 1064        | 430780      | 2010         |
| Katowice University of Economics                      | 78      | 253         | 379282      | 2010         |
| University of Wrocław                                 | 20      | 82          | 296265      | 2013         |
| Wrocław University of Environmental and Life Sciences | 104     | 425         | 276110      | 2009         |
| Poznań University of Economics                        | 65      | 504         | 270985      | 2008         |
| Lublin University of Technology                       | 60      | 401         | 245780      | 2013         |

The average values for all population were:

- 95,7 uploads,
- 453,68 subscribers,
- 1 941 21,84 video views,
- 2011 year when user was created.

The majority of subjects present in table 9 are also present in table 10. Wrocław University of Technology and University of Silesia (Katowice) seems to be the top leaders in deployment of this tool. YouTube seems to be well disseminated as a visual content marketing tool among public higher education institutions in Poland. Yet, not every subject publishes high-quality material, as the number of uploads and subscribers and video views are not correlated.

Pinterest is a social network where users can upload photos and videos, known as pins, arrange them into collections - pinboards with descriptions. Pinterest acts as a personalized media platform. Only 6 out of all subjects created account on Pinterest. Half of those six placed link to their Pinterest profile on their website. All of six subjects showed activity with recent pins posted between one to three months ago. Subjects treat this social media as additional, online gallery. That is way frequency of adding new pins is based on need of adding a gallery to the information published on website or other social media tools.

Instagram is a clear example of visual content marketing tool. It relies on short videos and photos with hashtags assigned. With growing popularity of this tool, it may shortly become important to enlist it into social media marketing strategies among higher education institutions. This service was used by 27 out of 59 analyzed subjects and 18 out of 27 subjects

had an information about Instagram profile on their official website. Amongst institutions with official Instagram's profiles 5 were from Warsaw, 4 from Wrocław, 3 from Kraków and Katowice, 2 from Łódź and Rzeszów and the others from Torun, Zielona Gora, Gdańsk, Koszalin, Lublin, Opole, Poznan and Słupsk. The ten most popular (considering number of followers) institutions statistics were presented in Table 11.

**Table 11.** Ten most popular Instagram users among analyzed subjects (by number of video views).

| Higher education institution                      | Followers      | Following    | Pictures Uploaded |
|---------------------------------------------------|----------------|--------------|-------------------|
| AGH University of Science and Technology (Krakow) | 3830           | 169          | 322               |
| Jagiellonian University (Kraków)                  | 3764           | 80           | 215               |
| Wrocław University of Technology                  | 3474           | 73           | 322               |
| University of Warsaw                              | 1979           | 14           | 53                |
| University of Wrocław                             | 1828           | 67           | 316               |
| Warsaw University of Technology                   | 1776           | 82           | 206               |
| University of Silesia (Katowice)                  | 1599           | 102          | 192               |
| Poznań University of Economics                    | 1367           | 19           | 393               |
| SGGW / Warsaw University of Life Sciences         | 1081           | 54           | 266               |
| Gdańsk University of Technology                   | 1032           | 79           | 65                |
| Total survey average                              | <b>1 030,5</b> | <b>49,23</b> | <b>135,77</b>     |

As presented in the above table, not every of the most popular institutions has number of uploaded pictures exceeding the total average and the number of followers doesn't grow due to total pictures number. This highlight a vital fact that visual content should be high-quality and appealing to create consumer's attention and interaction.

Google+ is a Google's social network. It is an interest-based service allowing to post different type of media, group friends into Circles and upload photos to albums based in cloud. Google+ growth is difficult to measure since Google first defined it as a social network, later claimed it is "a social layer across all of Google's services" (Bosker, 2012), allowing to share a user's identity and interests. On September 19<sup>th</sup> 2012 number of Google+ active users reached 400 million [VII]. By the end of 2013, almost 540 million monthly active users used social functionalities of Google+ like Gmail, +1 button or YouTube comments. However, user's engagement was low. In 2013 Nielsen Media Research published results of their survey, which showed that average time user spent on using Google+ was 6 minutes 47 seconds, whereas users on Facebook spent 6 hours and 44 minutes (Wasserman, 2013). This data referred to time spend directly on plus.google.com and did not refer to other domains like YouTube, Gmail or other which Google may factor in. These popularity problems also refer to usage Google+ by subjects of authors' study. All of subjects had Google+ profile, but 18 out of 59 where simply automatically generated profiles or unofficial profiles. Nine subjects

had latest posts older than 6 months, where most of them were information imported from connected YouTube account. Fifteen subjects regularly posted on their profiles.

Flickr is a social media for uploading images and videos. This service became popular thanks to implementation of innovative solutions, like cloud tag and folksonomy, which encouraged a new online community to arise (Sterling, 2007), (Cox, 2008). Also Flickr introduced new methods of photo cataloguing and searching. Photos and videos can be viewed without need to register account. User needs a register account to upload media and to create his own feed. Although Flickr is one of oldest websites, launched in 2004, it is not quite popular service among subjects. Only five out of 59 subjects had an official account and only University of Opole uploaded media regularly.

Although subjects invested time and work in using social media tools, some of them did not promote them on their websites. Table 12 shows summary of social media use with information if the tools were mentioned on the subjects' website.

**Table 12.** Overview of use of social media among subjects

| <b>Social media</b> | <b>Number of subjects with account</b> | <b>Number of subjects promoting account on website</b> |
|---------------------|----------------------------------------|--------------------------------------------------------|
| Facebook            | 58                                     | 51                                                     |
| YouTube             | 55                                     | 42                                                     |
| Instagram           | 27                                     | 18                                                     |
| Pinterest           | 6                                      | 3                                                      |
| Twitter             | 39                                     | 28                                                     |
| Google+             | 50                                     | 14                                                     |
| Flickr              | 5                                      | 2                                                      |

## CONCLUSION

The conducted study involved all public higher education institutions in Poland, so it presents a current state of social media marketing tools dissemination in that area. Some of analyzed services are well spread (Facebook, Instagram, YouTube), while others (Twitter, Flickr, Pinterest) are just gaining popularity or aren't favored at all. Results seems to provide a statement that possessing a fan page on Facebook becomes a kind of informal standard in social media marketing strategies. Among the most important findings, the growing acclaim for visual content marketing services can be noticed. Still, for some part of researched population, social media marketing tools are not implemented in their communication process or there is lack of cohesive strategy noted.

Among the issues that can be asked after conducting of the study is the influence that this intrusion of social media tools into marketing strategies has onto current and future students or other business partners. What is more, the quality and customer-interaction level of published content could be evaluated. To gain full view of Polish higher education market

also private institutions could be taken into considerations. These three concerns will be subjects for future analysis.

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