



SOCIAL MEDIA RESEARCH AS A METHOD OF ANALYSIS MBA STUDENTS' ECONOMIC BEHAVIOR AND DEMANDS

Based on the research of the Chinese and Hong Kong MBA programs and their customers in the international social networks.

¹VasilyKashkin, ²SiarheiHrytsuk

¹PhD, Managing partner of “NMS” marketing agency

²Research analyst of “NMS” marketing agency

Recommended citation: VasilyKashkin, SiarheiHrytsuk, 2017. Social media research as a method of students' economic behavior and demands

ABSTRACT

Online social networks represent at the time vast amount of data about students demands, opinions, economic behavior, social relations, geographical locations. This data is tremendously valuable for universities, schools and other educational organizations.

The question is how to structure all these amounts of data and make it useful for educational organizations. The methodology of social media mining and research is quite an emerging domain. Although the number of books and articles are already dedicated to this matter, the methods of this research are still not completely formed. Both the concepts, methods and practical tools of research are arguable.

In this article we represent our approach to online social media research in order to retrieve valuable results for educational organizations. We discuss here, which methods of research and which software are most suitable for social media research in the field of education.

Keywords: social networks research, social media mining, MBA in China, education marketing, economic behavioral research, online research, analysis of students demands.

Biographical notes

VasilyKashkin is the managing partner of “NMS”export marketingagency, working in Shenzhen, China. He is the author of over 100 articles about economy and marketing, he speaks English, German, Russian and Chinese languages.

Vasily has been working as the senior research analyst of Science Institute for Macroeconomic Research under the Ministry of Economy of Russia, as the head of Banking credit ratings department in the “Expert RA” credit rating agency.

He received his doctorate in Moscow State Management University. His key interests are international marketing, global economy, behavioral economy.

SiarheiHrytsuk isthe research analyst of “NMS” marketing agency.The agency specializes on international export marketing of high-tech, IT, educational and engineering services.He is in charge of marketing research, strategy, brand reputation management, social media marketing. Previously he has been working as the research analyst in the Central Bank of Belarus.

He received his master degree in Belarus State University, in Minsk. His interests include strategic management, performance management, innovations and economic growth, macroeconomics.

Introduction

In this article we present the research outcomes of Chinese universities competitiveness on the global educational market. We analyze their competitiveness at attracting foreign students, their perception and reputation from the standpoint of foreign students.

In this research we accentuate just one type of educational programs – MBA programs of Chinese universities and business schools.

The understanding of Chinese MBA perception in social networks, the reputation of the universities and business schools, location, behavior and preferences of the (potential) customers are crucial for creation a marketing strategy and promotion plans in this industry. Additionally, by means of this research we give a demonstration of application social network research tools for marketing research.

Research questions and objectives

The research objectives and questions are the following:

- 1) To figure out, which social media research methods are suitable for educational industry;
- 2) To figure out, what kind of social networks data is valuable for educational organizations;
- 3) To compare the research software, which are at present available for social media mining;
- 4) Work out the proposals for universities, how to introduce social media research results into their marketing strategy.

Research method and literature review

Social networks analysis was a developed theory long before online social networks emerged (Wasserman, Stanley and Katherine Faust, 1994, "Social Network Analysis"; Lorrain, Francois and Harrison C. White, 1971. "Structural Equivalence of Individuals in Social Networks").

Since the emergence of online social media the analysis of social networks develops mainly in the direction of online social data mining. A number of books and researches dedicated to it appeared recently: Matthew Russel, 2011, "Mining the social web"; Reza Zafarani, Mohammad Ali Abbasi, Huan Liu, 2014, "Social media mining"; MaksimTsvetovat and Alexander Kouznetsov, 2011, "Social Network Analysis for Start-ups" and others.

The new evidence is the vast amount of available data. Another novelty is the possibility to analyze the behavior of masses in real-time. In this regard social media analysis requires the methods of online data retrieval and analysis. The books and researches about general data analysis provide tools and methods for social networks mining and analysis too. For instance:Matthew North, 2013, "Data Mining for the Masses".

The method of sociological content analysis became the second birth in the age of big data. Content analysis is very suitable for processing massive amounts of written text.For instance:Ertek, G., Tapucu, D., and Arın, I., 2013, "Text Mining with RapidMiner";Wang, Weize, 2011, "A Content Analysis of Reliability in Advertising Content Analysis Studies."

Alongside with content analysis the social linguistic methods are applied too. In the age of big data they converted into computational linguistics, mathematical linguistics and natural language processing. The following books and researches are dedicated to this: Jie Tang, Juanzi Li, 2015. "Semantic mining of social networks"; J. Pustejovsky, A. Stubbs, 2013. "Natural language annotation for machine learning"; D. Jurafsky, J. Martin, 2008, "Speech and Language processing".

Concerning the specific object of our research, we can mention the following articles: Mason, Winter and Duncan J. Watts, 2012. Collaborative learning in networks. Proceedings of the National Academy of Sciences; Kent, M. (2016). Adding to the mix: Students use of Facebook groups and blackboard discussion forums in higher education. Knowledge Management & E-Learning; Allen, M. (2012). An education in Facebook. Digital Culture and Education; Bateman, D., & Willems, J. (2012). Facing off: Facebook and higher education. In L. A. Wankel & C. Wankel (Eds.); and other articles, mentioned in the list of references.

Research tools

As database for our research we applied data available in the online social networks, first of all in **Facebook, Twitter, LinkedIn, Google+**.

For the purposes of the research we applied different social media mining & research software and applications. In particular: **Brand24, Socialbakers, Unionmetrics, Trackur, Google Trends, Google AdWords** noitnemlaicoS ,stodlellaraP ,omuszzuB . All these web research and analytics services provide both similar and unique options. We point it out further in this article, too.

So, with the help of **Paralleldots** and **Socialmention** we can estimate the emotional perception of Chinese MBA programs in social networks. **Trackur** allows to estimate the sentiment (tonality) of the last MBA program's mentions and figure out the forums and internet domains where they have been discussed. **Google services** are supportive at estimation of queries' frequencies. They help to point out the competitive queries and to understand their geographical origination.

Brand24, Socialbakers, Unionmetrics and **Buzzsumo** allow to conduct detailed analysis by type and frequency of content's spread in the social networks. They allow to figure out the means and ways of information's distribution, amount and geography of potential customers.

These software help at finding out the most cited and reposted authors and storytellers in the focused area.

Overview MBA programs and number of foreign students in China

Within the period 2009 - 2015 the number of foreign students studying in Chinese universities has increased by nearly 67% – from 238184 to 397635 (in accordance to the Institute of International Education, IIE Inc., www.iie.org)

On March 2017 the Ministry of Education of China announced a total of 442773 international students were studying in China in 2016.

Although the share of foreign students in the total number of students is relatively moderate – just 0.8% in 2014 (Project Atlas China, IIE Inc.) – it is still a huge amount, taking into consideration the total number of students. UNESCO data and the research of QS Intelligence Unit (QSIU “Focus on China” <http://www.iu.qs.com/>) confirm that China belongs to the top 10 most popular destinations for education among foreign students all over the world.

In 2013-2014 the faculties of **business and management** were the second most popular destination among foreign students (about 14% of all students, IIE Inc.). In accordance to Chinaeducenter.com 236 MBA programs are now available in China.

Analysis of Chinese MBA programs’ online reputation

First of all we take into consideration the reputation and popularity of Chinese MBA programs.

The results of the analysis conducted by means of [Brand24](#), [ParallelDots](#) and [Socialmention](#) indicate, that the general emotional background of Chinese MBA education mentions in the social networks is positive.

We took into consideration such queries as “MBA programs in China”, “business education in China”, “MBA for foreigners in China”, “quality of Chinese MBA programs for foreigners”, “international students about Chinese MBA”, “reputation of Chinese MBA programs”.

In accordance to **Google Trends** the shown interest level to Chinese MBA education (“MBA in China” query) during the last 9 months (Jun.16 – Feb.17) is intermediate and pre-intermediate (Tab. 1, Graph 1).

In accordance to Google AdWords the monthly average number of queries “MBA in China” roughly coincides with the monthly average number of queries “MBA Germany” and “MBA Dubai” (other most popular MBA destinations). But the “level of competition” of “MBA China” query is lower compared to these two queries. It means, that Chinese MBA schools are comparatively less active at advertising and promotion of their educational programs (Tab. 2)

Reference

the “level of competition” in Google AdWords indicates the number of advertisers, using each key word of the query in order to enter the top-results of shown search results. This indicator allows to estimate the level of competitiveness and expected costs of advertising in accordance to the selected key words. In this way it helps to optimize the promotion in the search engine.

Tab 1 – Average monthly score of queries mba in China in June 2016 – February 2017*

Jun.16	Jul.16	Aug.16	Sep.16	Oct.16	Nov.16	Dec.16	Jan.17	Feb.17
48.75	47	42	49.75	51.4	41.25	42.5	50.8	45

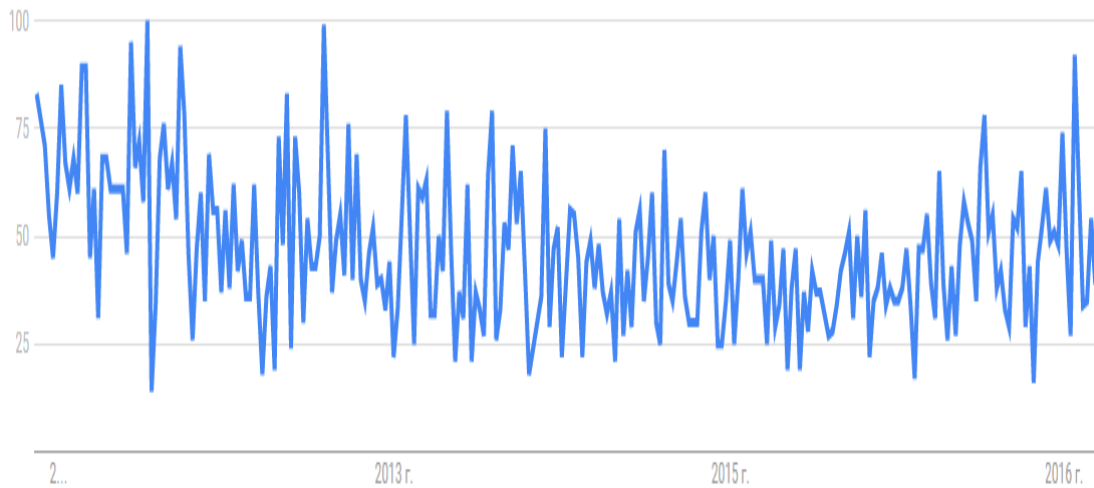
Source – authors estimation based on [Google Trends](#)

* the numbers indicate the level of interest to the topic. 100 means highest popularity of the query, 50 – intermediate, 0 means the popularity is not higher than 1% of the first (highest) level.

Tab 2 – Average number of requests per month and levels of competition

	MBA China	MBA USA	MBA Germany	MBA Dubai
Avg. Monthly Searches	100 – 1K	100 – 10K	100 – 1K	100 – 1K
Level of competition	middle	high	high	high

Source: [Google AdWords](#)



Graph 1– Dynamics of queries [mba in China](#) in March 2012 – February 2017, data on 2017-03-09

Source – GoogleTrends

In accordance to the last Global MBA Ranking of Financial Times, 2017, the number of Chinese MBA universities and business schools decreased compared to the previous ranking of 2016. In 2016 7 Chinese MBA business schools were ranked – Ceibs, HKUST Business School, CUHK Business School, Shanghai Jiao Tong University: Antai (SJTU), University of Hong Kong (UHK), Renmin University of China School of Business (RUCSB), Fudan University School of Management, (FUSM). And in 2017 just 5 first of the mentioned ones. CEIBS and HKUST belong to TOP-15, and CUHK, SJTU and UHK belong to TOP-40 of the best MBA business schools.

We can't yet assert the complete causal relationship, but the given data shows, that Chinese MBA are not as active at Internet advertising and promotion as their competitors – and alongside they lose their positions in the global MBA Ranking. The correlation supposed to be high, because Internet today is a major source of information, especially about complicated intellectual services, such as MBA education.

At least, it is an evidence for Chinese universities to pay more attention to search engine promotion and conduct more detailed researches of their competitiveness in the Web.

Comparative popularity of Chinese MBA programs in the Web

For this research we focus on most popular Chinese and Hong Kong MBA programs, in accordance to the Global MBA Ranking of Financial Times. These are CEIBS (ChinaEuropeInternationalBusinessSchool), HKUST

(HongKongUniversityofScience&Technology) andCHUK (ChineseUniversityofHongKong) (Tab. 3).

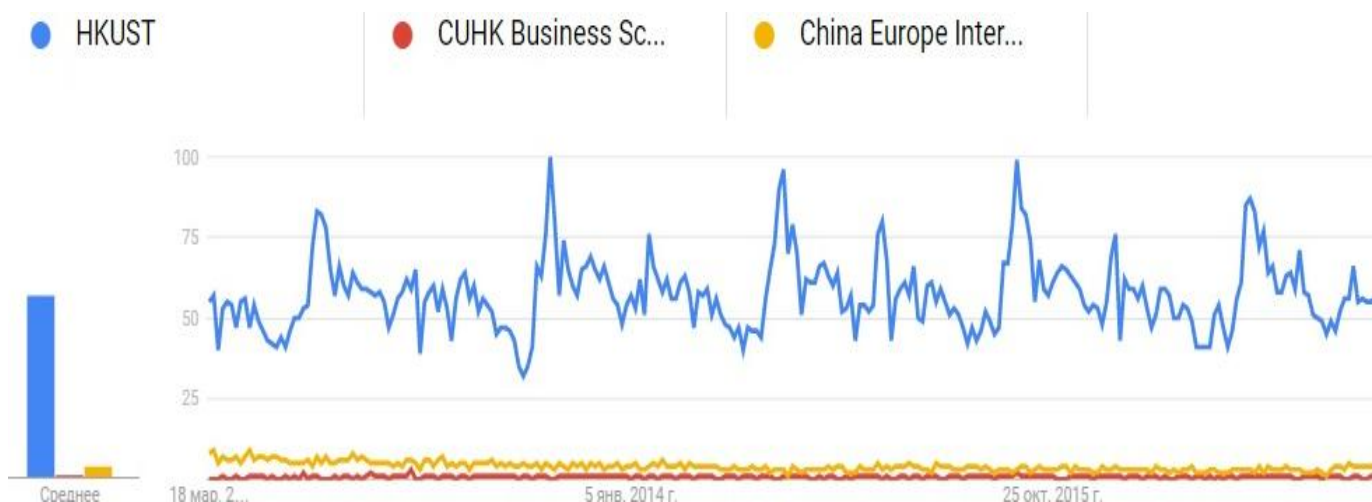
Tab 3 – Leading Chinese and Hong Konguniversities providing MBA education for foreigners

№	University	City	Teaching foreign students
1	China Europe International Business School (CEIBS)	Shanghai, Beijing, Shenzhen	YES, YES
2	Hong Kong University of Science & Technology (HKUST)	Hong Kong	YES, YES
3	The Chinese University of Hong Kong, CUHK Business School	HongKong	YES

Source: author’s elaboration based on Global MBA Ranking 2017 and official websites of Chinese universities

Most popular queries among Chinese MBAs concern HongKongUniversityofScience&Technology (HKUST), meanwhile the number of queries aboutthe other Chinese MBAs are insignificant compared to HKUST.

From the beginning of 2017 to 12. March 2017 the average index of the HKUST query’s popularity was **52.8** points. Meanwhile the query “China Europe International Business School” (CEIBS) made out just**3.5** points; query “CUHK” Business School – **0.4** points.



Graph 2 – Dynamic of Google search queries popularity for some Chinese business schools in March 2012 – February 2017

Source: [GoogleTrends](#)

The key factor of brand's popularity is the total number, how often it is mentioned in the Web. It is especially important for marketing and promotion, because the customers usually prefer the well-known and acknowledged brands. And on opposite avoid new unknown products and companies.

Trackur and **Brand24** social media research software allow to evaluate this index and make a comparative analysis. These software help to evaluate the tonality (sentiment) of the last mentions about the considered universities (sentiment grades: negative, neutral and positive). This sentiment analysis is based on the technologies of natural language processing (J. Pustejovsky, A. Stubbs, 2013. "Natural language annotation for machine learning", D. Jurafsky, J. Martin, 2008 "Speech and Language processing").

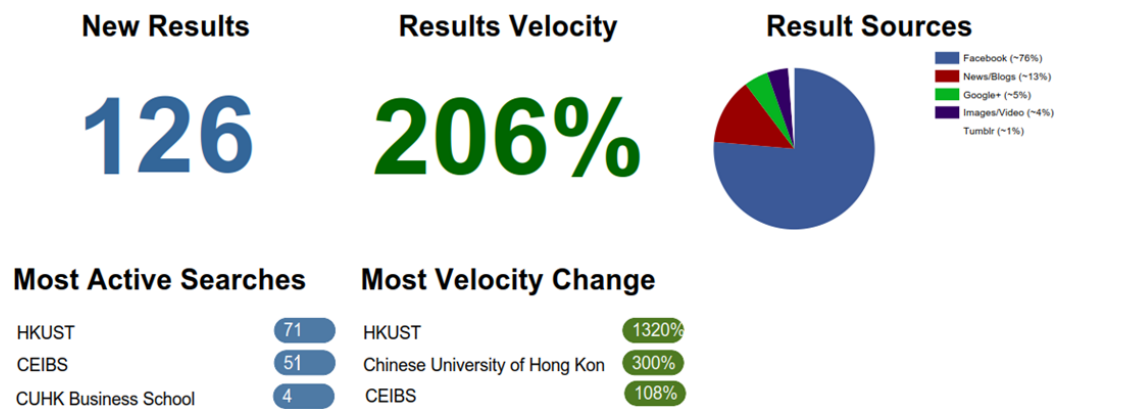
The analysis of the sentiments is very important too. The number of mentions let us know, how often the name of the company is mentioned in the space of Web. The sentiment let us know, which sense these mentions make: positive, negative or neutral. In contrast with the separate comments and statements, which can be perceived as subjective, the general emotional tonality is perceived as objective brand reputation.

Incidentally, it makes this methodology of social network analysis quite similar to NPS, "net promoter score" methodology. NPS is a well-known marketing index, often applied to estimate customer's loyalty. In our case, social media mining allows to estimate the general loyalty to the company in the Web, not only the loyalty of existing customers. Besides the social media research is much less expensive and time-intensive, because it is automated and conducted by means of special software. In case of NPS you need to convince first the real customers to fill questionnaires. Sometimes it requires time, personal contact, gifts to customers, and other extra expenses. (Online or e-mail questionnaires are an option too, but the response in this case is very low, usually 1-3%, so it suits only if customers' contact list is long enough).

For the period between 10-02-2017 and 10-03-2017 [Trackur](#) has noted 71 mentions of HKUST, 51 mentions of CEIBS and 4 mentions of CUHK MBA *Graph 3,4*).

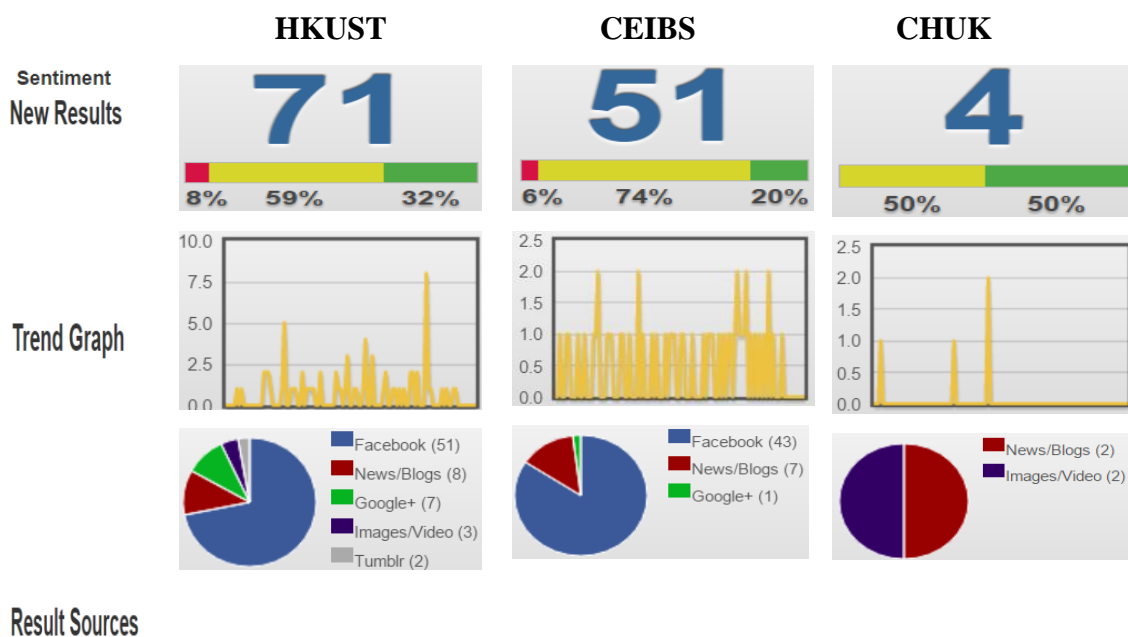
In accordance to Trackur 32% of HKUST mentions were positive (23 mentions total), although in case of CEIBS this index made up just 20% (≈ 10 mentions). HKUST gathered 42 neutral

mentions (59%), CEIBS had 38 (74%). The number of negative mentions was 6 (8%) and 3 (6%) for these two universities respectively. The number of CHUK mentions in the social networks (at least in English) is not sufficient for a statistical picture of its reputation in the social networks.



Graph 3- Discussions and mentions of some Chinese universities in February-March 2017

Source: [Trackur](#), social networks, data results 2017-03-16



Graph 4 – Number of mentions and their sentiment in February-March 2017

Source: [Trackur](#), social networks, data results – 2017-03-16

The results we received from Brand 24 are a bit different compared to [Trackur](#).

Both [Trackur](#) and [Brand24](#) point out the main number of mentions in March 2017 belongs to HKUST. But in accordance to [Brand24](#), CUHK has more mentions than CEIBS.

The sentiment of all mentions (about all 3 universities), in accordance to [Brand24](#), is foremost positive (*Tab. 4*).

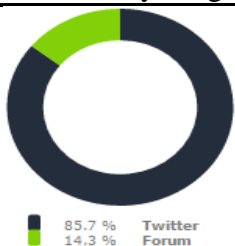
A few exception makes HKUST, with 7 negative mentions in Twitter, written by the authors **Robb_Jobbs** and **stevedbkh**. For instance, they are indignant with condition of universities gym hall (*Tab. 5*).

Tab 4 – Summary of the number, location and sentiment of mentions about 3 Chinese universities in March 2017

	HKUST	CUHK	CEIBS
Mentions	Mentions: 811 Total Positive: 32 Negative: 7	Mentions: 372 Total Positive: 3 Negative: 0	Mentions: 309 Total Positive: 18 Negative: 1
Sources			
Sentiment			

Source – author’s elaboration based on [Brand24](#), data results – 2017-03-31

Mentions by category



Influence of social media authors

	Rob_Jobbs		81.538% Voice share	14 Influence
	stevedbkh		11.648% Voice share	2 Influence

Tab 5 – Information about the category, authors and source of potentially negative mentions about HKUST in March 2017



Source – author’s elaboration based on Brand24,
Data results: 2017-03-31

Analysis of discussions and mentions about MBA universities in the social networks

For deeper understanding of universities’ positions and perception we need to find out:

- which social networks are most commonly used to discuss Chinese universities and their MBA programs;
- how the information is spreading in social networks, what kind of information is most popular;
- who are the authors, most influential in this area, how they influence the common opinion about Chinese universities and MBA programs;

To answer the first question we can use [BuzzSumo](#) software, which is scanning social networks concerning *sharings* of posts and mentions about MBA universities.

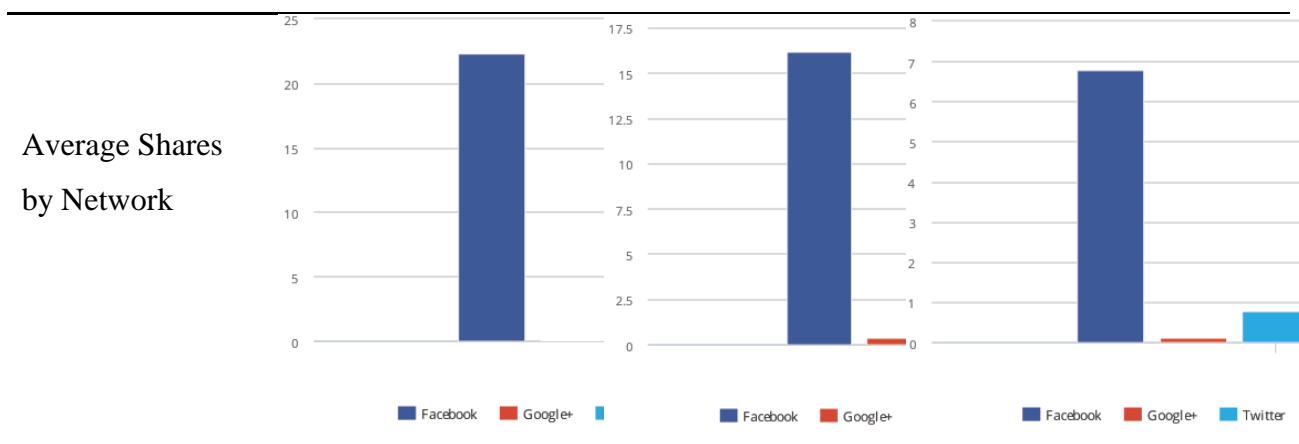
The outcomes of [BuzzSumo](#) analysis in the period March 19, 2016 – March 19, 2017 confirmed the results of [Trackur](#) analysis. In particular the most popular among considered universities was HKUST. BuzzSumo found 205 posts about it and the total number of sharings made up 6288 (*Tab. 6*). **Average shares** literally means “total shares” / “articles analyzed”.

As *Tab. 6* shows, the most popular network for spreading information about these 3 Chinese universities is Facebook. LinkedIn and Twitter follow it. The number of CUHK sharings in LinkedIn significantly exceeds the number of HKUST and CEIBS sharings.

This may reflect more active promotion policy of CUHK in LinkedIn. As the biggest business professional network LinkedIn is often used for promotion business education and business services.

Tab. 6 – Analysis of content distribution in the period March 19, 2016 – March 19, 2017

Metrics	HKUST	CUHK	CEIBS
Article Analyzed	205	61	139
Total Shares	6,288	532	4,350
Average Shares	31	9	31

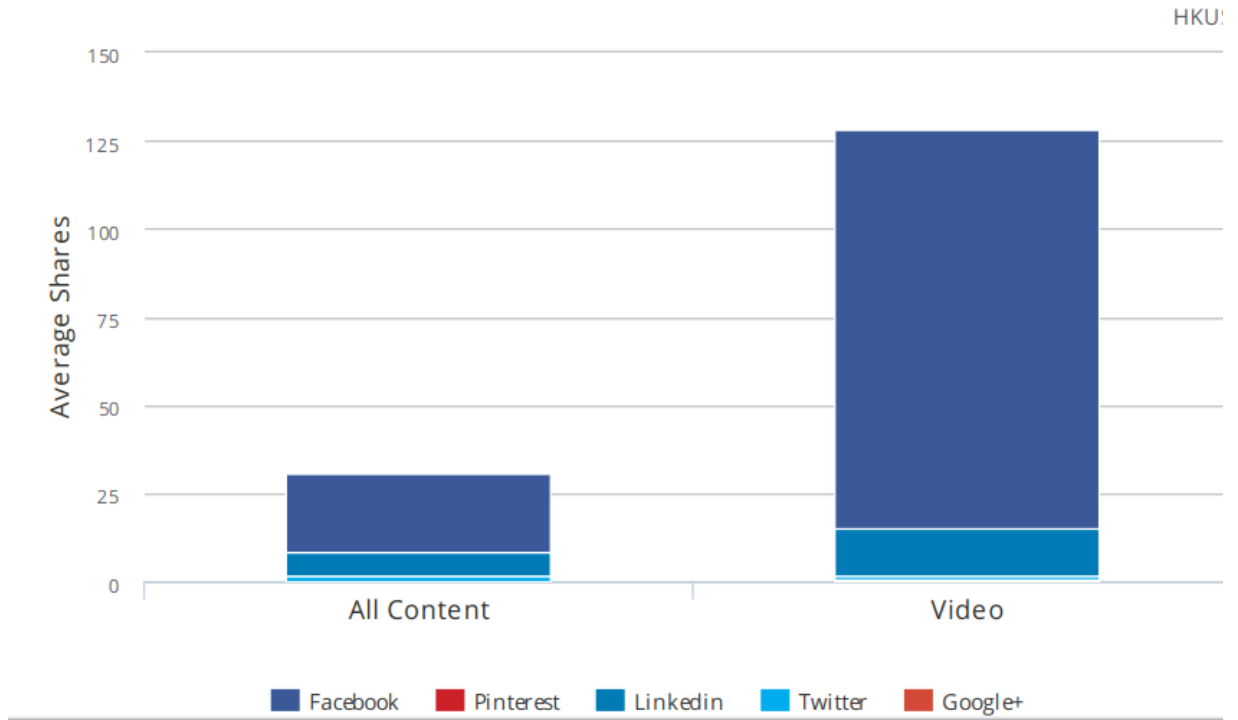


Source – authors calculation based on BuzzSumo, data results: 2017-03-19

BuzzSumo and another similar service “Socialbakers” help to understand, what kind of information is most influential in the social networks.

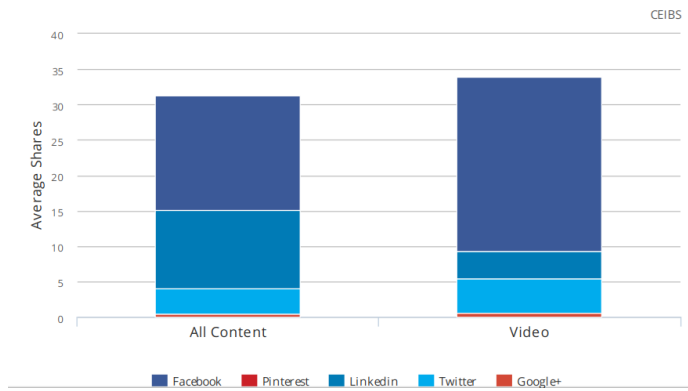
For instance, in the period March 19, 2016 – March 19, 2017 [BuzzSumo](#) indicates, that the shared information about **HKUST** and **CEIBS** was mainly video, meanwhile the mentions about **CHUK** were predominantly written posts. (*Graph 5*).

Average Shares By Content Type



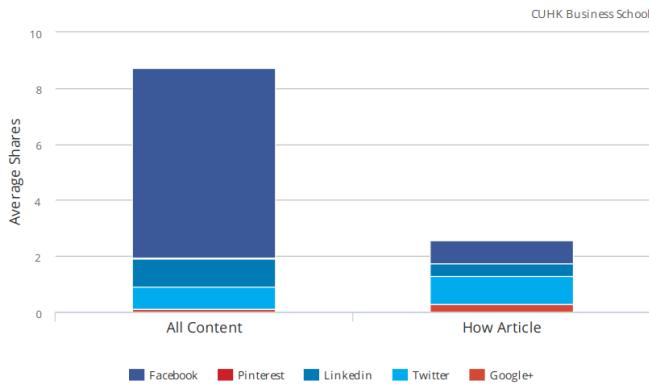
CEIBS

Average Shares By Content Type



CHUK

Average Shares By Content Type

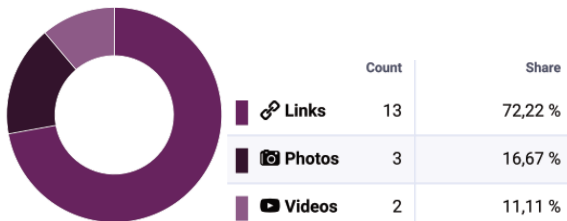


Graph. 5– Types of shared content about Chinese universities in period March 19, 2016 – March 19, 2017

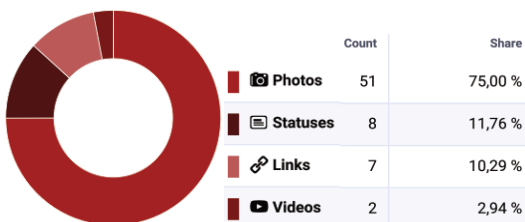
Source – authors calculation based on BuzzSumo, data received: 2017-03-19

Socialbakers shows that **on Facebook** in the period Feb 17, 2017 – Mar 18, 2017 the share of the **video content** about Chinese universities was insignificant (*Graph 6*). Links and photos were much more popular in this period. CUHK has even an obvious imbalance between links and photos, too many links and lack of photos.

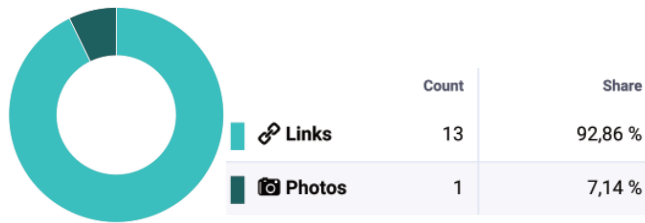
HKUST



CEIBS



CUHK



Graph 6 – Types of shared content on Facebook in period feb 17, 2017 – mar 18, 2017

Source – Author’s elaboration based on Socialbakers, data results – 2017-03-19

It would make sense for CUHK to supplement its communication policy with more photo- and video content, which one is more actively spread in the social networks.

The software we apply (BuzzSumo) allow to see the domains, from which the shared content was originally taken. In case of HKUST and CEIBS the top-domain of primary content was YouTube, and for CUHK – its official website (Tab 7).

Tab 7 – Primary sources of shared information on social networks, period mar 19, 2016 – mar 19, 2017

HKUST		CUHK		CEIBS	
DOMAIN	TOTAL SHARES	DOMAIN	TOTAL SHARES	DOMAIN	TOTAL SHARES
ust.hk	1.094	bschool.cuhk. edu.hk	317	ceibs.edu	1.003
youtube.com	743			youtube.com	474
scmp.com	597			en.ceibs.edu	437
join.ust.hk	300			businessbecause.com	1.157

Source– authors calculation based on BuzzSumo, data results: 2017-03-19

Tab. 8 shows, that the domain of original information is one of the key factors of sharing activity. Great number of posts about HKUST and CEIBS belongs to “**Businessbecause**”, the special website about business schools. The popularity of the author is another factor of high importance. For example, the author of popular posts about CUHK and HKUST is **ChrisDavis**.

Tab 8 – Top authors of posts about some Chinese universities, period mar 19, 2016 – mar 19, 2017

UNIVERSITY	AUTHOR	POSTS PUBLISHED	TOTAL SHARES
HKUST	Businessbecause	4	610
	Chris Davis	5	584
	Alex Fung	1	516
CUHK	Webmaster	6	165
	Edmond	8	130
	Chris Davis	1	38
CEIBS	Businessbecause	9	1,157
	Ceibs	42	1,080
	China Europe	1	264

Source – authors calculation based on BuzzSumo, data results: 2017-03-19

In accordance to [BuzzSumo](#) Twitter belongs to top-3 social networks in the period mar 19, 2016 – mar 19, 2017, where the information about Chinese universities was most actively shared.

[Unionmetrics](#) provides more detailed data about the number of tweets for each university, potential impressions, most frequent re-tweets and its authors.

Reference: Total potential impressions means the total number of subscribers of each author, who potentially can read a new tweets.

Tab 9 – Number of tweets and total potential impressions about some Chinese universities

	CUHK	HKUST	CEIBS
Period	6-13 March 2017	4-13 March 2017	9-13 March 2017
Tweets	16	76	100
total potential impressions	163,185	88,673	232,292

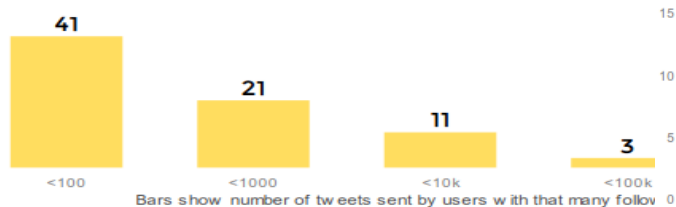
Source – authors calculation based on Unionmetrics, data results: 2017-03-14

Pic. 9 - Tweets about some Chinese universities

Source – authors calculation based on Unionmetrics, data results: 2017-03-14

HKUST

Potential Impressions



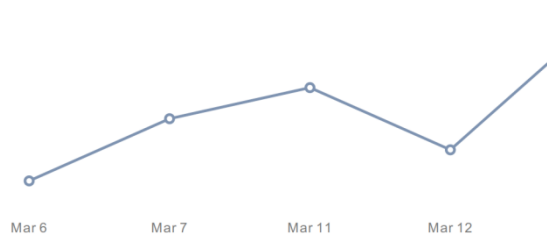
Activity



HKUST: Recent tweets about HKUST have generated 110,011 total potential impressions and the unique potential reach of 88,673

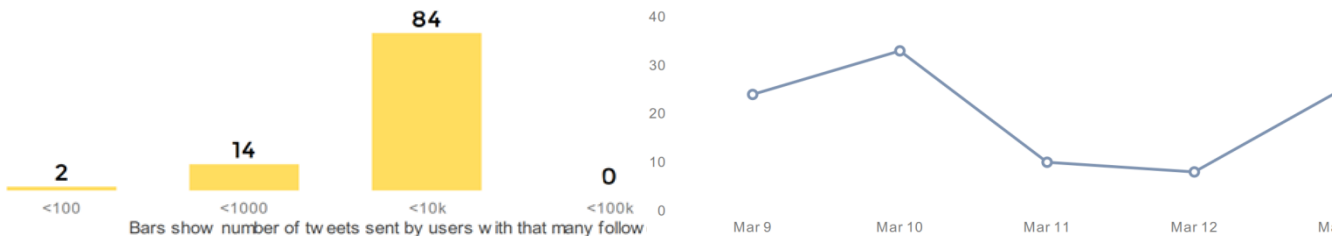
Reference: unique potential reach differs from total potential impressions by number of common subscribers. It allows to compare the potential impressions of two authors, for example, and separate their common subscribers from unique subscribers of each author.

CUHK



CUHK: Recent tweets about CUHK MBA have generated 163,185 total potential impressions and the unique potential reach of 114,811.

CEIBS



CEIBS: Recent tweets about CEIBS have generated 232,292 total potential impressions and the unique potential reach of 38,430.

Practically, it means, that the number of followers the authors have is more important for information spreading, than the number of unique reviews. Despite the indicator “most potential impressions contributors” of HKUST and CUHK 17 times exceed this indicator of CEIBS, the indicator “most re-tweets contributors” of CEIBS is on opposite 14 times and 51 times bigger compared to HKUST and CUHK.

The same author **@OttLegalRebels** generated the highest level of unique potential reach both for HKUST and CUHK (Tab. 10).

Reference

Most potential impressions contributors – the users of Twitter, who contribute to the spreading of particular keyword / topic through the net of their subscribers.

Most re-tweets contributors – the authors, whose tweets are most often re-tweeted.

HKUST	
Most potential impressions contributors	@OttLegalRebels, (44.8K followers)
Most re-tweets contributors	@SocGen_APAC (171 followers)
Example of the most Retweeted tweets	<div style="border-bottom: 1px solid black; padding-bottom: 5px;"> SocGen Asia Pacific @SocGen_APAC 5d 4 We are at the HKUST Campus, meeting talented people and talking about career opportunities in @Socgen_APAC. Come an... twitter.com/i/web/status/8... </div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;"> Richard Horgan @LiberateNK 8d 2 On July 17, 2016, Jong Yol-ri sneaked out @hkust dormitory & took taxi to airport. Only his father knew of plan. bit.ly/2m8gyGQ </div> <div style="padding-bottom: 5px;"> SocGen Asia Pacific @SocGen_APAC 6d 2 We are hiring! Join us at the HKUST Campus event tomorrow from 12-5pm. Let's talk about building your career togeth... twitter.com/i/web/status/8... </div>

CUHK	
Most potential impressions contributors	@OttLegalRebels, (44.8K followers)
Most retweets contributors	@AlexTabbakh (49 followers)
Example of the most Retweeted tweets	

CEIBS	
Most potential impressions contributors	@CEIBS, (2515 followers)
Most retweets contributors	@CEIBS, (2515 followers)
Example of the most Retweeted tweets	

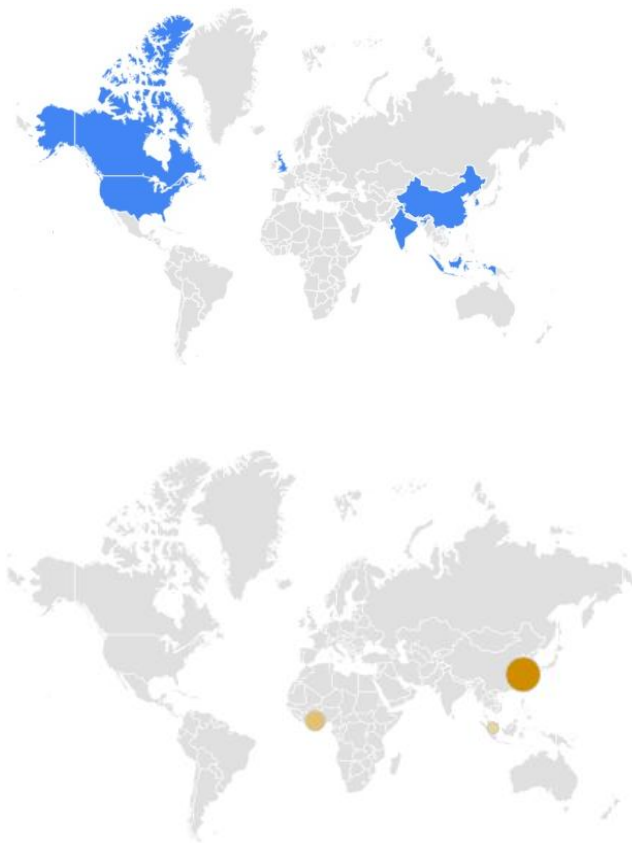
Tab. 10. Most potential impression and re-tweets contributors

Source: authors estimation based on Unionmetrics, data results: 2017-03-14

Geographical locations of the potential customers

Understanding the geo-location of potential customers is very important for planning marketing strategy. It allows to take into account the language and cultural differences of content and appropriate time of day for posting.

Google Trends provides data about geo-location. In accordance to it, the queries about Chinese MBA programs came from India (New-Dheli, Mumbai, Bangalore), Indonesia (Jakarta), South Korea (Seul), USA (New-York), Great Britain (London), Singapore, Ghana (Accra) (Graph. 7). Apparently HKUST and CEIBS can compete for customers in South-Eastern Asia countries, what is shown below.



Graph. 7 – Geography of Google search queries of some Chinese business schools in March 2012 – February 2017, data on 2017-03-17

Source: [Google Trends](#)

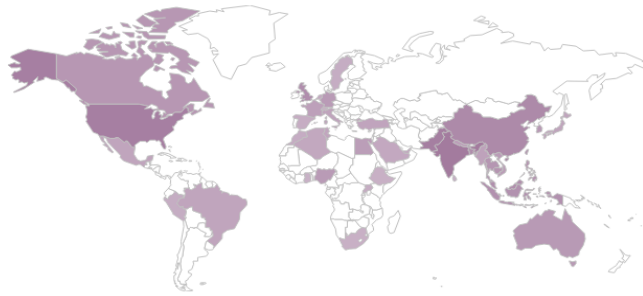
Socialbaker is able to show the map, where the subscribers of the official Facebook account of the universities are located. It shows the density of them in each country.

The Facebook accounts of HKUST and CHUCK are popular among foreigners from India (7% and 42.3% total fans respectively), Pakistan (5.56%) and USA (5.29% and 2.02% total fans respectively) while CEIBS is much more popular among Hispanic foreigners (Spain – 82.57%, Mexico – 4.09% and in other countries of Latin America)(*Graph. 8*).

HKUST

Distribution of Fans

Feb 17, 2017 - Mar 18, 2017

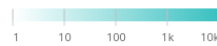
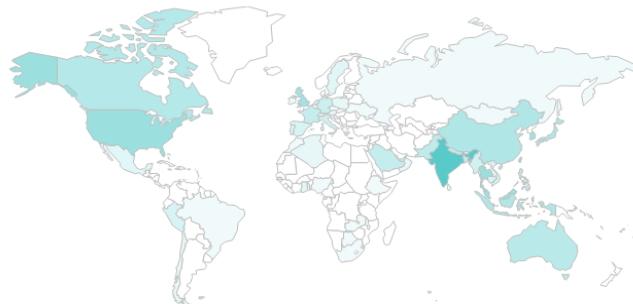


Countries	↓ Local Fans	Percentage of Fans Base	Growth	Relative Growth
1 Hong Kong	28 712	48,25 %	+ 76	+ 0,27 %
2 India	4 165	7,00 %	+ 33	+ 0,80 %
3 Pakistan	3 307	5,56 %	+ 5	+ 0,15 %
4 United States	3 149	5,29 %	+ 4	+ 0,13 %
5 China	1 655	2,78 %	+ 64	+ 4,02 %

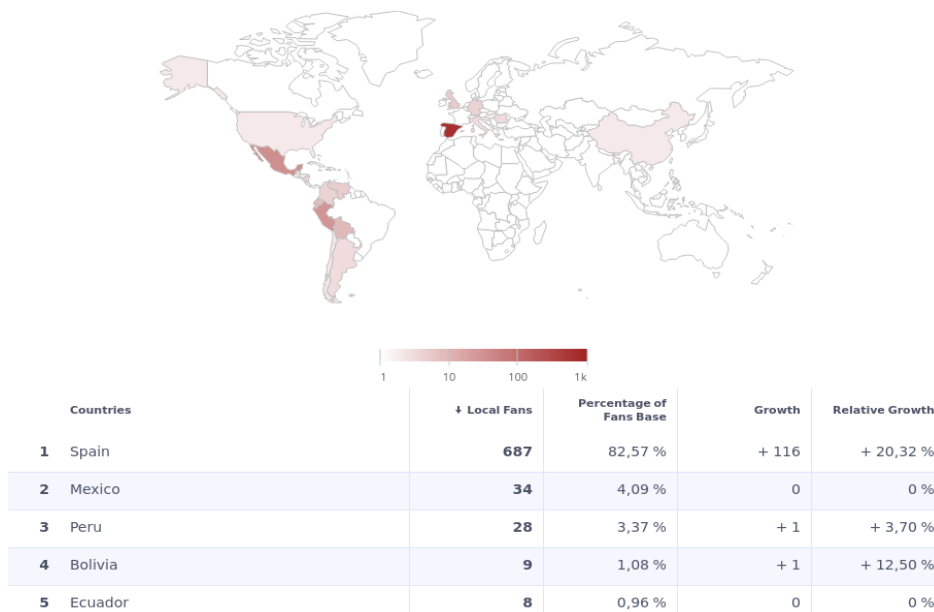
CHUK

Distribution of Fans

Feb 17, 2017 - Mar 18, 2017



Countries	↓ Local Fans	Percentage of Fans Base	Growth	Relative Growth
1 India	2 227	42,38 %	- 10	- 0,45 %
2 Hong Kong	2 068	39,35 %	- 6	- 0,29 %
3 United States	106	2,02 %	+ 3	+ 2,91 %
4 Thailand	103	1,96 %	- 1	- 0,96 %
5 Malaysia	99	1,88 %	- 3	- 2,94 %



Graph. 8 – Distribution of fans of Chinese universities Facebook accounts

Source – authors calculation based on Socialbakers, data results: 2017-03-19

Conclusionsoftheresearch

The objective of our research was to verify and expand the methods and tools of social data research focused on the needs of educational organizations. The question was, were to find the useful social data, how to retrieve it and how to convert it into strategic activity of universities.

We found out, that in this sense the analysis of social media allows:

1. To find customers (both acting and potential), determine the portrait of a customer. It allows to adjust targeted advertising campaigns both online and offline. It allows to create new educational courses in accordance with demands and special needs of particular groups of customers.
2. To find domains, groups, forums, where the potential customers are chatting. Again, it increases the efficiency of targeted advertising. It helps to understand students opinions, interests and (dis)satisfaction with educational programs and learning environment.
3. To find out the opinion leaders, it helps to conduct viral marketing campaigns and spread useful information.

4. Point out the types of content, mostly appreciated by customers. This is especially acute for educational organizations, because learning courses are a kind of content on themselves. This content can be represented in the Web with articles, posts, videos, links, etc.
5. To determine geo-location of potential customers, it allows to adjust learning courses and promotion strategy to the language, region and cultural differences.
6. To measure the customers loyalty, in particular by means of Net Promoter Score (NPS) methodology, in order to increase the level of loyalty, and to introduce loyalty programs.
7. To measure the level of customers awareness about the particular brands of universities.
8. To measure and enhance the brands reputation.

The conducted research allows to estimate the adequacy of different social networks analysis software for the purposes of educational organizations.

References

- Allen, M. (2012). An education in Facebook. *Digital Culture and Education*, 4(3), 213–225.
- Bateman, D., & Willems, J. (2012). Facing off: Facebook and higher education. In L. A. Wankel & C. Wankel (Eds.), *Misbehaviour Online in Higher Education: Cutting edge Technologies in Higher Education* (Vol. 5, pp. 53–79). Bingley, UK: Emerald
- Benkler, Yochai, 2006. *The wealth of networks : how social production transforms markets and freedom*. ISBN-13: 978-0-300-11056-2
- David Easley, Jon Kleinberg, 2010. “Networks, Crowds, and Markets: Reasoning about a Highly Connected World”. Cambridge University Press.
- Ertek, G., Tapucu, D., and Arın, I., 2013. “Text Mining with RapidMiner”. In: Markus Hofmann, Ralf Klinkenberg (Eds.) *RapidMiner: Data Mining Use Cases and Business Analytics Applications*.
- Bruce Hoppe, Claire Reinelt, 2010. “Social network analysis and the evaluation of leadership networks”. *The Leadership quarterly*, 21 (2010) 600-619.
- Daniel Jurafsky, James Martin, 2008. “Speech and Language processing”. Pearson. ISBN-13: 978-0131873216
- Kayri, M., & Çakır, Ö. (2010). An applied study on educational use of Facebook as a Web 2.0 tool: The sample lesson of computer networks and communication.

- Lorrain, Francois and Harrison C. White. Structural Equivalence of Individuals in Social Networks. *The Journal of Mathematical Sociology*, 1(1):49–80, January 1971.
- Mason, Winter and Duncan J. Watts. Collaborative learning in networks. *Proceedings of the National Academy of Sciences*, 109(3):764–769, 2012.
- Mason WA, Jones A, Goldstone RL (2008) Propagation of innovations in networked groups. *J Exp Psychol Gen* 137:422–433.
- Murale, V., & Raju, G. P. (2014). Analyzing the role of social networks in mapping knowledge flows: A case of a pharmaceutical company in India. *Knowledge Management & E-Learning*, 6(1), 49–65
- Matthew North (2013). “Data Mining for the Masses”. *A Global Text Project Book*. ISBN: 0615684378
- James Pustejovsky, Amber Stubbs, 2013. “Natural language annotation for machine learning”. Published by O’Reilly Media, Inc. ISBN: 978-1-449-30666-3
- Matthew Russel (2011). “Mining the social web”. Published by O’Reilly Media, Inc. ISBN 978-1-449-38834-8
- Jie Tang, Juanzi Li, 2015. “Semantic mining of social networks”. Published by Morgan & Claypool. ISBN 9781608458578
- Maksim Tsvetovat and Alexander Kouznetsov, 2011. “Social Network Analysis for Start-ups”. Published by O’Reilly Media, Inc. ISBN: 978-1-449-30646-5
- Wang, Weize, "A Content Analysis of Reliability in Advertising Content Analysis Studies." (2011). Electronic Theses and Dissertations. Paper 1375. <http://dc.etsu.edu/etd/1375>
- Wasserman, Stanley and Katherine Faust. *Social Network Analysis: Methods and Applications*, volume 8 of *Structural analysis in the social sciences*, 8. Cambridge University Press, 1994. <http://www.amazon.com/dp/0521387078>.
- Reza Zafarani, Mohammad Ali Abbasi, Huan Liu, 2014. “Social media mining”. Cambridge university press.
- Institute of International Education, Country data, China www.iie.org/China/educenter.com/
- QS Intelligence Unit (QSIU “Focus on China” <http://www.iu.qs.com/>) “What matters to the international students in China”, 2016.
- Mbastudies.com <https://www.mbastudies.com/MBA/China/>
- [Global MBA Ranking](#) of Financial Times