The Manifold Research Fields of Facebook: A Bibliometric Analysis

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ABSTRACT

The aim of the present study is to analyze the present state and evolution of scientific research with regard to the scientific production generated on Facebook. Good analysis proves challenging due to the large number of publications about the topic. That is why we concentrate on Scopus as the information service with the highest coverage on this topic. We performed a bibliometric analysis on Facebook-related research from 2005 to 2016. We identified publication output, subject areas, journals, and countries in order to assess the publication trends and research hotspots in this field. Moreover, an author network graph and a geo map were applied to visualize some research trends. These results provide a basis for better understanding of the development of global Facebook research.

Keywords: Bibliometrics, Facebook, Facebook Research

1. INTRODUCTION

One of the most popular social network services (SNSs) at present, Facebook, has a "mission": "to give people the power to share and make the world more open and connected. People use Facebook to stay con-

nected with friends and family, to discover what's going on in the world, and to share and express what matters to them" (Facebook, 2017). Facebook was founded by Mark Zuckerberg in 2004. Its headquarters are in Menlo Park, California; it has 17,048 employees and more than 1.23 billion daily active users all over the

world (on average for December 2016). Facebook is changing the way these hundreds of millions of people around the globe relate to each other and share different types of content (Knautz & Baran, 2016). According to Wilson, Gosling, and Graham (2012, p. 204), "it is useful to think of Facebook as an ongoing database of social activity with information being added in real time." Researchers from a wide variety of disciplines have recognized the advantage of Facebook as "a novel tool to observe behavior in a naturalistic setting, test hypotheses, and recruit participants" (Wilson et al., 2012, p. 203). However, lots of results being published in a broad range of journals and conference proceedings "make it difficult to keep track of various findings" (Wilson et al., 2012, p. 203). With the demand of Facebook use and users, and also of research interests, it is time to have a quantitative look at the history and current situation of Facebook research.

1.1. Background

Bibliometrics, first introduced by Pritchard (1969, p. 349) as "the application of mathematics and statistical methods to books and other media of communication," is an effective method of information research that "uses quantitative analysis and statistics to describe the research trend of a specific field" (Wang, Zheng, Wang, Xu, & Wang, 2015, p. 2204). Bibliometrics is a part of Informetrics (Stock & Weber, 2006), which in turn covers all quantitative aspects of information science (Stock & Stock, 2013, p. 445). Sources for bibliometric studies on scientific research activities are digital information services, especially multidisciplinary databases such as WoS, Scopus, and Google Scholar (Bakkalbasi, Bauer, Glover, & Wang, 2006). However, Google Scholar lacks sufficient functionality for statistical analyses of hit lists, while both WoS as well as Scopus include a broad range of so-called analyze functions (Archambault, Campbell, Gingras, & Larivière, 2009). WoS and Scopus are incomplete (Hilbert et al., 2015), but quite usable for identifying broad research trends. A first request for "Facebook" on both information services showed that Scopus includes much more data on our topic than WoS does. Therefore, we decided to apply Scopus for our analysis.

As research becomes increasingly global, interdisciplinary, and collaborative, "critical research from around the world is not missed in Scopus" (Elsevier |

Scopus, 2017). Scopus is "the largest abstract and citation database of peer-reviewed literature (scientific journals, books, and conference proceedings)" (Elsevier | Scopus, 2017) and applicable for a broad review of scientific accomplishments in several fields such as science, technology, medicine, and social sciences, as well as arts and humanities. As an effective tool for measuring scientific performance, Scopus provides smart features to track, analyze, and visualize research (Elsevier | Scopus, 2017).

There are several literature reviews of research about Facebook. Di Capua (2012) reviewed more than one hundred studies on Facebook research published in the past five years, and focused on motivations with regards to Facebook use. He identified "eight main research themes: effects on the users, friendship, construction of impressions, privacy, use, Facebook and politics, self-expression and construal, social capital, and the merging of social spheres" (Di Capua, 2012, p. 38). Social scientists, e.g., Wilson et al. (2012, p. 203) conducted a comprehensive literature search with focus on empirical articles published in academic journals or conference proceedings that explicitly studied Facebook. They identified 412 relevant articles, which were sorted into five categories: "descriptive analysis of users, motivations for using Facebook, identity presentation, the role of Facebook in social interactions, and privacy and information disclosure" (Wilson et al., 2012, p. 203).

While using data from Web of Science (WoS), Matos Lopes, Garcia dos Santos de Faria, Fidalgo-Neto, and Batista Mota (2017) conducted a bibliometric analysis on Facebook in educational research. Matos Lopez et al. studied developments of scientific production, the most important journals on Facebook and education, along with main authors and main papers. In contrast to Matos Lopez et al. (2017), as they limited their research to only one scientific discipline, we analyze the whole story of Facebook research.

Again, applying data from WoS, Basek and Calisir (2015) studied publication trends on Facebook. Besides a time series of article production (all in all 4,714 Facebook-related publications), they analyzed top productive countries, articles' languages, top journals, and top research areas. They arrived at a clear finding: "in the previous decade, there was a drastic increase in publications" (Basek & Calisir, 2015, p. 172).

Next to our study is an article by Gupta, Dhawan, Gupta, and Jalana (2015). They realized a scientometric assessment of international Facebook research between 2005 and 2014. Their data source was Scopus, and their search argument was "Facebook" in the combined title, abstract, and keyword field, leading to 7,916 hits. Gupta et al. analyzed the article count per year, citations of those articles, top countries of the authors, scientific disciplines, top organizations, top authors, journals, and keywords. The main problem of this study is its search argument. Searching in titles, abstracts, and keywords may provoke false positives, as mainly in abstracts negative formulations (e.g., "this article is not about Facebook") may lead to erroneous inclusion in the hit list. We replicated the title/abstract/keyword search; however, we additionally performed a narrower query using title-words only. Of course, we are going to compare our results of the broader query with the findings of the Gupta et al. (2015) study and also with those of Base and Calisir (2015).

1.2. Research Questions

In the present study, a bibliometric analysis has been performed on Facebook-related researches from 2005 (the time of the first Scopus-covered articles) to 2016. Basic publication items, including publication outputs, subject areas, journals, and countries were identified to assess the publication trends and research hotspots in this field using a bibliometric method. Moreover, an author network graph and a geo map were applied to evaluate the research trend between 2005 and 2016. These results could provide a basis for better understanding of the development of global Facebook research. Our concrete research questions (RQs) are:

- RQ1. How many papers on Facebook were published between 2005 and 2016? Is there any trend in research activity?
- RQ2. What publication types and what languages dominate research output?
- RQ3. Which countries and which institutions all over the world are notably active in Facebook research?
- RQ4. What is the distribution of subject areas and journals related to Facebook research? What are the most active scientific disciplines in this research area?
- RQ5. Who are the most productive authors? Are

there any visible networks of collaborating authors?
- RQ6. Our research questions RQ1 to RQ5 are geared toward rankings (of publication types, languages, countries, etc.). As we are going to use two different search arguments ("Facebook" in titles only vs. "Facebook" in title, abstract, and keywords), do the orders of both hit lists produce similar or different rankings?

2. METHODS

2.1. Data Collection

In order to create a meaningful data set containing literatures about Facebook from 2005 to 2016, the first task was collecting data from Scopus. To enhance data collection in future studies, the data can be varied by using different databases. Here, two search requests (in Scopus' Document Search) were conducted in January 2017:

- *Query 1*: (TITLE (Facebook) AND PUBYEAR > 2004 AND PUBYEAR < 2017);
- *Query 2*: TITLE-ABS-KEY (Facebook) AND PUBYEAR > 2004 AND PUBYEAR < 2017.

The search engine of Scopus (2017) uses "a sophisticated relevance model based on proven concepts from the science of Information Retrieval and long experience with Web, data, and enterprise searching." According to Elsevier | Scopus (2017), it is "important where terms occur in the document: if a word is in the title, abstract, or keywords in a scientific article, then it is probably very important." We collected 3,929 documents from Query 1 and 13,149 from Query 2. The 3,929 documents from Query 1 overlapped in Query 2. In addition, using Scopus' data analyze function, data were extracted by different fields including "Author," "Country," "Publication Year," "Document Type," "Language," "Affiliation," "Journal," and "Subject Areas." Microsoft Excel was used to analyze the data.

2.2. Data Analysis

For papers related to research on Facebook during the past 11 years (2005–2016), the following aspects were assessed: number of papers per year, publication types, languages, authors' countries, authors'

affiliations, and subject areas, as well as authors and co-authors. Information about the location of a publication was extracted from Scopus and mapped onto its corresponding geographical location on a world map. In this so called "heat map" one can recognize where most of the research on the given topic takes place. We deployed the tool GunnMap[1] and limited the heat map of countries to states with one hundred or more publications about Facebook.

Our visualization of data on the most productive authors was implemented applying Gephi,[2] which is open-source software used to explore and manipulate graphs and networks (Bastian, Heymann, & Jacomy, 2009). To visualize co-authorships, co-author data have been extracted from Scopus, and nodes tables and edges tables have been created in Excel and imported to the data laboratory of Gephi. Nodes tables contain node identifier column (Id), co-author column (Label), and the column of total number of Facebook-related publications of each author. The columns of edges tables include source, target, and the number of co-authored documents. Nodes have been ranked by color and size, based on their degree which indicates the total number of Facebook-related publications of authors.

The network graph of the top five authors was limited to authors with a minimum of two co-authorships. According to Belter (2012, p. 3), "by extracting relationships among publications, bibliometric mapping offers a method of quickly summarizing and then visualizing the structure inherent to a set of publications." Based on collaboration networks we can study the relationships among authors of the publications in this research field, but also the role of every author in the network. The resulting visualizations, or maps and networks, can be used not only to examine a past scientific research effort but also to "identify potential future research directions and collaboration opportunities" (Belter, 2012, p. 3).

3. RESULTS

3.1. Publication Output (RQ1)

Although Facebook was founded in 2004, it is only in recent years that the SNS has attracted widespread interest. During 2005-2008, Facebook-related publications increased at a relatively low rate, from only one or two articles published in 2005 to 66 (Query 1) resp. 211 publications (Query 2) in 2008 (Fig. 1). Research on Facebook experienced huge growth over the five years 2011 to 2015. The number of publications increased to 464/1669 in 2012, which was four times more than in 2009. We can identify a peak of Facebook research in 2015 (Query 1: 748 documents; Query 2: 2,368 documents). This result is in line with Matos Lopez et al. (2017), who indicate the growth of scientific production on Facebook and education from 2008 onwards. However, in 2016 there is a small decrease in activities on Facebook. Perhaps the topic has lost attractivity. A total of 3,929 documents found by Query 1 and 13,149 from Query 2 were published in the time between 2005 and 2016 and covered by Scopus. These documents were used for further analysis.

3.2. Distribution of Publication Types and Languages (RQ2)

"One of the main issues in compiling bibliometric data is the choice of the types of documents to include" (Archambault, Campbell, Gingras, & Larivière, 2009, p. 1321), and Figure 2 shows the differences in document type distributions for Query 1 and Query 2. The original article, as the most popular document type (Zhang et al., 2015, p. 2), comprised the large majority of the total publications, followed by conference papers. The remainders having less quantitative significance were editorials, notes, letters, and additionally some books.

Figure 3 shows the distribution of publication languages among the records for Query 1 and Query 2. 95.22% of all publications were written in English, 1.68% in Spanish, and less than were 1% in French, German, Portuguese, and other languages.
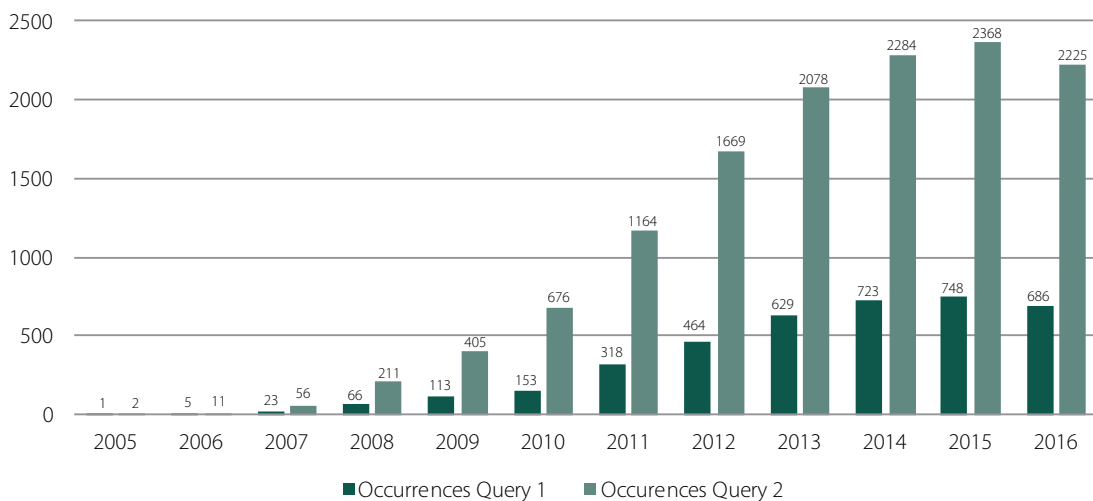
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[1] Retrieved from http://lert.co.nz/map/
[2] Retrieved from https://gephi.org

Fig. 1 Time series of publications about Facebook per year. *Data source*: Scopus

	Conf. Review	Erratum	Book	Editorial	Short Survey	Letter	Article in Press	Note	Review	Book Chapter	Conf. Paper	Article
Occurences Query 2	149	15	138	46	120	55	255	131	426	661	4791	6362
Occurrences Query 1	0	13	14	29	43	51	76	98	114	228	941	2322
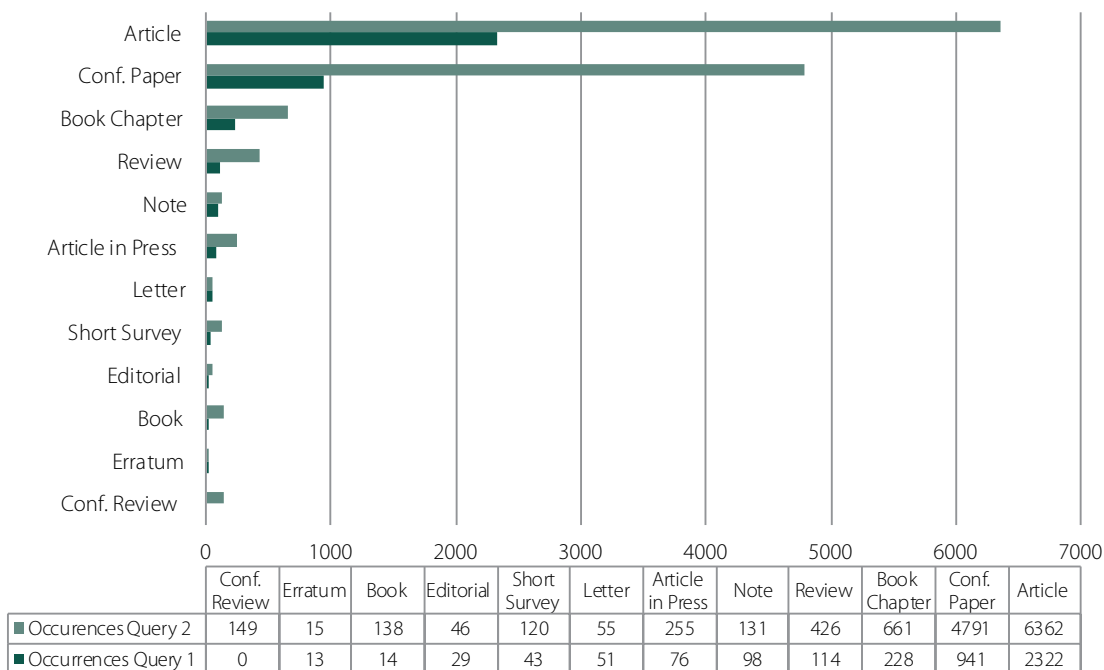
Fig. 2 Document types in Facebook research. *Data source*: Scopus

1.68%
0.94%
0.59%
0.59%
0.76%

95.22%

- English
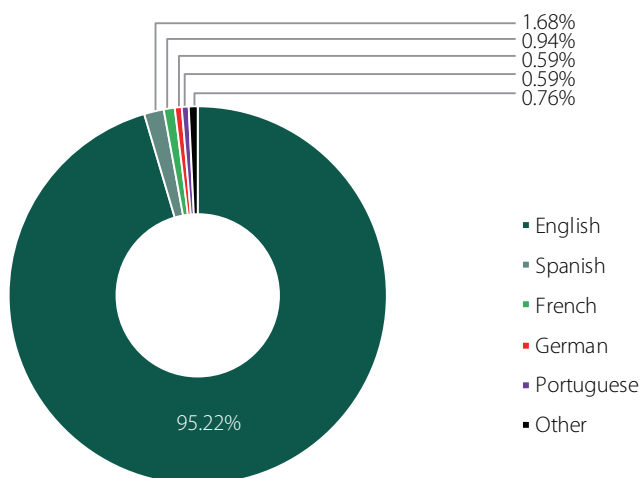- Spanish
- French
- German
- Portuguese
- Other

Fig. 3 Distribution of publication languages. *Data source*: Scopus

3.3. The Most Active Countries and Institutions in Facebook Research (RQ3)

To get a fast overview about the spatial distribution of Facebook-related research output of countries, a heat map is used. The contributions of countries to Facebook-related publications were evaluated by the location of the affiliations of at least one author of the publication. Figure 4 shows all countries with an output of more than 100 publications on Facebook in the years under review. Figure 5 lists the top 20 countries that have published the most number of Facebook-related documents. It is evident that researchers from the United States and the United Kingdom are the most common contributors. Our result of Query 2 is in line with Gupta, Dhawan, Gupta, and Jalana (2015) (1st: USA, 2nd: UK, 3rd: Australia, 4th: Germany). The WoS-based ranking of Basak and Calisir (2015) shows no differences on the top three positions, but 4th here is Canada and 5th Taiwan.

Figure 6 shows the distribution of top 20 affiliations for Query 1 and Query 2. *Michigan State University* and *Carnegie Mellon University* have published the most Facebook-related papers with 103 and 102 pub-

lications respectively (for Query 2). Our results of Query 2 are more or less the same as in the study by Gupta, Dhawan, Gupta, and Jalana (2015). However, for the more precise Query 1 the top two affiliations are *Michigan State University* (61) as well as *University of Wisconsin Madison* (38).

3.4. Distribution of Subject Areas and Journals (RQ4)

According to the classification of subject areas in Scopus, 3,929 records from Query 1 and 13,149 from Query 2 are distributed in 27 subject areas. The main subject areas of the broad query (Query 2) are computer science (6,742 documents), social sciences (4,422), engineering (1,642), medicine (1,513), business, management, and accounting (1,373), arts and humanities (1,232), psychology (1,103), and mathematics (913) (Fig. 7).

However, the search for Facebook in titles only results in a slightly different ranking. Here, social sciences (1.704 documents) ranks first, followed by computer science (1.693), psychology (633), arts and humanities (596), and medicine (536). Computer science as well as

social sciences dominate Facebook research; however, in contrast to social scientists, computer scientists tend not to mention Facebook in their article titles. In light of the fact that there are many scientific disciplines working on Facebook, this research area seems to be a hunting ground of very different sciences. It is an open question whether these different approaches are only discipline-specific (inside disciplinary borders), or multidisciplinary (combining additively knowledge from different disciplines), interdisciplinary (interactive harmonization of knowledge from different fields), or transdisciplinary (holistic while transcending traditional boundaries) (Choi & Pak, 2006).

The retrieved Facebook-related articles were published in 137 different journals, which are covered in the Scopus database. Figure 8 lists the top 10 most productive journals, with the number of articles for Query 1 and Query 2. A total of 525 articles for Query

1 and 909 articles for Query 2 were published in these 10 journals, accounting for 22.61% (Query 1) and 14.29% (Query 2) of the total articles. Among them, *Computers in Human Behavior* published by far the most articles (358 documents in Query 2), followed by *Cyberpsychology, Behavior and Social Networking* (113), *Journal of Medical Internet Research* (100), *First Monday* (66), *New Media & Society* (65), *Information Communication & Society* (62), *PloS One* (52), *Public Relations Review* (39), *Journal of Computer-Mediated Communication* (32), and *Fortune* (22). The journal list by Gupta, Dhawan, Gupta, and Jalana (2015) is very similar to our results from Query 2. The WoS-based journal ranking by Basak and Calisir (2015) shows on the top rank *Computers in Human Bahavior,* but 2nd is *Lecture Notes in Computer Science* (a book series published by Springer, which is seen as a journal at WoS).
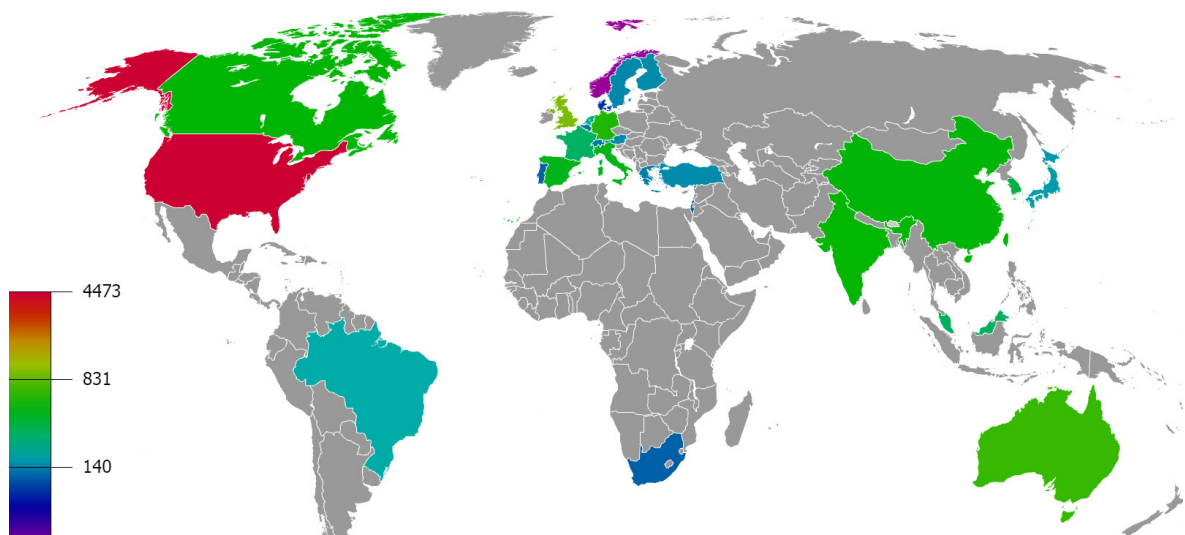

Fig. 4 Heat map of countries with active Facebook research (grey: countries with less than 100 publications on Facebook). *Data source*: Scopus. *Tool*: GunnMap
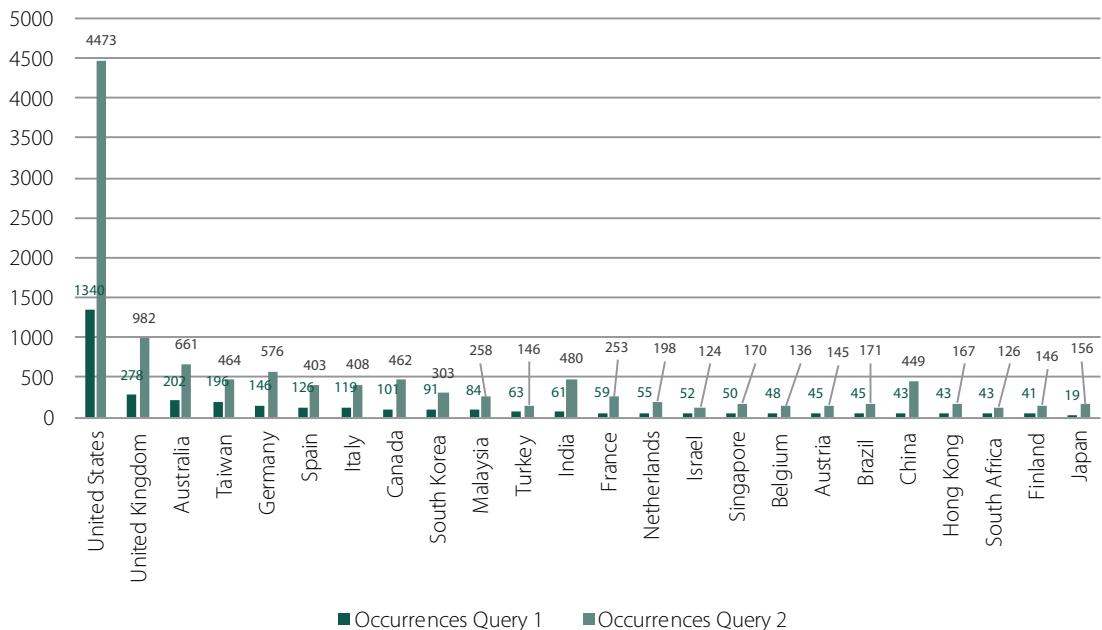
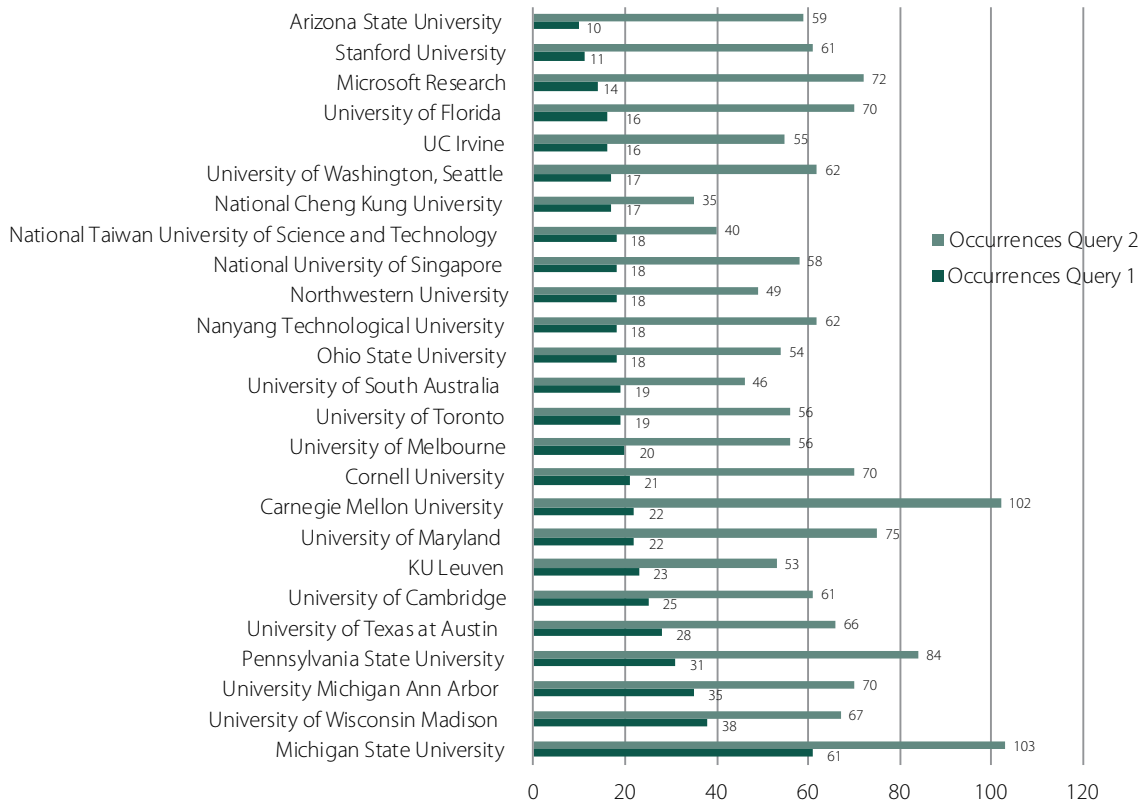**Fig. 5** Countries by activity on Facebook research. *Data source*: Scopus

Fig. 6 Institutions by activity on Facebook research. *Data source*: Scopus
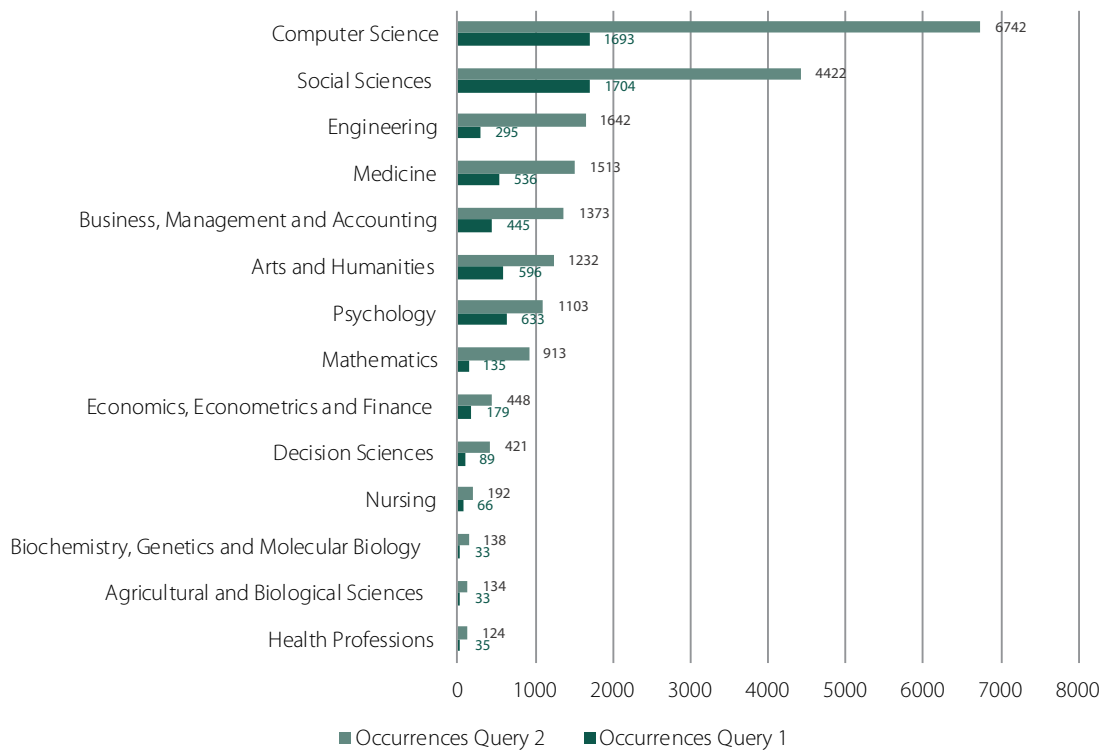
Fig. 7 Distribution of research areas on Facebook. *Data source*: Scopus
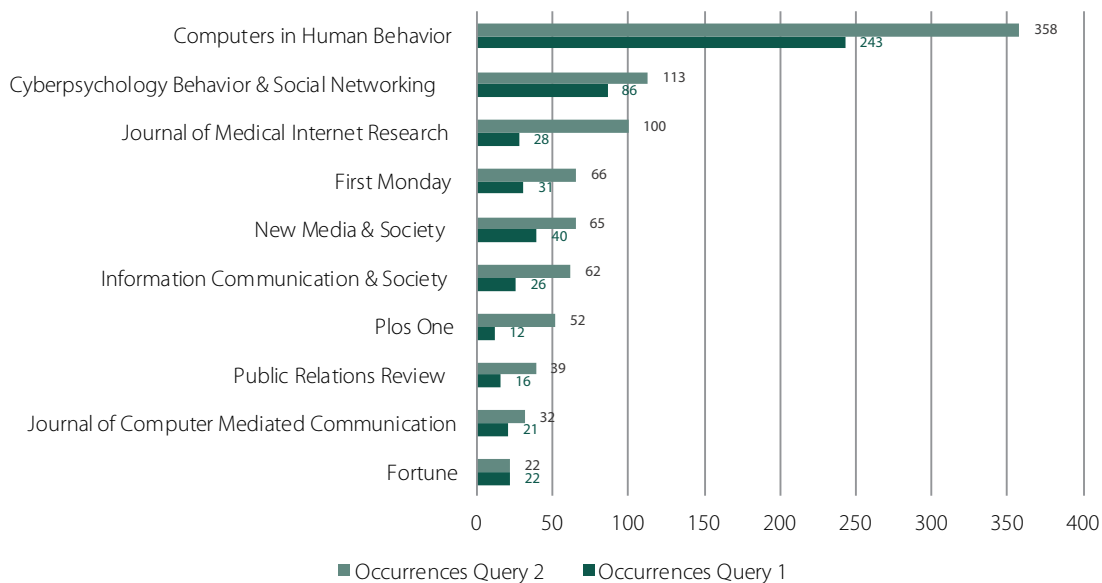

Fig. 8 The 10 most productive journals on Facebook. *Data source*: Scopus

3.5. Authorship Patterns in Facebook Research (RQ5)

Table 1 shows the top authors with the most publications for Query 1 and Query 2. *N.B. Ellison* is the top author with the most publications (36 in query 2) about Facebook. Then *M. Kosinski* takes the next place with 30 publications, followed by *M. A. Moreno* and *D. Stillwell* (each 29). *C. Lampe* ranks fifth with 24 publications. Due to different time intervals the results by Gupta, Dhawan, Gupta, and Jalana (2015) exhibit slightly different values for author rankings in comparison to our Query 2. They identified as the top five authors Ellison, Lampe, Moreno, Kosinski, and Vitak.

Figure 9 presents a co-authorship network of the top five authors, namely N. B. Ellison, C. Lampe, M. A. Moreno, M. Kosinski, and D. J. Stillwell. Nodes represent names of authors and edges display the co-authorships of authors as well as the number of co-authored documents. The size of nodes indicates the total number of Facebook-related publications, published by each author. The larger and darker the nodes, the more publications about Facebook have been written by the authors.

Nicole B. Ellison has an affiliation to the School of Information of the University of Michigan, Ann Arbor in the United States. Ellison's most cited Facebook-related article is about the relationship between use of Facebook and the formation and maintenance of social capital, bonding, and bridging social capital and regression analyses conducted on results from a survey of undergraduate students. It also showed that Facebook usage interacts with measures of psychological well-being (Ellison, Steinfield, & Lampe, 2007). Her second most cited publication investigated the relationship between intensity of Facebook use, measures of psychological well-being including self-esteem and satisfaction with life, and bridging social capital (Steinfield, Ellison, & Lampe, 2008). The author's third most cited publication concerning Facebook assessed whether Facebook users have different connection strategies and revealed the relationship between these connection strategies and social capital (Ellison, Steinfield, & Lampe, 2011). The next most cited article explored whether the students who have become avid Facebook users are using Facebook to find new people in their offline communities or to learn more about people they initially meet offline (Lampe, Elli-

son, & Steinfield, 2006). Finally, the fifth most cited Facebook-related publication re-conceptualized social network sites as collections of features and revealed the relationship between users' motivations for using Facebook and use of different features, such as status updates and wall posts (Smock, Ellison, Lampe, & Wohn, 2011).

Clifford A. C. Lampe has been affiliated to the School of Information of the University of Michigan, Ann Arbor as Ellison has. As can be seen from Figure 9, Lampe has the most co-authorships with Ellison. Furthermore, the five most cited publications about Facebook by Lampe are exactly the same as from Ellison.

Michal Kosinski is affiliated with the Graduate School of Business of Stanford University in California. His most cited document about Facebook described the fact that easily accessible digital records of behavior, Facebook Likes, can be used to automatically and accurately predict a range of highly sensitive personal attributes including sexual orientation, ethnicity, religious and political views, personality traits, intelligence, happiness, use of addictive substances, parental separation, age, and gender (Kosinski, Stillwell, & Graepel, 2013). The second most cited document found striking variations in language with personality, gender, and age, analyzing words, phrases, and topic instances collected from Facebook messages and employing open-vocabulary technique (Schwartz et al., 2013). The next most cited article of Kosinski examined correlations between users' personality and the properties of their Facebook profiles, using the standard Five Factor Model (Bachrach, Kosinski, Graepel, Kohli, & Stillwell, 2012). Comparing the accuracy of human and computer-based personality judgments (Youyou, Kosinski, & Stillwell, 2015) is the theme of the author's fourth most cited publication; and the fifth one studied the relationship between Facebook popularity (number of contacts) and personality traits on a large number of subjects (Quercia, Lambiotte, Stillwell, Kosinski, & Crowcroft, 2012).

David J. Stillwell is associated with the Judge Business School of the University of Cambridge in the United Kingdom. As is clear from Figure 9, this author has the most co-authorships with Michal Kosinski. Moreover, their five most cited Facebook-related articles are similar to each other.

Megan A. Moreno has affiliation to the Children's

Hospital and Regional Medical Center and the Children's Research Institute in Seattle in the United States. Her most cited Facebook-related publication evaluated college students' Facebook disclosures that met DSM (Diagnostic and Statistical Manual) criteria for a depression symptom or a major depressive episode (MDE) (Moreno et al., 2011). The author's second most cited article about Facebook investigated the relationship between SNS use and depression in older adolescents, using an experience sample method (ESM) approach (Jelenchick, Eickhoff, & Moreno, 2013). Evaluating the associations between displayed alcohol use and intoxication/problem drinking (I/PD) references on Facebook and self-reported problem drinking, using a clinical scale (Moreno, Christakis, Egan, Brockman, & Becker, 2012) is the subject of her third most cited publication. The next article with high numbers of citations used college males' Facebook profiles to identify and investigate references to alcohol and studied the association of those references with age of students and numbers of Facebook friends (Egan & Moreno, 2011a). Her fifth most cited publication focused on prevalence of references to stress on public Facebook profiles of undergraduate freshmen using content analysis of profiles, and evaluated the association of stress references with gender of students, weight concerns, depressive symptoms, and alcohol references (Egan & Moreno, 2011b).

Table 1. The Most Productive Authors on Facebook. *Data source*: Scopus

| Authors	Occurrences Query 1	Occurrences Query 2
Bazarova, N.N.	7	10
Błachnio, A.	11	11
Burke, M.	8	12
Casas, P.	0	14
Christofides, E.	8	10
Cosley, D.	4	13
Desmarais, S.	8	10
Egan, K.G.	7	7
Ellison, N.B.	27	36
Faloutsos, C.	0	17
Gray, R.	10	12
Han, J.	0	14
Hempel, J.	8	8
Hou, H.T.	7	10
Huang, Y.M.	7	10
Kosinski, M.	15	30
Krasnova, H.	6	14
Kumaraguru, P.	0	16
Lampe, C.	21	24
Moreno, M.A.	20	29
Muise, A.	11	12
Przepiorka, A.	11	11
Shehab, M.	0	15
Stillwell, D.	16	29
Thai, M.T.	0	13
Ungar, L.H.	1	11
Vatrapu, R.	5	13
Vitak, J.	16	18
Wohn, D.Y.	8	14
Wu, S.F.	0	15
Xu, H.	8	13
Young, S.D.	0	22
Zhao, B.Y.	0	15
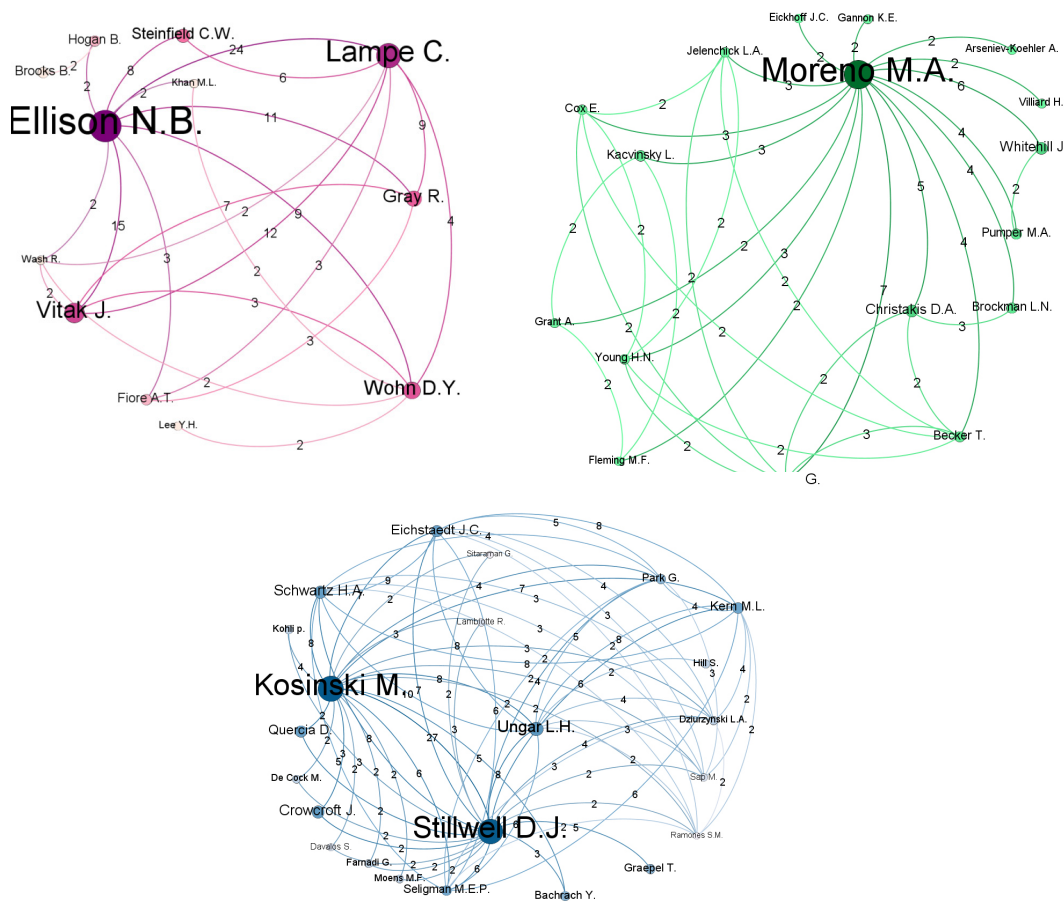
Fig. 9 Co-author networks of the top Facebook researchers (query 2; min. two co-authorships).
Data Source: Scopus. *Tool*: Gephi

3.6. Are Rankings of Title-Searches Similar to Rankings of Searches for Title, Abstract, and Keywords? (RQ6)

Some years ago, Wilson (1999) stated that the absolute values in hit lists are of little use, but "derived values (such as rankings) may turn out to be serviceable" (Stock & Stock, 2013, p. 454). In our analysis, we applied two search arguments (Query 1: title only vs. Query 2: title, abstract, and keywords). Of course, the absolute values of both hit lists differ greatly. However, are there correlations between the absolute numbers of both hit lists? And are there rank correlations between the two lists?

To measure the similarity of the two queries, cor-

relation coefficients (Pearson for the correlation of absolute numbers and – more important – Spearman's rho for the rank correlation) between the hit lists from Query 1 and Query 2 were calculated (Table 2). There is a significant positive interdependence between almost all indicators except for the rank correlation of authors (rho = .095) and of affiliations (rho = .391). For ranked author and affiliation lists it does indeed matter which query argument is applied; for years (rho = 1.000**), subject categories (rho = .950**), countries (rho = .775**), document types (rho = .755**), and journals (rho = .610**) the ranked lists lead to the same or to similar rank orders.

Table 2. Correlation Matrix for Title-Search Based Rankings (query 1) and Rankings of Searches for Title, Abstract and Keywords (query 2) (Pearson and Spearman's rho)

	Pearson Correlation Query 2	Spearman's rho Query 2	
Document Type	.957**	.755**	Query 1
Authors	.587**	0.095	Query 1
Subject Categories	.958**	.950**	Query 1
Affiliation	.582**	0.391	Query 1
Years	.997**	1.000**	Query 1
Journals	.716**	.610**	Query 1
Countries	.993**	.775**	Query 1

**. Correlation is significant at the 0.01 level (2-tailed).

4. DISCUSSION

In recent years Facebook has attracted widespread interest among researchers. This study analyzed 3,929 documents from Query 1 ("Facebook" in title) and 13,149 from Query 2 ("Facebook" in Title, Abstracts, or Keywords) indexed in the Scopus database from 2005 to 2016. The number of publications increased to 2,368 in 2015; however, in 2016 we observe a slight decline of Facebook-related papers. The most popular document types are journal articles, followed by conference papers. The USA and the UK are the most important contributors of Facebook-related publications. Facebook research is published in 137 journals (covered by Scopus), where most articles were released in *Computers in Human Behavior*. Considering the wide distribution of Facebook-related publications throughout the different subject categories, computer science and social sciences are dominant. Among the authors, N. B. Ellison from the School of Information of UM Ann Arbor is the top productive scientist. The top five authors represent different research views on Facebook. Ellison and Lampe prefer topics related to social sciences, while Moreno works on medicine-related topics, and Kosinski and Stillwell produce papers located in psychology and social sciences.

As a methodological byproduct we found that the rankings of years, subject categories, countries, document types, and journals are very similar independently from the search strategy (titles only versus titles, abstracts, and keywords combined). However, this result is not true for rankings of single authors and of affiliations.

In future studies, it will be interesting to review the wide spread of Facebook-related publications from other databases (as e.g. WoS as a multidisciplinary information service and discipline-specific databases as Medline for medicine, ACM Digital Library for computer science, or Sociological Abstracts for sociology) and to compare the outputs with our results. Additionally, it would be very interesting to analyze the state of collaboration among the scientists. Do they work inside their disciplinary borders, or are there any hints on multidisciplinarity, interdisciplinarity, and transdisciplinarity in Facebook research?

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