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Social Media for Scientific Institutions

How to Attract Young Academics by Using Social Media as a Marketing Tool

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Foreword by Prof. Dr. Dirk-Mario Boltz

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Berlin, Germany

BestMasters
ISBN 978-3-658-08821-7 ISBN 978-3-658-08822-4 (eBook)
DOI 10.1007/978-3-658-08822-4

Library of Congress Control Number: 2015930995

Springer Gabler

Printed on acid-free paper

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Springer Fachmedien Wiesbaden is part of Springer Science+Business Media
(www.springer.com)

Foreword

Looking at an evolving media landscape with increasing opportunities to communicate with customers on different levels, social media has become one of the most widely discussed topics in marketing and communications. Corporations as well as organizations and institutions debate whether or not, and how they should use different social media channels in order to address various stakeholders for different purposes. Researchers try to explore how the usage of social media effects the behavior of people – from the problems of excessive demands to the opportunities of a more intensive and valuable conversation with partners of all kinds.

This book applies the relevant questions of social media to the area of research institutions, a territory that is still relatively undiscovered. The authors follow the research question of how social media can empower the communication of the Berlin-Brandenburgische Akademie der Wissenschaften (BBAW) to its designated target group of young academics. They provide profound answers by conducting a very comprehensive analysis. By applying preliminary talks, an online survey, a benchmark analysis as well as expert interviews, the authors use a multiple method approach to cover several angles and perspectives of the topic. Finally, the reader will find a holistic social media concept for the BBAW with clear guidelines for immediate application and implementation. Diagrams, illustrations, models and short summaries after each section deliver compressed insights and a convincing reading experience.

The BBAW was founded in 1700 by Gottfried Wilhelm Leibniz (1646 – 1716) under the Elector Frederick III of Brandenburg. From the beginning, the research institute has united the natural sciences and the humanities, which made it the prototype for many academies that followed. Now, can this social media concept also be prototype for other academies and similar institutions?

I strongly recommend this book to academics as well as professionals because it helps both to understand the phenomena of social media and to develop successful concepts.

Prof. Dr. Dirk-Mario Boltz
Department of Marketing, Berlin School of Economics and Law
With nine professorships the department of marketing is hosting the largest faculty of marketing academics within a German business school.
Prof. Dr. Dirk-Mario Boltz holds the chair of marketing-communication and is teaching and researching in the area of branding, consumer behavior and communication.

Profile of the institute

The Berlin School of Economics and Law (BSEL) is one of Berlin’s largest universities of applied sciences. With more than 50 programs it offers Bachelor, Master and MBA degrees that are taught in both languages, German and English. It provides the know-how and expertise for the new generation of private and public sector managers, specializing in business and administration as well as public security, law and engineering.

With its clear focus on applied skills, the BSEL has 16 company-linked programs and cooperation with 480 companies. Thus, theory is applied in real-life business, for example through lecturers from the industrial sector, degree dissertations with companies, and supervised work experience. Its research is characterized by an interdisciplinary approach, with internal research funding and management, research institutes and third-party projects. Also, the BSEL has a global network of more than 100 partner universities and international multilingual programs that underline its multifaceted international perspective. Additionally, it is a member of the UAS7 "Alliance for Excellence".
Finally, the BSEL is firmly rooted in Berlin, a vibrant and exciting city at the heart of Europe. As Germany's capital as well as political and cultural center, Berlin displays an optimal destination for academia and science.

Preface

According to a recent studies, nearly four out of five Internet users use at least one social networking site. Consequently, the question whether or not brands should engage in social media has become irrelevant. In fact, now companies must decide which of the multiple channels are not only the most suitable ones to reach the target group, but also which ones go in alignment with the set objectives.

In the existing literature, the phenomenon social media and its implementation in companies is widely discussed. However, gaps have been discovered when reviewing the application to specific industries – so in the world of academics, researchers and scientists. Hence, the thesis deals with the assessment and implementation of social media in scientific institutions, specifically in the Berlin-Brandenburg Academy of Sciences and Humanities.
For that matter, in the first step data was collected in order to analyze the preferences and social media behavior of Young Academics, the main target group of the Academy. Based on the findings, a holistic social media concept was developed. The goal of the concept was to promote the excellent offerings of such institution as well as to foster an ongoing dialog that not only attracts Young Academics but also retains them in the long run. By means of a comprehensive online survey, complemented by an industry benchmark analysis and expert interviews, various models were designed. Those models help the reader to follow and assess the main ideas of the concept in a more comprehensive and tangible way, such as the development of the strategy, the content generation and platform selection. Finally, for an effective and efficient implementation process, opportunities and challenges are pointed out that the organization might encounter in this context.

Thus, this book delivers relevant information on how to assess and implement social media in scientific institutions, and it also provides useful insights into the target group of Young Academics as well as current issues in the field of social media in general.

Daniel J. Hurrle
Julia Postatny

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List of Abbreviations

BBAW	Berlin-Brandenburgische Akademie der Wissenschaften (The Berlin-Brandenburg Academy of Sciences and Humanities)
BMBF	Ministerium für Bildung und Forschung (Federal Ministry of Education and Research)
BVDW	Bundesverband Digitale Wirtschaft
CTR	Click-Through-Rate
DAAD	Deutscher Akademischer Austauschdienst (German Academic Exchange Service)
D-A-CH	Germany, Austria and Switzerland
KPI	Key Performance Indicator
P	The Four Ps: Price, Product, Place and Promotion
Q	Quarter
R&D	Research and Development (Forschung und Entwicklung)
ROI	Return On Investment
RSS	Really Simple Syndication
SMART	Specific Measurable Attainable Realistic and Time-specific
SMM	Social Media Marketing
SPSS	Statistical Package of the Social Sciences
TV	Television
USP	Unique Selling Proposition

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1. Introduction

Technological innovations constantly provide new research opportunities to all kinds of disciplines. Since the inception of the Internet, especially with the integration of social media technology into our daily lives, communication patterns began to change. Particularly over the last decade, social media has not only reshaped our communication, but also the way we are connected to one another as well as our thinking about relationships. The boundaries between the online communities and the real-world are rapidly stretching if not completely fading (Davis III et al., 2012, p. 3).

Born into a world that has never known a life without the Internet, a new generation of digital natives has emerged who is also referred to as *millennials* or *generation Y* (18-29 years old). Spending on average more than eight hours daily with digital technologies, for this generation the usage of social media has become a primary means of communication and information-seeking, and, eventually, an essential part of its identity and community building (Davis III, et al., 2012, p. 4; Lin, 2008). Digital natives have thus emerged as a powerful and influential online community, and companies must be aware to keep up with the rapidly changing technologies and societies. Even if they choose not to communicate via social media, they can certainly expect that others will speak about them.

Also for scientists and scientific institutions, Web 2.0 changes the way science is communicated, both internally as well as externally (Anderl, 2013). As they strive to play a leading role in technological and social innovations, they must learn to keep up with new ways of communication. Most importantly, they must learn to explore possibilities in order to maintain visibility. Acting as a public voice, scientific institutions not only have the opportunity but also the responsibility to exploit these possibilities to the fullest extent.

1.1. Problem Definition

Initiator of this thesis is the Berlin-Brandenburg Academy of Sciences and Humanities (Berlin-Brandenburgische Akademie der Wissenschaften, BBAW) which is also referred to as the Academy. The research institute unites exceptional scholars and well-respected scientists across national and disciplinary boundaries. Promoting the sciences, the Academy supports qualified Young Academics who will not only become prospect junior researchers but also people in positions of responsibility and visionary opinion leaders of our society. As one of its

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DOI 10.1007/978-3-658-08822-4_1, © Springer Fachmedien Wiesbaden 2015

missions is to encourage a dialog between science and society, the Academy offers highly sophisticated events, workshops, lectures and the like (BBAW, 2010a). However, the research institute is challenged by an elderly audience, especially at its events (Lerch, 2013). Reasons for this phenomenon could be the lack of awareness among the designated target group of Young Academics due to the preferred usage of traditional means of communication (Hermannstädter, 2009, p. 28).

Yet, how can the Academy stay up-to-date with modern ways of communication while also preserving its scientific appearance? What are the opportunities and challenges that come with social media at large, and how can the Academy overcome those obstacles? How can it explore and exploit these opportunities to the fullest extent? How can a successful social media strategy be built that is not only most appealing to the target group, but also most appropriate with regard to the research industry and the institution itself? How can the Academy encourage effective, efficient and sustainable online dialog between science and Young Academics? To what extent must the Academy adapt in order to become more attractive to the target group?

In dealing with these questions, the goal of this paper is to undertake an analysis and to develop a conceptual framework for the Academy of how to use social media as a marketing tool in order to attract and retain the designated target group of Young Academics and to make the brand more popular (Lerch, 2013) (see Appendix 1: Briefing with the BBAW).

1.2. Research Approach

In order to develop a social media concept that is most promising for the Academy as well as to the target group, a pragmatic approach was applied. That implies a mix of methods that appears best to the research problem. Instead of sticking to the methods typically associated with quantitative or qualitative research, different methods are used one after the other, so that, in the end, both approaches complement one another – giving greater significance to the quantitative research.

Firstly, qualitative research was conducted in form of preliminary talks with the target group in order to gain initial insights into the target group. Through observations, conversations and interaction with Young Academics, information about the designated target group were gained. Those findings were then used to contribute to the development of an online survey to measure attitudes on a large sample. Quantitative research was conducted via an online survey, and data was collected and prepared for statistical analysis. This analysis was carried out with the aid of the analytics software, Statistical Package of the Social Sciences (SPSS), which allowed

statistical calculations in order to draw conclusions. In addition, pre-tests helped to clear any discrepancies with regard to content and structure, and to identify technical issues. Furthermore, quantitative research was conducted in form of an industry benchmark analysis. Here, the online presence and social media activities of several facilities in the research industry were analyzed and compared in order to receive "best of class" solutions. After the social media concept was fully developed, a method of qualitative research was applied again in form of expert interviews. Here, results were presented to social media experts not only to obtain confirmation about the outcome of this thesis, but also to gain further valuable insights from another perspective.

Finally, in combining the results of the quantitative and qualitative research, the most promising concept was created for the Academy. Thus, the pragmatic approach not only has the advantage of using various data sources, but also of using multiple methods to study the research problem, including several perspectives – those of the Academy, Young Academics, competitors/industry, and social media experts.

1.3. Structure of the Thesis

The purpose of this thesis is to create a conceptual framework that allows the Academy to increase reach and brand awareness among Young Academics by means of using social media. To serve this purpose and to make the development of the concept more understandable and comprehensible, the paper is divided into four main chapters. After the introduction, theoretical foundations will be presented, followed by the research analysis. Together they form the basis of the underlying concept which results in a conclusion.

The theoretical part deals with fundamental topics around social media, as well as scientific institutions and academics in Germany. When scanning the social media environment for suitable channels, first of all social media will be defined before introducing different channels, user characteristics and motives. Afterwards, social media will be put in a business context. Here, the reader will learn how to use social media as a marketing tool, how it effects classical marketing concepts, and what companies are motivated by using it. In addition, the reader will be familiarized with the development of a social media strategy, along with goals and success factors, monitoring and budgeting aspects. When introducing scientific institutions and academics, relevant definitions will be presented and an overview of the research landscape will be given, comprising academies and higher education institutions. Afterwards, Young

Academics will be characterized, and the use of social media in a scientific context will be examined.

The situational analysis starts with an overview of the Academy. Here, background information will be delivered, along with goals and responsibilities and a product description. In addition, the customer base and audience will be analyzed as well as current communication efforts, and the research analysis will be presented. After introducing the applied methods, a detailed survey analysis follows. This part is essential to the thesis as it delivers insights into the target group. The research analysis results in an industry benchmark analysis. In addition, suggestions for customer segmentation and product adaptation will be given. Both the theory and the analysis build the foundation of the social media concept that is presented in the fourth chapter.

When presenting the social media concept, first of all context and observations are clarified, followed by the objectives. Then, the selection of content and the choice of platforms will be explained in detail. Furthermore, one will learn how this concept will be implemented, and how the Academy can monitor its activities. Challenges and opportunities of this concept will be presented afterwards.

The thesis ends with a conclusion which includes a summary, a critical reflection of the concept, and an outlook.

2. Theoretical Foundations

In the following section, the reader will be introduced to social media by clarifying the underlying theoretical foundations and giving an overview over the social media environment and its users. Moreover, it is important to understand how businesses can make use of social media marketing including the development of a social media strategy and the methods of monitoring and budgeting.
The reader will then be informed about the research landscape in Germany, including the academies of sciences and humanities and the higher education institutions on the one side, and Young Academics and their use of social media within the scientific environment on the other side.

2.1. Social Media Environment

The big excitement and hype about social media has slowed down, which does not mean that it has lost any of its significance. In fact, social media has reached the masses and has become an integral part of our daily life – the Internet transformed into a social web, meaning that websites without any social element hardly exist anymore (Aßmann & Röbbeln, 2013, p. 15). Technological progress and with it the change of user interactions and communication patterns have established a variety of possibilities for companies to contact and learn about customers and stakeholders. The available data in social networks enables the company to individualize and tailor both the offering and the communication to the preferences of the customer (Aßmann & Röbbeln, 2013, p. 15). Through social media, companies have the possibility to interact with the customer on an individual level and therefore get valuable insights about his needs and desires. By convincing the customer through honest and trustable actions, social media can be a mighty tool to build a positive reputation and a sustainable company image (Aßmann & Röbbeln, 2013, p. 15).
Furthermore, social media has also proven to be a channel for companies with a substantial reach. If content is relevant to social media users, they will share it within their reach of contacts, thus constantly increase the audience of the designed marketing message through the so called *multiplier* or *snowball* effect (Lorber, 2012; Singer, 2013). Brands like Old Spice demonstrated that by creating compelling content, the message can go *viral*, thus reaching a

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DOI 10.1007/978-3-658-08822-4_2, © Springer Fachmedien Wiesbaden 2015

great mass of customers in a short amount of time and with a reasonable budget, which would not have been possible with traditional marketing activities (Roberts & Zahay, 2013, p. 224).

2.1.1. Definition

„Social media is the media we use to be social. That's it." (Safko, 2010, p. 3). The social component in social media is defined through actions like sharing, collaborating, informing and communicating executed by human beings that are in some way connected to each other (Grabs & Bannour, 2012, p. 25). In other words, social media are offerings on the Internet that allow its users to exchange experience, share contents and create contents themselves (Beilharz & Bernecker, 2011, p. 24).

Generally discussing the meaning of the compilation of these two words, *social* stands for the "instinctual needs we humans have to connect with other humans" with the "need to be around and included in groups of similar like-minded people with whom we can feel at home and comfortable sharing our thoughts, ideas, and experiences" (Safko, 2010, p. 4). The second part of the term, *media*, denotes to "media we use with which we make those connections with other humans" thus being the "technologies we use to make those connections" (Safko, 2010, p. 4).

The Bundesverband Digitale Wirtschaft (BVDW, 2013, p. 150) defines social media as a variety of digital media and technologies that enable users to exchange experiences and to create medial content alone or as a community.

Within the social media environment, user interactions include the mutual exchange of information, opinions, impressions and experiences as well as the collaboration on the creation of content (BVDW, 2013, p. 150).

2.1.2. Channels

Different approaches for the classification of the multitude of social media categories and channels (in the course of this study also referred to as *platform* or *instrument*) exist. Safko (2010, p. 9) uses a detailed classification identifying 15 social media categories: *Social Networking, Publish, Photo Sharing, Audio, Video, Microblogging, Livecasting, Virtual Worlds, Gaming, Productivity Applications, Aggregators, RSS* (Really Simple Syndication), *Search, Mobile, Interpersonal*. Another detailed categorization trying to break down the complexity of the various social media tools is visualized in the Social Media Prisma by Ethority (2013), which tries to classify the numerous platforms in the German market by their main purpose (e.g. bookmarking, live stream, collaboration, etc.). For readability purposes, the

corresponding model is attached in the appendix (see Appendix 2: Social Media Prisma by Ethority).

Beilharz & Bernecker (2011, p. 27) use a broader classification and identify only six categories, describing the nature of the channel: *Blogs, Wikis, Social Networks, Forums & Usegroups* (communities), *Location Based Services*, and *Content Sharing Platforms*. This categorization is used in the following to explain the characteristics of the different channels. As a detailed introduction to all social media instruments is impossible due to the sheer amount of channels, this study mainly focuses on those relevant for the implementation of the BBAW's social media concept. Detailed instructions of how the implemented channels can be used to reach the Academy's goals will therefore be discussed in the implementation section of this study (see 4.4. Modulation of Channels).

2.1.2.1. Social Networks

The category *social networks* is certainly one of the stronger ones of social media, comprising a multitude of different platforms, and is often used synonymously with social media. Platform usage varies by location and age, with global players like Facebook that is popular in many countries around the world and throughout different age groups, and niche platforms that only play a role in certain regions or among certain age groups. Analyzing the German market of social networks, Facebook is clearly attracting the most users with an overall share of 64% enrolled in this social network and 56% using it actively. Stayfriends (20%) and Wer-kennt-wen (17%) are German niche platforms that have an even higher share of enrolled users than Xing (13%) or Twitter (13%), but are most common among older users (Bitkom, 2013, p. 5). Additionally, some new and trending social networks show a higher share of users in the younger segment (14-29 years old), with a 6% enrollment share at Tumblr (compared to only a 2% of the total sample) and 5% at Pinterest (compared to a 3% of the total sample) (Bitkom, 2013, p. 6).

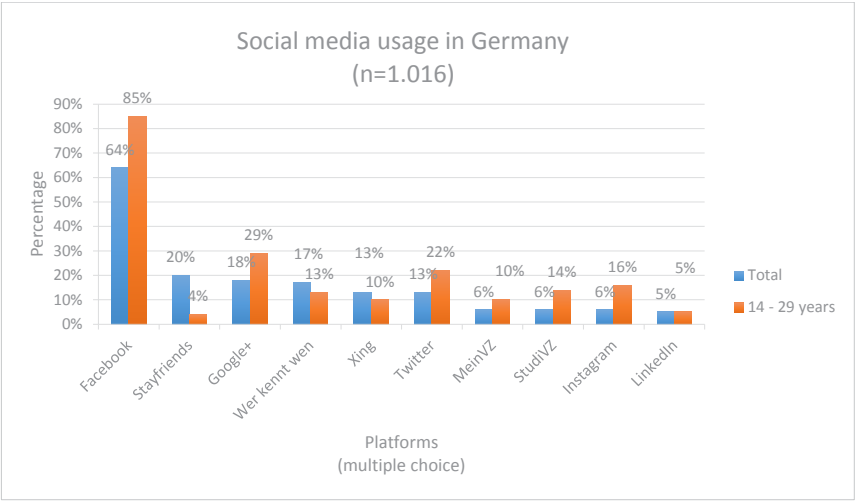

Figure 1: Social media usage in Germany

Source: Bitkom (2013, pp. 5-6)

In the following, the most important and relevant social networks in Germany will be introduced.

Facebook

Facebook offers its users to share their life with their family, friends and colleagues. By signing up with their real name, users create a profile page on which they are able to post pictures, videos, text and links they want to share with friends or even the whole world. Additionally, users can *like* company pages, bands, TV series, movies, etc. and will then receive updates about those in their *news feed* (Grabs & Bannour, 2012, p. 274).

Facebook has grown to an impressive social network giant with users around the globe. Facebook now has 1.189 million monthly active users, 276 million alone in Europe (Facebook, 2013, p. 4). 61% of all Facebook users even log in on a daily basis. In Germany, Facebook now has 25 million monthly active users, with 19 million (76%) using the platform on a daily basis (Wiese, 2013).

Twitter

Users of the real-time medium Twitter can share their thoughts in posts limited to 140 characters. The real strength of this social network is the direct communication in real-time. The posts to the platform (*tweets*) can be tagged with so called *hashtags* (e.g. #weather) in order

to put the posts in public categories. Thus, public discussions about trending topics are made possible. Twitter is also often used at conferences or TV stations (*second screen*) to enable an interactive element or discussion with the audience (Grabs & Bannour, 2012, p. 227).

As of the third quarter of 2013, Twitter has 231,7 million monthly active users, which is an increase by 65 million users (+39%) compared to last year's third quarter (Constine, 2013). Although growth numbers are still high, they are decelerating, as the monthly active user growth compared to the previous year was 44,37% for Q2, and 47,82% for Q1 (Constine, 2013). According to a study by Globalwebindex (2012), only 6% of German Internet users use Twitter actively. According to another study, 825.000 Twitter accounts tweeting in German were identified in November 2012 (Pfeiffer, 2012). Reasons why Twitter hasn't been successful yet in reaching the masses in Germany are manifold. One reason could be that Facebook was more accessible for German Internet users and they don't see the need to sign up for another social network with comparable features. Others see the limited possibilities and features of Twitter (e.g. only 140 characters per post) as an obstacle for Twitter's growth in Germany (Tantau, 2013).

Google Plus

Google Plus (Google+) is Google's response to Facebook in trying to get a bigger slice of the social media cake. Integrated into Google's massive portfolio, it has a profound basis of user reach through its already existing platforms and services (e.g. Youtube, Google Mail) (Grabs & Bannour, 2012, p. 313). Although it is often directly compared to Facebook, Google Plus differs in some functions. The general structure of Google Plus is comparable to the one of Facebook, with user and corporate profiles and a news stream. By adding special features like the organization of contacts in circles (in order to share specific content only with specific users) or the video conference feature *Hangout*, Google tries to differentiate its product (Grabs & Bannour, 2012, pp. 313-317).

Google Plus has now 540 million members, with "300 million people active in just the stream" (Gundotra, 2013). As different analysts pointed out, this number might be overrated and should be handled with care because of the activities that Google takes into account (Isaac, 2013). Also, due to a lack of official user numbers on a per country basis, user numbers for Germany can only be estimated. A projection by Circlecount (2013) projects a number of 8,3 million German Google Plus users.

Xing

Xing is a social network with a focus on the D-A-CH (Germany, Austria, Switzerland) market, targeted at professionals and the business segment. It brings employees and employers together with functions like job listings, event and conference organization or the search for assignments and cooperations (Aßmann & Röbbeln, 2013, p. 31). Users with the same specializations or professions can connect and discuss in dedicated groups, comparable to user forums (see 2.1.2.3. Wikis and Forums). Like on other social networks, there are private profiles for the individual user and corporate profiles for companies and organizations. Thus, employees can connect their private profiles with the corporate profile of their company. By using Xing, companies can publish news to their followers and find prospect employees via the social network. Additionally, the event function allows for a promotion of corporate events (Grabs & Bannour, 2012, pp. 329-333).

For the second quarter of 2013, Xing reported 13,46 million members worldwide, with 6,51 million users (48%) out of the D-A-CH region (Xing AG, 2013, p. 2). Of these 13,46 million users, 825.000 users (6%) are premium users. The majority of those paying users (801.000 users, 97%) come from the D-A-CH region (Xing AG, 2013, p. 2).

Linkedin

Linkedin is the international pendant to Xing, with the goal to "connect[s] the world's professionals to make them more productive and successful." As of the third quarter of 2013, Linkedin acquired over 259 million members worldwide (Linkedin, 2013, p. 2). Linkedin is closing up to Xing in the D-A-CH region with reaching over four million members in the area of Germany, Austria and Switzerland and, thus, should be further kept in mind (Herrmann, 2013). But, for the moment, Xing has established itself as the leading business social network in the German market.

Researchgate

The "professional network for scientists and researchers" (Researchgate, 2013, p. 3) Researchgate states as its mission to give "science back to the people who make it happen" (Researchgate, 2013, p. 2). Researchgate plans to do so by giving researchers the possibility to create profiles that provide others with information on recent publications, contributions and institutions they are involved with. This helps to identify research already undertaken and to find potential collaborators in a specific field (Cherry, 2013). Signing up to Researchgate is only possible with an e-mail address of a scientific institution or research company, making it exclusively available to researchers (Yeung, 2013).

Researchgate now has more than three million members in 193 countries worldwide offering access to over 50 million abstracts, eleven million full texts and 15.000 job listings (Researchgate, 2013, p. 2). A third of the members can be identified as active users, logging into the social network at least once a month. Still being in an earlier development stage, Researchgate already shows big potential in the specific area of science and research (Cherry, 2013).

Other Networks

Numerous other networks, some of them especially targeted at the German market, exist. In general, Wer-kennt-wen, Stayfriends, Meinvz und Studivz are all build on the same concept like Facebook, namely to connect to and share your life with family and friends. Wer-kennt-wen claims to have over 9 million users (Grabs & Bannour, 2012, p. 321), Stayfriends even over 14 million users (Stayfriends GmbH, 2014). But since the rise of Facebook in the German market, those German social networks have been suffering a steady decrease in page visits (see Appendix 3: Development of page visits of selected German social networks). This development doesn't mean that they can be completely ignored when building a social media marketing strategy – depending on where the target group is present – but they will be excluded from further analysis due to the predicted development in the German market and the not matching target group of those social networks with the designated target group of Young Academics.

2.1.2.2. Blogs

A blog replaces the former news section on the company website. The wording blog is an abbreviation of weblog, which explains the chronological structure that a blog normally is built upon. The blog is a much more dynamic and up-to-date section compared to the general website and gains its social nature through a comment and subscribe feature. Blogs are an excellent tool to bundle all social media activities in one place, thus functioning as a social media hub. Once published, other bloggers are then able to refer or just link to the content, thus, creating a conversation in the social web (the *blogosphere*) and additional traffic to the corporate website (Grabs & Bannour, 2012, p. 175). Additionally, through the integrated blog feature RSS (Really Simple Syndication), users can subscribe to the blog and are thus notified if any new content is published (Kamble, 2008). Blogs can be either hosted externally at providers like Blogger, Wordpress or Tumblr or internally on an own server. The latter method has the advantage of granting the company full control over the content and design of the blog.

Although it is difficult to state an exact number, in 2012, a total number of 200 million existing blogs was estimated, with 40% of its users having an academic degree (Grabs & Bannour, 2012, p. 178).

2.1.2.3. Wikis and Forums

A wiki (Hawaiian for "fast") is a social network where volunteers contribute and edit "content within articles on specific subjects" (Safko, 2010, p. 159). Thus, the collective wisdom creates a comprehensive database of articles. The most prominent example of a wiki is Wikipedia, an encyclopedia built up by users around the globe. The German version alone has now more than 1,6 million articles and 1,8 million registered users (Wikipedia, 2014). The usage of the network is much higher: according to Alexa (2014a), it is the seventh most visited website in Germany. Besides open to the public wikis, closed wikis that are restricted to specific members exist. Those wikis are often used by companies and organizations to "create knowledge management systems for retaining corporate information for collaboration and for training" (Safko, 2010, p. 159). Wikis are often the first point for users to gain information on a specific topic, and should therefore be regularly monitored for up-to-date information.

Forums, also known as (online) communities, are a "great way to engage people in an interactive ongoing conversation on a particular subject" (Safko, 2010, p. 119). Subjects discussed vary widely, from cars (e.g. Motor-talk.de) to cooking (e.g. Chefkoch.de) or general questions (e.g. Gutefrage.net). Those forums have a considerably reach of users – Motor-talk.de claims to be Europe's biggest car community with nearly 2,4 million users (Motor-talk.de, 2014). But also smaller communities with very specific topics exist, making the exchange about a subject possible on a global level.

2.1.2.4. Content Sharing Platforms and Location Based Services

It is difficult to draw the line between social networks and content sharing platforms, because social networks are also used to share content. However, due to their main function (sharing content), and for the means of a categorization of social media, the following platforms are being considered as content sharing platforms (Grabs & Bannour, 2012, pp. 339-340).

Although audiovisual content sharing platforms dominate the market, platforms to share other content like presentations (e.g. Slideshare) or documents (e.g. Scribd) exist, but are being excluded from the analysis as they are not relevant for the developed concept for the Academy (see 4. Social Media Concept).

However, audiovisual content being shared on the social web can be divided into three categories (video, photo, and audio), as depicted in the following.

Video Sharing Platforms

The biggest and most popular video sharing platform is Youtube, which belongs to Google since 2006 (Grabs & Bannour, 2012, p. 351). Due to the embedding possibility, videos are not only watched directly on the dedicated website of Youtube, but are found across the Internet. With the subscription feature, Youtube users can subscribe to Youtube channels created by others. Available in 61 languages, Youtube has more than one billion unique visitors that watch over 6 billion hours of video each month. But those users do not only consume, they also produce – uploading a total of 100 hours of video every minute (Youtube, 2014a). Another video platform that is getting more and more attention is Vimeo, which has a more artistic and high-quality approach than Youtube and is more difficult to use for commercial reasons due to restrictions of commercial content (Grabs & Bannour, 2012, p. 361).

Photo Sharing Platforms

One of the most established and oldest photo sharing platforms is Flickr, which belongs to Yahoo. Flickr allows its users to share their photos in high quality with the world, in order to just showcase the created artwork or to give and get feedback. Additionally, users can discuss topics in community groups (Grabs & Bannour, 2012, p. 367). As of March 2013, Flickr counted 87 million global users that uploaded on average 3,5 million pictures a day (Jeffries, 2013).

Boosted by the technical progress of mobile devices and the underlying infrastructure, Instagram revolutionized the mobile photography market and gained rapid popularity among smartphone users. Only available as mobile application, Instagram offers its users the possibility to apply filters to their photos (or as of late also short videos). Additionally, the uploaded content can be viewed and discussed with the global community, which now has grown to 150 million monthly active users. Those users upload on average 55 million pictures per day, and *like* other content up to 1,2 billion times a day. Facebook ceased the opportunity to access the user base, data and knowledge and acquired Instagram in 2012 (Instagram, 2013).

Pinterest is another network to share visual content. Users can bookmark (*pin)* any content they find in the web on their *boards*, which function as the categories the pins are put into. Boards of others can be followed, so that new pins added by contacts will be presented to the user in a stream. Each pin is linked to the original content in the web, thus driving referral traffic to the original source (Pinterest, 2014). Pinterest has now over 70 million users and is the “fastest growing content-sharing platform” (Socialable, 2014). 68% of its users are (still) American and it mainly appeals to women, who make up for 80% of the users (Socialable, 2014).

As Instagram focuses on mobile content sharing, and Pinterest appeals mostly to the lifestyle segment, these platforms might not be suited for the requirements of the BBAW.

Audio Sharing Platforms

Although video sharing platforms like Youtube are also often used to share music, specific music sharing platforms exist. Myspace, once the biggest social network worldwide, has lost many of its users to Facebook, but still counts about 200 million registered users (Grabs & Bannour, 2012, p. 322). Last.fm is another network that helps users to find new music based on the songs already listened to. Soundcloud, a relatively young music sharing platform with the mission to "become the Youtube of audio", is becoming increasingly popular and had more than 38 million global users in March 2013 (Mac, 2013). On networks like Spotify and Simfy, users can find numerous tracks to listen to and share those with their friends. Spotify now has over 24 million users, with 6 million being paying subscribers who pay a monthly fee in order to gain access to premium functions like offline usage and an ad-free environment (Spotify, 2014).

Location-Based Social Networks

Location-based social networks have become popular with the ability of smartphones to track the device's geographical position. But besides the main function of sharing the location of the users with others, location-based social networks offer additional opportunities. Foursquare, one of the most popular location-based social networks, offers its users to check in at locations like stores, restaurants or public spaces. For every check-in, users collect points and are granted badges, therefore adding a *gamification* component to the concept. The user with the most check-ins at a location becomes the "*mayor*" of this venue, and is often thanked for his loyalty with specials (e.g. a free drink) by the company operating this place (Barker, et al., 2013, pp. 268-269).

Foursquare has 45 million users worldwide, who checked in over 5 billion times, adding another couple of millions of check-ins every day (Foursquare, 2014). Official user data for the German market do not exist – but the Bitkom (2013, p. 6) survey shows a very low usage of only 1% for the German market.

2.1.3. User Characteristics and Motives

In order to understand who is using social media and why, a general description of the average social media user and his motives is given. A detailed analysis of the usage behavior of Young Academics was then undertaken in the online survey (see 3.2.2.4. Social Media Usage).

According to a recent study (n=1.016) conducted by Bitkom (2013, p. 2), 78% of all Internet users are enrolled in at least one social network, with 67% using those actively. On average, those 78% are enrolled in 2,5 social networks, but only use 1,4 actively. Gender doesn't play a role as it affects these numbers only slightly (+/-1%) (Bitkom, 2013, p. 2). Regarding the influence of the age on the social media usage, it can be observed that the younger the user, the higher is both the share of users that are enrolled in social networks (14-19 years: 93%; 60 years and older: 66%) and the share of those using them actively (14-19 years: 93%; 60 years and older: 47%) (Bitkom, 2013, p. 2).

When it comes to the frequency of social network usage, 69% of the respondents use social networks daily. In the younger segment (14-29 years old) even 89% use them daily, with 52% spending more than one hour a day (Bitkom, 2013, p. 9).

Those Internet users not being enrolled in a social network, show only little potential to become a member of one in the next 12 months, with a majority stating that it is rather not probable (25%) or even not at all probable (70%) (Bitkom, 2013, p. 4). Reasons against the usage include missing benefits for the user (74%), concerns about publishing private information in the Internet (56%) or a negative impact on the career (45%) (Bitkom, 2013, p. 4).

In general, social networks are mostly used in a private context, but this depends also on the specific platform. Thus, Facebook is used by most users in a private context (94%), whereas the business network Xing is mainly used (52%) in a business context (Bitkom, 2013, p. 7).

The usage of social media while on the go increases due to the technological progress including sophisticated devices and improving network coverage of mobile data transmission. 49% of the respondents that use social media actively do so by accessing it while on the go (Bitkom, 2013, p. 10). 73,5% of Facebook's users access the social media platform from a mobile device (Facebook, 2013, p. 6). In Germany alone, more than 18 million Facebook members log into their accounts via a mobile device monthly, with 13 million doing so even daily (Wiese, 2013).

Since social networks are mostly used in a private context, it comes as no surprise that most people use social media in order to communicate and stay in contact with both friends (73%) and family (47%). 26% use them to communicate and stay in touch with colleagues, 32% inform themselves about brands and products or even look for offerings of products and services (27%) (Bitkom, 2013, p. 13).

Every platform offers its users a varying set of actions and possibilities. In general, functions can be categorized into four levels: communication, information, organization, and entertainment (Bitkom, 2013, p. 14).

One of the most popular actions of social networks is to send private messages or chat, which 85% of social media users use (Bitkom, 2013, p. 11). Getting informed about events (66%) is another prominent feature. 65% use social networks to upload photos and videos; the same number uses them to share content like photos, videos, texts or links. Other actions include the participation at sweepstakes (49%), calls and videoconferences (48%) or to check into locations (31%) (Bitkom, 2013, p. 11).

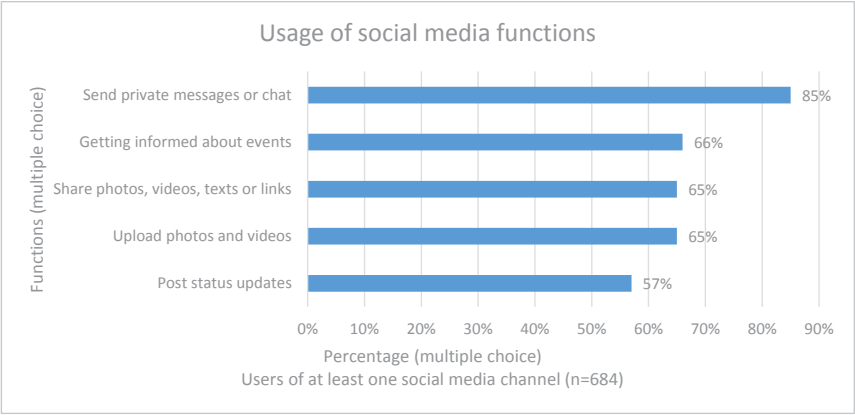

Figure 2: Usage of social media functions

Source (adapted and translated): Bitkom (2013, p. 11)

2.2. Social Media in a Business Context

Having analyzed social media channels and users in the general environment, the application of social media within a business context will be described.

2.2.1. Social Media Marketing

As social media marketing (SMM) is still a relatively young discipline, multiple definitions exist. A very short definition of SMM is as basic as it gets: Social media marketing are marketing activities implemented within the social media environment (Beilharz & Bernecker, 2011, p. 23). Some authors like Barker et al. (2013, p. 3) define SMM with regard to the objective of it, namely to "positively influence consumers toward a website, company, brand, product, service, or a person" by using "social media portals" in order to achieve a "conversion, such as the purchase of a product, subscription to a newsletter, registration in an online community, or some other desirable consumer action" (Barker, et al., 2013, p. 3).

Many companies have misunderstood digital marketing including social media marketing as just another channel they can use to distribute their existing marketing material. But it is not enough to take the print brochure and distribute it digitally. Social media marketing differs from "traditional" marketing in many ways. Where traditional marketing tried to control the content seen by its audience, SMM "emphasizes audience contribution, and relinquishes control over large parts of the content", thus building an ongoing conversation (Barker, et al., 2013, pp. 15-16). Due to the release of full control, it is all the more important to build trustful relationships. Furthermore, the digital environment and especially social media offers much more possibilities to create a message that is relevant, personal and engaging to the customer. Offered voluntarily by the user, the user's social status, his preferences, location and socio-demographic data allow for a tailored targeting of the marketing message. In the digital era, the social media user expects content that is both individualized and relevant to him (Lembke, 2011, p. 57; Kreutzer, 2012b, p. 65). The consumer of today is aware of his power and acts after the paradigm of "everything, for me, immediately and everywhere" (Kreutzer, 2012b, p. 65). Thus, it is essential to create valuable and relevant content according to the golden rule of "content is king" in order to attract attention of the designated target group (Adda, 2012, p. 29).

Apart from enhancing the content for the social media user, it is important to format the content published in a way that is optimized for search engines. In order to be categorized as relevant content by search engines, content has to be labelled with the according tags and the quality of the text including text length, format and the appropriate use of key words (Firnkes, 2013, p. 11).

Thus, both relevant and compelling content that meets the expectations of the user and is formatted for a better recognition by search engines (search engine optimization, SEO) in order to make this content visible is important in social media marketing. Algorithms used in SEO include Google's Pagerank and Facebook's Edgerank. Whereas the PageRank is used to analyze the relevance of a website (e.g. by the number of referrals), the Edgerank influences the positioning of content in a user's news feed on Facebook (Firnkes, 2013, p. 19; Applum, 2014).

Besides the generally high expectations of customers towards brands, what is their attitude towards advertising in social media? According to a study by Tomorrow Focus Media (n=589), only 13,6% have a positive attitude towards advertisement and sponsored stories. Despite the rather negative attitude towards advertising in social media, the majority (64,5%) of social media users visit business profiles on social networks. 69,6% see a high information content

about products and services as an important aspect for an attractive social network profile. 62,1% want rebates and coupons, 47,7% expect regular sweepstakes. 55,5% see the customer proximity enabled by social networks through direct dialog as an important aspect (Tomorrow Focus Media, 2013, p. 22).

2.2.2. Effects on Classical Marketing Concepts

Social media marketing is mostly seen as a part of the online marketing mix. Some authors go one step further by stating that social media marketing is much more complex, challenging and sustainable and succeeds the possibilities of online marketing (Lembke, 2011, p. 75; Grabs & Bannour, 2012, p. 44).

Social media affects every element of the marketing mix. *Promotion* is affected as social media enables an ongoing and direct customer dialog with immediate feedback. Social media also creates valuable insights concerning the *product* or service through crowd-sourcing and additional customer insights. The *price* component is becoming increasingly transparent, as customers constantly exchange information about prices via social media. Social commerce affects the *place* component of the marketing mix by offering integrated shops in social networks and the integration of social elements in the (e-)commerce environment (Rauschnabel, et al., 2012, pp. 5-9; Grabs & Bannour, 2012, p. 46).

The classical approach to divide marketing activities into fragments of paid, earned and owned media can be difficult in the online marketing environment, due to an overlap of two or more categories. Therefore, these former distinct media begin to converge, thus creating the new form of converged media. Paid media comprises all kind of advertising like banner ads, search ads, sponsored links (media buy necessary) (Lieb & Owyang, 2012, p. 4). Owned media is classified as content that "a brand either owns or wholly controls" including channels like the company-own website, blogs, videos and also the brand's social media presence (no media buy necessary) (Lieb & Owyang, 2012, p. 4). Earned media comprises content that is generally not initiated by the brand, but "created and/or shared by users" (user-generated content) (Lieb & Owyang, 2012, p. 5). As stated before, a division of marketing activities into these three categories is difficult, as confluences of two or more categories are common. In order to reach the customer "exactly where, how, and when they want, regardless of channel, medium, or device", a consistent mix of all three media is advisable, which is then called *converged* media (Lieb & Owyang, 2012, p. 5).

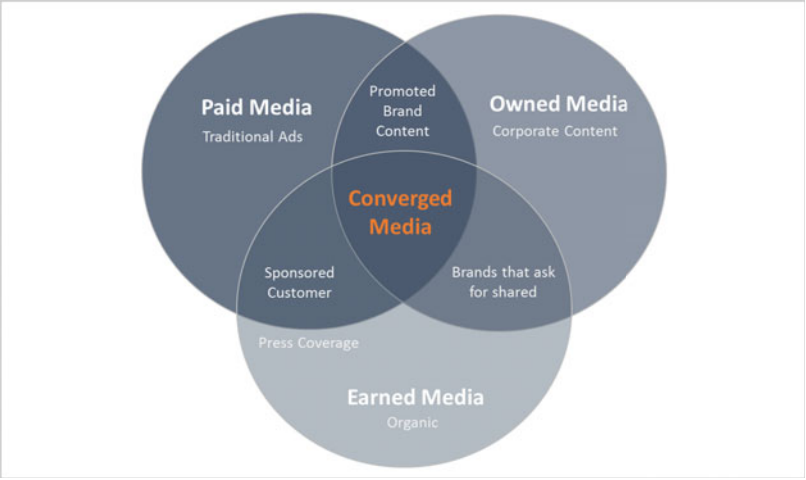

Figure 3: The convergence of paid, owned and earned media
Source: Lieb & Owyang (2012, p. 5)

2.2.3. Company Motives

The motivation to engage in social media and the respective goals can be manifold. According to a study by the Deutsche Institut für Marketing (2012, pp. 10-11), most companies name *customer retention* (73,6%) and *customer acquisition* (64,9%) as the reason to engage in social media. *Supporting online marketing objectives* follows right after those with 64,3%, like driving additional traffic to the website, which, as a side effect, will in the long term also improve the rank in search engines (as mentioned before). Also, 64,3% try to *increase the brand and product awareness* by means of social media. Another goal can be to improve the brand's or product's reputation (49,4%) by achieving an image of trust and credibility, e.g. through a consistent communication in social media. Through the direct communication with the customer, social media can also be used for market research, as 31,2% also named a reason to invest in social media. Not only the prevailing mood towards the brand can be analyzed via social media – one objective can be to use the wisdom of the crowd for product innovation (crowdsourcing). 30,5% use social media for recruiting purposes (Deutsches Institut für Marketing, 2012, pp. 10-11).

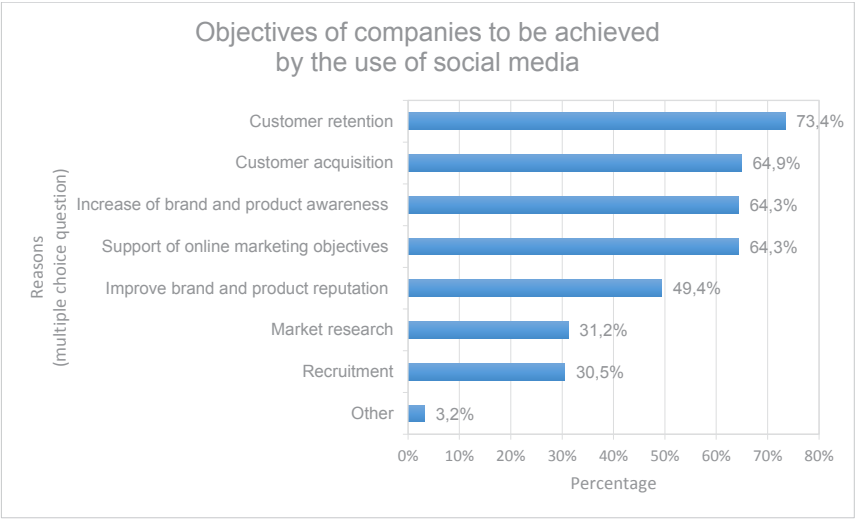

Figure 4: Objectives of companies to be achieved by the use of social media
Source (own design and translated): Deutsches Institut für Marketing (2012, p. 11)

Due to the fact that word-of-mouth, like the recommendation of a product by a friend, is of much higher value in the buying process, the usage of the recommendation feature of social media in order to increase the actual revenue of products can be another objective. Establishing the brand as opinion leader and expert in the industry by bringing in the brand's competence to the social conversation can be a goal in order to build the brand's image and position it as an active and competent company (Lembke, 2011, pp. 64-70).

2.2.4. Development of a Strategy

Social media marketing is still young, so are its approaches for strategy development. In the beginning of the social media hype, many companies didn't realize which impact a social media strategy can have and handed the responsibility for this matter to their interns – who did their best with a try-and-error principle of campaign creation. Now that social media has proven to be more than just a fad, various ways of creating a strategy concept exist. All concepts require the clarification of qualitative and quantitative objectives as well as available resources to implement those. To achieve these objectives, the following components have to be integrated into a social media concept: content, channels, media, business integration, community building, and monitoring (Lembke, 2011, p. 58).

In the existing literature, many practical approaches of developing a social media strategy exist. Beilharz & Bernecker divide the steps to implement the strategy into three steps: listen, respond and contribute (2011, pp. 55-64).
Lembke (2011, pp. 59-64) differentiates between three different social media strategies: the marketing model, the business model, and the process model.

The marketing model operates by trying to answer the question of how to communicate to which target group with which business goals on which channels with which effect (Lembke, 2011, p. 59). Bundling all objectives, the expectations of different target segments and all this within the complex nature of social media into one common social media strategy can be very challenging. Also, according to Lembke (2011, p. 60), another difference between classical marketing strategies and social media marketing strategies are the disproportional use of digital media in the marketing mix. That's why a fifth dimension (media) is added to the center of the classical marketing mix, since all other instruments (price, place, product, and promotion) can interact with it.

The business model tries to find a solution of how to adapt the existing business model to the digital environment. Business models can be broken down into four categories: content, commerce, context and connection. This method is also called the "4C-Net-Business-Model" (Lembke, 2011, p. 61). A content strategy focuses on the provision of relevant and personal content to be provided to its users online in an easy and comfortable way, whereas the commerce strategy tries to substitute or complement traditional transactions by means of the Internet. A context strategy aims to provide existing online information by means of classification and systematization, whereas a connection strategy sets the objective to provide a platform for the exchange of information between users (Lembke, 2011, p. 62).

The process model focuses on the process of how to proceed strategically in marketing. This approach helps to focus on the implementation of social media by setting clear objectives that should be achieved through the use of this channel. Other authors (e.g. Barker, et al. (2013, p. 26) with the *Social Media Planning Cycle* or Firnkes (2013, pp. 255-258) with a comparable approach) supply models that work similarly. For a holistic social media marketing strategy, Lembke (2011, p. 63) provides the following steps: 1) context and observation, 2) objectives and KPIs (key performance indicators), 3) selection of media, 4) media production, 5) mentoring, 6) monitoring and correction.

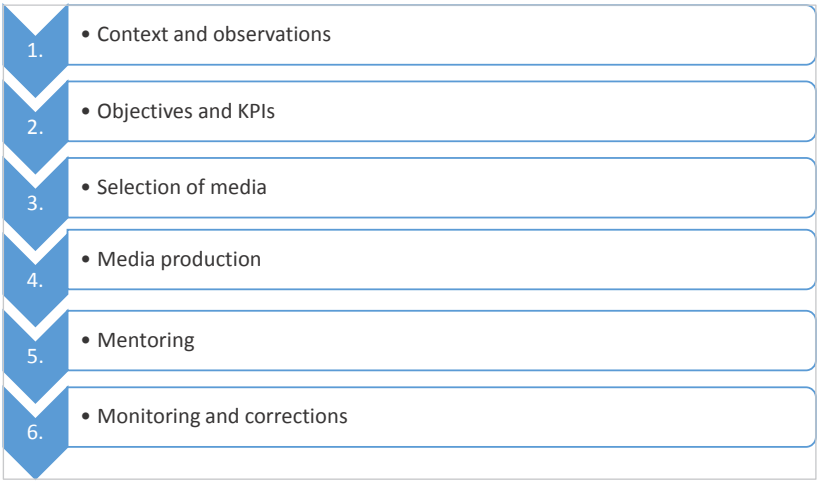

Figure 5: Process of a holistic social media strategy
Source (own design): Translated and edited from Lembke (2011, p. 63)

In the first step of this model (context and observation), available personal resources and responsibilities should be clarified in order to set an environment for social media activities that is realistic and applicable. Second, it is important to establish clear and SMART (specific, measurable, attainable, realistic and time-specific) objectives and KPIs that should be achieved by the implementation of social media, as different goals demand different platforms and content used in implementing the strategy. Furthermore, a success of the strategy can only be measured by clearly stated objectives and KPIs available for measurement. In the step of production of content, media that match the message and image of the marketing campaign is carefully selected. In the fourth step, platforms are chosen that suit the desired outcomes and match the social media behavior of the designated target group. This step has an essential influence on the chance of success of each social media campaign – a social media campaign can be outstanding but will lead to no success if the target group is not being reached through the selected platforms. In the mentoring phase, other departments have to be mentored and engaged in the company-wide process, where the marketing department functions as a consultant and expert (Lembke, 2011, p. 63). Once the campaign is launched, the work isn't done: all channels should be closely monitored to see if the desired outcomes are achieved and actions must be undertaken to adapt the strategy to any changes (monitoring and correction phase).

2.2.5. Monitoring and Budget

When talking about social media monitoring, generally it has to be differentiated between social media monitoring and social analytics. Social media monitoring (also known as social listening) is the systematic observation and analysis of unstructured data like dialogs and other posts in the social media environment. In a first step, this "raw" and often qualitative data has to be classified in order to be analyzed. In contrast, social analytics deals with structured, quantitative data, e.g. data like the number of likes, shares, fans and followers etc. and can thus be analyzed without any further data preparation (Zahn, 2014). For both social media monitoring and analytics, specific tools like Socialbakers, Quintly, or Webbosaurus exist. Also, social media platforms do offer their own integrated monitoring tools, for example Facebook with Page Insights, or Twitter with Twitter Analytics. In the end, the level of depth and the extent of the desired data and the nature of data (structured vs. unstructured) determine which social monitoring or analytics tool has to be implemented (Zahn, 2014).

With an effective monitoring tool in place, negative sentiments about a brand can be identified in an early stage, so that so called "*shitstorms*" can be prevented. A *shitstorm* is a massive public outrage towards a brand within the social media environment and can have widespread impacts due to the connected nature of social media (Weinberg, et al., 2012, p. 199). They are feared by every company engaging with social media, some authors also claim that this fear is overrated and there is no permanent damage to the brand by them (Holtappels, 2014). However, some rules can help to prevent a *shitstorm*. For example, each criticism towards the brand should be addressed with a fast response. If the company made a mistake, it should also commit to and apologize for it. Additionally, if a company already managed to build a strong community of brand fans, it can count on their support and might not even have to intervene itself (Holtappels, 2014). Companies like Deutsche Bahn AG have established guidelines (often called *netiquette*) for both their employees and social media users of how to behave in social media (Deutsche Bahn AG, 2014). Thus, clear and transparent rules can help to create a respectful and honest dialog within the social media environment.

As for the budget, there is only little information in existing literature about how much social media really costs. Generally, social media is referred to as a channel that requires only small initial investments, as setting up accounts within the environment is in most cases for free. However, personnel expenses that are required to implement a consistent channel strategy that supplies customers with compelling content shouldn't be underestimated. Further cost can incur

through content creation, monitoring, SEO, or legal counselling. Moreover, as the organic reach of marketing messages is only at 15-20%, paid media is necessary to promote the content in order to reach the target group (Rodewald, 2014; Hurrle, 2014).

Though the possibilities in social media look promising, one of the most urging questions when discussing a possible social media engagement is the return on investment (ROI) of social media. It would be indeed convenient to calculate a definite number that estimates the ROI of social media, but the reality is that social media environment is far too complex and relies too heavily on qualitative data, so that a quantitative approach like the ROI is hard to apply to social media marketing measures. As for other marketing activities, social media engagements can only be analyzed concerning to the specific goal (e.g. awareness creation, image improvement, etc.) the measure was set up to achieve. In the end, a missing social media engagement due to the search for a definite return on investment can turn the ROI to *risk of ignoring* rather than *return on investment* (Grabs & Bannour, 2012, p. 59). Furthermore, it is difficult to assign the effects of social media activities specifically to one outcome, as many activities also have an impact on other areas (spill-over effects), for example a decrease in the cost of the customer support department or in the area of product innovation (Grabs & Bannour, 2012, p. 60).

2.3. Science and Young Academics

After scanning the social media environment, one must understand the field of application, meaning the world of science and research. Therefore, brief definitions will clarify any discrepancies. The German research landscape will be described along with the academies of sciences and the humanities, and the higher education institutions. Furthermore, the characteristics of Young Academics in Germany will be introduced. Afterwards, it is important to bring one and one together, and to examine motives and the relevance of using social media in a scientific context.

2.3.1. Definitions

Being the main field of application, firstly the word “science” is going to be defined. The noun has its origin in Middle English and it is known to be firstly used in the 14th century. The Old French term derives from the Latin word “scientia” (meaning “knowledge”), and it is defined as the “intellectual and practical activity encompassing the systematic study of the structure and behavior of the physical and natural world through observation and experiment.” (Oxford University Press, 2014a). The definition of the Merriam-Webster dictionary is quite similar but

much simpler, and it limits science to the natural world only. It describes science as the "knowledge about or study of the natural world based on facts learned through experiments and observation" (Merriam-Webster, 2014a). In contrast, the Science Council (located in London, Great Britain) differentiates between the natural world and the social world. It defines science as "the pursuit and application of knowledge and understanding of the natural and social world following a systematic methodology based on evidence" (Science Council , 2014).
All three definitions include more or less the application of knowledge and the study of the environment on the basis of evidence, such as observations and experiments. With regard to the BBAW, both worlds will be included when relating to science, the natural and the social world. Science and research lie very close together as they both deal with broadening knowledge. Both words are often used together, sometimes even interchangeably. Even though research actually is only a part of science (Oxford University Press, 2014b), for the sake of simplification and easier reading, the same applies in this thesis.

Moving beyond the industry and activity to the target group, one must understand what it means to be (an) academic. The Online Oxford Dictionary describes the adjective, on the one hand as "relating to education and scholarship", and on the other hand as "not of practical relevance; of only theoretical interest". The latter is of less importance to this thesis. The noun is defined as "a teacher or scholar in a university or other institute of higher education" (Oxford University Press, 2014c). Besides "a member of an institution of learning", the Merriam-Webster Dictionary adds "a person who is academic in background, outlook, or methods" (Merriam-Webster, 2014c). The last definition is the most appropriate one in this context. Hence, academic can be an umbrella word for scientists, researchers, scholars, professors, and the like. With regard to the BBAW, the word academic is determined by the academic degree rather than the profession. That means, everyone will be considered academic who owns or is about to achieve an academic degree, such as the Bachelor's degree.

2.3.2. Research Landscape in Germany

Germany's history is shaped by a long tradition of excellent research and development (R&D). With high-grade innovations and first-class research facilities, and as Europe's leader in patent registrations, it displays one of the top research locations worldwide. Also, the network of university and non-university institutions that work closely together with industry and commerce is quite unique (German Center for Research and Innovation, 2014a; 2014b).

Besides its well-equipped research facilities and multi-faceted infrastructure, Germany's science and research landscape is marked by a wide range of disciplines and competent staff. There a various forms of research institutions consisting of universities and universities of applied sciences, non-university institutes, companies and institutions run by federal or state ("Länder") authorities (DAAD, 2013a). The figure below shows the forms of research performing organizations in a matrix grid grouped by the type of research and funding. The two rows are labeled with basic and applied research, whereas the two columns are labeled with public and private funding, which together result in four constellations. The academies are characterized by basic research and public funding. Universities are also publicly funded, but they offer basic as well as applied research activities.

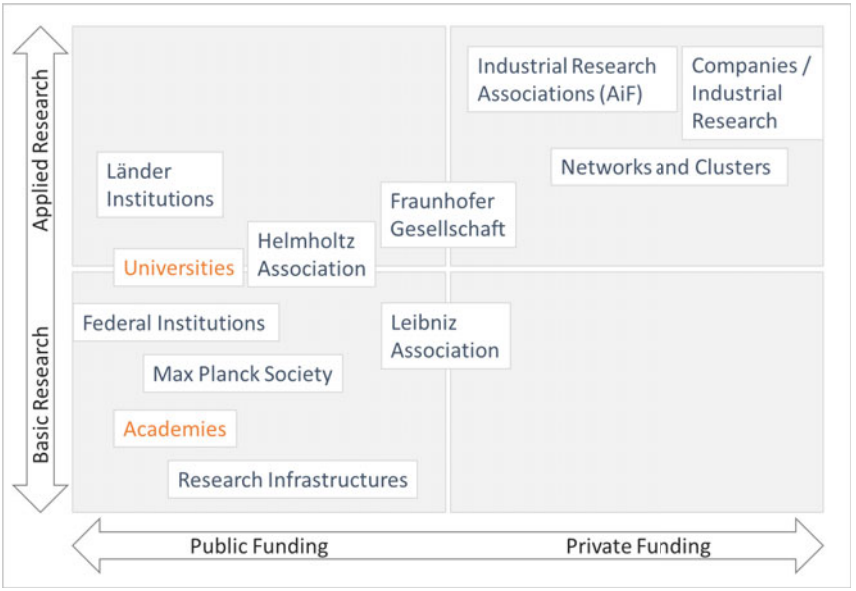

Figure 6: Research performing organizations in Germany
Source: DAAD (2013b)

In total, Germany comprises more than 800 public-funded research institutions as well as R&D centers run by companies (industrial corporations). In some regions or selected fields, those academic and industrial institutions group their R&D efforts in research networks and clusters (68) to increase their level of knowledge and work efficiency. In total, 567.000 staff work in research and development. Furthermore, European as well as international partnerships in over

40 countries shape the sciences and humanities in Germany. The gross domestic expenditure on R&D in 2011 contained 75,5 billion EUR, with over two thirds of this budget coming from the industry. Of this spending, higher education institutions account for 18% whereas non-university research institutions incest approximately 15%. The amount of funding differs according to the type of institution and research (basic/applied) (DAAD, 2013a).

With regard to the topic of this thesis, two types of research organizations are of particular interest. Hence, in the following the landscape of academies is going to be further investigated as well as higher education institutions.

2.3.2.1. Academies of Sciences and Humanities

Due to Germany's history and federal structure, several academies of sciences and humanities exist. The Union of German Academies of Sciences and Humanities is the umbrella organization for all eight of them. With exceptional expert knowledge, they all have the purpose to guide and advice policymakers as well as the public at large. Current or emerging topics relating to sciences and the humanities may be general and specific. Their key mission is to coordinate and support long-term projects of basic research, and to promote and encourage an interdisciplinary dialog between science and the society as a whole (in form of public events, conferences, seminars and the like) (DAAD, 2013c). Even though the academies are located in various cities (Berlin, Düsseldorf, Göttingen, Hamburg, Heidelberg, Leipzig, Mainz and Munich), they closely collaborate with one another in order to support their interests. Publicly funded and working non-profit oriented, their relationship is described as cooperative rather than competitive. The following list shows all eight of them in chronological order based on the year of foundation (Union der deutschen Akademien der Wissenschaften, 2014):

- Berlin-Brandenburg Academy of Sciences and Humanities (1992/1700)
- Göttingen Academy of Sciences and Humanities (1751)
- Bavarian Academy of Sciences and Humanities (1759)
- Saxonian Academy of Sciences and Humanities in Leipzig (1846)
- Heidelberg Academy of Sciences and Humanities (1909)
- Academy of Sciences and Literature, Mainz (1949)
- North Rhine-Westphalian Academy of Sciences, Humanities and the Arts (1970)
- Academy of Sciences and Humanities in Hamburg (2004)

The aim of the Union of the German Academies of Sciences and Humanities is to direct the basic research of its member academies and to help them develop their profile nationally as well as internationally. It comprises 1.900 scientists and scholars from various academic disciplines who are all outstanding representatives of their fields (DAAD, 2013c). Furthermore, it is dedicated to scientific exchange, excellence in research, and the support of new talent in science and the humanities. Therefore, one of its main tasks is to coordinate the "Academies' Programme" which is the largest research program in the humanities and cultural studies, comprising 150 research and publication projects, and 200 working groups (budget of 2013: approximately 57 million EUR) (DAAD, 2013c). The Union is also involved in the National Academy of sciences (under the auspices of the German Academy of Natural Sciences Leopoldina in Halle), and it cooperates with the German Academy of Science and Engineering Acatech in Munich (Union der deutschen Akademien der Wissenschaften, 2014).

2.3.2.2. Higher Education Institutions

Besides science and research, education also plays a central role in Germany. Germany has approximately 415 officially-recognized institutions of higher education that cover the entire range of academic disciplines. Most of them are universities of applied sciences that offer a more practice-oriented education based on scientific research (207) and universities (106), followed by colleges of art (51), public administration (29), theology (16) and education (6). Together they offer more than 13.500 degree programs to more than 2 million students (German Center for Research and Innovation, 2014c). The system of Germany's higher education is characterized by a very strong connection between learning, teaching and research. Universities are well-known for having research and teaching united which is a principle that goes back to the philosopher and founder of the Humboldt University in Berlin, Wilhelm von Humboldt (1767-1835) (DAAD, 2013d).

After the United States, the United Kingdom and Australia, Germany displays the most attractive country for foreign students worldwide. Being open to all kinds of nations, institutions offer many programs that are taught partly or entirely in English (German Center for Research and Innovation, 2014c). Thus, more than 280.000 international students are currently enrolled, roughly 24.000 are international doctoral candidates, and approximately 33.500 work for higher education institutions. Between 2006 and 2017, a total investment of 4.6 billion EUR is supposed to promote first-class research to make Germany's higher education and research even more competitive (DAAD, 2013d).

With regard to the location of the Berlin-Brandenburg Academy of Sciences and Humanities, higher education institutions of this region are of particular importance. Berlin belongs to the largest and most diverse science destinations in Europe. It is home to four universities, the Charité – Universitätsmedizin Berlin, seven universities of applied sciences, four colleges of art, 26 private colleges, and 60 research institutions (Senatsverwaltung für Bildung, Jugend und Wissenschaft, 2014). In 2012, 160.220 students were enrolled (Amt für Statistik Berlin-Brandenburg, 2012).

In addition, the state Brandenburg offers three universities, four universities of applied sciences, the Film and Television University "Konrad Wolf" as well as two private colleges and one university of cooperative education (Ministerium für Wissenschaft, Forschung und Kultur, 2014). In 2012, 52.031 students were enrolled in Brandenburg (Amt für Statistik Berlin-Brandenburg, 2012).

A profile of German students is going to be described in the following.

2.3.3. Young Academics in Germany

As explained before, academics comprise all people who have or are about to have an academic degree (2.3.1. Definitions). However, combined data about this particular group rarely exist. As the majority of this group consists of students, in the following only those academics will be examined who are currently enrolled in universities and universities of applied sciences. On behalf of the German Federal Ministry of Education and Research (Bundesministerium für Bildung und Forschung, BMBF), every two years the University of Konstanz conducts a Studierendensurvey. It is about the general study conditions and preferred directions of students from universities and universities of applied sciences in Germany. The latest version of the survey results that is available online was published in 2011, and it reflects the situation of 2009 and 2010. That time, Germany had approximately 1,8 million students (Multrus, et al., 2011b, p. 6).

Of all participants (n=7.590), 80% are enrolled at universities whereas 20% are attending universities of applied sciences. The proportion of female students is with 57% slightly higher than the male one. At universities women also dominate with 58% which is quite a change when considering the share of women at universities in the mid 60's (24%). Hence, women increasingly shape the landscape of universities and universities of applied sciences. The selection of the field of study remains relatively traditional as in gender distribution. Engineering and natural sciences continue to be chosen by males by far rather than by females, in contrast to psychology or languages where women dominate. Regarding the age, one can say

that the average age of students slightly decreases. Women have a median age of 22,5 (universities) and 23,5 (universities of applied sciences), whereas men are slightly older. They have a median age of 23 (universities) and 23,8 (universities of applied sciences). Students at universities are by trend one year younger than students from universities of applied sciences (Multrus, et al., 2011a, p. 3; 2011b, p. 7).

Analyzing the degree that students in Germany strive to achieve, one can observe a strong increase of Bachelor students – both at universities (increase of 350% from 2007 to 2010) and universities of applied sciences (increase of 376% from 2007 to 2010). The share of all other degrees decreases, probably due to their discontinuation in favor of the Bachelor's degree (Bologna process). Hence, in 2010 the majority of university students pursued the Bachelor's degree (41%), followed by the State examination (28%), the Diploma (23%), and others (8%). Students from universities of applied sciences mostly strived for the Bachelor's degree (79%), followed by the Diploma (19%) and others (2%). Regarding the academic discipline, most Bachelor students at universities strive to obtain their degree in economic sciences (66%), followed by social sciences (51%) and natural sciences (49%). Cultural sciences accounts for 42%, and engineering makes up 38%. Comprising all kinds of degrees, the distribution of academic disciplines (compared with the data of the Statistisches Bundestamt) looks as follows (Multrus, et al., 2011a, p. 5; 2011b, p. 7).

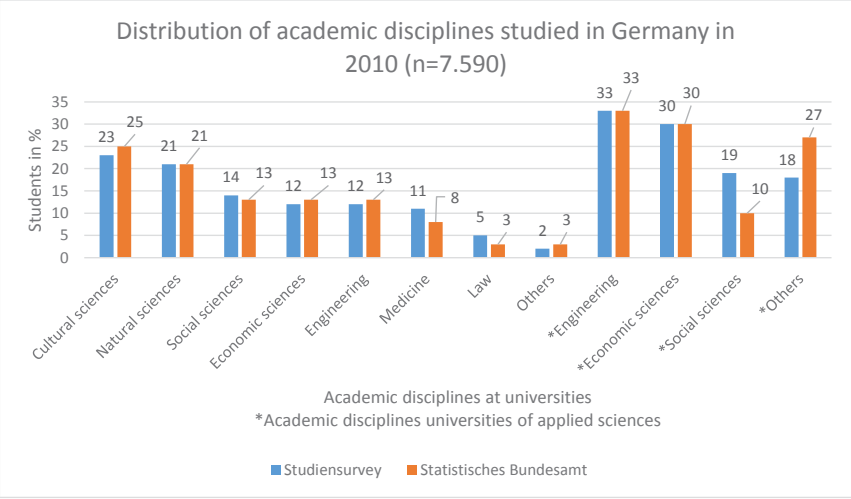

Figure 7: Distribution of academic disciplines studied in Germany in 2010

Source (own design, translated): Multrus, et al. (2011a, p. 7), Statistisches Bundesamt (2010)

Along with the Studienqualitätsmonitor (2010), the Studierendensurvey (2009/10) served for another report created on behalf of the Federal Ministry of Education and Research. It was published in 2012 and it deals with science and research activities as well as practical experience during the studies (Forschung und Praxis im Studium). The results show that science and professional careers are only of little importance to students. At universities science seems to be more important, whereas at universities a professional career seems to be more important. Students in Master's degrees show the greatest interest in research and science (Multrus, 2012, p. 1). The study also found out that only 23% of the universities support their students in scientific working on a regular basis (30% of universities of applied sciences), and that during the course of study, practical experience take priority over research activities (Multrus, 2012, p. 2). The conclusion of this report is that research offerings and scientific working must be more encouraged in higher education institutions.

2.3.4. Science and Social Media

Having scanned the social media environment and the research landscape, it is important to bring both together, and examine the motives and benefits of using social media in a scientific context. As part of the Young Academics, and with regard to the Academy, scientists (and academics with high interest in science) are of particular importance. A few scientists already use social media in their private lives. However, using it in a scientific context, researchers have to deal with a lot of prejudices, such as waste of time, dubious and untrustworthy content, no protection of data privacy, distraction from actual research, and so on. Due to its tremendous usage and reach (see 2.1.3. User Characteristics and Motives), as well as the pressure of competition and the necessity to publish as much as possible in the shortest possible time, scientists cannot avoid the engagement in social media any longer (Anderl, 2013).

Besides receiving the latest research developments and being up-to-date about scientific events, social media is a powerful way for scientists to enhance their professional profile. A lack of online presence limits a scientist's visibility, and it increases the chances that undesirable search results appear before desired ones. That is of particular importance with regard to prospect employers, funding, councils or publishers (Bik & Goldstein, 2013, pp. 1-3). Speaking of visibility, research has shown that tweeting and blogging about own papers increases the number of article downloads. Journal articles that were highly tweeted were eleven times more likely to be cited in contrast to articles with no social media coverage (Eysenbach, 2011). For own research activities social media can be useful as well. Increasing productivity and efficiency, busy researchers and academics can make use of beneficial tools to organize ideas

and research notes (e.g. online lab books), and they can upload dissertations for discussions, feedback, references and downloads (e.g. pre-print servers: Arxiv, Peerj Preprints, etc.). Especially for niche topics, the online community of respective blogs or user forums can be useful in gaining valuable insights (Bik & Goldstein, 2013, p. 1; Anderl, 2013). The most popular social media channels for scientists and researchers are OnlineScience, Academia and Researchgate. Joining those pre-existing scientific platforms, they can enlarge their scientific network which can be also transmitted into the offline world (Bik & Goldstein, 2013, p. 7). In Germany, the most popular science blogs are Scilogs, Scienceblogs, Leibniz bloggt, DLR-Blogs, and Forschungs-blog (Wissenschaft im Dialog, 2013).

There are also limitations of social media in the scientific workflow. Publishing own ideas in the online world can be dangerous in terms of intellectual property ownership. Furthermore, scientific networks and platforms do not exclusively consist of scientific representatives and professionals. Thus, imprudent and inappropriate comments can be made, and complex ideas can be misrepresented or misinterpreted. In addition, the wide range of platforms might be confusing as each of them has its own specifications and limitations, and familiarization might be quite time-consuming (Anderl, 2013).

Consequently, social media displays only a complement to traditional academic networks that are established through universities, departments, conferences and the peer reviews (Darling, 2013). However, when knowing how to use it correctly, social media can be one of the most rewarding and informative sources for scientists and researchers (Bik & Goldstein, 2013, p. 1).

2.4. Summary of Theoretical Foundations

Having analyzed the theoretical foundations of social media, scientific institutions and Young Academics, the reader now has a profound base to understand the following situational analysis and the concept.

Social media has become an integral part of the daily life of many members of our society. Channels of social media can be categorized into six broad categories, with social networks (e.g. Facebook, Xing) being the most visible one. Blogs can be an interesting channel to interact with the blogosphere and enables full control over the content and design of the tool. Wikis and user forums are powerful platforms that collect and organize the wisdom of a crowd. Specialized content sharing platforms (e.g. Youtube, Flickr, Soundcloud) are used both for distribution of content in other networks and the discussion of the content on the dedicated platform itself.

A high usage of social media could be observed by having a look on the users of this medium. Nearly 4 out of 5 Internet users are enrolled in at least one social network, more than two thirds are using those actively and the usage is higher among younger segments. Functions used in social networks include the areas of *communication*, *information*, *organization*, and *entertainment*. Social networks are mostly used to send private messages or chat, getting information about events or sharing content.

As companies strive to seize the opportunities of social media, they engage in social media marketing activities, in order to positively influence the customer towards a brand, product or service. Social media marketing differs from traditional marketing in many ways, as it emphasizes audience contribution and tries to build an ongoing conversation. Data being offered by the social media user helps companies to create tailored marketing messages. The customer on the other site is empowered by the possibilities of social media and expects to be served by brands immediately, everywhere and with an individual approach. The boundaries of paid, owned and earned media are increasingly blurry in the social media context, leading to a fusion of all three media types into converged media. There are different ways of developing a social media strategy, with the most accessible method being the pragmatic approach. Most companies engage in social media to achieve objectives of customer retention, customer acquisition, the increase of brand and product awareness or to support online marketing objectives, as social media offers numerous opportunities to engage with customers.

As another focus of the theoretical foundations, the reader gained insights into the research landscape in Germany and Young Academics (everyone who has or about to achieve an academic degree). With well-equipped facilities and high-grade innovations, Germany is a hub of cutting-edge international research. Its multi-faceted infrastructure is shaped by various forms of research organizations which are closely interconnected with one another. The eight academies of sciences and humanities are unified in a Union which is advised by Acatech and works under the auspices of the Leopoldina. They all serve to advance the sciences and to foster a dialog between science and the society as a whole. In addition, Germany is also home to approximately 415 officially-recognized higher education institutions and two million students, of which 212.251 are enrolled in the Berlin-Brandenburg region. The socio-demographics of students revealed that female students slightly outweigh the male ones, and that the median age is approximately 23 years. The majority of the students pursue a Bachelor's degree (41%), of which 66% obtain their degree in economic sciences. With regard to all degrees, the most attractive academic disciplines are cultural, natural, social and economic science. In addition, during their studies, students appreciate practical experiences over research activities.

However, relatively greater interest in science is shown by students who pursue their Master's degree, and by students who are enrolled in universities in contrast to universities of applied sciences.
Lastly, bringing both theoretical foundations together, the reader was familiarized with the motives and benefits of using social media in a scientific context, including boosting the professional profile of academics, enlarging their network, and increasing reach as well as efficiency. Acting as a public voice, social media provides an opportunity (and responsibility) to intervene and engage in public debates for clarification and educational purposes. Hence, social media can be a fruitful tool to scientists and scientific institutions, if they know how to use it.

Consequently, the underlying theoretical foundations of the concept showed that there is a solid base of social media users that take advantage of the variety of platforms within the environment to fulfill a certain purpose or need. Thus, companies and institutions like the Academy have various opportunities to increase the awareness of its products/services (e.g. by informing people about events) or to enhance the brand image (e.g. by creating compelling content). The same applies to the scientific context the Academy operates in. The analysis of the research landscape and Young Academics also revealed the need to invest in social media because a substantial foundation of the target group is highly present in Germany as well as in the Berlin-Brandenburg region.

3. Situational Analysis

A useful framework for performing a situational analysis is the *Three C* analysis, comprising company, customer and competitor (Robinson, 2008). Hence, the aim is to get an understanding of the current practices of the Berlin-Brandenburg Academy of Sciences and Humanities, especially with regard to its objectives, services and communication efforts. The research analysis follows which starts with an overview of the methods that were used, along with a description of how they were applied. Afterwards, the analysis of the online survey delivers valuable insights into the target group which the social media concept is mainly based on. Here, the reader will learn the socio-demographics of the target group, its interest in science and scientific events, as well as its social media behavior. In addition, the situational analysis provides an overview of the social media behavior of its competitors, which display collaborators and industry partners rather than competitors.

3.1. The Berlin-Brandenburg Academy of Sciences and Humanities

The Berlin-Brandenburg Academy of Sciences and Humanities is an association of outstanding scholars and exceptional scientists cooperating on an interdisciplinary and international basis (BBAW, 2010a). With about 350 employees (nine of them work at the information and communication department), the Academy's headquarters are located at Gendarmenmarkt, a historic square in Berlin Mitte. In the following the reader will gain more insights into the Academy and its activities.

3.1.1. Background Information

The Academy was founded in 1700 by Gottfried Wilhelm Leibniz (1646-1716) as the Society of Sciences of the Elector Brandenburg. From the beginning, it united the natural sciences and the humanities which made it "the prototype for many academies that followed" (BBAW, 2010c). Looking back on an eventful past, it was reconstituted in 1992 by an interstate agreement between Berlin and Brandenburg. Besides 78 Nobel Prize winners, many great members have shaped its history of over 300 years, such as Brothers Grimm, Wilhelm and Alexander von Humboldt, Max Planck and Albert Einstein. Today, it operates under the direction of the physiologist Günter Stock (BBAW, 2010c).

D. Hurrle, J. Postatny, *Social Media for Scientific Institutions,* BestMasters,
DOI 10.1007/978-3-658-08822-4_3, © Springer Fachmedien Wiesbaden 2015

As the largest non-university research institute with a profile in the humanities in the Berlin-Brandenburg region, it comprises approximately 300 members who are selected from Germany and abroad. They are all outstanding representatives of their respective disciplines which the Academy subdivides into five "classes": the humanities, social sciences, mathematics and natural sciences, biological and medical sciences, and technical sciences (Lerch, 2013; BBAW, 2010a). The corporate values are "excellent, integrative and independent" which are reflected in all its bodies and activities. Under the guidance of the National Academy of Sciences Leopoldina along with Acatech and the other seven German academies (see 2.3.2.1. Academies of Sciences and Humanities), the BBAW collaborates with the National Academy. That means the Academy not only contributes to the work of the National Academy, but it also works according to the tasks set by it (BBAW, 2010c; 2010d). In cooperation with Leopoldina, the Academy founded The Young Academy in order to support approximately 50 exceptional young researchers in Germany. Back in 2000, it was the only institution of its kind – even from an international viewpoint (BBAW, 2010d). They are elected by members of the BBAW (mother Academy) and, just like the BBAW members, they can be nominated for awards (BBAW, 2010d; Lerch, 2013). Awards include for example the Leibnitz Medal, the Helmholtz Medal, and the Academy Prize (BBAW, 2010e). Striving to extend and deepen its international relations, the Academy also corporates with 18 foreign academies of science in Europe, Asia, North America and South America (BBAW, 2010b).

As a public corporation assigned to the Senate Administration for Education, Science and Research, the Academy is mainly financed by the state of Berlin and the state of Brandenburg (Lerch, 2013). Since a lot of research is done within the scope of the joint *Academies' Programme* (see 2.3.2.1. Academies of Sciences and Humanities), funding also comes from the Federal Government and the Federal states which are the main sponsors of research in Germany alongside industry (BBAW, 2010c).

3.1.2. Goal and Responsibilities

Since the interstate agreement in 1992, the Academy serves to promote the sciences and the humanities, while protecting and revealing the region's cultural heritage (BBAW, 2010a). To increase its impact on research and the society as a whole, the Academy developed a mission comprising the following three main activities.

Firstly, the Academy advises on future issues that are crucial to the society. Members, external experts and talented young researchers explore topics of particular scientific and social interest, and they present their findings to the public in form of research reports, position papers, memoranda as well as public debates. Together with the National Academy, the BBAW also provides recommendations to the government (BBAW, 2010d). With several cross- and interdisciplinary research groups and initiatives, its research goes beyond individual disciplines bringing together several academic fields. This form is rather innovative in the academic world in Germany (BBAW, 2010d).

The second main activity that the Academy focuses on, comprises the 30 long-term projects that the BBAW supervises, and that make it the largest non-university research institution dedicated to the humanities in this region. Those cultural-scientific projects include compiling large foreign and German language dictionaries (e.g. the Digital Dictionary of the German Language), editing texts and sources from critical editions of ancient, medieval and modern history and classic works of science from various fields as well as preparing documentations (BBAW, 2010d).

Lastly, the Academy aims to provide a forum for dialogue between the sciences and the society as a whole. This dialog is encouraged through various ways, mainly through public events on a broad range of topics (e.g. Leibniz Day, Einstein Day and the Sophie Charlotte Salon) and the initiative Academy and School. It involves Academy members holding lectures at high schools as well as high school students coming to the BBAW to do research at Germany's single student laboratory for the humanities (BBAW, 2010d).

3.1.3. Public Events

Public events have the most impact on the public at large. That is why, they are of particular importance when creating a dialog between science and society, especially when acquiring a new target group. Those events can be seen as a product/service of the Academy, but also as a communication channel or touch point as they describe the interface of the research institute with its customers.

Public events include for example lectures, award shows, public debates, workshops, and the like which are usually free of charge and accessible to everyone. Besides the most festive days, the Leibniz Day (in June/July) and the Einstein Day (in November), the Sophie Charlotte Salon is the most popular one with the greatest reach to the public at large. It takes place annually in January when the Academy opens its doors all day and night to approximately 2000 visitors in

order to present a combination of science and culture in form of theatre plays, readings, lectures and guided tours. Other popular events are the Academy Lecture and the Ernst Mayr Lecture, the Special Lecture and the ZEIT Science Forum, as well as conferences about different research projects (BBAW, 2010k; Lerch, 2013). Approximately 70 events take place within one year which topics can be reviewed in the yearbook.

All events are characterized by a very high standard, an interdisciplinary scope, and an interactive exchange. Thus, participants cannot only meet and greet, but also learn from well-known scientists and the best experts in their fields. Everyone is invited to directly ask questions, to exchange and discuss ideas, and to network with one another (Lerch, 2013). Also, all central issues that are explored (by the Academy itself or in cooperation with other institutions) and presented to the public fall under one annual theme which lasts two years. The current theme is "Future Place: Europe" (2013/2014), and the past one was "Artefacts. Knowledge is Art – Art is Knowledge" (2011/2012) (BBAW, 2010d; Lerch, 2013). Occasionally, there is catering free of charge as well. The responsibility for the concept and format of such public events is mostly taken on by the workplace of the respective scientific department and workplace. However, the information and communication department also has own events, for example the annual theme, Alexander von Humboldt, and the Sophie Charlotte Salon (Lerch, 2013).

3.1.4. Customer Base and Academy Members

The audience that the Academy intends to target is broad. It involves, on the one hand, the scientific community, policymakers and the media, and, on the other hand, it includes the public at large, meaning everyone who is interested in science.

Statistical data about the actual audience rarely exists as the Academy neither records visitor numbers nor does it conduct surveys on a regular basis. However, one volunteer of the information and communication department, Anita Hermannstädter (2009), conducted a customer survey in 2009 which reveals small insights. The survey was distributed via e-mail in the period of January 9th – 24th, 2009. 360 participants responded, of which 85% were acquired via the Academy. 68% of the participants returned the survey via mail and fax which implies that the communication behavior of the current customer base is quite traditional (Hermannstädter, 2009, p. 28). Furthermore, the analysis shows that the age ranges from 23 to 89 with an average age of 58 years. Most of the participants are 60 years and older (53%). The groups 20 to 29 years (5%) and 30 to 39 years (9%) displays the minority. Thus, over a third of the participants are already retired. Men have a share of 64%. The educational background

reveals that the customer base is highly educated with 90% of the participants having at least one academic degree. 70% of the participants are or have been working in the scientific industry. The majority is interested in socio-political topics and the humanities/cultural sciences, followed by scientific policy and social sciences (multiple choice question). 84% of the participants visit events at the BBAW (Hermannstädter, 2009, pp. 28-32).
Comparing those results with the socio-demographics of the official members of the Academy, one can identify similarities. According to the Register of Members from 2011, 316 members were registered with an average age of 59 years. 41% of them come from the Berlin-Brandenburg region, 46% from another federal state in Germany, and 13% are from a foreign country. Men clearly predominate with 89% (BBAW, 2011).
Hence, characteristics of both customers and members seem to be quite similar implying that the current scientific community of the Academy is relatively old, highly educated, and predominated by men.

In addition, the Academy's database was examined. Here, the analysis is also limited as the database only records name, postal address, e-mail address, and field(s) of interest. The date of birth is not available. As of October 2013, the database comprises a total number of 7.250 contacts, of which roughly 500 are research institutions and universities, 300 are Academy members and 1.400 belong to the press. Hence, approximately 5.050 include private contacts. The analysis revealed that most of the contacts are interested in current issues (about 4.000), the humanities (about 3.600) and social sciences (about 3.000), followed by the annual theme (about 2.300) and the other sciences, such as mathematics and natural sciences (about 2.050), biological sciences and medical sciences (about 2.300), and technological sciences (about 1.800). Most customers are interested in multiple fields which emphasizes the Academy's interdisciplinary approach (Lerch, 2013).

3.1.5. Communication Activities

In order to communicate science to the society, the Academy has various ways as mentioned before (see 3.1.2. Goal and Responsibilities). However, for the underlying concept, it is important to examine those activities that promote the Academy's profile and events to the public at large, especially when considering a new target audience. Since the focus of the Academy's main activities is in Berlin and Brandenburg, the communication efforts are mainly limited to this region as well. Here, the information and communication department has an annual budget of 150.000 EUR. Monitoring efforts barely exist. One opinion survey (May –

July 2013) revealed that out of 86 people, the majority heard of the event through event flyers (28%), followed by e-mail (21%) and word-of-mouth (20%). Advertising pillars (0%), posters (1%) and website (5%) were the least favored answers (Lerch, 2013).

Print Media

The Academy provides an image flyer for general purposes which is available in German and English. For events, it used to produce flyers and posters for each single one. Now there are single flyers and posters only for the most important events. Additional, the Academy recently introduced quarterly event flyers for a general overview and promotion of all events. Single flyers are distributed via Dinamix (distribution service) as well as at the Academy itself. Also, 70 other facilities are provided with flyers (approximately 20 copies of each) and posters, such as universities and other research institutes, libraries and museums, foundations and associations (see Appendix 4: BBAW offline mailing list for flyers and posters). 400 people in the event mailing list (explained below) who do not have an e-mail account (yet) also receive the printed quarterly overview via mail. Thus, in 2013 approximately 17.500 flyers and 100 posters were produced. In addition, there is one advertising pillar located at the Gendarmenmarkt which is kept for the Academy's posters only. Due to cost reasons there is no further outdoor advertisement. In general, there are no monitoring efforts of print media.

Event Mailing List

As mentioned before, the Academy's database comprises approximately 7.250 contacts. With about 5.050 recipients, the clear majority belongs to the so-called event mailing list which makes it the most important communication channel in this context. The recipients receive invitations to each event according to their respective field(s) of interest (see 3.1.4. Customer Base and Academy Members). Everyone can subscribe to this list, either at the events themselves or on the Academy's website. Monitoring efforts generally do not exist.

Newsletter

Since 2006 the Academy designs an e-mail newsletter that is sent out three times a year to about 3.000 recipients which is separate from the event mailing list. It consists of a standard text e-mail with a PDF attachment; HTML is planned in the near future as a more professional approach. The newsletter informs about current projects, new publications, events as well as news about the Academy and its exclusive members. After a two-year pause, the newsletter was reactivated in November 2013. Just like the event mailing list, everyone can subscribe to

the newsletter mailing list at events as well as on the Academy's website. There is also no regular monitoring of this communication activity.

Public Relations

Due to its limited resources, the Academy highly depends on the press. The leading media is of particular importance in contrast to the tabloid press. Thus, the press mailing list contains roughly 1.400 contacts. Via e-mail, representatives of regional and national media receive each month extensive information on research projects, publications and events. In addition, there is a press area with general information and print-quality images online. Also, the Academy has media partnerships, such as *Kulturradio* and *Inforadio*, *Deutschlandfunk*, Monitoring efforts are undertaken by a paid press clipping service, as well as the information and communication department. The press coverage of 2013 revealed that the Academy is quite popular with the press. Hence, in 2013 the research institute was published in the media 120 times, for example by Süddeutsche Zeitung, Tagesspiegel and Die Welt, but also FAZ, Zitty and Tip Berlin, and radio channels, such as rbb Kulturradio and Deutschlandradio Kultur (BBAW, 2010m).

Website

As homepages are often the first touch point between the company and its customers (zero moment of truth), it serves as a business card and plays a central role in the communication efforts of the Academy (see Figure 8: BBAW homepage). The homepage provides information on the Academy itself, its research and publications, past and upcoming events, the Telota initiative, the Academy's Library and Archive, and the press which the viewer can select from the horizontal navigation bar. The website is available in German and in English. Monitoring efforts do not exist.

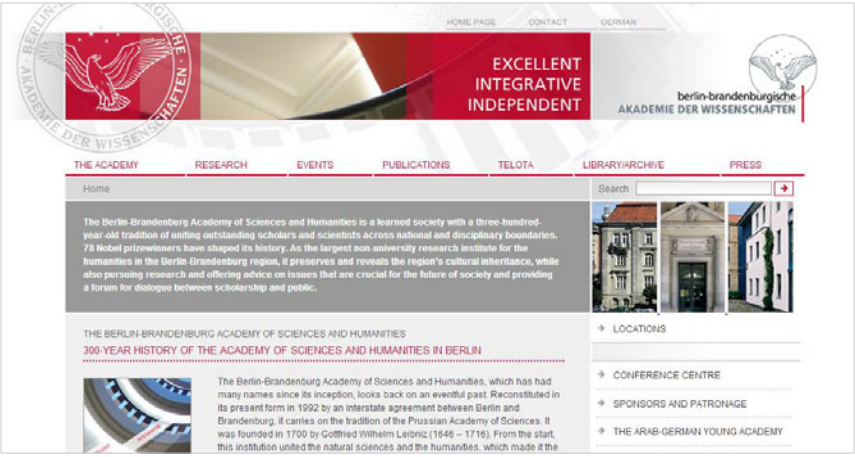

Figure 8: BBAW homepage
Source: BBAW (2010a)

Corporate Design

The Academy's logo derives from the historic seal of the Society of Sciences of the Elector Brandenburg. It shows an eagle who symbolizes aspiration to scientific findings. And often, the rotunda in the main building is shown which directs the eyes to the unknown to gain new insights, as Mr. Stock explained (Hermannstädter, 2009). In contrast to blue as the usual color of science (e.g. Humboldt University, Helmholtz-Gemeinschaft, Leibnitzgemeinschaft), the Academy chose a warm red as its corporate color. The red banderole of one fifth of the given area does not only decorate the logo but it is also mandatory on each of the Academy's letterheads, brochures and the like.

Social Media

The Academy uses only some social media channels, and those it uses only occasionally. A Wikipedia article about the Academy exists which has been viewed about 2.200 times within the past 90 days (28 November 2013 – 26 February 2014), according to the Wikipedia article traffic statistics. The Academy has only limited control over this content which was not produced by itself. Also, the Academy has a Youtube channel with two subscribers and 514 visitors, but it is not used. Furthermore, the Academy uses Vimeo in order to implement its video recordings into its homepage; the same applies for Soundcloud in terms of audio. Both the accounts are only for internal uses, and they are not visible to the public. On Researchgate,

the research institute also has an account with 15 members and 127 publications. However, the Academy is not active on this platform. In the course of writing this thesis and for the first time, the Academy tried out Twitter during its annual most popular event, the Sophie Charlotte Salon (January 2014). It established the account @bbaw_salon and the hashtag #salonsc in order to promote lectures and sessions that took place during the event. This account contains 37 followers, 60 tweets and 61 contacts that the Academy is following. Tweets refer to the respective event only. On Facebook, the Academy only has a place holder which is liked by 103 people; the same applies to Foursquare with 218 visitors. For readability purposes, a screenshot of all profiles/placeholders along with detailed information about the numbers and sources can be viewed in Appendix 5: BBAW social media profiles.

Figure 9: BBAW Facebook profile (November 2013)
Source: BBAW (2013)

3.2. Research Analysis

Since secondary data mainly revealed information to examine the social media environment, the research landscape in Germany as well as the Academy itself, additional primary data was collected and analyzed in order to approach the research problem in a more comprehensive way. Hence, on the one hand, primary research assisted in gaining valuable insights into the

target group and the social media behavior of the Academy's industry partners. On the other hand, primary research assisted in obtaining relevant expert opinions to support the outcome of this thesis.

3.2.1. Application of Methods

When conducting primary research, a so-called pragmatic approach was applied. This approach emerged in the last few years as a popular research approach in many disciplines and countries (Cresswell, 2011, p. 269). It suggests to use those methods that appear best to the research problem, instead of sticking to methods of only one approach (either quantitative or qualitative). Hence, the mixed methods approach combines information from complementary kinds of sources. Allowing several perspectives, it helps to produce a more complete picture on the research topic (Denscombe, 2008, p. 273).

The underlying research approach consists of four methods in total: preliminary talks, online survey, benchmark analysis and expert interviews. Whereas the first and the last methods are typically associated with the qualitative approach, the two methods in the middle are associated with the quantitative one. Since the preliminary talks served in a supplemental way for preparation purposes of the online survey, they are not separately analyzed, and results are not presented in a separate section. The same applies for the expert interviews as they served for post-processing purposes in order to further support the authors in their decisions. However, both were summarized and can be reviewed in Appendix 6: Results of preliminary talks, and Appendix 7: Results of expert interviews. The application of all four methods is going to be explained in the following.

3.2.1.1. Preliminary Talks

Preliminary talks were the initial method that was applied when conducting primary research. This qualitative study involves informal interviews with the respective target group in order to gain first insights, and to learn about their experience regarding social media. The results of those conversations, observations and interactions were then used to contribute to the development of an online survey in order to measure attitudes in a large sample with the aim of carrying out statistical analysis (Kotler & Keller, 2012, p. 103). Hence, during seven face-to-face interviews multiple choice questions (that were planned to be included in the survey) were posed as open-end questions to analyze the target group's chain of thoughts, and to complete answers that otherwise would have been missing. For the right atmosphere and to encourage natural expressions, the preliminary talks were hold in the German language, and they took

place at the apartment of the respective interviewee. Furthermore, this method allowed a certain degree of freedom and spontaneity rather than forcing the participants to select from a set of pre-determined responses. As this method is very time and labor intensive, the number of interviews was restricted to seven only. Participants were drawn from the same population as the actual survey in order to assure similar background characteristics, familiarity with the topic, attitudes and behaviors. However, since Young Academics from the humanities might think differently from Young Academics studying technical sciences, for the preliminary talks the representation of each Academy's class was assured (see Appendix 8: Participants of the preliminary talks and pre-tests).

3.2.1.2. Online Survey

The survey is the heart of the mixed methods approach as it serves as the basis for the underlying social media concept. It measured attitudes, interests and the social media behavior of the designated target group. In order to develop a valid questionnaire the results of the preliminary talks were used to create a first version of the survey. To identify and eliminate potential problems, eight online pretests were conducted. Aspects, such as content and wording, question difficulty, form and layout were tested as recommended by Malhotra (Malhotra, 2010, p. 354). Amongst others, the sequence of the survey has been changed, and complex questions, such as the source of communication channels regarding academic events have been simplified by splitting the question in two parts. Furthermore, new options for answers have been added according to the results of the preliminary talks, for example under "reasons for social media usage" (to organize groups and projects, or to look for jobs). Also, the definitions of social media and academic events have been added since there were previous disagreements.

As both the numbers of Internet users (especially the younger ones) and online research grow worldwide, the pretests and the survey were conducted online (McDaniel & Gates, 2013, p. 195f). Other advantages are time and cost savings. Hence, the survey and pretests were created and carried out by means of Q-Set.eu. The final version of the survey consists of a total number of 26 questions and is subdivided into four parts: social media usage, academic events, scientific interest and personal data, which take approximately seven minutes to complete. Several types of questions were used in order to gather the relevant information. Closed-end questions include for example (five point) Likert scale, multiple choice and dichotomous, whereas open-end question comprise for example word association and completely unstructured (Kotler & Keller, 2012, p. 105). Assuming that most Young Academics are able to understand and speak English,

and in order to draw international conclusions, the language of the survey was chosen to be English. The survey questions can be viewed in Appendix 9: Online survey.

The survey ran over a period of three weeks; from November 15th until December 5th, 2013, and it was distributed via e-mail and private Facebook messages to relevant contacts of various academic disciplines who served as distributors forwarding the survey within their respective academic network (snowball principle). Also, the Academy used its network to universities to further spread the survey in order to cover multiple disciplines. To draw conclusions from the study to Young Academics in general, the sample was not absolutely random. The choice of participants was rather in favor of people that fulfill the specific characteristics of Young Academics (Kuß, 2012, pp. 60-63; Berekoven, et al., 2009, pp. 43-51). According to the Academy, the characteristics involve everyone aged between 18 and 35 years who has or is about to attain an academic degree (Lerch, 2013). To guarantee such, and to increase the response rate, everyone was preferably addressed personally and individually.

The analysis of the collected data was undertaken by means of IBM's analytics software, Statistical Package of the Social Sciences (SPSS). The main findings are going to be presented in 3.2.2. Analysis of Online Survey. Out of 151 people who filled out the questionnaire, 140 were analyzed as they fulfill the criteria of the designated target group. During the further analysis, if no other number is indicated, all 140 participants are considered when referring to the participants or to Young Academics.
In the course of the analysis, mainly the frequency distribution was examined. That means, given answers of one question were set in relation to one another by using percentages. The mean (M), or average value, measures central tendencies which is useful when comparing different groups and their habits. It is the sum of all elements, divided by the number of elements (Malhotra, 2010, pp. 484-486). Additionally, in order to set given answers of two different questions in relation to one another, cross-tabulations were examined (Malhotra, 2010, p. 493). Here, the product moment correlation (r), or simple correlation, was a commonly used measurement to summarize the strength of association between the answers of two questions. A positive sign of r implies a positive relationship between two variables, and vice versa (Malhotra, 2010, pp. 561-562). The evaluation of the correlation was according to Cohen's (1988) convention, implying that a value close to 0,1 means that there is a weak association, close to 0,3 represents a medium one, and close to 0,5 stands for a strong association

(Westermann, 2000, p. 366). Occasionally, the standard deviation (*SD*) was analyzed as well in order to see how much dispersion or variation exists from the mean (Malhotra, 2010, p. 487).

3.2.1.3. Benchmark Analysis

Further quantitative data was collected through a benchmark analysis. This third method involved scanning the research industry with regard to its online presence and social media behavior. As part of the public sector and with a tradition of over 300 years, the competition of the research institute is relatively low. However, Young Academics are a very attractive target group to many companies (Hurrle, 2014), and data about the industry's social media presence barely exist, which makes it difficult to evaluate how well social media is established in this industry. Therefore, an industry benchmark analysis was conducted. A benchmark analysis involves comparing one company with one or multiple other companies in order to identify opportunities to improve products, services or processes, and, thus, to close the performance/program gap (Kotler & Keller, 2012, p. 56). Hence, the BBAW's online brand awareness and social media activities were compared with other institutions/associations in the research industry. The aim was not only to receive an overview of the industry but, most importantly, to obtain "best of class" solutions in order to increase the Academy's brand awareness among the designated target group.

Comparisons were made among several facilities in the industry. On the one hand, the other seven academies were examined that form together with the BBAW the Union of the German Academies of Sciences and Humanities (see 2.3.2.). On the other hand, other institutions, foundations, associations and societies were analyzed which were named during the briefing with the Academy, and which somehow are connected to the research institute, such as the National Academy of Sciences Leopoldina, The Young Academy, Global Young Academy, Max Planck Society, Fraunhofer Society, Wissenschaft im Dialog, Helmholtz Association, Leibniz Association, and L.I.S.A. - Gerda Henkel Foundation. Besides the availability of an own website (in German and in English) other benchmarks were chosen to evaluate the website's presence, such as the global traffic rank (a combination of average daily visitors to this site and page views on this site over the past three months) delivered from the online tool Alexa (Alexa, 2014c) . Alexa also records visitor engagement, measured by the bounce rate (percentage of visits to the site that consist of a single page view), the daily page views per visitor (estimated daily unique page views per visitor on the site) and the daily time on site (estimated daily time on site per visitor to the site) (Alexa, 2014b). As for the social media presence, the availability of an own blog was investigated, the number of followers on Xing,

the number of members and publications on Researchgate, as well as the number of subscribers and visitors on Youtube, and the number of followers and tweets on Twitter. On Facebook, the amount of likes was examined, the number of people talking about it and the number of people that were at the respective Facebook page. In the course of writing this thesis, the Academy converted its placeholder on Facebook into a real profile. However, it has not been actively used yet.

The main findings are going to be presented in 3.2.3. Benchmark Analysis. For the sake of legibility, please find detailed numbers and sources in Appendix 10: Industry benchmark analysis.

3.2.1.4. Expert Interviews

Lastly, expert interviews complete the pragmatic research approach. After the social media concept for the Academy was fully developed, it was critically evaluated by two social media experts in order to support the decisions the authors of this thesis made. Mr. Rodewald consults companies in social media strategies, as well as monitoring and analyzing matters at Webbosaurus which he founded in 2009. Mr. Hurrle is consultant at Lingner Consulting New Media, where he advises companies in social media concepts for more than six years. The informal interview especially focused on the models that were created, such as the "COSMIC model" (see Figure 29), or the "Three elements of valuable content" (see Figure 31). In addition, the issues of implementation and budgeting were broached because further clarity was needed on those points.

To encourage natural expressions, just like the preliminary talks, the expert interviews were held in German, and the right atmosphere was created. Hence, the face-to-face interview with Mr. Rodewald took place at his office in Berlin, Neukölln. As Mr. Hurrle does not live in the same city, he was contacted via telephone. Besides providing new suggestions (such as using Flickr for photo content distribution), both talks allowed the interviewer to go beyond the initial response that the participants gave in order to address additional issues or to adapt the process mid-way (Kuß, 2012, pp. 35-37; Berekoven, et al., 2009, pp. 250-251). For example, when Mr. Rodewald heard of the previous objective to achieve only 300 Facebook fans, the remaining KPIs were introduced to him as well, which originally was not planned. Another example is the clarification with Mr. Hurrle about the word "content" which may be interpreted differently from agency to agency as Mr. Rodewald initiated. As mentioned before, the results of this supplemental method are incorporated at the respective places, and the complete interviews can be viewed in the appendix (see Appendix 7: Results of expert interviews).

3.2.2. Analysis of Online Survey

In the following the main findings of the online survey are going to be presented. After the socio-demographic data, the Young Academics' interest in sciences is going to be analyzed, followed by their interest in academic events and social media behavior.

For further comparisons, the 140 Young Academics are subdivided into different groups according to their respective interests and habits. Besides gender, age and interest in academic discipline(s), additional characteristics assist in creating clusters. One of them is the participants' interest in science as the BBAW targets particularly Young Academics who are interested in science. Hence, those who selected 4 and 5 on the Likert scale (5 being very high and 1 being none at all) are referred to as the group of Young Academics with high interest in science who make up 62,9% (n=88). The group of Young Academics with moderate to low interest in science makes up 37,1% (n=52). Other comparisons are made between the 60,7% (n=85) participants that currently live in Berlin and Brandenburg, 30% (n=42) living in another federal state in Germany, and 9,3% (n=13) living in a foreign country. The reason for this classification is that the focus of the BBAW's activities is in the Berlin-Brandenburg region whose academics are of particular importance in some context. Lastly, the current employment status divides the participants into 50,7% (n=71) academic students and 47,1% (n=66) employed academics that have already been graduated. Other and unemployed participants make up 2,2% (n=3) (see Appendix 11: Overview of different filters). Consequently, by analyzing respective preferences and habits, differences as well as similarities can be discovered in order to develop a social media concept that is most appropriate for the target group.

3.2.2.1. Socio-Demographics

The 140 Young Academics comprise 56,4% female and 43,6% male participants (see Appendix 12: Gender distribution of Young Academics). The figure below illustrates the age distribution that ranges from 22 to 35 years. It is obvious that the majority is between 25 and 27 years old (60,7%); only 17,9% are below and 21,4% are above that age group. The mean indicates 26,32 years, with a standard deviation of 2,31 (see Appendix 13: Age distribution of Young Academics).

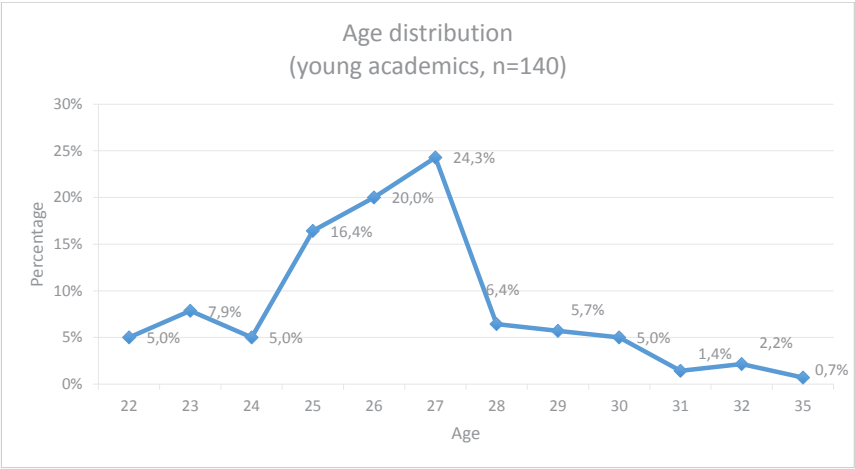

Figure 10: Age distribution

Source (own design): Online survey

When examining the current employment status, the frequency distribution is relatively balanced with 50,7% being students (grouping students and PhD candidates) and 47,1% being employed (grouping employed and self-employed Young Academics) (see Appendix 14: Employment status of Young Academics). Looking at the highest level of education that has been or is going to be achieved, most Young Academics (41,4%) state the Master‘s degree, followed by the Bachelor’s degree (37,9%), the Diploma (15%) and the PhD (5,7%) (see Appendix 15: Highest level of education of Young Academics). The figure below exemplifies the field(s) of study that the candidates specified in an open-end question. All answers were analyzed and grouped according to the BBAW classes. An extra academic discipline has been added, namely economic sciences, for analytical purposes and to assign the candidate’s field of study to the respective BBAW class. The pie chart below shows that most participants (49,3%) have or will have their academic degree in economic sciences, followed by technological sciences (14,3%), social sciences (12,2%), and the humanities (10,7%). Only 7,1% of the participants specified biological and medical sciences as their field of study whereas 5% mentioned mathematics and natural sciences (see Appendix 16: Young Academics’ field of study).

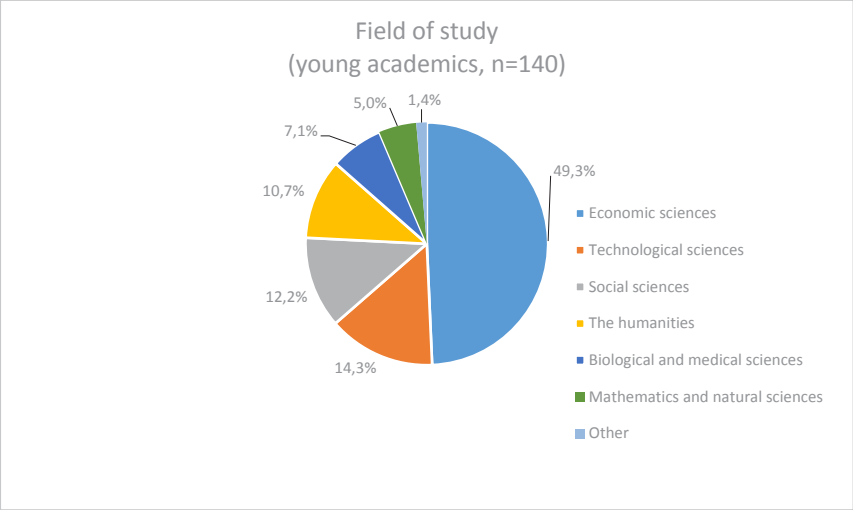

Figure 11: Field of study
Source (own design): Online survey

Lastly, as part of the socio-demographic analysis, the country of origin as well as the place of residence of the designated target group are examined. With 91,4%, the clear majority states Germany as their country of origin whereas 8,6% were born in a foreign country (see Appendix 17: Country of origin of Young Academics). 59,3% of the participants currently live in Berlin and 1,4% live in Brandenburg, in contrast to 30% living in another federal state in Germany and 9,3% not living in Germany at all (see Appendix 18: Place of residence of Young Academics).

3.2.2.2. Scientific Interest

Since the BBAW's mission is to advance science, the research institute is mainly interested in Young Academics who are interested in science. That is why in the following the scientific interest is going to be analyzed as well as the familiarity with the BBAW.

First of all, in order to gain insights into what Young Academics understand by "science" they were asked to name three to five associations. In total, 503 answers can be counted. Most Young Academics (45) associate *research* with science, followed by *knowledge* (45) and *university* (21). Other words are *progress* (10), *innovation* (8), *development* (8) and *future* (6) are mentioned as well, just like the academic disciplines *physics* (8), *chemistry* (7) and *biology* (7).

However, associations with a negative connotation are cited as well and cannot be neglected. Those include *nerds* (3), *no idea* (3) and *boring* (3). Others think that science is rather *complex* (2), *complicated* (2), *abstract* (1) as well as *not easy to follow* (1). All answers can be reviewed in alphabetical order in Appendix 19: Associations with "science" stated by Young Academics. The figure below shows a word cloud comprising the associations that were most mentioned, giving greater prominence to those words that appear more frequently.

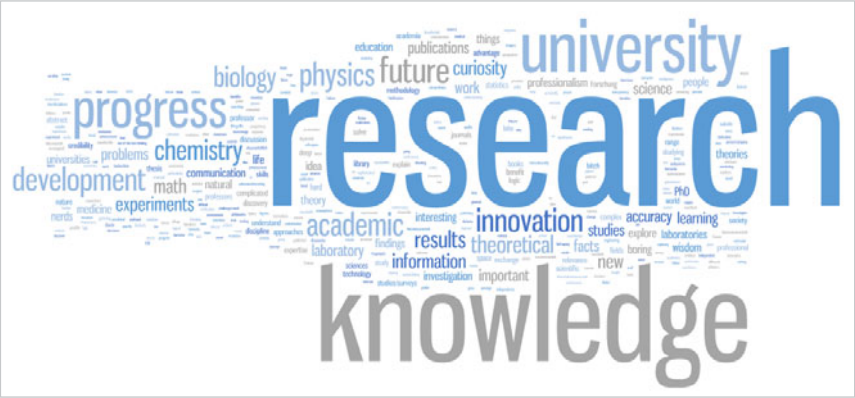

Figure 12: Associations with "science"
Source (own design): Online survey

By means of a Likert scale (5 being very high and 1 being none at all), the participants were asked to express their interest in science. The result has proven to be relatively high as the majority checked 4 (43,6%) and 5 (19,3%), like Figure 13 demonstrates. In contrast, 26,4% are moderately interested, 10% are relatively low interested, and 0,7% show no interested at all. The mean is 3,71 with a standard deviation of 0,92. The correlation with age (r = 0,08) as well as with gender (r = 0,11) show a low relation. Even when comparing the mean of different clusters, such as place of residence or employment status, one cannot identify major differences; except that Young Academics who are interested in mathematics and natural sciences, biological and medical sciences, as well as technological sciences show slightly more interest in science in general (see Appendix 20: Young Academics' interest in science).

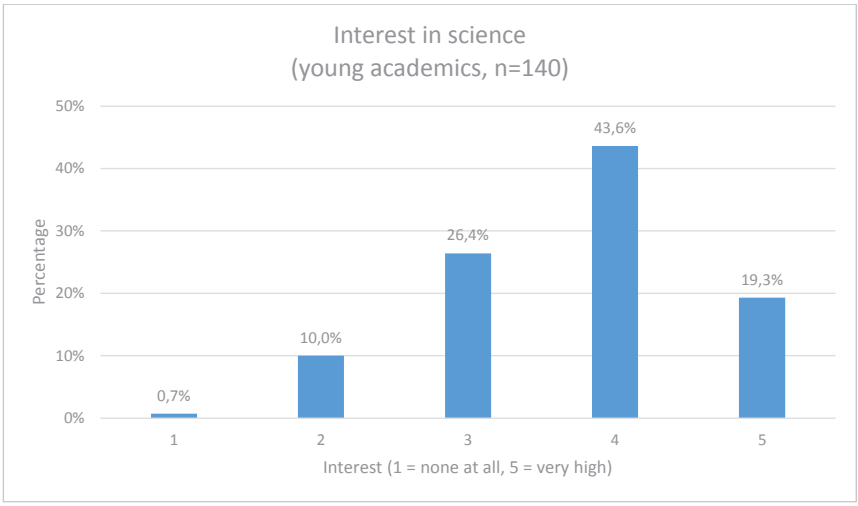

Figure 13: Interest in science

Source (own design): Online survey

Analyzing the BBAW's brand awareness, it is important to measure its familiarity among the designated target group, illustrated in the graph below. 21 participants (15%) state that they are aware of the research institute, where as 85% have never heard of it before which indicates a relative low brand awareness. Even among academics who live in the Berlin-Brandenburg region this number stays with 16,5% quite low. Comparing its familiarity among the different interests in academic classes, there are no meaningful differences to observe (see Appendix 21: BBAW brand awareness among Young Academics). Of those 21 Young Academics who have heard of the BBAW before, ten have actually been to an event before. And of those ten people who have attended an event, one was very satisfied, three were somewhat satisfied and six were neither satisfied nor unsatisfied. The mean is 2,5 with a scale from 1 (very satisfied) to 5 (very unsatisfied) which shows a slightly more positive level of satisfaction although the majority is neutral (see Appendix 22: Satisfaction of Young Academics with the BBAW).

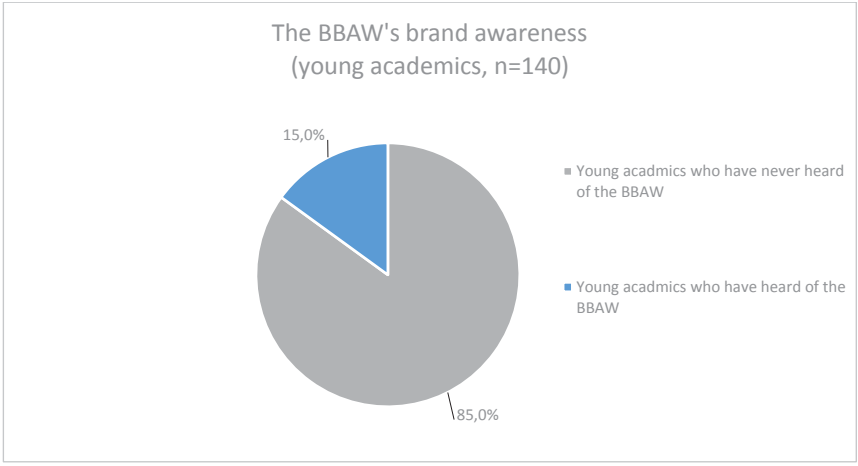

Figure 14: The BBAW's brand awareness
Source (own design): Online survey

Interesting are also the associations with the BBAW named by 16 Young Academics. The figure below shows a word cloud comprising the associations that were mentioned most, giving again greater prominence to those words that appear more frequently. On the one hand, positive words that represent the BBAW were mentioned, such as *research*, *institution* and *scientists* as well as *network* and *events*. One participant says that the BBAW is "a good place where different sciences and research accumulate", and another one thinks that it poses "a good opportunity to meet interesting people and learn new things". However, on the other hand, one associates the BBAW with an "old club for German scientists". Also, the word *nothing* appears implying again that the brand awareness is relatively low (see Appendix 23: Young Academics' associations with the BBAW).

Figure 15: Associations with the BBAW
Source (own design): Online survey

According to the BBAW classes that help to address newsletters respectively, event invitations and the like, the candidates were asked about the academic discipline(s) that they show most interest in (multiple choice question). As stated before, economic sciences has been added to the classes. Here, the additional class meant to simplify the participant's classification of the respective field of interest as the authors expected those candidates to be a great part of the sample (see 2.3.3. Young Academics in Germany). Probably, because most participants have achieved or will achieve their academic degree in economic sciences (Figure 11), the majority (56,9%) is mostly interested in this category, like the graph below illustrates. The humanities being the main orientation of the BBAW, was mentioned second with social sciences by 44,5% in each case, similar to the distribution of the event mailing list (see 3.1.5. Communication). Technological sciences (25,5%), mathematics and natural sciences (24,8%) as well as biological and medical sciences (21,2%) are of less importance (see Appendix 24: Young Academics' interest in academic disciplines).

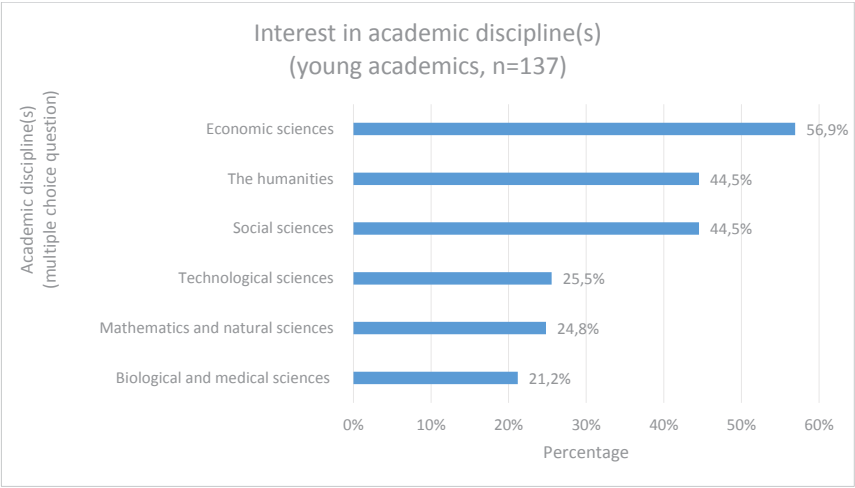

Figure 16: Interest in academic discipline(s)
Source (own design): Online survey

3.2.2.3. Interest in Academic Events

Having analyzed the scientific interest of Young Academics, it is important to analyze whether or not Young Academics are also interested in academic events as this is one of the main services of the BBAW. Motivational factors and preferences when visiting such events are going to be investigated as well. The following definition of academic events was given to the participants in order to avoid any discrepancy: Academic events refer to events regarding your academic discipline/career, e.g. exhibitions, workshops, job fairs, discussions, conferences, congresses, speeches, etc. (excluding lectures of your study program).

Hence, a Likert scale assists in analyzing the general interest in academic events illustrated in Figure 17. With 5 being very high and 1 being no interest at all, the majority and almost half of the participants (47,1%) checked the middle value of 3. That middle value separates the higher half of 31,5% from the lower half of 21,4%. Additionally, the mean is 3,13 (SD = 0,95) which shows that Young Academics generally tend to be interested in such events. Considering the correlation with age (r = -0,002) and gender (r= -0,06), one cannot proof a high relation. That means there is almost no association between those variables. However, there is a correlation with interest in science, namely r = 0,21, which implies a medium to low association. Young Academics who show high interest in science also show more interest in academic events (M =

3,27) than the ones with moderate to low interest in science (M = 2,88). Comparing the mean according to the place of residence, one can say that Young Academics from the Berlin-Brandenburg region are less interested in academic events (M = 3,05) in comparison to participants living in another federal state in Germany (M = 3,21) and living in a foreign country (M = 3,38). Additionally, Young Academics that show great interest in mathematics and natural sciences also tend to show more interest in academic events. Comparisons of the mean regarding the employment status are not meaningful (see Appendix 25: Young Academics' interest in academic events).

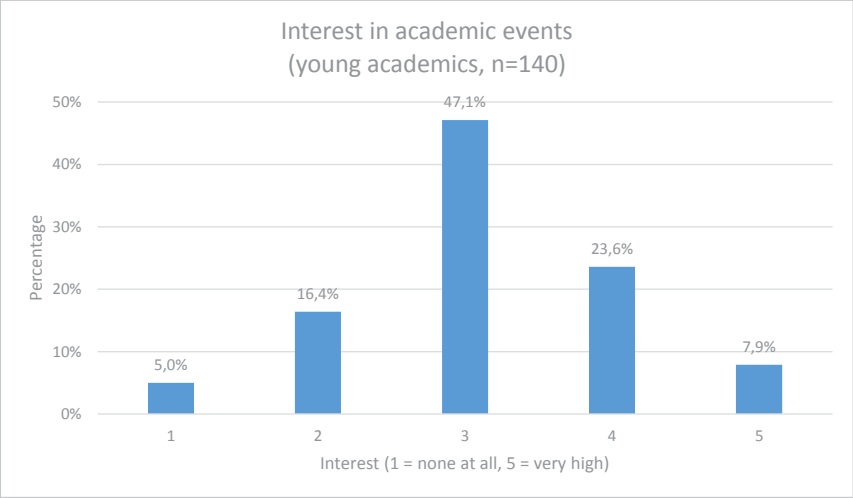

Figure 17: Interest in academic events
Source (own design): Online survey

Regarding the frequency of visiting academic events (Figure 18), most Young Academics (40%) go 2-3 times a year. The mean is 4,08 with a scale of 1 being once a week and 7 being never (SD = 1,25). Hence, 70% of the target group go at least 2-3 times a year. Among those, 30% are regular visitors going once a week, 2-3 times a month or once a month. In contrast, 30% are not regular visitors who go once a year, less than a year or never. Here again, a correlation can be identified with interest in science (r = 0,28), which is medium high, and with interest in academic events (r = 0,58) which is relatively strong. Comparing the mean regarding the place of residence, Young Academics from Berlin-Brandenburg attend such events least (M = 4,22), followed by academics living in another federal state in Germany (M = 3,95) and

foreigners (*M* = 3,54) who go most. Analyzing the frequency of visits regarding the interest in classes, Young Academics who are interested in mathematics and natural sciences go more regularly (once a week, 2-3 times a month and once a month) than other classes; just like they are more likely to be interested in such events (see above). People who are highly interested in science also go more frequently (*M* = 3,80 and 39,8% regular visitors) than people who show moderate to low interest in science (*M* = 4,56 and 13,5% regular visitors). Also, students tend to go more often (*M* = 3,28) compared to employed candidates with a mean of 4,36 (see Appendix 26: Young Academics' frequency of visiting academic events).

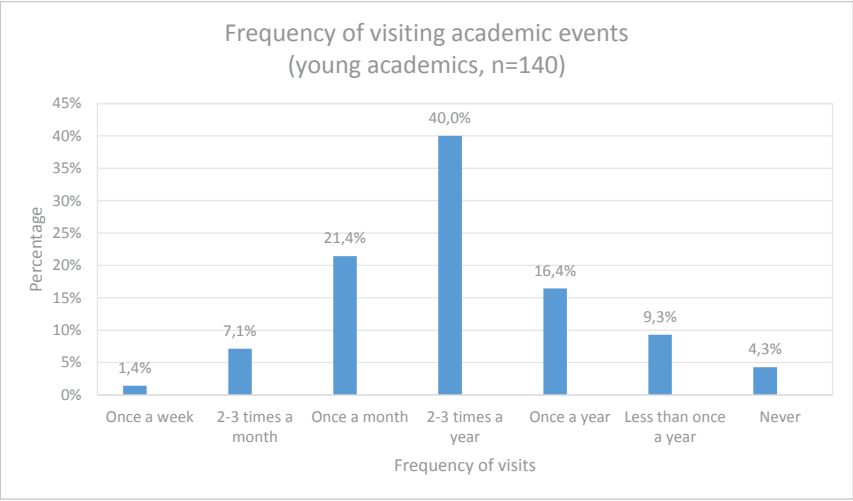

Figure 18: Frequency of visiting academic events
Source (own design): Online survey

After analyzing the interest in science and in academic events in order to see whether there is actually a market for such events, obstacles and motivational factors as well as preferences when visiting academic events are going to be examined. The following graph shows the top six reasons out of 20 that hold Young Academics back from visiting such events more frequently. Obviously, the majority (74,6%) has no time. However, 32,6% state that they don't know where and when such events take place. Even during the preliminary talks, 100% of the participants require a better communication of academic events by the respective institution (see Appendix 6: Results of preliminary talks). Irrelevant topics and entrance fee rank third by 28,3% in each case, followed by the reason that they neither want to travel so far (25,4%) nor

do they want to go by themselves (20,3%) (see Appendix 27: Reasons that prevent Young Academics from visiting academic events more frequently).

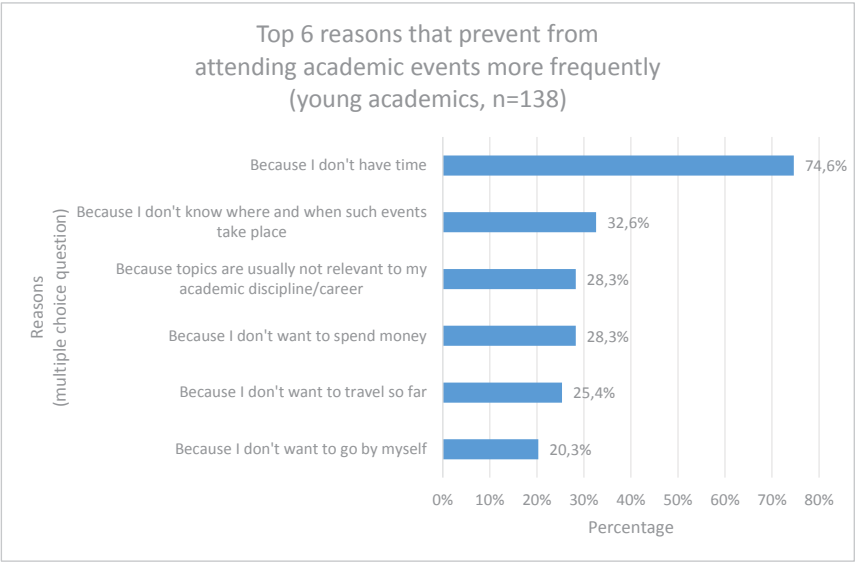

Figure 19: Top 6 reasons that prevent from attending academic events more frequently
Source (own design): Online survey

Similar to the top six reasons that prevent Young Academics from visiting academic events more frequently, are the top six reasons that encourage them to attend such events, illustrated in the figure below. The results of both questions were quite similar. Meeting friends and free entrance rank first with 46,7% in each case, followed by the reason if they would receive such event information more frequently (40,7%). Also quite important are the relevance of the topic (30,4%), meeting professionals, experts and scientists (28,9%), and a central location (25,9) (see Appendix 28: Reasons that encourage Young Academics to visit academic events more frequently).

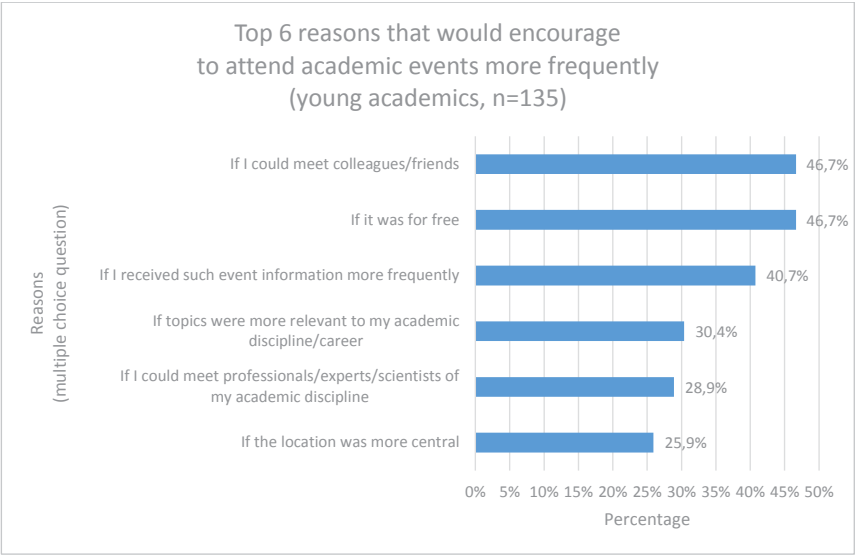

Figure 20: Top 6 reasons that would encourage to attend academic events more frequently
Source (own design): Online survey

Knowing the reasons that encourage and prevent Young Academics them from vising academic events more frequently, it is interesting to analyze whether their preferences when visiting such events match the BBAW's standards and services. Therefore, the participants were asked to rank several factors from 1 (very important) to 5 (very unimportant). Figure 21 illustrates the results sorted in descending order by importance. In order to analyze which factors are of importance, the top two (very important and somewhat important) are summarized. Obviously, for Young Academics the most important factors are the relevance of the topic (96,4%), the quality of the content (96,4%) as well as the quality of the speaker (92,1%). Location is important to 68,6%, whereas both the interdisciplinary approach (46,4%) and the interactive exchange (45,7%) are important to nearly half of the participants. Service and catering are only of little importance (10,7%).

Since the main activities of the BBAW have their focus in the Berlin-Brandenburg region, academics from this area are of particular importance. Therefore, the mean of each factor is compared regarding the place of residence. Results show only minor differences. The relevance of the topic (M = 1,28 versus M = 1,08) as well as the quality of the content (M = 1,33 versus M = 1,31) seem to be slightly less important to participants from the Berlin-Brandenburg region

in comparison to others. The same applies to the location (M = 2,34 versus M = 2,31), the interactive exchange (M = 2,69 versus M = 2,62) as well as service/catering (M = 3,71 versus M = 3,38). In contrast, the quality of the speaker (M = 1,64 versus M = 1,69) and the interdisciplinary approach (M = 2,58 versus M = 2,69) seem to be slightly more important. However, in general, the results of the participants from the Berlin-Brandenburg region are quite similar to the total sample of Young Academics (see Appendix 29: Preferences for Young Academics when visiting academic events).

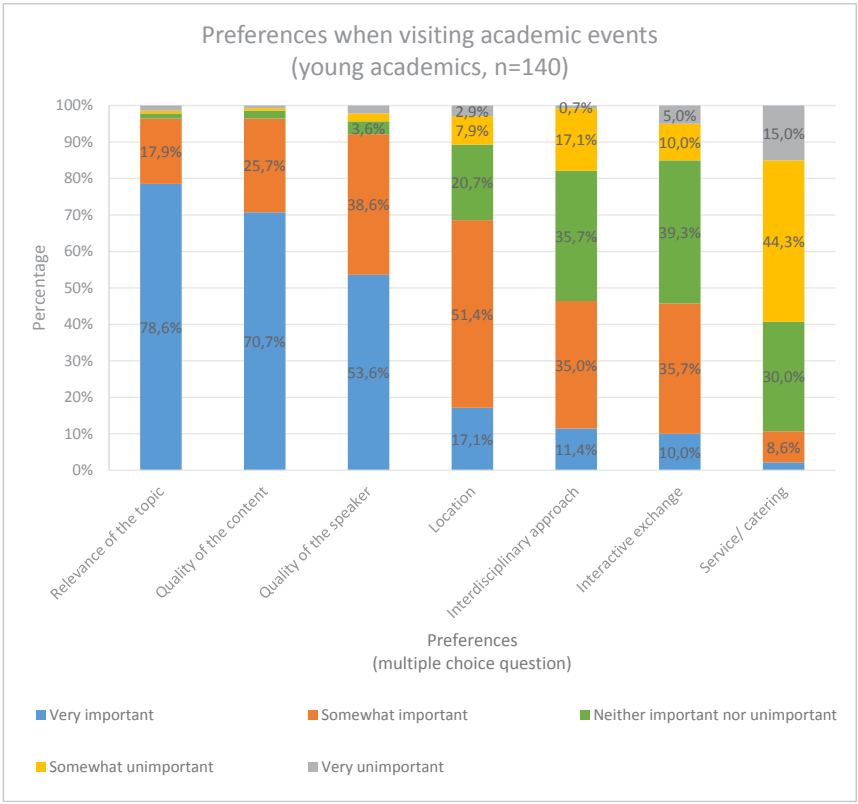

Figure 21: Preferences when visiting academic events
Source (own design): Online survey

Furthermore, it is essential to analyze through which communication channel(s) the target group gets information regarding academic events in order to increase the BBAW's awareness. The following graph shows that Young Academics mainly use word-of-mouth (84,3%), followed

by social networks (77,1%) and websites (75%). Additionally, they make use of university newsletters (61,4%), magazines/journals (40,7%) as well as other newsletters (34,3%). Comparing the most frequent answers among different groups, there are a few differences to point out; not necessarily regarding the total value but mostly regarding the order of the most frequent answers. For example, 100% of Young Academics living in a foreign country use social networks when it comes to receiving information regarding academic events. Also, the usage of blogs is twice as high compared to Germans. Participants who are less interested in science also use social networks more than word-of-mouth and websites. In contrast, people who are highly interested in science use word-of-mouth and websites rather than social networks probably because they know exactly what people and websites to refer to. As they also use social networks less in a private context, this number is not critical. It is still 71,6% and shows merely that this sector might be not as developed yet (3.2.2.4. Social Media Usage). Also interesting is the comparison regarding the employment status. Students use word-of-mouth and university newsletters most frequently probably because they have the respective connections and academic network. In contrast, employed academics depend mostly on social networks. Also, the usage of blogs is higher compared to other groups (see Appendix 30: Communication channels of Young Academics regarding academic events).

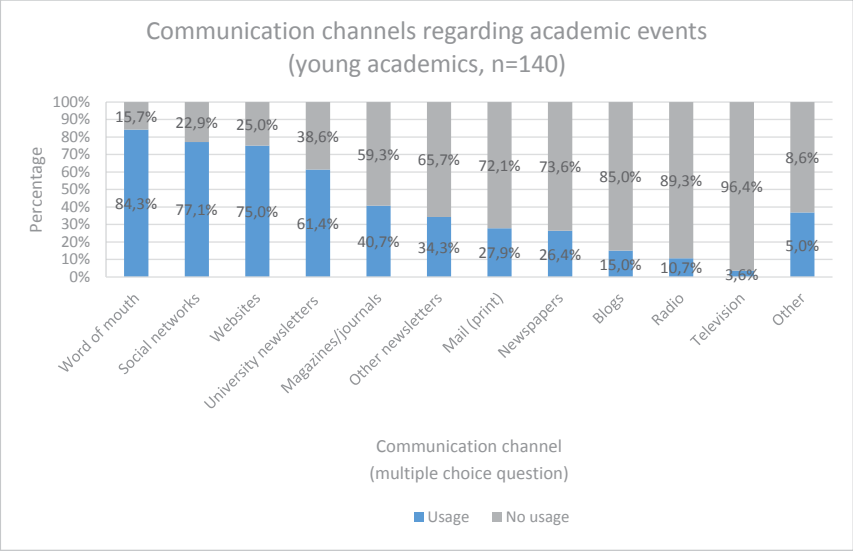

Figure 22: Communication channels regarding academic events

Source (own design): Online survey

In order to draw a more comprehensive picture, the participants were asked to name exemplary sources of the communication channels regarding academic events. The most frequent and relevant sources display a potential cooperation and linking in the social media environment. As for word-of-mouth, half of the Young Academics mainly depend on professors (50,9%), followed by friends (43,4%) and colleagues (30,2%). Examples of social networks are Facebook (78,2%) and Xing (33,3%). Also Twitter, Linkedin and Researchgate were noted. Besides university websites that are mainly used among the target group (47,4%), a few other websites were mentioned as well, such as Wissenschaft im Dialog, Zitty and Spiegel Online. Exemplary magazines and journals are Unispiegel, Tip Berlin and Zitty, and newspapers are Tagesspiegel and Süddeutsche as well as Die Zeit and Berliner Morgenpost. Blogs are narrowed down depending on the academic discipline, for example in medical sciences Young Academics like to use the blogs Deutsche Gesellschaft Interdisziplinärer Notfall- und Akutmedizin and Europäische Gesellschaft für Notfallmedizin (see Appendix 31: Specific communication channels of Young Academics regarding academic events).

3.2.2.4. Social Media Usage

In order to create a matching social media concept including the most promising channels to reach the target group, the social media behavior is analyzed. The following definition of social media was given to the participants in order to avoid any discrepancy: Social media refers to interaction among people in which they create, share, and/or exchange information and ideas in online communities/networks on highly interactive platforms.

All Young Academics that filled out the survey use Facebook at least sometimes, closely followed by Wikipedia (99%) and Youtube (99%). Blogs (71%) and user forums (70%) rank on the fourth and fifth spot in this measure, followed by Xing (54%) on rank six with still more than the majority of Young Academics using this channel. Linkedin (43%), Instagram (41%) and Twitter (34%) are still used by over a third of the target group. Google Plus (26%) and Pinterest (25%) haven't reached the mass of the target group (yet). Foursquare (11%) and Researchgate (9%) rank last in this measure and are thus used only by some niche groups.

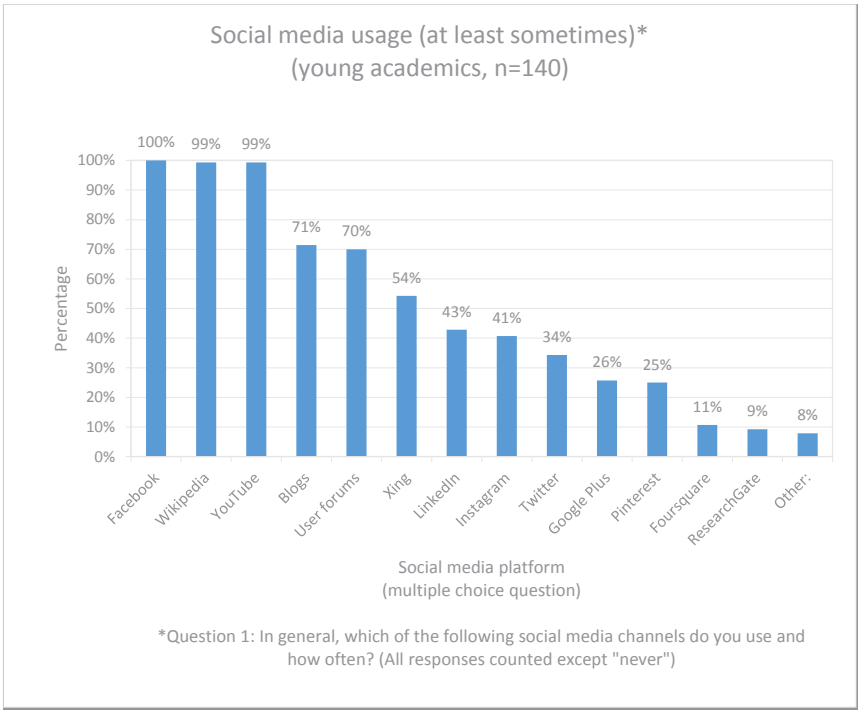

Figure 23: Social media usage (at least sometimes)
Source (own design): Online survey

To draw a more comprehensive picture about the social media usage, the frequency of usage of every channel is analyzed. Again, Facebook clearly dominates the social media atmosphere with a remarkable number of 85% daily users among the target group. On the second rank, but far behind Facebook, Wikipedia is used daily by 20% of the target group, followed by Youtube (18,6%) and Blogs (11,4%). All other platforms are used daily by less than 10% of the target group, including Twitter (9,3%), Xing (7,9%) and Instagram (7,1%).

To analyze which platforms are used on a regular basis, the selection criteria are broadened from *daily* users to *regular* users (users that use social media platforms at least *daily* and *a few times a week*, see also Figure 24 below). In this ranking, Facebook again is the clear leader with a number of 95% regular users. Youtube follows with 70,7% on the second rank, and Wikipedia counts 64,3% that use its platform regularly. Besides these three big players, just about a quarter of Young Academics (27,9%) use blogs on a regular basis, followed by Xing (20,7%). The

remaining platforms only manage to reach less than a fifth of the designated target group on a regular basis.

Comparing usage patterns of the top six most used social media platforms (see Figure 23) of Young Academics with a high interest in science and those with a low to moderate interest in science (see Appendix 32: Young Academics' social media usage – according to interest in science), it can be observed that Facebook has a higher share among the low to moderate interest in science group in daily usage (94,2%) compared to the group of users with a high interest in science (79,5%). This pattern coincides with the analyzed communication channel usage for academic events (see 3.2.2.3. Interest in Academic Events). The effect is less dramatic when analyzing the *regular* (numbers of *daily* and *a few times a week* combined) usage of Facebook of both groups, where the low to moderate interest group counts 98,1% users compared to a 93,2% of the high interest group. This is the other way around when looking at Wikipedia and user forums, with 13,5%, respectively 13,9% more regular users among the high interest group. Youtube, blogs and Xing only show little deviations in this comparison (see Appendix 32: Young Academics' social media usage – according to interest in science). Looking at the social media usage from a different angle by comparing students and (self-) employed persons, it can be observed that the share of regular users among employed persons (34,8%) is 12,3% higher than the share of students (22,5%). Additionally, also user forums are visited more often by employed people (+11,4%). Other platforms don't show relevant differences (see Appendix 32: Young Academics' social media usage – according to employment status).

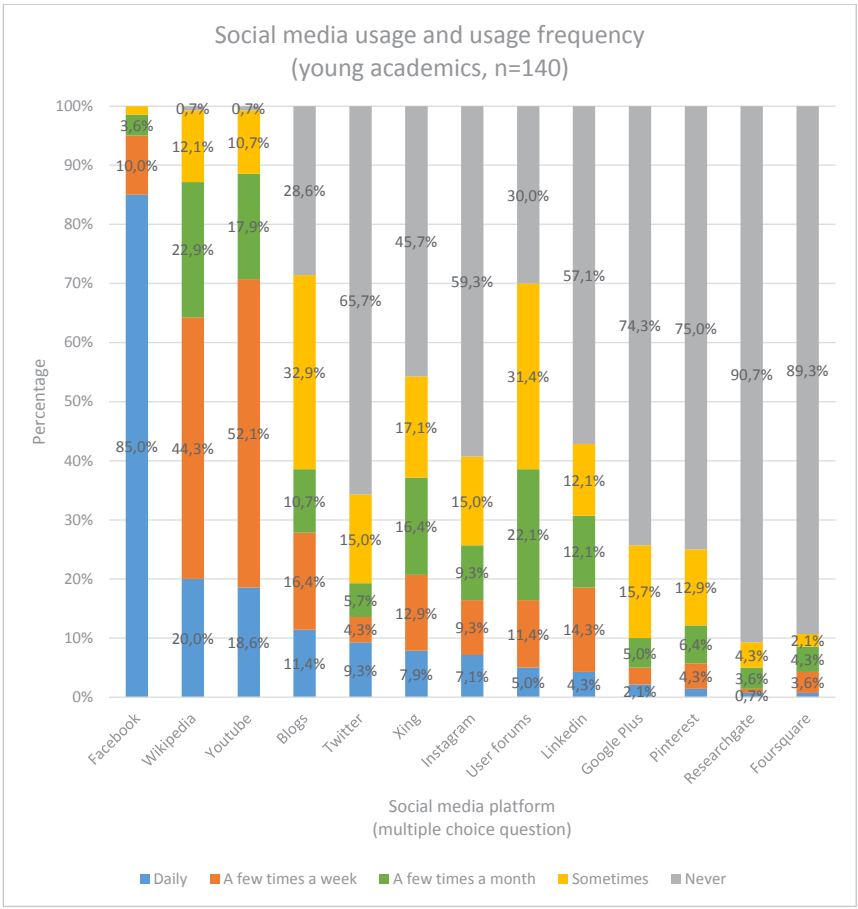

Figure 24: Social media usage and usage frequency
Source (own design): Online survey

Besides general social media usage patterns, the specific application of social media in the area of the academic discipline and academic career is analyzed. More than four of five Young Academics use social media in their academic discipline/career, which is a meaningful majority (82,1%) compared to those who do not use social media in their academic discipline/career (17,9%) (see Appendix 33: Young Academics' social media usage in academic discipline/career). Looking at disciplines, Young Academics that are interested in the humanities (88,5%) show the highest share in social media usage, followed by social sciences (85,2%) and economic sciences (84,6%). Young Academics interested in technological

sciences (77,1%), mathematics and natural sciences (73,5%) as well as biological and medical sciences (72,41%) show a lower social media usage pattern in their academic disciplines (see Appendix 33: Young Academics' social media usage in academic discipline/career – according to interest in classes).

To further refine this number, not only the sheer usage of social media is analyzed, but also the importance of it in the academic discipline, illustrated in the graph below. More than half of the Young Academics state that social media is very (23,6%) or somewhat important (37,1%) in their academic discipline. 19,3% say it is neither important nor unimportant, and only a fifth say it is somewhat unimportant (14,3%) or very unimportant (5,7%) (see Appendix 34: Young Academics' importance of social media in academic discipline/career). Analyzing the responses sorted by the academic discipline the participants are interested in, it shows that economic sciences lead the field with 65,4% interested in the latter stating that social media play a very or somewhat important role in their discipline. The humanities (62,3%), social sciences (59%) and biological and medical sciences follow the lead with only little distance, cohering with the values of the social media usage (see paragraph above and Appendix 34: Young Academics' importance of social media in academic discipline/career – according to interest in classes).

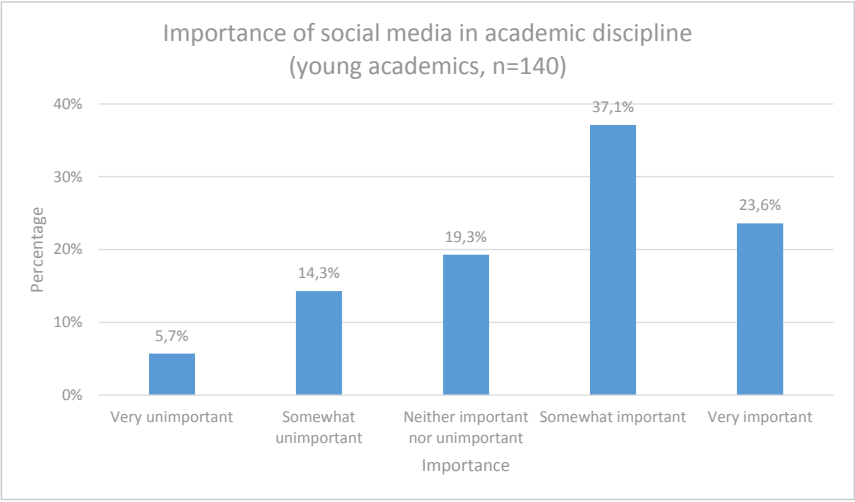

Figure 25: Importance of social media in the academic discipline
Source (own design): Online survey

Having analyzed the importance and usage pattern of social media by Young Academics in general and in the specific area of their academic discipline, it is interesting to see why they use it and what for. The most prominent reason among Young Academics for using social media in their academic discipline is to stay in touch with existing contacts (81,0%), followed by being informed about current events like exhibitions, lectures and the like (74,1%). Other reasons that promote the use of social media usage are the feature of organizing groups, projects or documents (69,8%), to network with or acquire new contacts (57,8%), or to share and discuss ideas and get feedback to those (52,6%, see graph below). Further reasons named by less than the majority of the respondents can be found in the appendix (see Appendix 35: Young Academics' reasons to use social media).

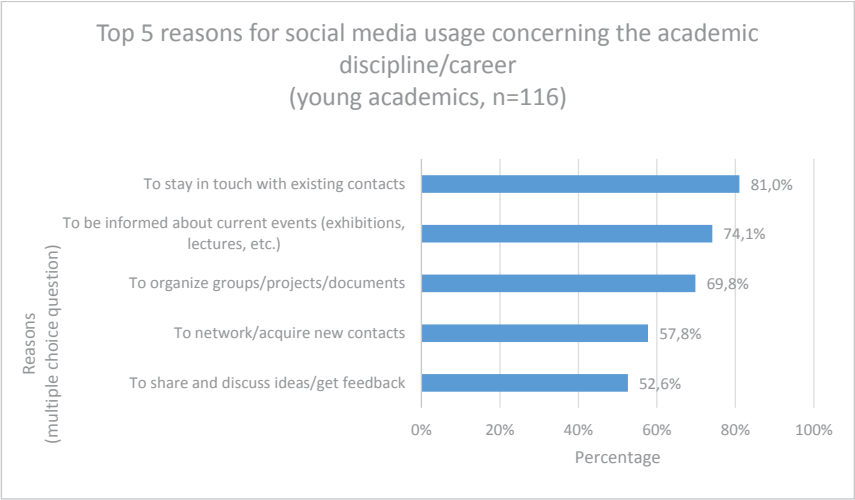

Figure 26: Top 5 reasons for social media usage
Source (own design): Online survey

62,1% of the Young Academics who do not use social media in their academic discipline say that they do so because they use social media only in a private context. 34,5% state that social media is not relevant in their academic discipline, 31% do not use social media because of data protection and/or privacy issues. 13,8% say that they don't trust information presented on social media, just like 13,8% state that networking online does not build valuable relationships (see graph below; for the complete list, see Appendix 36: Young Academics' reasons not to use social media).

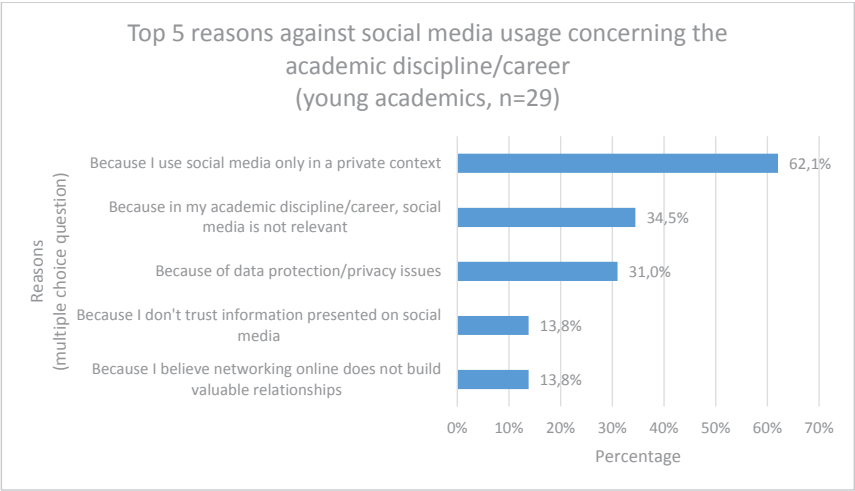

Figure 27: Top 5 reasons against social media usage
Source (own design): Online survey

Changing the perspective from the user to the provider by analyzing the benefits of social media for academic/scientific institutions, 84,3% of Young Academics think that the biggest benefit is to be able to inform about current events. Other benefits include sharing and discussing ideas and get feedback (62,1%), informing about publications (58,6%), creating a positive brand image and awareness among their target group (55,0%), connecting with other institutions (54,3%) or promoting themselves for prospect employees (52,9%) (see Appendix 37: Benefits of using social media for academic/scientific institutions).

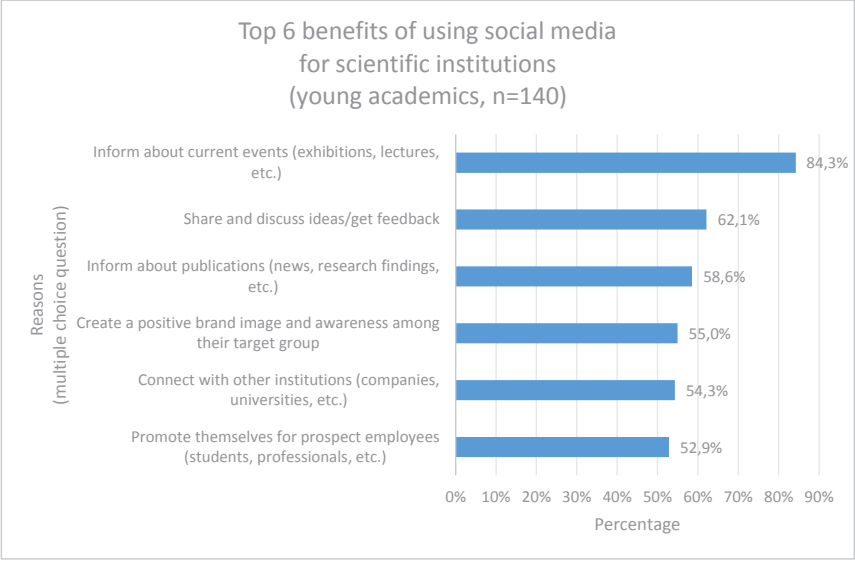

Figure 28: Top 6 benefits of using social media for scientific institutions

Source (own design): Online survey

3.2.3. Benchmark Analysis

Changing the perspective from the customer to the third "c", the competitors (rather collaborators), the benchmark analysis reveals valuable information regarding the social media behavior of the research industry. The main results are presented in the following. However, for readability purposes and to view detailed numbers and sources, please refer to Appendix 10: Industry benchmark analysis.

Comparisons across the industry show that all 17 institutes and associations (including the Academy) own a website which is available in German and mostly in English as well (88%). Evaluating Alexa's global traffic rank, one can say that the Academy's website is with 578.666 less popular than the average as the mean states 2.363.717. With a bounce rate of 54% and a daily time spent on the site of 3:35min, the Academy is slightly better than the average (59% and 2:29min). Also, the daily page views per visitor of 2,7 is acceptable even though it is less than the average (2,99). Checking the availability of an own blog (29%), it is obvious that institutions are less likely to have an own blog in contrast to associations, foundations and societies. The same applies to other social media channels. That might be due to the fact they depend less on the society as a whole. Hence, the facilities owning a Xing profile (29%) have

122 followers on average. On Researchgate, they (29%) record 51 members who share 356 publications (BBAW: 15/127), on Youtube they (47%) have 118.270 visitors and 4.334 subscribers (BBAW: 514/2), and on Twitter they (53%) record 3.650 followers and 2.135 tweets (BBAW: 37/60). Lastly, 53% of the facilities own a Facebook profile which is liked by 3.828 people, talked about by 325 people, and checked-in by 165 people (BBAW: 122/7/642). All numbers refer to the mean.

Since Facebook has proven to be the most attractive social media channel among Young Academics, an in-depth analysis of the most successful contender is undertaken. Here, the Facebook profile of the Max Planck Society delivers "best of class" solutions which the BBAW is recommended to take as a best-practice example. The Max Planck Society does not only have one profile in each language (German as well as English) but it also records by far the highest numbers of likes (3219/ 23.118), of "talking about this" (97/ 2.767), and of "were here" (110/ 394). Within 30 days (February 3rd, 2014 until March 4th, 2014) 137 new fans joined the society on Facebook (+4,35%). Analyzing the German profile, one can find basic information of the society in the "about" section, namely the mission, company overview, brief introduction of its products/services as well as all necessary contact details, including links to its website and other social media channels. An extra photo album as well as video album contain material of past events and diverse research topics. By means of Social RSS/Blog, users always stay up-to-date with the latest news and happenings according to their preferences (increasing relevance), and in the event calendar they are not only able to view upcoming and past events, but also to join those in order to receive all necessary information and to connect with other participants. Besides events, photos and videos, the Max Planck Society publishes research findings, information about job vacancies and scholarships, and other news related to staff matters, new programs, and the like. It also links to press material (articles, photo and video) as well as to publications on its other social media platforms. Furthermore, through questions and advice, contests, quotes and anniversaries of scientific representatives/institutions, the association tries to keep the content interesting and have the users engaged. Almost all postings are connected with photo or video material, which are highly liked and commented on. The public is not only allowed to comment on all kinds of posts, but also to write own posts (including video and photo).

The benchmark analysis shows that social media is well established in the research industry, among foundations and associations rather than research institutes. The Academy's website presence is relatively low but still tolerable. In contrast, its social media presence in all

benchmarks is far behind the average of its industry partners. Especially, the Max Planck Society, Wissenschaft im Dialog, the Fraunhofer Society and the Helmholtz Association outpace the Academy. That means there is plenty of room for improvement if the Academy tends to become visible and attractive.

3.3. Results

In the following the situational analysis will be summarized, and suggestions for customer approach and product adaptation will be provided.

3.3.1. Summary of Situational Analysis

Having analyzed the initial situation of the Academy, the reader now has a profound knowledge about the company background, its target group as well as its competitors.

What distinguishes the Academy from other institutions in Berlin-Brandenburg, is its interdisciplinary approach uniting sciences and the humanities. With 300 years of history, the Academy is the largest non-university research institute with a profile in the humanities in this region. Serving to promote the sciences, the Academy aims to encourage a dialogue between science and the society as a whole by offering events in form of public debates, lectures, workshops, and the like. All events are characterized by a very high standard, an interdisciplinary scope, and an interactive exchange. In order to promote those approximately 70 public events each year (with an audience of about 80 people on average), the most frequently used communication activities are the event mailing list and print media. Events are also communicated via website, newsletters, and public relations. Its social media presence is limited to Vimeo and Soundcloud which are only used to implement content in form of audio and video. In the course of writing this thesis, Twitter was only used for the Sophie Charlotte Salon in January 2014. However, communication efforts via this channel are restricted to the event only. Besides an article on Wikipedia, the Academy has an account on Youtube and Researchgate which are not actively used. In addition, placeholders on Facebook and Foursquare exist, implying that people want to connect with the Academy via those social media channels. The analysis further revealed a highly educated and elderly (average age: 58) customer base. Additionally, it is predominated by men (64%), and it favors traditional communication channels. Outside of its scientific community, the Academy has a low brand awareness (aided awareness: 15% overall, 17% in Berlin-Brandenburg) which the underlying online survey shows.

With the further research analysis, the reader was familiarized with the characteristics, interests and the social media behavior of the designated target group of Young Academics.
Their interest in science is relatively high (63%). Most of the participants are interested in economics (57%), followed by the humanities and social sciences (45% each). Students also go more often to such events rather than employed academics. The majority (70%) states to go at least 2-3 times a year, 30% even go regularly. Reasons that would encourage Young Academics to go more frequently are mainly if they could meet friends/colleagues and if it was for free (both 47%), followed by if they would receive such event information more frequently (41%). Main communication channels with regard to events are word-of-mouth (84%) and social networks (77%) which, by means of social media, the Academy can turn into word-of- mouse. Regarding the social media behavior, the reader learned that all Young Academics use Facebook at least sometimes, followed by Wikipedia (99%), Youtube (99%), Blogs (71%), User forums (70%), and Xing (54%). Regarding the regular usage, Facebook still leads (95%), followed by Youtube (71%) and Wikipedia (64%). Blogs (28%), Xing (21%), and User forums (16%) show less regular usage. Differences in social media usage according to the level of interest in science and the employment status exist. Furthermore, the significance of social media in the academic discipline is acknowledged as somewhat to very important by 61%. Four out of five actally use it in this context (82,1%). The main purpose why Young Academics use social media in an academic context is predominantly to keep in touch with existing contacts (81%) and to be informed about current events like exhibitions, lectures and the like (74%). This will be even reinforced by the clear majority (84%) stating that the biggest benefit of using social media for scientific institutions is to be able to inform about current events.
Lastly, the reader learned that social media is well established in the research industry – among associations and foundations rather than institutions. The benchmark analysis revealed that most of the industry partners have a profile on Facebook (53%) and Twitter (53%), followed by Youtube (47%), Researchgate (29%) and Xing (29%). The Max Planck Society served as a best-practice example for the Academy in terms of communication via Facebook. Comparisons showed that the Academy's website presence is relatively low but still acceptable. However, results of its social media presence are nowhere near enough the average value of the industry, implying that there is plenty of room for improvement.

Hence, the situational analysis of the Academy affirmed the necessity of a higher social media presence not only to communicate its events properly, but also to stay competitive within its research industry (also with regard to the event industry in the Berlin-Brandenburg region).

Generally, Young Academics are interested in science and academic events. However, only if the Academy listens to the target group and adjusts its communication efforts accordingly, it will be visible. And only then, it can successfully encourage a dialog between science and Young Academics.

3.3.2. Suggestions for Product Communication and Adaptation

In alignment with the overall goal of this thesis, and to make this concept successful, the Academy is advised not only to extend its communication channels but also to slightly adapt its events and the respective communication according to the target market.

Summarizing the opportunities and challenges with regard to events (see 3.2.2.3. Interest in Academic Events), one can say that the BBAW has a relative good initial situation. To both the research institute and the academics, the high quality of the speaker and the content are of significant importance which ensured by renowned experts and scientists that are invited as lecturers. Furthermore, the Academy is located in the city center and most events are free of charge which are advantages mentioned by the target group. However, the brand awareness has proven to be very low with 15% among the target group (17% in the Berlin-Brandenburg region). And of those who have attended an event before, 60% were neither satisfied nor dissatisfied (see 3.2.2.2. Scientific Interest). Reasons for this could be that the interdisciplinary approach (Academy's USP) and the interactive exchange were not as significant to the target group. Which may also display a challenge to the Academy is the fact that most Young Academics mentioned the relevance of the topic as the most important factor when visiting academic events (79%) (see Figure 21).
By means of the classes, the research institute shows efforts to send out newsletters and event invitations according to the candidates' interests in order to increase relevance. However, the classes are relatively broad and may not be grouped in one category, such as mathematics and natural sciences. Some categories even include several disciplines in one, such as the humanities which actually contains amongst others philosophy, history and jurisprudence. Therefore, people might face difficulties in classifying their interest(s) when subscribing to the mailing list. As a result, the Academy may not have sufficient opportunities to target its event mailings accurately according to the actual field(s) of interest. Hence, customers might receive less relevant information which could be perceived as spam. Consequently, the Academy is advised to narrow down its "classes", and add additional disciplines, such as economic sciences as analysis showed (Figure 16).

Also, in alignment with the overall goal is the advice of creating a secondary event series. As the Studierendensurvey 2010 shows (see 2.3.3. Young Academics in Germany), practical experience take priority over research activities. Furthermore, the briefing with the Academy revealed that the previous annual theme "Artefacts. Knowledge is Art – Art is Knowledge" was very popular with Young Academics. Also, the Sophie Charlotte Salon which comprises theatre plays, readings, guided tours and the like, always attracts the attention of Young Academics.

Hence, a secondary event series can address those who are less interested in science, approaching scientific topics in a more creative, tangible and entertaining way. As the research analysis shows, academics of moderate to low interest in science often study humanities, social sciences, and economics (see 3.2.2.2. Scientific Interest). Hence, theatre plays, science slams, or networking parties may appeal to this group. Those could take place once a month under the name "Science after Dark", maybe at the Academy's rooftop garden in combination with small snacks. Clear boundaries, different targeting and communication efforts are highly advised in order to prevent any delusion of the brand image and the classic event series (spill-over effect). This series could start as a pilot within those events that the information and communication department has full control over in terms of format, topics, organization, etc. (see 3.1.3. Public Events). Thus, the Academy can see how it will be accepted by the audience.

The already existing event series remains for Young Academics who show high interest in science and who also attend such events more frequently (academics of mathematics and natural sciences, biological and medical sciences, or technological sciences) (see 3.2.2.2. Scientific Interest).

4. Social Media Concept

After having acquired theoretical foundations in social media and the research landscape and gained further insights about the Academy and the target group, the social media concept developed on the basis of these insights is now presented to the reader.

The social media concept is built upon the COSMIC model, which was developed by the authors on the base of Lembke's (2011, p. 63) social media process model (see 2.2.4. Development of a Strategy). A few adaptations to the original model were undertaken. In contrast to Lembke's model, the steps of the COSMIC model don't follow a linear, but a circular approach. As the last step of monitoring and correcting the initial strategy will lead back to the first step of reviewing the context the brand is in in order to adapt the following steps again, which could be an adaptation in the goal, the content or the platforms selected. Furthermore, the selection of content is now positioned before the modulation of channels, as the design of a desired marketing message should come before the selection of platforms, where this message will then be communicated on. Additionally, the mentoring phase was exchanged for an implementation phase, where the previously formed steps are put into action. As mentoring is not only necessary at one point but as an ongoing companion of the whole process, it is positioned as second circle outside of the process and, thus, available throughout all the steps.

D. Hurrle, J. Postatny, *Social Media for Scientific Institutions,* BestMasters,
DOI 10.1007/978-3-658-08822-4_4, © Springer Fachmedien Wiesbaden 2015

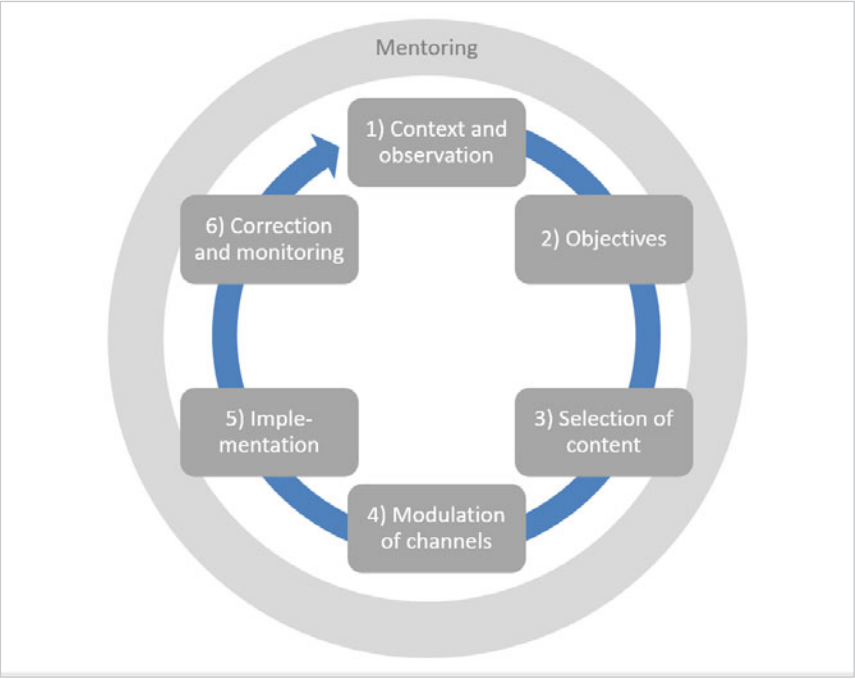

Figure 29: The COSMIC model
Source (own design): Translated and adapted, based on process model of Lembke (2011, p. 63)

For the application in practice, it is important to move in short cycles (iterative) when implementing the strategy due to a high need of continuous adaption to the fast moving social media environment. As exemplified by social media companies like Facebook, who work after the belief "move fast and break things", it is difficult to plan a social media strategy well ahead. Thus, a suited approach for putting social media into action is a continuous learning process consisting of actions that quickly assess, test, implement and correct the taken route (Hurrle, 2014).

4.1. Context and Observation

The first step of this model has already been taken with the examination of the theoretical foundations and the situational analysis. Hence, in preparation of the underlying concept and to ensure the reader's comprehension, the Academy's main message for Young Academics is

going to be summarized as well as the definition of the designated target group. Furthermore, the four target segments are going to be introduced that the concept is directed at.

The underlying concept is characterized by the integration and unification of all social media efforts in order to send a clear, consistent and persuasive message to the target group. The Academy would like emphasize its unique selling proposition of being the largest non-university research institute with a profile in the humanities in the Berlin-Brandenburg region. Furthermore, it would like to appear as a future-oriented institute with excellent scholars and scientists, while still preserving its 300-year old tradition. By visiting events at the Academy, Young Academics have the unique opportunity to meet and interact with renowned experts and well-known scientists, to participate in sophisticated dialogues about the state-of-the-art sciences, and to build a valuable network for their future career.
As mentioned before, the Academy describes Young Academics as scientists and/or students (undergraduates, postgraduates, graduates) of both universities and universities of applied sciences who are between 18 and 35 years old (Lerch, 2013). Young Academics with high interest in science are of particular importance. As the Academy is a national academy with a regional focus when it comes to its activities and communication, the prospect reference group preferably lives in Berlin or Brandenburg. However, due to the global reach of social media and the intention to encourage an online dialog between science and Young Academics, the place of residence does not display a limitation in this context.

To make the concept more demonstrative, tangible and concrete, the target group of Young Academics is split into four target segments (see graph below). The segmentation is based on the results of the research analysis (see 3.2.2. Analysis of Online Survey), and it results in students with high interest in science (*SHI*), students with low interest in science (*SLI*), employed academics with high interest in science (*EHI*), and employed academics with low interest in science (*ELI*). Since different segments have different sources and needs, the preferences of content and channels vary slightly. For example, academics with high interest in science are more interested in academic events in contrast to academics with low interest in science. The same applies to students versus employed academics probably because students have more time. Also, employed academics depend on blogs and user forums (as communication channels regarding academic events) rather than students who have a large network and receive university newsletters. However, the concept targets all four segments, and differentiations are by trend rather than absolute.

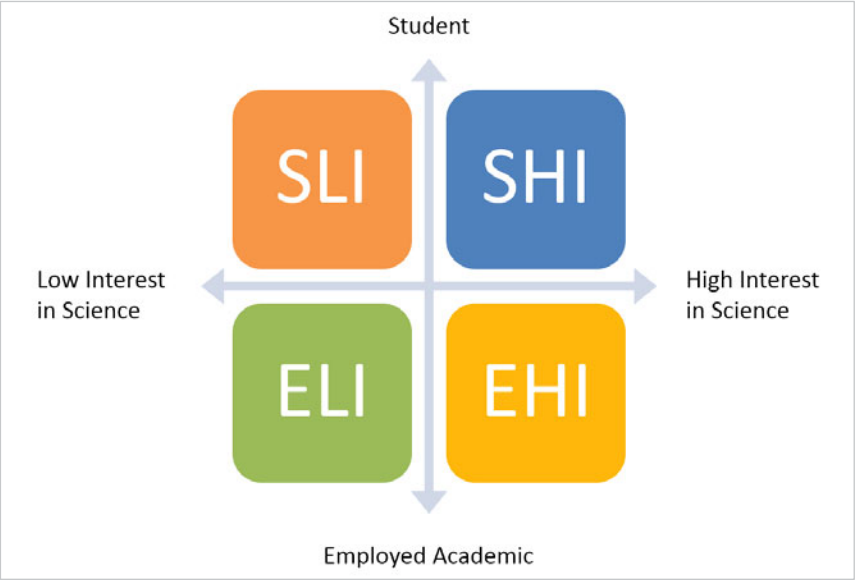

Figure 30: Target segments for the BBAW social media concept
Source (own design): Online survey

4.2. Objectives

The overall goal of the underlying social media concept for the Berlin-Brandenburg Academy of Sciences and Humanities is to get, keep and grow the customer base of Young Academics, and to make the brand more popular among the designated target group. Consequently, the Academy's original mission to encourage a dialog between science and the society as a whole, now turns into an online dialog between science and Young Academics.
As mentioned before, concepts require clear qualitative and quantitative objectives that go in alignment with the overall goal (2.2.4. Development of a Strategy). Therefore, the following two *smart* objectives have been developed that are supposed to be achieved until 31 March 2015 (within one year):

Main objective:

- To raise brand awareness among the target group in the Berlin-Brandenburg region to 25% (current aided awareness among target group is 17%, see 3.2.2.2. Scientific Interest).

In order to achieve an increase of 8% in aided brand awareness in the Berlin-Brandenburg region, the number of contacts (or touch points) was calculated. Here, the size of the actual target group in the region was calculated. On the one hand, this target group consists of 194.872 students with an age below 35 years (total number of students is 212.251, see 2.3.2.2. Higher Education Institutions). On the other hand, this number arises from an estimated number of 82.724 persons (employed academics), which is calculated by the share of academics among economically active persons and the number of persons between 18-35 years (Amt für Statistik Berlin-Brandenburg, 2012; Initiative Neue Soziale Marktwirtschaft; WirtschaftsWoche, 2014). Therefore, the target group consists of 277.596 Young Academics. Hence, to increase the aided brand awareness among the target group by 8%, an additional number of 22.208 Young Academics has to be reached. Taking into account that "it takes 3-5 contacts […] to build awareness" for a brand, this number increases to a total of 66.623 contacts that are (at least) necessary to increase the unaided brand awareness by the assigned objective (Ipsos ASI, 2013, p. 19).

Supplemental objective:

- To convert 2% (1.166) of Young Academics that are aware of the brand into actual visitors

For the supplemental objective of converting 2% of Young Academics that are aware of the brand, an average unaided awareness of 21% was assumed. This value was calculated by taking the average of the current aided awareness (17%) and the increased aided awareness (25%) that should be achieved in one year (see main objective). The conversion rate is estimated to be 2%, resulting in an absolute number of 1.166 Young Academics (Eisenberg, 2008).
With regard to the survey analysis, the 40% of going to an academic event 2-3 times a year thus can be moved towards the more frequent visitors. Accordingly, the 30% of going only rarely can be moved towards visiting 2-3 times a year (see Figure 18). For detailed calculations please refer to Appendix 38: Calculation of objectives.

4.3. Selection of Content

As the analysis of the Academy's communication channels and the industry benchmark show there is plenty of room for improvement concerning the social media presence. The content of

the platforms not only aims to promote the Academy and its events, but also to increase the communication between the research institute and the designated target group. A positive brand image shall be created, and awareness shall be raised. Hence, the most suitable mix of content needs to be developed in order to achieve those intentions. Moreover, as numerous companies enter the social media world, it is important to make the content valuable to Young Academics as much as possible. According to the golden rule "content is king", it must be interesting, up-to-date and relevant (see 2.2.1. Social Media Marketing). Elements, such as strong visuals and storytelling will make it even more attractive. However, with regard to the principle "form follows content", the Academy is advised first to think of the topic and then design the appropriate social media space respectively. The language is chosen to be mainly German, based on the industry benchmark analysis and the national focus of the Academy (see Appendix 10: Industry benchmark analysis).

Hence, combining findings of primary and secondary research, the following content strategy was created for the Academy: "Three elements of valuable content" (see Figure 31). The model shows three test tubes, also known as culture or sample tubes, consisting of the elements *Inform*, *Entertain*, and *Engage*. They represent the characteristics of valuable content in the social media world, and, just like liquids, they can be mixed according to the preferred message and platform. The test tube holder symbolizes the Academy that selects the content which is built on the fundament of *Consistency* and *Authenticity*. All three elements are held by *Relevance* which is essential for the test tubes (and the whole content strategy) not to fall down and break. Except for the definition of the word "content" which may be interpreted differently by some digital agencies, this model has strong appeal to both the social media experts. They believe it appears very comprehensible and coherent, and it includes all important aspects of communication in the social media world. Mr. Hurrle especially appreciates the idea of being able to mix those elements because it all depends on the right mix (Hurrle, 2014; Rodewald, 2014). The model is going to be exemplified in the following.

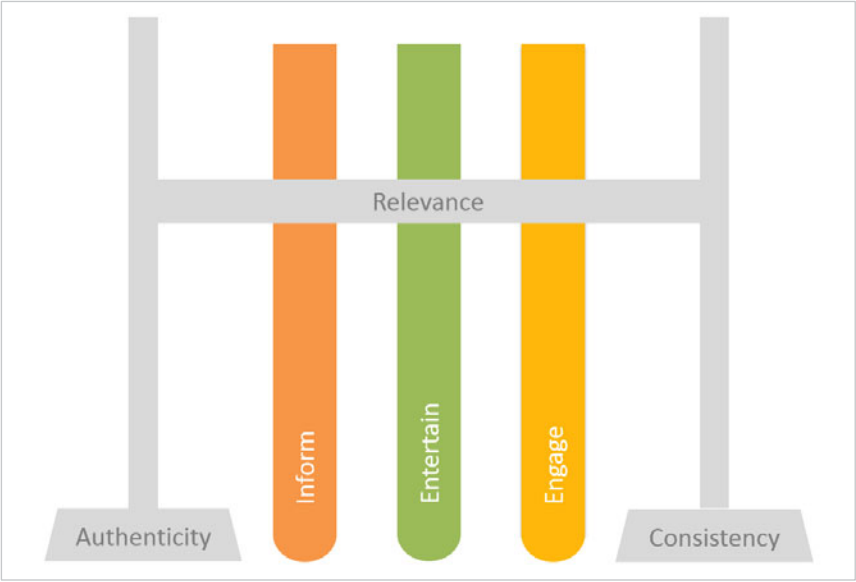

Figure 31: Three elements of valuable content
Source (own design): Own design, edited from Adda (2012, p. 29), Kreutzer (2012b, p. 65), Lembke (2011, p. 57)

The first element *Inform* comprises all information about the Academy and its benefits for the designated target group. Those include for example background information about the research institute, such as vision and mission, company overview, contact details, as well as links to its website and other social media channels. Information about new initiatives, research projects as well as members can be communicated, besides new publications and research findings (most likely relevant for *SHI* and *EHI*). Furthermore, Young Academics (especially *SHI* and *SLI*) might be interested in job vacancies, scholarships and awards. Most importantly, and which should be priority number one, the Academy is advised to communicate its events via social media as the survey analysis has shown. 74% of the participants use social media in their academic discipline in order to be informed about current events (see Figure 26), and 84% request scientific institutions to make appropriate announcements on social media platforms regarding this matter (see Figure 28). During the preliminary talks, 100% of the participants stated insufficient communication as a reason for not going to such events more frequently (see Appendix 6: Results of preliminary talks).

The second element *Entertain* is important because it catches the attention of the user, and it increases the chance that he or she will share the content with peers. Such posts are supposed to mainly generate comments. Accordingly, text should always be connected with images, photos, videos or sound recordings. That entertaining content can come from the Academy itself, the press or other research institutes, associations or foundations. A video about the Academy could be implemented for example, tutorials and audio records of events, or a review of the past year's events or research projects. Some kind of countdown to an event would be possible, too. Photo, video and audio albums of events shall be integrated so that it is available at any time at any place.
In addition, storytelling can be entertaining. It is assumed that followers, subscribers or fans of the Academy are generally interested in sciences. Thus, entertaining stories only need to be related to various academic disciplines. Fun facts or *Scientastic* facts would be a suggestion for a series name (similar to the books by Faktastisch), such as the human DNA correspondents with the DNA of a banana by 55% (biological sciences), or on January 1st 2014 temperatures in Canada were colder than on the Mars (natural sciences) (most likely relevant to *SLI* and *ELI*). Furthermore, storytelling shall be personal to make the user become part of the Academy. People are interested in what is behind the facade of the 300-year-old research institute, and what is it like to be a scientist at the BBAW. Hence, the Academy can provide insights into the preparation of events, laboratory work, or activities outside the job (e.g. pictures of the running team, during lunch break, or at the Science Slam). Hence, transparency is transmitted, and the "old" image of scientists will be renewed (see Appendix 19: Associations with "science" stated by Young Academics). The intention is to make the communication more community-related and personal rather than advertising-oriented.

The third element is called *Engage* and contains all kinds of contents that increase the involvement of the user. The more time a user spends with the content, the more valuable will be his or her brand experience. For example, information about new publications and research findings could be connected with direct questions, or during an event the Academy could use hashtags in order to encourage a dialog. Questions can be also used to conduct market research, so trends and preferences among the target group can be identified. Other examples are quotes and anniversaries of scientific representatives or institutes, votes for event topics (e.g. annual theme), or photo contests. A brainteaser in form of close-up pictures or image extracts related to science, called *Science Zoom*, would be a suggestion for another series. In general,

conversations are important not only to generate engagement but also to support the idea of a community rather than company-customer-interaction.
Both the social media experts emphasized the importance as well as the challenge of implementing and achieving engagement in the social media environment because it displays an essential measure integrated in the algorithm on various platforms (Hurrle, 2014; Rodewald, 2014). For example on Facebook, engagement is of particular importance in order to gain reach. Due to the edge rank and organic reach, shared content is visible to only 15-20% of one's friends/followers (see 2.2.1. Social Media Marketing). And of those who actually perceive the content, the engagement in form of the CTR (click-through-rate) may be at 2-3%. Consequently, posts that are only "liked" by 1-2 people (depending on the total number of friends/followers) are less attractive to look at. Hence, engagement remains low which results again in a lower reach (Rodewald, 2014). This displays some kind of vicious circle which can be eliminated by increasing the number of friends/followers as well as delivering valuable (and engaging) content.

All three elements are built on the basis of *Consistency* and *Authenticity*. Consistency implies that each social media channel will apply all three elements – each with its own capacities and limitations (e.g. more text in a blog post in contrast to tweets on Twitter). Those channels will be constantly in use which requires continuative supervision. Consistency will be also shown through the Academy's corporate design (colors, font, banderole, etc.) as well as its scientific appearance with regard to language, citations and network. If it wants to generate scientific contents, scholarly debates and sincere comments, the research institute must choose its network with care ("friends", other institutions, foundations, etc.). Authenticity emphasizes the importance of maintaining scientific accuracy and rigor in social media posts, for example by linking original research studies and remembering proper attribution to pictures, statistics, quotes, and the like. The presentation of the content must be not only accurate but also authentic, trustworthy and reliable at all times. Otherwise, the Academy loses credibility and sincerity. Regardless of the channel, the brand BBAW should always be represented in a serious and professional manner which was reassured by Mr. Hurrle (Hurrle, 2014).

Lastly, all three test tubes, along with the whole content strategy, stand or fall with *Relevance*. It implies that the content should always reflect the interests of Young Academics. Hence, the higher the relevance, the higher the awareness among the target audience and the more likely

the desired response will come true which will lead to a valuable customer relationship between Young Academics and the Academy.

Social media expert Mr. Rodewald underlines the necessity that content must not only be relevant to the target audience but also to search engines in order to have reach (SEO-Marketing). Thus, any kind of content that is shared (text, video, photos, etc.) should always be written in relation to the topic. That means, correct labeling and keywords are important, especially in titles and descriptions. For example, when posting a video of an event, the Academy is advised to include central topics of this event in the title and the description, rather than only the name of the lecturer or adjectives of how successful the event was. The same applies for blog articles and other posts. The Academy should include central themes, problems and solutions that were discussed at the event, so that when one person has a similar problem and searches the Internet for it, the video or blog post of the Academy's event will appear right there.

4.4. Modulation of Channels

As explained before (see 2.1.2. Channels), it is essential to choose the social media channels that are used by the designated target group and also such channels that cater to the need of the content strategy, meaning the ability to transport the selected content to the audience. Having analyzed the existing platforms in the German market with respect to their functions, current user numbers and the future perspective and bringing this together with the in-depth analysis of the designated target group (online survey) and the industry usage (benchmark), a comprehensive social media portfolio mix was developed. The blog is established as the center of the social media channel mix (see Figure 32). As an owned channel, the full scope of content (text, video, audio and photo) can be displayed on the blog and, thus, qualifies to function as the social media hub. The distance to the center corresponds to the relevance of the social media channel in the social media channel mix. Based on research, the primary channels (Facebook, Youtube, Xing and Wikipedia) are those channels that should be assigned top priority (must have) in pursuing the social media channel strategy. Secondary channels are those channels that showed a less relevant match in research with the designated target group (nice to have), but can be interesting for specific use cases (Twitter, User forums) or the implementation of content (e.g. Soundcloud and Flickr). The model of the channel strategy also displays the content composition for each channel and therefore makes sure that every kind of content can be positioned in the social media environment.

The model also categorizes the implemented channels by their focus on establishing a dialog, delivering content or for monitoring purposes. Additionally, it is important that the social media mix is approached in a holistic kind of way, since all channels in the mix are connected to each other. The size of the circles corresponds to the social media usage share of the designated target group (see Figure 23: Social media usage (at least sometimes), no data available for Flickr and Soundcloud).

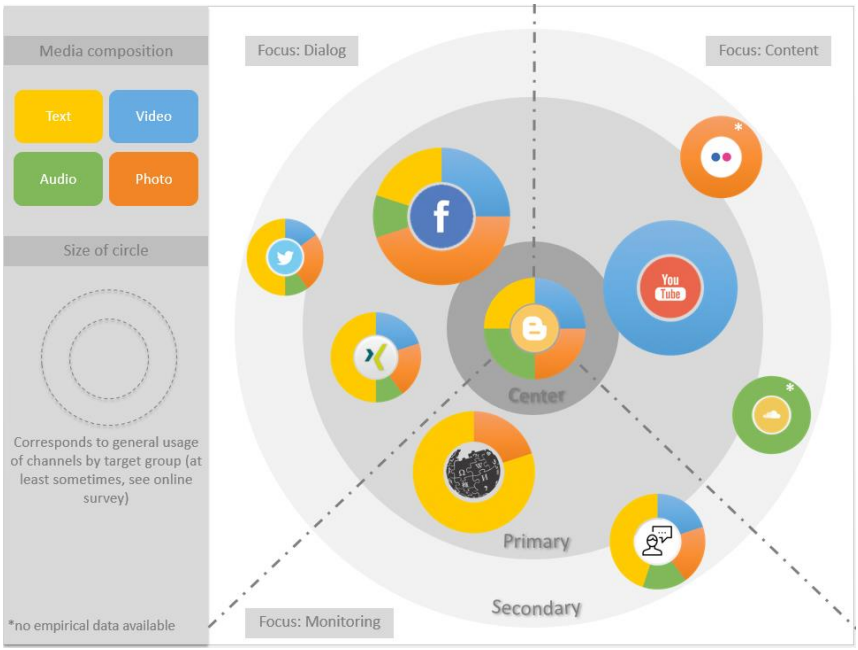

Figure 32: BBAW social media channel strategy
Source (own design, Iconfinder.com): Online survey

The portfolio is designed to reach a significant mass of the designated target group through both channels that are used across all segments of the target group as well as channels that have a higher usage among specific segments of the target group (see Figure 33). As research analysis for the most important social media channels shows, channel usage differs slightly across target segments split up by interest in science (see Appendix 32: Young Academics' social media usage - according to interest in science) and by employment status (see Appendix 32: Young Academics' social media usage - according to employment status). This fact doesn't imply that these channels should be exclusively targeted at the segments with a higher share in this channel

– but it is good to know who will be reached through the different platforms, so that content can be adapted to the presence of the target segments in the channels. Thus, the following model depicts the intensity of the social media usage by the corresponding segment (see Figure 33). The specialty of each channel regarding the target segment will be discussed in the section of the respective platforms.

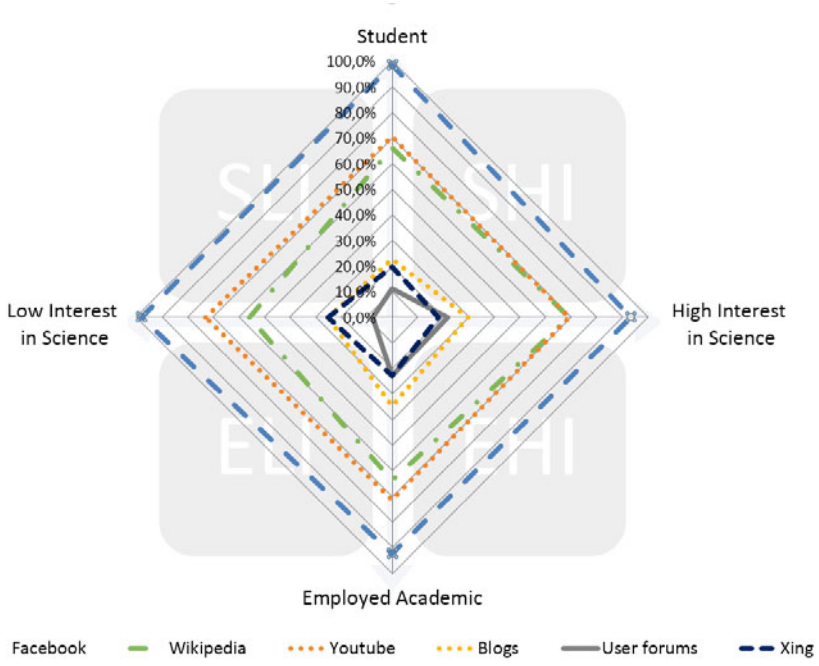

Figure 33: BBAW social media channel usage (regular usage) by target segments
Source (own design): Online survey

4.4.1. Social Media Hub: Blog

Functioning as a hub for all social media activities, it shows its greatest advantage in the full control the BBAW has over this channel in all areas (see also 2.1.2.2. Blogs). Thus, the full scope of designed content can be positioned in the blog. Content can therefore not only be shared within the blogosphere by other blogs and website linking to content presented on the blog – also other owned channels can and should link back to the blog in order to create traffic to the website and thus a better search engine rank in the future. By creating relevant content, the probability of it being shared by other blogs and websites of academic institutions

additionally enhances this phenomenon through valuable backlinks to the blog (Rodewald, 2014). This also works the other way around by integrating content from content-sharing portals like Youtube or Soundcloud. The Academy's website gains a dynamic and interactive element (comment function) through the blog, which also educates the user to visit the website on a regular basis. Through an integrated RSS feed, subscribers will be also notified when new content is published on the blog, thus creating additional awareness among the target group. As research shows, blogs show a higher usage among employees compared to students, thus extending the reach of the target group in this direction.

Furthermore, the blog is an excellent tool to build a positive brand image by displaying transparently the work of the Academy and the employees behind it, building the brand with a more emotional approach (*Entertain*). Besides that, upcoming events, news and publications can be easily featured via the blog (*Inform*).

The blog as center of the Academy's "social media universe" was confirmed by the interviewed experts as a good element to balance and control the other implemented channels (adaptive management).

4.4.2. The Primary Channels

Besides the blog, four primary social media channels are assigned with a high priority when applying the social media channel strategy.

4.4.2.1. Facebook

Facebook has not only established itself as the biggest social network in Germany (see 2.1.2.1. Social Networks), research also reveals that throughout all segments of the target group the social network is used intensively with a daily usage by 85% (see 3.2.2.4. Social Media Usage). Additionally, a placeholder profile on Facebook with 103 likes already exists, indicating that there is a demand for the activation of this channel (see Appendix 5: BBAW social media profiles). Therefore, it is advised to integrate it as a key platform into the social media channel mix, in order to enable a dialog with the Academy's customers.

Facebook offers a great variety of possibilities to create awareness for the brand. One of the main features that is to be pointed out is the event feature (*Inform*). By posting all the events on Facebook, users that are interested in the event can signal their friends and the Academy that they will take part in the event. Other users can then see that this person is attending and, for example, organize to go together. This feature shows high potential as it builds on the benefit of meeting with colleagues and friends at the event, which would encourage 47% of Young

Academics to go to such events more often (see Figure 20). Additionally, users have the option to invite their friends to the specific event, which will create further awareness for the events of the BBAW and will add value to the invitation, since it was sent by a friend the user trusts instead of an organization. Once a user indicates his interest in an event, the BBAW is able to update any information on the event or send a reminder to the attendees in order to promote the event. Facebook will also prompt attendees through a push notification shortly before the event, reminding those who had maybe forgotten about it.

Besides the event feature, Facebook offers a great variety of options to publish any kind of content through the Academy's company profile (*Entertain*). Besides the great selection of content that the BBAW already possesses, the documentation of recent events in pictures, videos or sound recordings are perfectly suited as content on the company's profile. Content can be directly uploaded to Facebook, which is recommended for pictures, which can gain from the integrated sharing and tagging features of the social media platform and thus extend the reach. For videos and sound recordings, it is advised to embed those via content sharing platforms (e.g. Youtube or Soundcloud).

Additionally, Facebook enables the brand to interact with the audience (*Engage*), for example by using questions or polls, which helps the BBAW to get feedback from their customers and to learn about their desires when it comes to the Academy and their events. Quizzes and picture puzzles in relation to science are further activities that can be used to capture the audience's awareness on the Facebook page (e.g. *Science Zoom*).

By *tagging* and linking to other research institutes or sharing content published by those, the reach of the message and the brand awareness can be increased. Additionally, BBAW's followers (including employees and partners) can share content they find interesting with their friends, thus further extending the reach and attracting new followers (snowball effect). As research has revealed, the *SLI* target segment also shows a higher usage of Facebook, so that it is advised to focus on content also attractive to this segment.

4.4.2.2. Youtube

As this study's research shows, nearly three quarter of the designated target group use Youtube regularly, making it an opportunity not to be missed for the BBAW to connect with the target group on this content sharing platform. As explained in the theory section (see 2.1.2.4. Content Sharing Platforms and Location Based Services), Youtube is not just a place to store videos in order to share and embed them on other social media channels, it also functions as its own social network where users can search for specific content and subscribe to channels they find

interesting to keep updated for new publications. Thus, Youtube works for the Academy in two ways: On the one hand, Youtube users that already know the Academy can subscribe to its channel and will be updated every time the BBAW uploads new content. On the other hand, users that are browsing for specific content that is covered in one of BBAW's videos might discover it in the search results and are thus get in touch with the brand. Additionally, if the content is tagged and described well (SEO), users might also discover a relevant video in the "recommended videos" section (for example at the end of another video). If they're convinced by the content, they might even subscribe to the channel, thus adding another user to BBAW's audience.

Content published on the channel can be manifold. Videos explaining the work of the BBAW (see personal storytelling, *Entertain*) and introducing members and employees of the BBAW can be both *informing* and *entertaining*.

As research shows, time is one of the big constraints for visiting academic events (see Figure 19). By offering recordings of events on Youtube, users that can't attend an event in person have thus the possibility to watch it later, whenever and wherever they want. Thus, the reach of events can be extended even after they've taken place. By organizing the uploaded videos in playlists (for specific event series and other categories), it becomes easier for users to orient themselves and discover additional content they might like. Once published on Youtube, videos can also be easily used by others and for example embedded in blogs, thus further extending the reach of the video. Although Youtube offers a comment function, the BBAW is advised to deactivate it and set a remark referring to another dialog medium (Facebook, Blog) of the Academy, in order to save capacities by having one channel less that has to be moderated.

As Youtube is also a channel that is more popular amongst the *SLI* and *ELI* target segment, reach can be extended in this direction and create additional awareness for the BBAW and its content and events created amongst users that are otherwise not reached.

Furthermore, Youtube is acknowledged as a high reach channel by the interviewed experts and chosen over Vimeo, which has been used by the BBAW to implement content on the website already. In order to avoid duplicate content, which can have a negative influence on SEO, it is advised to shut down Vimeo and concentrate on the market leader, also due to the fact that experts have already had good experiences with moving from Vimeo to Youtube (Hurrle, 2014; Rodewald, 2014).

4.4.2.3. Xing

Even though Xing doesn't have the staggering user numbers of Facebook and Youtube, the business network still manages to reach over half of the Young Academics, with a fifth accessing it on a regular basis (see 3.2.2.4. Social Media Usage). Xing is specifically integrated into the social media channel strategy in order to extend the reach towards employed people (especially the *ELI* segment), who use this channel more intensively than students, as research has shown.

After the creation of a company profile on Xing, the Academy has the possibility to publish news, so that followers will receive updates directly in their news stream. By adding visual content like videos or photos, news can be designed in a more appealing way (*Entertain*). The real power of Xing are the numerous user groups and the integrated functions. By starting a group, the Academy creates a space for users to discuss recent topics or leave feedback. Additionally, events can be created in order to promote those to the audience on Xing. Thus, attending the Academy's events becomes easier for the follower as all the important information is in one place and adds the additional feature to see which colleagues and other contacts might be attending the event (*Inform*). Additionally, BBAW employees already using Xing can connect with the Academy's company profile and are able to promote the event to contacts or share interesting company news with followers (increasing the range of the audience). As Xing is also a perfect tool for experts of different specializations to exchange themselves over trending topics, the Academy can further engage with their followers by playing a part in these discussions. As a side effect, Xing is a useful tool to promote the Academy for prospect employees (employer branding).

The interviewed experts consent in adding Xing as an additional channel that enables a dialog with professionals, thus also reaching users that clearly separate their business context from the private one (Hurrle, 2014; Rodewald, 2014).

4.4.2.4. Wikipedia

Wikipedia has for many people become the first stop for finding information for something they are interested in. Thus, this first impression (also referred to as Zero Moment of Truth, ZMOT) can have a significant influence on how a brand is perceived by the user (Google, 2014). As research reveals, also almost all Young Academics have at least used Wikipedia sometimes, and more than two thirds are using it on a regular basis, with a higher share among Young Academics with a high interest in science (especially the SHI segment). Therefore, it is important to convey a positive first impression that is consistent with the brand BBAW by

offering the user a clearly structured and up-to-date information source via the BBAW Wikipedia page. Additionally, the user should have the possibility to get further detailed information and comprehensive insights through links leading to other online/social media channels of the Academy. Because of the strict rules Wikipedia has about the self-portrayal of brands, it is advisable to contribute to Wikipedia in a neutral tone, based on facts and if possible with objective sources. Furthermore, in order to modify articles, the user has to establish himself within the community as a credible member first. As this social media channel doesn't offer many possibilities for brands to actively share content or engage with their audience, its major focus is to *inform* and provide a route for further information.

4.4.3. The Secondary Channels

User forums, Twitter, Flickr and Soundcloud are implemented as secondary platforms in the social media channel strategy. Compared to the primary channels, those channels showed a lower usage share among Young Academics (see Figure 23), but can be still interesting for specific purposes (Twitter, user forums) or the implementation of content (Flickr, Soundcloud).

4.4.3.1. User Forums

As research reveals, user forums are used at least sometimes by nearly three quarter of the target group. Although regular usage numbers are low, the channel shouldn't be ignored due to the fact that this channel shows a higher usage among Young Academics with a high interest in science and among Young Academics that are employed (*EHI* target segment). Since user forums are widely distributed and often difficult to identify, an active cultivation takes a lot of time and is hard to implement in a short time of period. However, user forums are an effective way of monitoring the general mood about the brand and to get insights into topics the online community cares about. For the BBAW, user forums should be therefore implemented as an instrument to listen to the crowd in order to being able to adapt the content of its product (events) or its communication (other social media channels) to it. After having gained experience in handling user forums, there is the option of establishing own user forums on the website or social networks as Xing (as employed Young Academics show a higher usage of user forums), in order to concentrate the audience's discussions in one place.

4.4.3.2. Twitter

Although Twitter has a relatively low share (a third) of Young Academics that have used the social network before, it is still advised to implement it as a secondary channel in the social

media channel strategy due to its real time communication feature. As discussed before (see 2.1.2.1. Social Networks**),** Twitter could be used to enable a discussion during the events of the Academy, thus adding an interactive element that would help to *engage* with the audience. In order to create more awareness for the Twitter account, it is advised to integrate the use of Twitter within the events as a dialog instrument. Additionally, rather than using a specific account for each event series (like the established @bbaw_salon account, see 3.1.5. Communication Activities), a general BBAW event account should be established in order to be used also at other events. Before, during and after events, the user can thus be notified about information concerning the event (schedule, meeting points, etc.) (*Inform*). Visual content like photos and videos (*Entertain*) can be used to promote certain sessions or to interact with the audience. Visitors gain an additional channel to leave feedback for the event, which supports an ongoing improvement process. If personal capacities are too limited to guarantee a consistent maintenance of Twitter as a general dialog channel, it is advised to clearly state this in the description, so that users are informed that this channel is only active during events, in order to forestall wrong expectations of the audience.

In the end, the Academy has to see if Twitter is a niche channel that is adding value for the Academy and its events. If not accepted by the audience, it should be dismissed in favor of other channels that are used more actively (Hurrle, 2014; Rodewald, 2014).

4.4.3.3. Soundcloud

Soundcloud is already used by the Academy to embed recordings of events on the website. Although research hasn't revealed a high popularity among Young Academics, it is advised to continue the usage of Soundcloud as content sharing platform for audio content (*Entertain*). Due to the sophisticated embedding features, Soundcloud can be used to distribute audio content easily within other channels of the social media channel strategy like the blog, Facebook or Twitter. Additionally, content should be made accessible on Soundcloud so that users can subscribe to the channel and the reach within the channel is increased. In the long term, the content distribution via podcasts, for example using Apple's network Itunes, could be another promising option for providing the Academy's audience with audio content.

4.4.3.4. Flickr

To complete the Academy's content delivery networks additional to sound (Soundcloud) and video (Youtube), Flickr is being used for the provision of photographic content. Like the other content sharing platforms, Flickr has the advantage that content can be easily embedded within other social networks. Attractive photo slide shows can therefore be implemented for example

on the blog, without the difficulties of providing adequate web hosting services that guarantee a satisfactory speed and constant availability. Furthermore, photos can be organized in albums and series, so that users that look for photos on Flickr can easily orient themselves and find the relevant content for them. If tagged and described in a way that is optimized for the internal search engine (SEO), users can find relevant content on the Academy's channel. As with other social media channels, users have the possibility to subscribe to the Academy's channel and will then be continuously updated about activities by the BBAW in their stream, thus creating additional awareness. Furthermore, it is advised to disable the comment function within this channel in order to save capacities (see also Youtube) (Rodewald, 2014). Additionally, it is important to set copyrights in a way that makes sharing and embedding possible for others (e.g. by using the corresponding labels).

Although the selected setting was confirmed as valid and applicable in practice by the interviewed experts and is based on the usage behavior of Young Academics, the platforms and their priorities within the setting are still subject to change as the channels evolve and the target group interacts with them (Hurrle, 2014; Rodewald, 2014).

4.5. Implementation

In order to guarantee the successful implementation of the strategy, various steps in the overall process have to be taken care of.

4.5.1. Organizational Efforts

Clearly, establishing social media as additional communication channel takes an effort that cannot be denied. But if organized neatly and with clear task division, personnel and financial cost can be kept at a reasonable expenditure. Since social media affects not only the marketing department, but the whole organization, responsibilities concerning social media have to be clearly stated (e.g. via an organizational chart). In order to create meaningful and authentic content, the contribution of other departments is mandatory. Thus, it is advised to establish a "social media ambassador (SMA)" in each department. The task of each SMA consists of identifying and compiling content within their department that can be used for the communication in the social media environment. Within regular time spans, the Academy's marketing department is thus continuously updated with usable "raw material", which then can be edited and published on suitable channels. In order to guarantee an accelerated processing

cycle, a social media expert supervising the strategy of all channels and its implementation should also be established within the information and communication department. It is advisable to assign an employee with this task who is confident in using social media, thus being able to exploit the full power of social media and interact with the online community. Since social media is a relatively new phenomenon, it is also necessary to educate all involved employees about the proper social media usage. This can be achieved by creating social media guidelines, which clearly state how to behave in the social media environment and what impact the behavior can have due to the nature of social media. Additionally, constant mentoring of the other departments has to be provided by the information and communication department in order to clear out existing concerns about social media. Internal workshops can assist in this matter by showing the advantages for scientists that can be achieved through social media (see also 2.3.4. Science and Social Media) and displaying how privacy can be adapted to the respective requirements of the employee (see also Figure 27). As with any other marketing channel, legal conditions for the behavior as brand in the social web has to be analyzed and implemented in order to prevent any legal penalties. Special attention is required on the copyright of any published or shared content. Social media guidelines should thus include a section that educates about the topic. Additionally, a contact person (internal or external) that can be contacted for legal counseling should be assigned for special cases or any required legal advice.

4.5.2. Content and Customer Handling

In order to create a consistent flow of content on all channels, the Academy should also carefully plan the process of creating and posting content in an editorial plan, that assigns the particular posts (and if applicable media budget) to the available social media channel for a time span of three months. Thus, it can also be secured that there is a balance between posts consisting of informing, engaging and entertaining content (see 4.3. Selection of Content). Besides the task of revealing possible content for social media, ensuring that this content is published in an appealing and entertaining format is also the responsibility of the marketing department. As external agencies are costly and take additional organizational efforts, an internal graphic designer can be beneficial. A current marketing employee with already existing editing skills might receive additional training to take on this task. Moreover, employees composing articles for the channels have to be trained in writing in a way that is optimized for search engines (SEO).

As social media consist to a large extent of dialogs with the audience and individual customers, the way of communicating with customers and responding to them should be clarified for both the customers and the employees handling the channels. A community guideline, also called "netiquette", should communicate to users of the channels what is allowed and what's not. Thus, the brand gains a solid framework that also helps in the argumentation for a possible deletion of comments that violate the netiquette. For employees, a specific policy in handling negative comments should be worked out in order to react properly and thus being able to prevent or at least slow down shitstorms (see 2.2.4. Development of a Strategy).

This includes also desired response times to user comments and the "operating hours" of the social media channels, meaning the time where users can expect a comment to be answered. Generally, some social networks also offer the option that user posts to channels have to be approved by the channel owner before they're seen by the general public. It is advised to accept all incoming posts by users, because a preceding confirmation process will slow down the flow on the channels and erases one of the advantages of social media, namely the promptness of a dialog with a brand. Additionally, the authorizing process by the Academy could be classified as a censorship by users, which is against one of the principles of the Academy's content strategy, namely the *authentic* and transparent communication (see 4.3. Selection of Content).

4.5.3. Personnel and Financial Expenses

When it comes to the expenses of the planned social media strategy, several costs have to be taken into account. For most social media channels, no financial investment is necessary to get a basic corporate account. However, social media isn't for free. For the use of additional features or the promotion of posts with sponsored posts (paid media) that are highlighted in the stream of the audience or other advertisements, investments are necessary. Besides the manageable financial investments, necessary time and thus personnel expenses are the real cost of social media. Content has to be produced and prepared accordingly for each channel, channels monitored and customer comments answered. External sources and other channels of the social media environment have to be observed in order to identify suitable content that matches the interests of the own audience and thus can be shared. Additionally, organizational efforts in order to mentor other internal departments also cost time. In order to minimize the cost of social media, synergies with other marketing channels should be used. Content that is being edited for the website like audio and video recordings of events or text can be easily adapted and published on social media channels. Still, it is important to adapt the content to the different audience and nature of social media in order to create a meaningful message.

Furthermore, off-peak times can be used to produce work-intense elaborate content that is not time-bound (e.g. background and image films of the BBAW, Science Zoom etc.). To minimize the organizing effort in managing various social media channels, software that facilitates the administration should be used (e.g. Hootsuite). Since producing appealing content is also very time-consuming, published content by partners or press can be shared (but isn't on par with the value of own content). The interviewed experts confirm that a fix budget is difficult to calculate up front, as it is hard to predict the efforts that have to be undertaken to engage the audience (Hurrle, 2014; Rodewald, 2014). However, it is advised to start with a reasonable budget, for example by dedicating one employee in part-time (50%) for social media. After a certain time span (e.g. six months), the cost of this employee plus additional cost for generating content and buying media can then be used to evaluate the return on investment of social media via a cost-benefit assessment. If no further personnel investments are possible, but workload is too high, a reduction of channels by concentrating on the primary channels of the social media channel strategy is possible. Furthermore, due to limited organic reach (see 4.3. Selection of Content), media budget is necessary to increase the reach. As the target group of Young Academics is an attractive marketing segment, costs for paid media are relatively high. Thus, the BBAW is advised to at least push one post per week on Facebook through paid media (cost approximately 10-15€ for a reach of 4000 impressions) to increase the visibility among the target group. In general, 5% of the invested budget in social media should be reserved for paid media (Hurrle, 2014; Rodewald, 2014). A balanced mix of owned, paid, earned should be implemented to yield a high share of reach among the target group of Young Academics.

4.5.4. Integrated Marketing Communications

Once launched, it is advised to integrate social media into all marketing efforts to further boost the awareness. On the website, the blog should be featured on the starting page, and social media icons linking to the social media presence should be clearly visible. Promotion is also possible in the signature of e-mails and on print material, where links should be placed referring to the most important social media channels. Furthermore, social media can be promoted at events, in order to refer to the provision of audio or video recordings of the event or to engage a dialog (e.g. via Twitter) with the audience.

4.6. Correction through Monitoring

In order to keep track of the progress concerning the objectives (see 4.2. Objectives) and to learn about the general sentiment towards the Academy in the social web, social media channels have to be monitored. For the selected social media channels, various integrated analytics tools are available and can be used without any further efforts and cost.

With regard to the objective to increase the awareness among the designated target group by 8%, within the social media environment 66.623 contacts (also referred to as impressions or touch points) have to be created. The number of contacts created by each channel will be distributed by the intensity of usage of the designated target group. Thus, the Academy can monitor on a monthly basis, how the corresponding channels perform in relation to their goal. As the nature of those channels varies, different KPIs have to be used to calculate the amount of contacts created, including the general reach (e.g. Facebook), views (e.g. Youtube), plays (e.g. Soundcloud), impressions, or unique visitors (blog) (Firnkes, 2013, p. 296).

Importance of social media	Usage at least sometimes in %	% in relation to each other	Assigned amount of contacts	KPI
Total			66.623	Various (see below)
Facebook	100	27%	17.814	Reach
Youtube	99	26%	17.636	Views
Blogs	71	19%	12.648	Page impressions (weak), Unique visitor (Strong)
Xing	54	14%	9.619	Reach
Twitter	34	9%	6.057	External tools
Flickr*	8	2%	1.425	Views
Soundcloud*	8	2%	1.425	Plays

Figure 34: Assignment of contacts per channel

***no usage data available (estimated by "other channels": 8%)**

For calculations and additional sources, see Appendix 38: Calculation of objectives

For the central element of the strategy, the blog, the content management systems that the blogs are built on provide structured data like site visits, unique visitors, referrers or the geographic location of visitors.

Additional tools like Google Analytics adds additional features like user journey analysis or the average duration of users on the page. As the BBAW has a very conservative and protective data privacy policy (e.g. no monitoring of the website due to privacy concerns), the integrated solution of monitoring will be easier to implement as a start. As an example for a self-hosted

solution and thus, an alternative to Google Analytics, the interviewed experts recommend Piwik, which is an open analytics platform that grants the Academy full control over the data collected (Rodewald, 2014).

For the primary channels, also integrated analytics tools can be used. Facebook offers its tool Page Insights for in-depth analyses of who the fans are and how they engage with the page. This data can then be used to adapt posts in order to increase the user engagement in the future. Furthermore, detailed numbers of the organic and paid reach of each post and visits to different sections (photo/event/info tab) are available (Facebook, 2014). Youtube offers comparable features to analyze a channel's audience and their usage pattern. Thus, the Academy can learn which videos are popular among users, where they come from, which devices they use to access the channel and at what point users stop watching a video (Youtube, 2014a). Also, Xing offers a tool to analyze the audience of the corporate profile, for example by dividing the audience by industry, company, career level and age of both followers and visitors (Bester, 2012). Wikipedia only offers a very basic analytics tool that is limited to the actual visits of the Wikipedia page over the last 90 days.

Also for the secondary channels of the channel strategy, analytic tools are available. Flickr shows only basic monitoring data, like referrals to the profile and the count of views. The same applies to Soundcloud, displaying the counts of how many times a track was played, comments, reposts and downloads. Twitter provides an in-depth analysis in order to analyze your audience with regard to their interests, engagement and geographic location, but external tools might be necessary to calculate the reach of your posts. As user forums are widely spread over the social web and are not owned by the Academy, this channel should be used for sentiment analysis towards the brand and for trending topics that are discussed by the designated target group (social listening, see 2.2.5. Monitoring and Budget). Thus, the relevant user forums should be identified and monitored on a regular basis (for example by using the search function that user forums often provide users with). Besides user forums, also other social media channels like Facebook or Twitter should be monitored regularly by using the internal search function in combination with hashtags (e.g. #bbaw) (Firnkes, 2013, p. 338). Search tools like Google Alerts or Socialmention can help to identify relevant posts within the blogosphere by setting notifications for the appearance of certain terms.

As the process of social listening relies on unstructured data, the analysis can be very time-consuming. Thus, there are specialized agencies (e.g. Webbosaurus) that provide companies with sentiment and monitoring analyses on a professional level.
As these services are costly, for a start it is advised to use the available tools to get a general impression on how the audience perceives the Academy within the social web and the blogosphere.

4.7. Challenges and Opportunities

Although social media comes with a lot of opportunities for the Academy, challenges in implementing this channel can't be denied. In order to cease the full potential of social media, the channel has to be fully integrated into the traditional organizational structure of the BBAW, as content needs to be provided by the other departments (for example through the SMAs, see 4.5. Implementation).
Setting up and maintaining a constant flow of relevant and appealing content will take up a lot of time, which will be on the expense of other tasks, as the Academy has no additional capacities to invest in social media (thus, shifting priorities from other tasks is mandatory). Expertise and capacity are necessary as the social media environment is highly complex and platforms and formats are constantly changing. As dialogs and published content is publicly available for everyone, the BBAW becomes also a potential target for negative comments that it has to handle properly to avoid harmful communication (worst-case scenario: *shitstorm*) which might damage the brand. Also, once content is published, it can't be taken back, as the Internet does not forget. Legal requirements and grey areas are another challenge due to the still young nature of social media. Regardless of how good the strategy is, in the end, it is the employee who implements the social media strategy and might fail in building a relationship with the audience. Instant results of an engagement are in most cases not possible and building a community takes time. As more and more companies are engaging with the objective of getting a slice of the customer's attention, it also becomes increasingly difficult to break through the clutter and reach the customer. Thus, the organic reach of messages constantly decreases and investments in paid media might be necessary to deliver the message to the customer. Additionally, social media users might develop a certain fatigue towards companies that want to win them over when everything they want is to be in contact with their friends.

However, both theory and research have revealed enormous opportunities for the Academy to invest in social media. More than four out of five Young Academics stated that they use social media in their academic discipline What is more, over 60% think that social media is somewhat to very important in their academic discipline (see 3.2.2.4. Social Media Usage).

Ranking at second place, nearly three out of four Young Academics state being informed about current events as a reason to use social media (see Figure 26). Additionally, Young Academics expect the promotion of events by institutions, as more than four out of five say that informing about current events is a major benefit why scientific institutions should use social media (see Figure 28). With the established social media channel strategy, the Academy has the possibility to reach the target group continuously by means of channels that show not only high but also extraordinary active usage (for example Facebook with 85% daily active users in the target group of Young Academics). Additionally, detailed target segments (students/employees/low and high interest in science) can be reached through channels that are destined for these user groups (see 4.4. Modulation of Channels). Besides creating awareness on a platform where the desired target group is present, social media can be used to improve the image of the BBAW by a consistent and authentic communication throughout its channels, providing the audience with relevant content. Additionally, the Academy can use social media to connect with other institutions, associations, foundations and societies already present in the social web and thus increase their reach (multiplier effect) and build co-operations (see already existing contacts, 3.1.5. Communication Activities).

Through the two-way communication nature of social media, the Academy can learn what their customers, especially Young Academics, want and expect. By getting feedback regarding their offerings, the Academy is therefore able to improve those and constantly monitor the sentiment of the audience towards the brand. Additionally, trends and preferences of the target group can be identified and be used in the communication in order to generate a relevant message.

Besides increasing the reach within the external social media channels (primary and secondary channels), content linked to the blog will lead to an increase in visits to the website through inbound links, thus affecting positively the page rank in search engines. Due to the digital nature of social media, the variable cost of production is mainly limited to the cost of creating the content (personnel expenses). Shifting the investment towards social media can reduce cost of other traditional formats like flyers or posters. As those materials were also mainly distributed via universities and other scientific institutions, it can be estimated that additional customers can be reached through social media that couldn’t be reached through the distribution network of traditional marketing material.

5. Conclusion

The Academy's mission is not only to encourage the dialog between science and society, but also to specifically support Young Academics as the scientists of tomorrow. Challenged by an increasing elderly audience, the task of this thesis was to analyze the potential of the implementation of social media in order to increase the awareness among Young Academics as the designated target group. Not only measures were designed in order to exploit the opportunities of using social media as a marketing tool, but also the challenges of an implementation within the specific setting of the Academy as a traditional organization with limited resources were considered.

The analysis of the theoretical foundations of the underlying concept through secondary sources disclosed interesting aspects of both social media and the academic environment. It revealed a solid and fertile ground of social media users taking advantage of the variety of platforms within the environment to fulfill their needs and desires. Additionally, it exposed various ways that the BBAW can take advantage of in order to increase the awareness of its products like its events or enhance the brand image by creating relevant content, also with regard to the limited capacities of the Academy. The scientific context was further analyzed by gaining insights of the research landscape in Germany including Young Academics. Thus, a high existence and availability of the target group, also in the Berlin-Brandenburg region, was revealed.

In the course of the situational analysis, comprehensive insights about the BBAW could be gathered and the analysis of the existing communication channels exposed a use of mostly traditional marketing channels.
However, own research, in form of preliminary talks and an online survey, revealed a high usage of social media of the designated target group. It also discovered the reasons of Young Academics engaging with social media and helped to identify benefits expected by using it. Concerning academic events, insights about the expectations of Young Academics towards academic events and important factors influencing those could be gathered. Also, the frequency of visiting academic events was analyzed. Generally, Young Academics showed a high interest in science and academic events, who therefore represent a high potential to become future customers of the Academy.

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DOI 10.1007/978-3-658-08822-4_5, © Springer Fachmedien Wiesbaden 2015

As an additional method, the industry benchmark of the scientific landscape showed plenty of room for improvement in terms of the Academy's social media presence. It also revealed best practice examples.

After having identified opportunities of the implementation of social media as a marketing tool and secured a demand of the channel by Young Academics, a concept was developed in order to pursue the Academy's goal to increase the awareness and enhance the brand image.
By the application of the COSMIC model, the implementation of a social media strategy was outlined. Additionally, the model of the three elements of valuable content was developed in order to show the importance of an *authentic*, *relevant* and *consistent* communication throughout all social media channels by *informing*, *entertaining* and *engaging* Young Academics. The best suited social media channels for the purpose of the Academy, covering all three areas of dialog, content sharing, and monitoring, was then developed in order to serve the audience a balanced mix of content. A clear prioritization of the implemented channels was given, in order to enable the Academy to operate the strategy by means of adaptive management and iterative proceeding. Clear instructions and an illustration of opportunities and challenges that the BBAW might be confronted with while implementing the strategy were depicted. A detailed approach on expenses and monitoring, including possibilities to monitor and correct the taken plan of action, was given.

In the end, the implementation of social media has proven to be a valuable investment for the Academy that should be pursued. The elaborated strategy is not supposed to replace former communication activities but to complement existing marketing measures. Additionally, the Academy is advised to adapt both its product and the respective customer approach in order to increase relevance and the attractiveness of its events. By establishing the Academy within an environment Young Academics actively use, reach is increased and thus helps to enhance the Academy's brand image by creating and communicating valuable content and information. In the end, a continuous reach of the designated target group can only be achieved by a steady adaptation to the changing communication patterns in order to be perceived as an attractive provider of valuable and relevant content.

5.1. Critical Reflection

In the following section, both the limitations and the external validity of the study are going to be presented.

5.1.2. Limitations

Though the authors of the thesis tried to create a comprehensive and holistic approach that takes the advantages of different research methods in order to create a valid and representative study, certain limitations can be identified when reviewing the thesis in retrospect (Amelang & Schmidt-Atzert, 2006, p. 10).

As the academic discipline of social media is still at an early stage, literature available for reviewing the theoretical foundations is still limited. Although a high number of books covering the topic of social media and its application in the business context exist, a large portion of these are composed by practical experts, resulting in a lack of theoretical foundations. As social media evolves on a constant basis in a very dynamic field, literature often can't keep up with the progress and thus is often outdated. Furthermore, studies analyzing the use of social media are available, but are mostly limited to the general population, so that the usage pattern for Young Academics can only be estimated. As no additional funds could be acquired for the project, the financial capacity restricted the acquisition of a greater sample size for the underlying research or more specific experts in the field. Since the Academy tracks only occasionally data concerning their implemented marketing strategies, specific data about the customer (e.g. missing date of birth, see 3.1.4. Customer Base and Academy Members) and the efficiency of existing marketing channels (e.g. no monitoring of website, 3.1.5. Communication Activities) was limited.

As both authors have a business education and a German background, views on certain aspects might be restricted to this discipline and their culture.

With a sample of 151 respondents, the online survey yielded 140 respondents that classified as Young Academics, due to the fact that the acquisition was targeted at this target group through mostly personal invitations. Thus, the majority of the sample consists of the reference group of the authors, resulting in a high share of Young Academics with a business background (51%), and a high share of Young Academics with a master degree. Nevertheless, the distribution of business students is in accordance with the general student population of Germany (see 2.3.3. Young Academics in Germany). Concerning the age representation in the sample, there is a lack of respondents younger than 22, with an overrepresentation of respondents with an age of

25 to 27 years. This bias is probably caused by the fact that the majority of invitations for the survey was shared within the reference groups of the authors. However, the bias was tried to overcome by increasing the reach beyond these circles, inviting respondents via other channels through universities and contacts of the BBAW who served as multiplier (e.g. professors that distributed the link to their students). Besides the sample composition, the answers of the subjects could have been biased through a too positive mode of answering in helping the authors in getting positive results (generally referred to as principle of social desirability (Borkenau, 2006, p. 138)).

For the preliminary talks and the pre-tests, only a limited number of interviewees were approached. Although the authors tried to compose a representative mix, there was a limited variety of academic disciplines and degrees among the respondents.

As many questions were composed as multiple choice questions for the purpose to facilitate the analysis of the responses, the respondents might have been forced to think in certain categories, leaving out possible answering options. This bias was tried to eliminate by determining the response options in the process of the preliminary talks and the pre-test and by offering a field for additional comments, where respondents could submit responses that were not offered.

For the implemented method of the benchmark, the research was limited to German institutions and the most prominent social media channels. As the benchmark was only used to get an impression of social media use by scientific institutions, this limited procedure was adequate to the cause. Thus, the respective social media channels were not analyzed in detail.

The expert interviews were restricted to two experts that are both working at social media agencies, which could bias their perspectives in the direction of a one-sided argumentation by overestimating the benefits of social media for organizations. Due to limited access to experts who are responsible for applying social media in scientific institutions, the composition of experts could not have been balanced better. For the selected cause of testing the developed concept for the application in reality (reality check), the selected experts proved to deliver comprehensive insights in their field.

5.1.3. External Validity

The concept of external validity answers the question if the results of the research are generally applicable to situations other than the setting of the experiment (Malhotra, 2010, p. 255). Thus, this section investigates the application of the results to a more general setting.

The results of the study are generally applicable to other scientific institutions in Germany, as the general results of the research involved research and respondents not limited to the Berlin/Brandenburg region. As for the online survey, 30% of respondents do currently live in a region outside of Berlin/Brandenburg (see 3.2.2.1. Socio-Demographics). Social media usage differs only slightly across Germany, so that results can be applied generally. Furthermore, the comparison of the sample used in research to the general composition of students (defined through secondary sources, see 2.3.3. Young Academics in Germany), revealed similarities in relation to the gender ratio and the fields of study. However, the sample acquired in the own research differed from the general composition of students in a higher average age, a larger share of people with a Master degree, and greater interest in science. Nevertheless, this comparison only is a starting point, as the secondary source used for the application only includes students, thus, not including the academic employees that are present in the acquired sample. As a hypothesis, this might be the reason for the higher average age of the sample and the higher interest in science, as there is a higher share of academics with a Master degree. Finally, for a definite conclusion, further analysis and research would be necessary.

As for the application to an international context, the share of international respondents in methods and studies (secondary sources) used was too low to draw conclusions from. Furthermore, social media channel usage differs widely across cultures, so that the social media landscape reviewed and described in this study can't be applied to other countries.

In the end, as this study is tailored to the specific goals and resources of a certain institution (the Academy) with a specific target group (Young Academics), in a specific industry (research industry) within a specific region (Berlin-Brandenburg), the aim was to draw conclusions only in a specific context. The more the comparing element deviates from this setting, the less applicable are the findings of this specific study to other examples.

5.2. Outlook

All in all, the Academy will have to accomplish the task of balancing their traditional and sophisticated image with the young and personal voice prevailing in the social media environment.

In order to create a dialog between science and society, the Academy has to adapt to the changing communication patterns of the society in order to still be able to reach them. Here, it is important to approach social media as a continuous learning process using adaptive management, in order to utilize the existent capacities efficiently. Employees occupied with the

topic will learn quickly how to adapt to the social media environment. Interacting with the audience, they will get to know their preferences in social media channels, when they are active, which content they like and can therefore adapt all activities throughout the process in order to improve the experience for the Academy's customers (Hurrle, 2014; Rodewald, 2014).

The individual elements influencing the success of the implemented strategy have to be subject to a steady measurement of results. Changes in both the communication patterns of the target group and the social media environment have to be adapted to in order to stay competitive and position the Academy as an attractive partner in the scientific landscape. As an example, the use of social media platforms using location-based services might become more popular, so that the BBAW should react and add such services, e.g. by investing time in setting up a social media channel on a location-based network like Foursquare (see 2.1.2.4. Content Sharing Platforms and Location Based Services). A certain demand can already be recognized, as 218 visitors checked in at the Academy's placeholder on Foursquare (see Appendix 5: BBAW social media profiles).

As brands become more and more sophisticated in the creation and positioning of content, the environment also becomes more competitive. This phenomenon is reinforced as the providers of social media channels are increasing the share of revenue from brands engaging in social media as they grow and are forced by its stakeholders to increase the return of their investment (e.g. Facebook, since IPO) (Hurrle, 2014; Rodewald, 2014). Thus, higher financial investments in paid media are necessary, also due to the fact that the relative organic reach diminishes as the audience of channel grows (Hurrle, 2014). Furthermore, if platforms focus too much on benefitting *through* the user instead of creating further benefits *for* the user (e.g. by increasing the share of sponsored posts), they risk losing their most important asset by confronting them with too much clutter and irrelevant content.

The significance of social media and its reach will continue to grow as it expands into other target segments. As also older target segments begin using social media, the Academy has to adapt its social media channels to serve those with relevant content. Still, it has to be secured that existing customers or Academy members (see 3.1.4. Customer Base and Academy Members) preferring other channels are reached and provided accordingly through the traditional channels.

As more and more academics and scientists realize the benefits of social media, a corresponding shift of traditional communication towards a communication through social media will further increase. Furthermore, it will boost dedicated networks like Researchgate, so that an adaptation to the needs of this target segment within the networks they use is mandatory.

Relating to the logo of the BBAW, which shows an eagle symbolizing the aspiration to scientific findings, the Academy should strive for the possibilities in using social media in order to keep up with the technological progress and the change of communication. Thus, with the underlying concept of implementing social media on the comprehensive basis of the undertaken analysis, the BBAW should manage to use social media as an effective channel to reach the designated target group of Young Academics and both increase the awareness and enhance the brand image.

Bibliography

Adda, L., 2012. *Face to Face. Erfolgreiches Facebook Marketing.* Bonn: Galileo Press.

Alexa, 2014a. *Top Sites in Germany.* [Online] Available at: http://www.alexa.com/topsites/countries/DE [Accessed 12 February 2014].

Alexa, 2014b. *Alex Traffic Rank: Berlin-Brandenburgische Akademie der Wissenschaften.* [Online] Available at: http://www.alexa.com/siteinfo/bbaw.de [Accessed 22 February 2014].

Alexa, 2014c. *Alexa.* [Online] Available at: http://www.alexa.com/ [Accessed 3 January 2014].

Amelang, M. & Schmidt-Atzert, L., 2006. *Psychologische Diagnostik und Intervention.* Fourth Edition ed. Berlin, Heidelberg: Springer.

Amt für Statistik Berlin-Brandenburg, 2012. *Basisdaten.* [Online] Available at: https://www.statistik-berlin-brandenburg.de/BasisZeitreiheGrafik/Bas-Mikrozensus.asp?Ptyp=300&Sageb=12011&creg=BBB&anzwer=5 [Accessed 12 March 2014].

Anderl, S., 2013. *Frankfurter Allgemeine Blogs Planckton: Wissenschaft mit Friends und Followern.* [Online] Available at: http://blogs.faz.net/planckton/2013/05/20/wissenschaft-mit-friends-und-followern-764/ [Accessed 1 March 2014].

Applum, 2014. *What is EdgeRank?*. [Online] Available at: http://www.whatisedgerank.com [Accessed 15 March 2014].

Aßmann, S. & Röbbeln, S., 2013. *Social Media für Unternehmen : das Praxisbuch für KMU ; [von der Planung bis zur Erfolgskontrolle ; Brand Awareness, Kundenzufriedenheit, Innovation Management ; Employer Branding, Social Commerce, Monitoring]*. 1st Edition ed. Bonn: Galileo Computing.

Barker, M. S., Barker, D. I., Bormann, N. F. & Neher, K. E., 2013. *Social media marketing : a strategic approach.* International Edition ed. Independence, KY: South-Western.

BBAW, 2010a. *Berlin-Brandenburg Academy of Sciences and Humanities: Welcome Page.* [Online] Available at: http://www.bbaw.de/en [Accessed 12 October 2013].

BBAW, 2010b. *Berlin-Brandenburg Academy of Sciences and Humanities: International Relations.*[Online] Available at: http://www.bbaw.de/en/academy/international-cooperations [Accessed 11 October 2013].

BBAW, 2010c. *Berlin-Brandenburg Academy of Sciences and Humanities: The Academy.* [Online] Available at: http://www.bbaw.de/en/academy [Accessed 12 October 2013].

BBAW, 2010d. *Berlin-Brandenburg Academy of Sciences and Humanities: Responsibilites and Goals.* [Online] Available at: http://www.bbaw.de/en/academy/responsibilities-and-goals [Accessed 12 October 2013].

BBAW, 2010e. *Berlin-Brandenburg Academy of Sciences and Humanities: Awards.* [Online] Available at: http://www.bbaw.de/en/academy/awards [Accessed 12 October 2013].

BBAW, 2010k. *Berlin-Brandenburg Academy of Sciences and Humanities: Responsibilites and Goals.* [Online] Available at: http://www.bbaw.de/en/events [Accessed 12 October 2013].

D. Hurrle, J. Postatny, *Social Media for Scientific Institutions,* BestMasters,
DOI 10.1007/978-3-658-08822-4, © Springer Fachmedien Wiesbaden 2015

BBAW, 2010m. *Berlin-Brandenburg Academy of Sciences and Humanities: Presseecho 2013.* [Online] Available at: http://www.bbaw.de/presse/presseecho2013 [Accessed 25 February 2014].

BBAW, 2011. *Berlin-Brandenburg Academy of Sciences and Humanities.* [Online] Available at: http://www.bbaw.de/service/publikationen-bestellen/BBAW_MV_12_2011.pdf [Accessed 18 October 2013].

BBAW, 2013. *Facebook: Berlin-Brandenburgische Akademie der Wissenschaften.* [Online] Available at: https://www.facebook.com/pages/Berlin-Brandenburgische-Akademie-der-Wissenschaften/165163066840741 [Accessed 05 November 2013].

Beilharz, F. & Bernecker, M., 2011. *Social Media Marketing : Strategien, Tipps und Tricks für die Praxis.* 1st Edition ed. Bergisch Gladbach: Johanna-Verl..

Berekoven, L., Eckert, W. & Ellenrieder, P., 2009. *Marktforschung: Methodische Grundlagen und praktische Anwendung.* 12th edition ed. Wiesbaden: Springer Gabler.

Bester, M., 2012. *Erfolgsmessung leicht gemacht: Statistiken im Unternehmensprofil PLUS und noch viel mehr.* [Online] Available at: https://blog.xing.com/2012/04/erfolgsmessung-leicht-gemacht-statistiken-im-unternehmensprofil-plus-und-noch-viel-mehr/ [Accessed 21 February 2014].

Bik, H. M. & Goldstein, M. C., 2013. *An Introduction to Social Media for Scientists. PLoS Biol 11(4): e1001535.* [Online] Available at: http://www.plosbiology.org/article/info%3Adoi%2F10.1371%2Fjournal.pbio.1001535 [Accessed 12 September 2013].

Bitkom, 2013. *Pressekonferenz - Nutzung sozialer Netzwerke in Deutschland.* [Online] Available at: http://www.bitkom.org/files/documents/BITKOM-PK_Studie_Nutzung_Sozialer_Netzwerke_31_10_2013.pdf [Accessed 13 November 2013].

Borkenau, P., 2006. *Handbuch der Psychologischen Diagnostik.* First Edition ed. Göttingen: Hogrefe.

BVDW, 2013. *Social Media Kompass 2013/2014.* [Online] Available at: http://www.bvdw.org/medien/social-media-kompass-2013-2014?media=5146 [Accessed 27 November 2013].

Cherry, S., 2013. *Scientists Need Their Own Social Network.* [Online] Available at: http://spectrum.ieee.org/podcast/at-work/education/scientists-need-their-own-social-network?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+IeeeSpectrum+%28IEEE+Spectrum%29 [Accessed 10 February 2014].

Circlecount, 2013. *Population rate per country (EU).* [Online] Available at: http://www.circlecount.com/statistic/countrypopulation/?special=EU [Accessed 11 December 2013].

Constine, J., 2013. *Twitter User Growth Decelerating: +6% In Q3 To 231.7 Million Now Vs +10% In Q1.* [Online] Available at: http://techcrunch.com/2013/10/15/twitter-growth-decelerating/ [Accessed 09 December 2013].

Cresswell, J. W., 2011. *The SAGE Handbook of Qualitative Researc. Chapter 15: Controversies in mixed methods research.* Fourth Edition ed. Thousand Oaks, California, United States of America: Sage Publications.

DAAD, 2013a. *Research in Germany: Fact & Figures.* [Online] Available at: http://www.research-in-germany.de/dachportal/en/Research-Landscape/Facts-and-figures.html [Accessed 2 January 2014].

DAAD, 2013b. *Research in Germany: Research Organisations.* [Online] Available at: http://www.research-in-germany.de/dachportal/en/Research-Landscape/Research-Organisations.html [Accessed 2 January 2014].

DAAD, 2013c. *Research in Germany: Academies of Sciences.* [Online] Available at: http://www.research-in-germany.de/dachportal/en/Research-Landscape/Research-Organisations/Academies-of-Sciences-and-Humanities.html [Accessed 2 January 2014].

DAAD, 2013d. *Research in Germany: Universities.* [Online] Available at: http://www.research-in-germany.de/dachportal/en/Research-Landscape/Research-Organisations/Universities.html [Accessed 2 January 2014].

Darling, E., 2013. *The Conversations: It's time for scientists to tweet.* [Online] Available at: http://theconversation.com/its-time-for-scientists-to-tweet-14658 [Accessed 5 January 2014].

Davis III, C. H., Deil-Amen, R., Rios-Aguilar, C. & González Canché, M., 2012. *Social Media in Higher Education: A literature review and research directions,* s.l.: The Center for the Study of Higher Education at the University of Arizona, Clarememont Graduate University.

Denscombe, M., 2008. Communities of Practice: A Research Paradigm for the Mixed Methods Approach. *Journal of Mixed Methods Research, Volume 2 Number 3*, July, pp. 270-283.

Deutsche Bahn AG, 2014. *Netiquette.* [Online] Available at: https://www.facebook.com/deutschebahn/app_345783145472347 [Accessed 26 February 2014].

Deutsches Institut für Marketing, 2012. *Social Media Marketing in Unternehmen 2012.* [Online] Available at: http://www.marketinginstitut.biz/media/studie_dim_-_social_media_marketing_in_unternehmen_2012_121121.pdf [Accessed 25 February 2014].

Eisenberg, B., 2008. *The Average Conversion Rate: Is It a Myth?.* [Online] Available at: http://www.clickz.com/clickz/column/1718099/the-average-conversion-rate-is-it-myth [Accessed 13 March 2014].

Ethority, 2013. *Social Media Prisma.* [Online] Available at: http://www.ethority.de/weblog/social-media-prisma/ [Accessed 28 January 2013].

Eysenbach, G., 2011. Can tweets predict citations? Metrics of social impact based on twitter and correlation with traditional metrics of scientific impact. *Journal of Medical Internet Research*, p. 123.

Facebook, 2013. *Quarterly Earning Slides Q3 2013.* [Online] Available at: http://allfacebook.de/wp-content/uploads/2013/11/FB_Q313InvestorDeck.pdf [Accessed 18 November 2013].

Facebook, 2014. *About Page Insights*. [Online] Available at: https://www.facebook.com/help/336893449723054 [Accessed 28 February 2014].

Firnkes, M., 2013. *SEO & Social Media: Handbuch für Selbstständige und Unternehmer*. München: Carl Hanser Verlag.

Foursquare, 2014. *About Foursquare.* [Online] Available at: https://de.foursquare.com/about [Accessed 19 February 2014].

German Center for Research and Innovation, 2014a. *German Center for Research and Innovation: GCRI Partner Institutions*. [Online] Available at: http://www.germaninnovation.org/about-us/gcri-partner-institutions [Accessed 3 January 2014].

German Center for Research and Innovation, 2014b. *German Center for Research and Innovation: Centers of Innovation in Germany*. [Online] Available at: http://www.germaninnovation.org/research-and-innovation/centers-of-innovation-in-germany [Accessed 2 January 2014].

German Center for Research and Innovation, 2014c. *German Center for Research and Innovation: Hiher Education in Germany*. [Online] Available at: http://www.germaninnovation.org/research-and-innovation/higher-education-in-germany [Accessed 2 January 2014].

Globalwebindex, 2012. *TWITTER - The Fastest Growing Social Platform.* [Online] Available at: https://globalwebindex.net/wp-content/uploads/downloads/2013/02/Twitter_GWI_2013.pdf [Accessed 12 December 2013].

Google, 2014. *Zero Moment of Truth (ZMOT)*. [Online] Available at: http://www.thinkwithgoogle.com/collections/zero-moment-truth.html [Accessed 25 January 2014].

Grabs, A. & Bannour, K.-P., 2012. *Follow me! : Erfolgreiches Social Media Marketing mit Facebook, Twitter und Co. ; [von der Planung bis zum Monitoring und Reputation Management ; Kundenbeziehungen stärken und Empfehlungsmarketing nutzen ; inkl. Google+, Social Commerce und vielen Fallbeispielen aus D/A/CH ; neu: mit aktuellen Rechtstipps und Marketing-Takeaways]*. 2nd edition ed. Bonn: Galileo Press.

Gundotra, V., 2013. *Google+ Hangouts and Photos: save some time, share your story.* [Online] Available at: http://googleblog.blogspot.de/2013/10/google-hangouts-and-photos-save-some.html [Accessed 11 December 2013].

Hermannstädter, A., 2009. *Excellente Wissenschaft für kluge Köpfe: PR-Konzept für die Berlin-Brandenburgische Akademie der Wissenschaften.* Berlin: s.n.

Herrmann, G., 2013. *LinkedIn wächst: 4 Millionen Nutzer setzen im deutschsprachigen Raum auf das Business-Netzwerk Wachstumssprung von LinkedIn DACH in zehn Monaten um 35 Prozent (BILD).* [Online] Available at: http://www.presseportal.de/pm/64022/2554784/linkedin-waechst-4-millionen-nutzer-setzen-im-deutschsprachigen-raum-auf-das-business-netzwerk [Accessed 11 12 2013].

Holtappels, B., 2014. *Die unbegründete Angst der Marketer vor Shitstorms.* [Online] Available at: http://www.wuv.de/agenturen/shitstorms_der_harmlose_protest_der_couch_potatoes [Accessed 26 February 2014].

Hurrle, T., 2014. *Expert Interview: Evaluation of the BBAW Social Media Concept* [Interview] (12 March 2014).

Informationsgemeinschaft zur Feststellung der Verbreitung von Werbeträgern e.V. (IVW), 2013. *Entwicklung der Visits der deutschen Social Networks (in Mio.) von August 2011 bis August 2013.* [Online] Available at: http://ezproxy.hwr-berlin.de:2070/statistik/daten/studie/209595/umfrage/entwicklung-der-visits-der-deutschen-social-networks/# [Accessed 12 02 2014].

Initiative Neue Soziale Marktwirtschaft; WirtschaftsWoche, 2014. *Statista: Bundesländerranking: Vergleich des Anteils der Beschäftigten mit Fachhochschul- oder Hochschulabschluss an allen sozialversicherungspflichtig Beschäftigten in den Bundesländern im Jahr 2011 (Bestandsranking).* [Online] Available at: http://ezproxy.hwr-berlin.de:2070/statistik/daten/studie/73069/umfrage/vergleich-der-bundeslaender---hochqualifizierte/ [Accessed 3 March 2014].

Instagram, 2013. *Our Story.* [Online] Available at: http://instagram.com/press/ [Accessed 12 February 2014].

Ipsos ASI, 2013. *From tracking to an efficient and holistic Brand Management system for all stakeholders.* [Online] Available at: http://www.ipsos.com/sites/ipsos.com/files/Discover%20How%20To%20Make%20Your%20Ad%20Work%20Harder%20In%20Today%E2%80%99s%20Changing%20World%20-%20Archana%20Jain%20Gupta.pdf [Accessed 14 March 2014].

Isaac, M., 2013. *About Those Google+ User Numbers ….* [Online] Available at: http://allthingsd.com/20131031/about-those-google-user-numbers/ [Accessed 11 December 2013].

Jeffries, A., 2013. *The man behind Flickr on making the service 'awesome again'.* [Online] Available at: http://www.theverge.com/2013/3/20/4121574/flickr-chief-markus-spiering-talks-photos-and-marissa-mayer [Accessed 12 March 2014].

Kamble, S., 2008. *RSS Feeds advantages and disadvantages.* [Online] Available at: http://www.samirkamble.com/rss-feeds-advantages-and-disadvantages/ [Accessed 03 March 2014].

Kotler, P. & Keller, K. L., 2012. *Marketing Management.* 14 ed. England: Prentice Hall International.

Kreutzer, R. T., 2012b. *Praxisorientiertes Online-Marketing : Konzepte - Instrumente - Checklisten.* 1st edition ed. Wiesbaden: Gabler.

Kuß, A., 2012. *Marktforschung: Grundlagen der Datenerhebung und Datenanalyse.* Fourth edition ed. Wiesbaden: Springer Gabler.

Lembke, G., 2011. *Social Media Marketing.* Berlin: Cornelsen.

Lerch, G., 2013. *Interview: Thesis Briefing with the Berlin-Brandenburg Academy of Sciences and Humanities* [Interview] (16 October 2013).

Lieb, R. & Owyang, J., 2012. *The Converged Media Imperative: How Brands Must Combine Paid, Owned, and Earned Media.* [Online] Available at: http://de.slideshare.net/Altimeter/the-converged-media-imperative [Accessed 21 February 2014].

Lin, J., 2008. *UCLA Today: Research shows that Internet is rewiring our brains.* [Online] Available at: http://www.today.ucla.edu/portal/ut/081015_gary-small-ibrain.aspx [Accessed 5 March 2014].

Linkedin, 2013. *LinkedIn Announces Third Quarter 2013 Financial Results.* [Online] Available at: http://files.shareholder.com/downloads/ABEA-69T44N/2837754201x0x701142/637be45a-5021-4b0a-bdcb-f171ae3b4bf4/LNKD_News_2013_10_29_Financial_Releases.pdf [Accessed 11 December 2013].

Lorber, L., 2012. *Gary Vaynerchuk on Social Media's Multiplier Effect.* [Online] Available at: http://www.entrepreneur.com/video/224896 [Accessed 12 March 2014].

Mac, R., 2013. *SoundCloud Manages Criticism As It Moves To Become The YouTube Of Audio.* [Online] Available at: http://www.forbes.com/sites/ryanmac/2013/04/26/soundcloud-manages-criticism-as-it-moves-to-become-the-youtube-of-audio/ [Accessed 12 March 2014].

Malhotra, N. K., 2010. *Marketing Research: An Applied Orientation, Global Edition, 6th edition.* New Jersey, United States: Pearson.

McDaniel, C. & Gates, R., 2013. *Marketing Research, International Student Version, 9th edition.* Singapore: Wiley.

Merriam-Webster, 2014a. *Merriam-Webster Dictionary: Science.* [Online] Available at: http://www.merriam-webster.com/dictionary/science [Accessed 2 December 2013].

Merriam-Webster, 2014c. *Merriam-Webster Dictionary: Academic.* [Online] Available at: http://www.merriam-webster.com/dictionary/academic [Accessed 2 December 2013].

Ministerium für Wissenschaft, Forschung und Kultur, 2014. *Ministerium für Wissenschaft, Forschung und Kultur: Brandenburger Hochschulen.* [Online] Available at: http://www.mwfk.brandenburg.de/cms/detail.php/bb1.c.237988.de [Accessed 2 January 2014].

Motor-talk.de, 2014. *Startseite.* [Online] Available at: http://www.motor-talk.de/ [Accessed 12 February 2014].

Multrus, F., 2012. *Forschung und Praxis im Studium. Befunde aus Studierendensurvey und Studienqualitätsmonitor,* Berlin: Bundesministerium für Bildung und Forschung.

Multrus, F., Ramm, M. & Bargel, T., 2011a. *Studiensituation und studentische Orientierung. 11 Studierendensurvey an Universitäten und Fachhochschulen (Kurzfassung),* Bonn, Berlin: Bundesministerium für Bildung und Forschung.

Multrus, F., Ramm, M. & Bargel, T., 2011b. *Studiensituation und studentische Orientierung. 11 Studierendensurvey an Universitäten und Fachhochschulen (Langfassung),* Bonn, Berlin: Bundesministerium für Bildung und Forschung.

Oxford University Press, 2014a. *Oxford Dictionaries: Science.* [Online] Available at: http://www.oxforddictionaries.com/definition/english/science [Accessed 2 December 2013].

Oxford University Press, 2014b. *Oxford Dictionaries: Research.* [Online] Available at: http://www.oxforddictionaries.com/definition/english/research?q=research+ [Accessed 2 December 2013].

Oxford University Press, 2014c. *Oxford Dictionaries: Academic.* [Online] Available at: http://www.oxforddictionaries.com/definition/english/academic?q=academic [Accessed 2 December 2013].

Pfeiffer, T., 2012. *825.000 Twitteraccounts auf deutsch.* [Online] Available at: http://webevangelisten.de/825-000-twitteraccounts-auf-deutsch/ [Accessed 09 December 2013].

Pinterest, 2014. *Pinterest Basics.* [Online] Available at: http://about.pinterest.com/basics/ [Accessed 15 February 2014].

Rauschnabel, P., Göbbel, T., Sasse, J. & Rippe, K., 2012. *Sieben Handlungsfelder, ein Ergebnis – erfolgreiches Social Media Marketing.* [Online] Available at: http://www.batten-company.com/uploads/media/INSIGHTS_16_Social_Media_Marketing.pdf [Accessed 21 February 2014].

Researchgate, 2013. *Fact sheet.* [Online] Available at: http://www.researchgate.net/aboutus.AboutUsPress.html [Accessed 11 December 2013].

Roberts, M. L. & Zahay, D., 2013. *Internet Marketing: Integrating Online and Offline Strategies.* Third Edition ed. Independence, KY: South-Western, Cengage Learning.

Robinson, D., 2008. *The "Three C's", or Maybe Four, Five, or even More!.* [Online] Available at: http://faculty.haas.berkeley.edu/robinson/Papers%20DOR/Three%20Cs.pdf [Accessed 13 March 2014].

Rodewald, P., 2014. *Expert Interview: Evaluation of the BBAW Social Media Concept* [Interview] (12 March 2014).

Safko, L., 2010. *The social media bible : tactics, tools, and strategies for business success.* 2nd edition ed. Hoboken, NJ: Wiley.

Science Council , 2014. *Science Counsil: Definition.* [Online] Available at: http://www.sciencecouncil.org/definition [Accessed 2 December 2013].

Senatsverwaltung für Bildung, Jugend und Wissenschaft, 2014. *Senatsverwaltung für Bildung, Jugend und Wissenschaft: Berliner Hochschulen.* [Online] Available at: http://www.berlin.de/sen/wissenschaft-und-forschung/berliner-hochschulen/ [Accessed 2 January 2014].

Singer, J., 2013. *Use Social Media to Create a Snowball Effect for Your Holiday Marketing.* [Online] Available at: http://www.marketingprofs.com/articles/2013/11880/use-social-media-to-create-a-snowball-effect-for-your-holiday-marketing [Accessed 12 March 2014].

Socialable, 2014. *The Evolution of Pinterest [Infographic]*. [Online] Available at: http://www.socialable.co.uk/evolution-pinterest-infographic/ [Accessed 18 February 2014].

Spotify, 2014. *What is Spotify?*. [Online] Available at: http://press.spotify.com/us/information/ [Accessed 19 February 2014].

Statistisches Bundesamt, 2010. *Bildung und Kultur. Studierende an Hochschulen - Vorbericht WS2009/10. Fachserie 11, Reihe 4.1,* Wiesbaden: s.n.

Stayfriends GmbH, 2014. *Unternehmen.* [Online] Available at: http://www.stayfriends.com/unternehmen [Accessed 12 February 2014].

Tantau, B., 2013. *Blaue Vögel haben's schwer: Warum Twitter in Deutschland nicht durchstartet.* [Online] Available at: http://t3n.de/news/twitter-in-deutschland-481600/ [Accessed 12 December 2013].

Tomorrow Focus Media, 2013. *Social Trends.* [Online] Available at: http://www.tomorrow-focus-media.de/fileadmin/customer_files/public_files/downloads/studien/TFM_SocialTrends_SocialMedia.pdf [Accessed 23 November 2013].

Union der deutschen Akademien der Wissenschaften, 2014. *Union der deutschen Akademien der Wissenschaften: Über uns.* [Online] Available at: http://www.akademienunion.de/union/english.html [Accessed 2 January 2014].

Weinberg, T., Ladwig, W. & Pahrmann, C., 2012. *Social Media Marketing : Strategien für Twitter, Facebook & Co.* 3rd edition ed. Beijing: O'Reilly.

Westermann, R., 2000. *Wissenschaftstheorie und Experimentalmethodik - Ein Lehrbuch zur Psychologischen Methodenlehre.* Göttingen: Hogrefe.

Wiese, J., 2013. *Erstmals ganz offiziell: Facebook Nutzerzahlen für Deutschland!.* [Online] Available at: http://allfacebook.de/zahlen_fakten/erstmals-ganz-offiziell-facebook-nutzerzahlen-fuer-deutschland [Accessed 15 November 2013].

Wikipedia, 2014. *Statistik.* [Online] Available at: http://de.wikipedia.org/wiki/Spezial:Statistik [Accessed 12 February 2014].

Wissenschaft im Dialog, 2013. *Science Blogs.* [Online] Available at: http://www.wissenschaft-im-dialog.de/aus-der-forschung/science-blogs.html [Accessed 18 12 2013].

Xing AG, 2013. *Q3 Interim Report.* [Online] Available at: https://corporate.xing.com/fileadmin/IR/XING_Q3_2013_E.pdf [Accessed 11 December 2013].

Yeung, K., 2013. *'Facebook for scientists' ResearchGate raises $35M led by Bill Gates and prepares to release an API.* [Online] Available at: http://thenextweb.com/insider/2013/06/04/researchgate-raises-35-million-series-c-from-bill-gates-and-tenaya-capital/#!u5LjF [Accessed 10 February 2014].

Youtube, 2014a. *Overview.* [Online] Available at: https://www.youtube.com/analytics?o=U [Accessed 22 02 2014].

Youtube, 2014a. *Statistics.* [Online] Available at: http://www.youtube.com/yt/press/en/statistics.html [Accessed 12 February 2014].

Zahn, A.-M., 2014. *Social Media Monitoring, Social Analytics und Social Media Engagement - Der kleine, aber feine Unterschied!.* [Online] Available at: http://www.forschungsweb.com/somemo-einmaleins-teil-1/ [Accessed 26 February 2014].

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D. Hurrle, J. Postatny, *Social Media for Scientific Institutions,* BestMasters,
DOI 10.1007/978-3-658-08822-4, © Springer Fachmedien Wiesbaden 2015