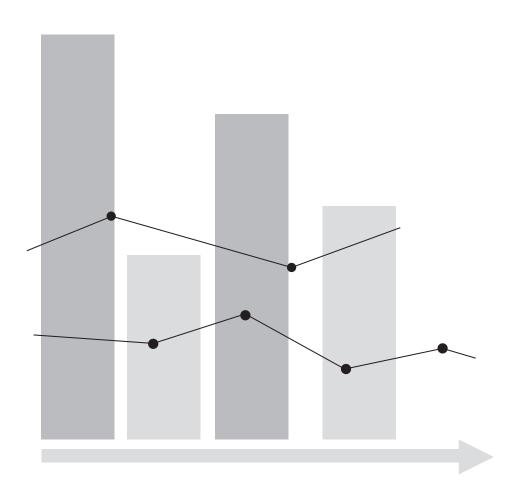


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Use of Social Media and Online-based Tools in Academia

Results of the Science 2.0-Survey 2014







Data report 2014



Executive Summary

The Science 2.0-Survey investigates the dissemination and use of online tools and social media applications among scientists of all disciplines at German universities (institutions of higher education) and research institutions (Leibniz, Helmholtz, Max Planck institutes). Results show that digital, online-based tools have found widespread use and acceptance in academia and must therefore be considered a central component of scientific working processes. Furthermore the data gathered also make it clear that certain usage patterns begin to emerge and stabilise as routines in everyday academic work.

The most popular tools are the online encyclopedia Wikipedia (95% of all respondents use it professionally), mailing lists (78%), online archives/databases (75%) and content sharing/cloud services such as Dropbox or Slideshare (70%). Meanwhile, social bookmarking services remain largely untapped and unknown among scientists (only 5% professional usage).

Online tools and social media applications are most commonly utilised in a research context. In addition to Wikipedia (67%), the top three tools used for research purposes are online archives/databases (63%), reference management software (49%) and content sharing/cloud services (43%). In teaching, learning management systems (32%) play a significant role, even though this mainly applies to universities. Video/photo communities (25%), online archives/databases (23%) and content sharing/cloud services (21%) are also used by scientists in the context of teaching. However, there seems to be some backlog in the field of science communication. Scientists are rarely active in this area; 45 per cent of respondents say science communication is not part of their range of duties, while for another 40 per cent such activities comprise no more than 10 per cent of their daily workload. When active in the field of science communication, scientists seem to favour classic online-based tools such as mailing lists (44%) or videoconferences/VoIP (35%), while typical Web 2.0 tools such as weblogs (10%) or microblogs (6%) are rarely used in this context. Social network sites (SNS) with a professional and/or academic orientation (30%), however, are relatively common for communication purposes in academia. The situation is similar for science administration practices where, although the use of online-based tools and social media applications is more common, no more than one-quarter of the scientists use a particular tool, while personal organizers/schedule managers (27%) dominate.

The main factors cited by scientists as preventing them from using online-based tools and social media applications professionally are a lack of added value for their own work (30%), insufficient technical assistance (21%) and insufficient time to become familiar with the handling of the tools (15%). In particular, many scientists do not use microblogs (53%), discussion forums (41%) and weblogs (40%) professionally because they cannot see any added value in using them.

With regard to the attitudes of scientists in relation to the use of online tools and social media applications, results show that they are aware of privacy issues and have relatively high concerns about the spread of and access to personal data on the Internet. However, scientists generally have few reservations about dealing with social media and show themselves to be open to new technological developments.

This report documents the results of a Germany-wide online survey of a total of 2,084 scientists at German universities (1,419) and research institutions (665). The survey explores the usage of 18 online tools and social media applications for daily work in research, teaching, science administration and science communication. In addition to the frequency and context of use, the survey also documents reasons for the non-use of tools, as well as general attitudes towards the Internet and social media. The survey was conducted between 23 June 2014 and 20 July 2014 and is a joint project of the Leibniz Research Alliance "Science 2.0", led by the Technische Universität Dresden's Media Center.

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1. Introduction

The daily work of scientists today is digitally influenced in many ways and can hardly be imagined without access to the Internet. Online-based tools and social media applications play an important role (Pscheida et al. 2014, p. 14). Scientists can choose from a wide range of technologies, services, platforms and applications to support and facilitate their working processes, communication and collaboration. Although only some of these digital, online-based 'helpers' were developed specifically for academia, scientists seem to be quite open to adopting them for their own purposes.

As a result, the question of what effects and consequences this increasing use of online-based tools and social media applications might have on science has been discussed intensively (DFG 2012; WR 2012). Optimistic commentators place particular emphasis on the potential of digital scientific practice (Albrecht et al 2014; Bartling & Friesike 2014), while sceptics warn against overestimating this potential (Haber 2013), and particularly fear a softening of science quality standards (Fritz & Langenhorst 2009). However, sound reasoning first requires empirical analysis of current usage.

In light of this, the Science 2.0-Survey has been describing the professional use of online tools and social media applications among scientists at German universities and non-university research institutions on an annual basis since 2013. The aim of the survey is to provide objective data on the awareness, dissemination and specific context of use of various social media such as blogs, microblogs and social network sites (SNS), as well as classical online-based tools such as discussion forums, mailing lists and chats/instant messengers, among scientists by means of a baseline study. Science and scientific practice are thereby not limited solely to research, but regarded as a broad field of work that, in addition to the production of new knowledge, also includes the dissemination of knowledge through teaching and science communication as well as science administration (for example, managing research projects).

The study is part of the Leibniz Research Alliance "Science 2.0",¹ which now consists of 37 Leibniz Association institutions and various institutions of higher education (institutes, centres, university libraries) from Germany and Switzerland. The consortium has set itself the task of investigating the digitalisation of science and its impact on the culture of science with a focus on (1) technological development, (2) new working habits, and (3) user behaviour research. Within this framework, the Science 2.0-Survey contributes to the field of "user behaviour research".

The design of the study, in particular the survey method used, builds on the results and experiences of the study "Wissenschaftsbezogene Nutzung von Web 2.0 und Online-Werkzeugen in Sachsen 2012" (Pscheida & Köhler 2013), conducted by TU Dresden's Media Center since 2012 as part of the eScience - Research Network Saxony.² The Science 2.0-Survey is conducted jointly by universities and various Leibniz institutions. Together with the TUD's Media Center, which acts as the project's initiator and coordinator, researchers from the Alexander von Humboldt Institute for Internet and Society Berlin (HIIG), the Institute for Media and Communications Management at the University of St. Gallen (UniSG), the Leibniz Information Centre for Life Sciences (ZB MED), the Leibniz Information Centre for Economic Research (ZEW) were involved in 2014.

This data report represents the first step in the analysis of the 2014 data set. It is available digitally and free of charge as an open access publication and complements the 2013 survey's data report (Pscheida et al. 2014), which is also available as an open access publication.³ Furthermore, all data sets will be made accessible via the GESIS – Leibniz Institute for the Social Sciences⁴ to enable their open und free reuse for secondary analysis etc. This report describes the methodology and research design of this year's study and presents the key results, paying particular attention to the professional use of various online-based tools and social

http://www.leibniz-science20.de

² http://www.escience-sachsen.de

http://nbn-resolving.de/urn:nbn:de:bsz:14-qucosa-132962

⁴ https://dbk.gesis.org/DBKSearch/SDESC2.asp?no=5972&db=D

media in different fields of scientific activity, reasons for their use or non-use for academic purposes, and attitudes towards social media and work-related Internet use in general. Overall, data from 2,084 valid data sets were used for the evaluation.

We would like to express our sincere gratitude to all of the scientists who, by participating in the survey, granted us a detailed insight into their digital practices. We also wish to thank all those who logistically supported the dissemination of this questionnaire by publishing it at a total of 91 German universities as well as within Leibniz Association, Helmholtz Association and Max Planck Society institutions.

Besides the authors of this report, the following people have been involved in the development of the survey design: Christian Hoffman (UniSG), Michael Kummer (ZEW), Birte Lindstädt (Goportis), Isabella Peters (ZBW), Kaja Scheliga (HIIG) and Doreen Siegfried (ZBW). The implementation of this survey was further supported by Olivia Görlich (TUD), Benjamin Seebröker (TUD) and Lena Zauner (TUD).

2. Methodology and research design

The aim of the annual Science 2.0-Survey is to collect data on the professional use of social media applications and online-based tools by scientists at German universities and research institutions. As a result, the population is understood to include all scientists working at a university (institution of higher education) or non-university research institution during the survey period (approximately 400,000 people in 2013/2014)⁵.

To acquire participants from this population, all German universities (universities, universities of applied sciences, art colleges, academies of music) were contacted directly. In most cases, contact was made via the public relations departments or the (vice) chancellor's offices, which were asked to forward a corresponding email including the survey link. This meant to deviate from last year's two-step selection procedure (Pscheida et al. 2014, p. 5), which turned out to result in too many cancellations: First, the number of scientists in a given region (north, south, east, west) and type of institution (university, university of applied sciences, art college, academy of music) was determined for the whole population. Second, for each combination of the two characteristics, groups of universities with staff sizes proportional to the population were contacted.

A total of 91 of the 363 universities contacted ultimately agreed to support the survey and disseminate the corresponding link among their entire academic staff via email or by publishing it on the Intranet. Among the participating institutions were 26 universities, 47 universities of applied sciences, and 18 art colleges or academies of music.

While university participants were being approached, the central offices and/or public relations departments of the Gottfried Wilhelm Leibniz Association, Helmholtz Association, Max Planck Society and Fraunhofer Society in Germany were also asked to support the survey, with three of the four research institutions (Leibniz Association, Helmholtz Association, Max Planck Society) ultimately agreeing to participate.

The survey was conducted using the online questionnaire service Questback and its Unipark software, the questionnaire was offered in both English and German (see Annex). In addition to contacting universities and other research institutions via email, a call for participation in the survey was also published on several social media channels (e.g. Twitter) and the Science Information Service (idw) in Germany. A control question within the survey ensured that only scientists from German universities were included in the data set. This question, however, was only shown if the respondent had previously stated their affiliation with a "university", "university of applied sciences", "art college" or "academy of music". Scientists from non-university research institutions were not assigned by country.

The survey was open for participation between 23 June and 20 July 2014. During this period, a total of 1,706 scientists from German universities and 741 respondents from non-university research institutions took part in the survey. Unfortunately, the fact that the link was distributed via several different channels and that not all of the supporting institutions provided information about the recipients of their mailing lists means that details of the response rate are unavailable. Once the completed questionnaires were validated, a total of 2,090 valid data sets (1,425 from universities, 665 from research institutions) could be incorporated in the analysis. In the case of universities, data were additionally weighted by type of institution (table 1) using data from the German Federal Statistical Office (Statistisches Bundesamt). As no such data is available for research institutions, we used the unweighted data set instead.

This year's survey, like last year's (Pscheida et al. 2014), focused on the professional use of various online-based tools and social media applications. In addition to the 17 tools polled in 2013, personal organizers/schedule managers such as Foodle, Asana and Trello were included in the 2014 survey. In addition to the distribution of the various online tools and social media in academic

⁵ In addition to the data of the German Federal Statistical Office (Statistisches Bundesamt) 2014 also data from Gottfried Wilhelm Leibniz Association, Helmholtz Association and the Max Planck Society was included (sources: www. leibniz-gemeinschaft.de/ueber-uns/leibniz-in-zahlen; www.mpg.de/zahlen_fakten; www.helmholtz.de/ueber_uns/ zahlen und fakten/)

everyday work, the frequency and context of use were also surveyed, while respondents were also asked about their active and passive use of selected social media applications. Here, the response categories used last year were refined. For example, social network sites (SNS) have now been included. We also asked respondents about the motives and barriers influencing their professional use or rejection of certain tools, while the opinions of those who do not (yet) use online-based tools and social media were of particular interest. This group was explicitly invited to participate in the survey.

Finally, questions about the context of use were also extended. In addition to research usage, we also examined use in the field of science communication more closely in 2014. All these usage-related data can be supplemented by and compared to information concerning the type of institution, academic position, and socio-demographic data such as age and gender.

In order not to unnecessarily prolong the questionnaire, several questions asked in 2013 were omitted in 2014 in favour of more in-depth questions. These include questions concerning virtual research environments, conference participation and publication behaviour, as well as scientists' sources of information for new or appropriate tools. The question on the use of technical devices in light of rapid development and the increasing use of mobile technologies was retained.

3. Characterisation of the data sample

Due to broad distribution of the online link and a lack of feedback from universities regarding the numbers of potential recipients, no distinct information about the response rate can be provided. The data of the university sample were weighted by type of institution (university, university of applied sciences, art college, academy of music), with the weighting factors (table 1) ranging between 0.83 and 2.57. The following report only relates to the evaluation of the weighted data for universities. For the research institutions sample no weighting was done.

	Univer	sity	Univers applied s	•	Art colle academy o	U	Total		
Science 2.0-Survey	1.241	87,1%	167	11,7%	17	1,2%	1.425	100%	
Stat. Bundesamt 20125	257.668	72,8%	85.173	24,1%	10.849	3,1%	353.690	100%	
Weighting coefficient	0,83	65	2,05	2,0548		2			

Tab. 1: Weighting coefficients Science 2.0-Survey 2014 by type of institution6

In **sociodemographic** terms, the total sample can be described as follows: 44 per cent of respondents classified themselves as female and 55 per cent as male, while a further 1.4 per cent made no statement about their gender (table 2). The average age of the scientists surveyed was 38 (SD=12.5). The age structure of the samples shows that younger scientists in particular participated in the survey. 47 per cent of the scientists surveyed were between 25 to 34 years old. Although there was no material difference in age between universities and research institutions, there was a slightly higher percentage of respondents in the 35–39 years age group from research institutions, while university participants between 45 and 54 years old were also slightly overrepresented (table 3).

Much like last year, the data sample was strongly influenced by non-professorial teaching staff (table 5). Most of the scientists surveyed were research associates or serving as PhD students and research associates at the same time, with both groups comprising 56 per cent of the survey sample. Although 17 per cent of the respondents were professors, this number is strongly influenced by the university sample, where professors account for almost one quarter of all respondents. While the proportion of professors at research institutions is only 3 per cent, this sample includes significantly more PhD students (12%) and postdocs (18%).

At the time of the survey, 11 per cent of scientists had been employed as academics for less than one year, 13 per cent for between one and three years, 13 per cent for between four and six years and 10 per cent for over 20 years (table 6).

38 per cent of the respondents belong to the subject group of mathematics and natural sciences; scientists from culture, humanities and education as well as from social sciences, economics and law each represent 18 per cent in the sample, while engineers comprise a further 15 per cent (table 7).

Taking into account their respective fields of activity, scientists at German universities are focused primarily on research activities and teaching (table 8). Research activities are the main task for 29 per cent of the scientists surveyed in the university sample and comprise over 50 per cent of the volume of their work. For almost one quarter (22%) of the scientists surveyed from universities, teaching takes up 50 per cent of their time. In contrast, only 9 per cent of the scientists at universities spend more than 30 per cent of their working time on administrative tasks, while only 1.4 per cent said they spend more than 30 per cent of their time on science communication. Instead, 35 per cent of the scientists claim not to be responsible for activities in science administration, with 46 per cent not operating in the field of science communication. The situation is slightly different for scientists at research institutions. While they are not heavily involved in

⁶ The determination of the weighting factors took place before the publication of the report "Bildung und Kultur. Personal an Hochschulen 2013" in September 2014 and was therefore carried out on the basis of data for the year 2012. In the following tables data of the year 2013 are used as a benchmark.

teaching tasks (only 13 per cent spend more than 10% of their time in teaching, while 58% never teach), research has more weight. For 56 per cent of the scientists at research institutions, research activities take up more than 50 per cent of their working time. They are also much more involved with administrative tasks, with one quarter of respondents in this population spending more than 30 per cent of their time on science administration. On the other hand, a further 40 per cent of respondents in this sample are not familiar with science administration.

Gender

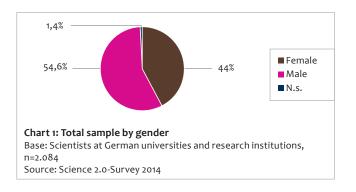
	Unive	rsities*	Resear instituti		Total			
Female	614	43,3%	303	45,6%	917	44%		
Male	782	55,1%	355	53,4%	1.137	54,6%		
N.s.	23	1,6%	7	1,1%	30	1,4%		
Total	1.419	100%	665	100%	2.084	100%		

^{*}Universities of Applied Sciences, Art Colleges and Academies of Music included

Table 2: Total sample by gender

Base: Scientist at German universities and research institutions, n=2.084

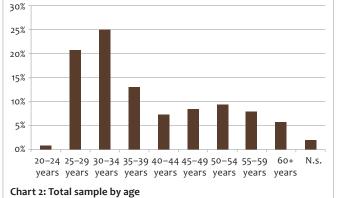
Source: Science 2.0-Survey 2014



Age

	Univers	sities*	Rese institu		Total		
20-24 years	10	0,7%	3	0,5%	13	0,6%	
25–29 years	296	20,9%	140	21,1%	436	20,9%	
30-34 years	352	24,8%	170	25,6%	522	25,1%	
35-39 years	183	12,9%	121	18,2%	304	14,6%	
40-44 years	103	7,3%	60	9%	163	7,8%	
45-49 years	119	8,4%	45	6,8%	164	7,9%	
50-54 years	133	9,4%	46	6,9%	179	8,6%	
55-59 years	112	7,9%	28	4,2%	140	6,7%	
60+ years	84	5,9%	41	6,2%	125	6%	
N.s.	25	1,8%	11	1,7%	36	1,7%	
Total	1.419	100%	665	100%	2.084	100%	

^{*}Universities of applied sciences, art colleges and academies of music included



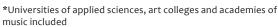
Base: Scientists at German universities and research institutions, n=2.084 Source: Science 2.0-Survey 2014

Table 3: Total sample by age

Base: Scientists at German universities and research institutions, n=2.084

Type of institution

	Univer	sities*	Resea institu		Total		
University	1.033	72,7%	0	0%	1.033	49,6%	
University of applied sciences	338	23,8%	0	0%	338	16,2%	
Art college or academy of music	46	3,3%	0	0%	46	2,2%	
Research institution	0	0%	665	100%	665	31,9%	
Other	4	0,3%	0	0%	4	0,2%	
Total	1.421	100%	665	100%	2.086	100%	



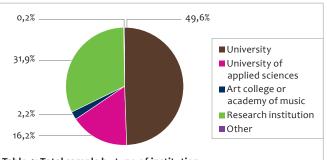


Table 4: Total sample by type of institution

Multiple answers possible.

Base: Scientists at German universities and research institutions, n=2.084 Source: Science 2.0-Survey 2014

Chart 3: Total sample by type of institution

Multiple answers possible.

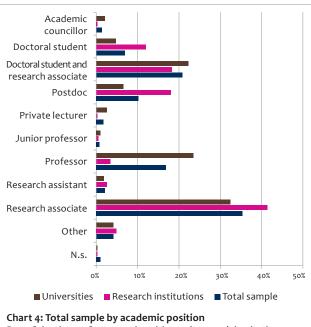
Base: Scientists at German universities and research institutions, n=2.084

Source: Science 2.0-Survey 2014

Academic position

	Univer	sities*	Rese institu		Total		
Academic councillor ⁶	27	1,9%	1	0,2%	28	1,3%	
Doctoral student	67	4,7%	79	11,9%	146	7%	
Doctoral student and research associate	315	22,2%	121	18,2%	436	20,9%	
Postdoc	90	6,4%	118	17,7%	208	10%	
Private lecturer	34	2,4%	2	0,3%	36	1,7%	
Junior professor	15	1,1%	3	0,5%	18	0,9%	
Professor	332	23,4%	20	3%	352	16,9%	
Research assistant	25	1,7%	16	2,4%	41	2%	
Research associate	459	32,4%	275	41,4%	734	35,2%	
Other	54	3,8%	29	4,4%	83	4%	
N.s.	1	0,1%	1	0,2%	2	1%	
Total	1.419	100%	665	100%	2.084	100%	

^{*}Universities of applied sciences, art colleges and academies of music included



Base: Scientists at German universities and research institutions,

n=2.084 Source: Science 2.0-Survey 2014

Table 5: Total sample by academic position

Base: Scientists at German universities and research institutions, n=2.084 Source: Science 2.0-Survey 2014

⁷ In the English questionnaire this category was described as "Member of the academic council".

Duration of employment in academic context

	Univers	ities*	Resea institu		Total		
<1 year	165	11,6%	73	11%	238	11,4%	
1-3 years	185	13%	78	11,7%	263	12,6%	
4-6 years	166	11,7%	94	14,1%	260	12,5%	
7-12 years	151	10,7%	92	13,8%	243	11,7%	
13-20 years	141	9,9%	62	9,3%	203	9,7%	
>20 years	137	9,7%	71	10,7%	208	10%	
N.s.	473 33,4%		195	29,3%	668	32,1%	
Total	al 1.419 100%		665	100%	2.084	100%	

^{*}Universities of applied sciences, art colleges and academies of music included

Table 6: Total sample by duration of employment in academic context

Base: Scientists at German universities and research institutions, n=2.084

Source: Science 2.0-Survey 2014

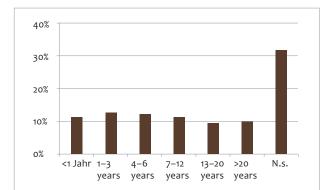


Chart 5: Total sample by duration of employment in academic context

Base: Scientists at German universities and research institutions, $n\!=\!2.084$

Source: Science 2.0-Survey 2014

Subject group

	Univer	sities*	arch Itions				
Agriculture, forestry and food sciences	37	2,6%	8	1,2%	45	2,2%	
Human medicine/ health sciences	67	4,7%	18	2,7%	85	4,1%	
Engineering sciences	296	20,8%	26	3,9%	322	15,4%	
Culture, humani- ties and education	257	18,1%	113	17%	370	17,8%	
Arts	57	4%	2	0,3%	59	2,8%	
Mathematics and natural sciences	433	30,5%	360	54,1%	793	38%	
Social sciences, economics, law	249	17,5%	131	19,7%	380	18,2%	
Sports science	8	0,6%	0	0%	8	0,4%	
Veterinary medicine	6	0,4%	3	0,5%	9	0,4%	
Other	8	0,6%	4	0,6%	12	0,6%	
Total	1.419	100%	665	100%	2.084	100%	

^{*}Universities of applied sciences, art colleges and academies of music included

Table 7: Total sample by subject group

Base: Scientists at German universities and research institutions, n=2.084 Source: Science 2.0-Survey 2014

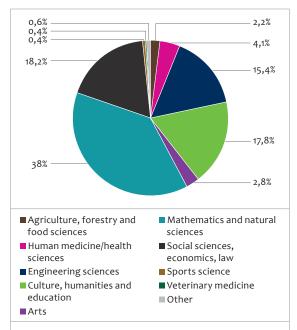


Chart 6: Total sample by subject group

Base: Scientists at German universities and research institutions, n=2.084 Source: Science 2.0-Survey 2014

Fields of activity

		Univ	ersities*	Researc	h institution	s -	Total		
	0%	119	8,4%	38	5,7%	157	7,5%		
	1-10%	227	16%	50	7,5%	277	13,3%		
£	11-30%	375	26,4%	91	13,7%	466	22,4%		
Research	31-50%	290	20,5%	115	17,3%	405	19,5%		
Re	51-70%	165	11,6%	109	16,4%	274	13,2%		
	71-90%	181	12,7%	158	23,8%	339	16,3%		
	91–100%	62	4,3%	104	15,6%	166	7,9%		
	0%	234	16,5%	385	57,9%	619	29,7%		
	1-10%	215	15,2%	196	29,5%	411	19,7%		
ng	11-30%	378	26,6%	73	11%	451	21,6%		
Teaching	31-50%	274	19,3%	10	1,5%	284	13,6%		
F	51-70%	152	10,7%	0	0%	152	7,3%		
	71-90%	118	8,3%	0	0%	118	5,7%		
	91–100%	47	3,3%	1	0,2%	48	2,3%		
_	0%	490	34,5%	264	39,7%	754	36,2%		
atio	1-10%	403	28,4%	152	22,9%	555	26,6%		
nistr	11-30%	399	28,1%	142	21,4%	541	26%		
dmi	31-50%	94	6,6%	62	9,3%	156	7,5%		
Science administration	51-70%	23	1,6%	25	3,8%	48	2,3%		
Scie	71-90%	9	0,6%	16	2,4%	25	1,2%		
	91–100%	1	0,1%	4	0,6%	5	0,2%		
г	0%	646	45,5%	300	45,1%	946	45,4%		
atio	1-10%	587	41,4%	241	36,2%	828	39,7%		
Science communication	11-30%	167	11,7%	90	13,5%	257	12,3%		
отп	31-50%	14	1%	25	3,8%	39	1,9%		
ce	51-70%	4	0,3%	3	0,5%	7	0,3%		
Scien	71-90%	2	0,1%	5	0,8%	7	0,3%		
	91–100%	0	0%	1	0,2%	1	0,1%		

^{*}Universities of applied sciences, art colleges and academies of music included

Table 8: Total sample by fields of activityBase: Scientists at German universities and research institutions, n=2.084
Source: Science 2.0-Survey 2014

4. Use of social media and online-based tools

The main objective of this study is to detect the current state of the spread of social media applications and online-based tools among scientists and to draw conclusions about the intensity, context and reasons for their use in academia. The survey thus focuses on work-related use, as described in the following. Respondents were asked about their use of 18 different tools and applications. To achieve a common understanding of the tools among the surveyed scientists, typical examples of each particular tool were given wherever possible (table 9).

In general, the total sample (N=2,084) is used as the basis for presenting the survey results. Where information on the use of the tools and applications refers to one of the sub-samples (universities, research institutions) or another sub-group for reasons of clarity, this will be clearly indicated in the text.

Tool	Example applications named in the questionnaire
Wikipedia*	
Mailing list	
Online archive/database	Deutsche Digitale Bibliothek, Arxiv.org
Content sharing/cloud service	Dropbox, Slideshare
Discussion forum*	
Other wiki*	Corporate wiki, subject-specific wikis
Videoconference/VoIP	Skype, Adobe Connect
Reference manager	Mendeley, Zotero
Video/photo community platform*	YouTube, Flickr
Learning management system	OLAT/OPAL, Moodle
Chat/instant messenger	Skype, ICQ
Professional and academic SNS	Xing, Academia.edu
Personal organizer/schedule manager	Foodle, Asana, Trello
Social network site (SNS)*	Facebook, Google+
Online text editor	EtherPad, Google Docs
Weblog*	
Microblog*	Twitter
Social bookmarking service	Delicious, Bibsonomy

Table 9: Overview of queried tools and example applications

An asterisk (*) marks tools for which additionally active and passive use was requested.

4.1 General use of social media und online-based tools

Overall, the queried tools and applications are well known among the scientists surveyed, with more than 90 per cent of the scientists at least recognising the majority of the tools (table 10). Only five tools are less known among scientists: these include reference managers (about which 14% answered "I do not know"), online text editors (17%), learning management systems (21%), personal organizers/schedule managers (29%) and social bookmarking services (49%).

The **general use of online tools** is also widespread among scientists. Twelve of the 18 online-based tools and social media applications surveyed are used by at least half of the respondents (table 10), with only online text editors, weblogs, and microblogs, as well as social bookmarking services not used by a majority of scientists surveyed. When comparing the university sample with scientists at

research institutions, almost all tools – with the exception of learning management systems – are used more prevalently at research institutions, particularly mailing lists (77% vs. 85%), wikis (59% vs. 68%) and microblogs (13% vs. 18%).

However, the usage of online-based tools is still subject to dynamic development. At the moment, no clear trend can be identified with regard to the general use of online tools among scientists. Considering compared the evolution on Internet usage within the total population, it can be observed that this continues to increase, with different motivations for different usage patterns, while highly individualised use of Internet services is evident in connection with flexibility of access to technologies (van Eimeren & Frees 2014). Transferred to the scientific use of online-based tools, it can be derived that specific patterns of usage anchored in everyday work will also emerge – as the results of this report also prove.

With regard to **devices**, in 2014, most researchers still use notebooks (83%) and stationary PCs (79%) to work with online-based tools (table 11). However, half of the scientists also access the various tools and applications via smartphone. Tablet PCs are used by 26 per cent of the scientists for digital work in academia.

General usage

l do use					I don't use				l don't know									
	Unive	rsities*		earch tutions	Total	sample	Unive	ersities*		earch tutions	Total	sample	Unive	ersities*		earch utions	Total s	ample
Wikipedia	1.383	97,5%	656	98,6%	2.039	97,8%	31	2,2%	7	1,1%	38	1,8%	1	0,1%	0	0%	1	0%
Mailing list	1.095	77,1%	568	85,4%	1.663	79,8%	288	20,3%	90	13,5%	378	18,1%	32	2,3%	5	0,8%	37	1,8%
Online archive/ database	1.065	75,1%	502	75,5%	1.567	75,2%	274	19,3%	116	17,4%	390	18,7%	73	5,1%	45	6,8%	118	5,6%
Content sharing/ cloud service	1.085	76,5%	529	79,5%	1.614	77,4%	283	19,9%	123	18,5%	406	19,5%	43	3,1%	11	1,7%	54	2,6%
Discussion forum	956	67,4%	458	68,9%	1.414	67,9%	440	31%	199	29,9%	639	30,7%	18	1,2%	6	0,9%	24	1,1%
Other wiki	836	59%	452	68%	1.288	61,8%	503	35,4%	172	25,9%	675	32,4%	71	5%	39	5,9%	110	5,3%
Videoconference/VoIP	983	69,3%	554	83,3%	1.537	73,8%	418	29,5%	106	15,9%	524	25,2%	8	0,6%	3	0,5%	11	0,5%
Reference manager	775	54,6%	396	59,5%	1.171	56,2%	434	30,6%	186	28%	620	29,8%	203	14,3%	81	12,2%	284	13,6%
Video/photo communi- ty platform	1.105	77,9%	510	76,7%	1.615	77,5%	296	20,9%	151	22,7%	447	21,5%	10	0,7%	2	0,3%	12	0,6%
Learning management system	718	50,6%	125	18,8%	843	40,4%	473	33,3%	314	47,2%	787	37,7%	221	15,6%	224	33,7%	445	21,4%
Chat/instant messenger	951	67%	498	74,9%	1.449	69,5%	449	31,6%	161	24,2%	610	29,3%	12	0,8%	4	0,6%	16	0,8%
Professional and academic SNS	703	49,6%	335	50,4%	1.038	49,8%	659	46,4%	307	46,2%	966	46,4%	50	3,5%	21	3,2%	71	3,4%
Personal organizer/ schedule manager	639	45%	312	46,9%	951	45,6%	359	25,3%	169	25,4%	528	25,3%	415	29,2%	182	27,4%	597	28,6%
Social network site (SNS)	762	53,7%	376	56,5%	1.138	54,6%	641	45,2%	281	42,3%	922	44,2%	9	0,7%	6	0,9%	15	0,7%
Online text editor	379	26,7%	203	30,5%	582	27,9%	782	55,1%	349	52,5%	1131	54,3%	249	17,6%	111	16,7%	360	17,3%
Weblog	429	30,3%	256	38,5%	685	32,9%	853	60,1%	337	50,7%	1.190	57,1%	126	8,9%	70	10,5%	196	9,4%
Microblog	184	12,9%	121	18,2%	305	14,6%	1.188	83,7%	531	79,8%	1.719	82,5%	39	2,8%	11	1,7%	50	2,4%
Social bookmarking service	75	5,3%	44	6,6%	119	5,7%	647	45,6%	297	44,7%	944	45,3%	691	48,7%	322	48,4%	1013	48,6%

^{*}Universities of Applied Sciences, Art Colleges and Academies of Music included

Table 10: General usage of social media and online-based tools

Base: Scientists at German universities and research institutions (Universities: n=1.419, Research institutions: n=665, Total sample: n=2.084)

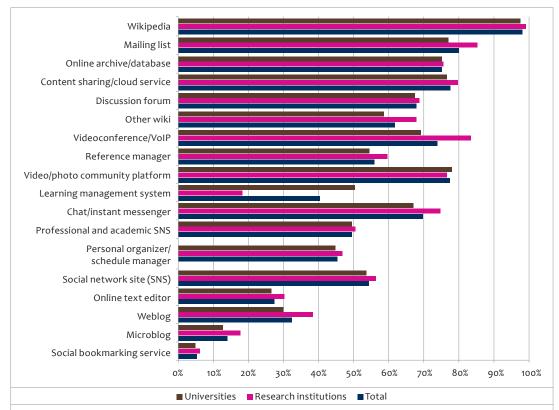


Chart 7: General usage of social media and online-based tools in comparison ("I do use")

Base: Scientists at German universities and research institutions (Universities: n=1.419, Research institutions: n=665, Total sample: n=2.084)

Source: Science 2.0-Survey 2014

Devices

	Univers	sities*	Rese institu		Total		
PC	1.109	78,1%	531	79,8%	1.640	78,7%	
Notebook	1.180	83,1%	541	81,4%	1.721	82,6%	
Tablet	383	27%	160	24,1%	543	26,1%	
Smartphone	715	50,4%	305	45,9%	1.020	48,9%	
Other	14	1%	5	0,8%	19	0,9%	

^{*}Universities of applied sciences, art colleges and academies of music included

Table 11: Devices for tool usage

 $\label{eq:Multiple answers possible.} \\$

Base: Scientists at German universities and research institutions (Universities: n=1.419, Research institutions: n=665, Total sample: n=2.084) Source: Science 2.0-Survey 2014

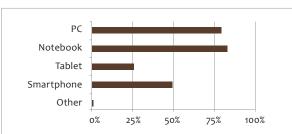


Chart 8: Devices for tool usage

Multiple answers possible.

Base: Scientists at German universities and research institutions (Universities: n=1.419, Research institutions: n=665, Total sample: n=2.084)

4.2 Use of social media und online-based tools in academic work

While work-related usage of online tools and social media applications appears to be widespread, a closer look at this form of use also reveals differences between general and work-related usage of online-based tools. In a professional context, nine of the 18 tools surveyed are still used by half of the respondents (table 14). The most popular tools within the professional context are Wikipedia (95%), mailing lists (78%), online archives/databases (75%), content sharing/cloud services (70%), videoconferences /VoIP (62%), wikis (59%) and discussion forums (58%). Less prevalent are Web 2.0 tools such as SNS (28%), weblogs, (26%), online text editors (25%), microblogs (10%) and social bookmarking services (5%) in particular. When comparing scientists from universities and research institutions (table 12/13), the proportion of professional users of most tools is again higher for research institutions, especially with regard to mailing lists (76% vs. 84%), wikis (57% vs. 66%) and videoconferences/VoIP (56% vs. 74%). Scientists at universities instead use video/photo communities more often for professional purposes (54% vs. 43%).

When looking at the **frequency of use** (table 17), most online-based tools and social media applications are used in a professional context either frequently (one to several times a week) or at least occasionally (monthly or less often). Only a few online-based tools or Web 2.0 applications are used very often, i.e. at least once a day, to support scientists in their everyday professional life. Looking only at scientists who use the respective tools professionally, SNS (36%), microblogs (30%), Wikipedia (29%), mailing lists (28%), content sharing/cloud services (27%) and reference managers (27%) were used very frequently (at least once a day), while professional and academic SNS (5%), video conferencing (4%) and video/photo communities (8%) were only used by a small proportion of the scientists surveyed very frequently in a professional context. The main online tools used frequently for professional purposes, i.e. at least once a week, are online archives/databases (62%) as well as discussion forums (60%). Videoconferences/VoIP (68%) and personal organizers/schedule managers (65%) are generally used occasionally, i.e. not more than once a month, to support scientists in their academic work. Other tools primarily used occasionally by a majority of the scientists surveyed are online text editors (55%), professional and academic SNS (50%) and wikis (48%).

Only very small differences between men and women can be observed with regard to the use of online-based tools (table 20). Women use mailing lists (81% vs. 76% use by men), content sharing/cloud services (74% vs. 67%), reference managers (63% vs. 50%) and SNS (33% vs. 24%) more intensively, while men are more frequent users of wikis (65% vs. 54% use by women) and personal organizers/schedule managers (46% vs. 42%).

A gap in usage rates between younger and older scientists (table 23) can generally be observed - although this is not the case for every tool. For example, reference managers are particularly prevalent among scientists aged between 25 and 34 (70% resp. 69%), while they are only used by between 36 and 39 per cent of 45- to 59-year-olds. Similarly, 33 per cent of respondents aged between 30 and 34 make use of online text editors, while this figure reaches just 14 to 17 per cent among scientists aged 45 and older. A similar picture emerges for content sharing/cloud services, where the 35–39 years age group lead the way with a 80 per cent usage rate. However, although the proportion of 55- to 59-year-olds using this type of tool is only 58 per cent, usage is not higher among those aged between 20 and 24 years, at 55 per cent. In contrast, online archives/databases are as popular among those in the 55 to 59 age bracket (80% usage rate) as they are among those aged 40 to 44 (81%) or 30 to 34 years (76%). On the other hand, learning management systems are the preserve of older respondents. Almost half of scientists aged 55 to 59 use such tools compared to just 36 per cent of 30- to 34-year-olds, with personal organizers/ schedule managers also proving particularly popular among those aged between 40 and 54. Use of professional and academic SNS is particularly prevalent among the middle age group (30-44 years) in the qualification and profiling phases (just over 50% in both cases) but less popular with scientists aged 25 to 29 years at 41 per cent. While weblogs are most intensively maintained by respondents aged between 30 and 45 years (28-32%), the figure is just under 20 per cent among those over 45 years.

With regard to **status groups** (table 29), online-based tools and social media applications are most commonly used by postdocs and junior professors, while online-based tools also play an important role in the everyday academic life of PhD students who also serve as research associates and private lecturers. Although they only comprise a small group within the sample, junior professors are especially active when it comes to using content sharing/cloud services (96% vs. 69% use by professors), videoconferences/VoIP (91% vs. 64%), chat/instant messengers (77% vs. 48%) and online text editors (53% vs. 21%). Private lecturers are comparatively active in using professional and academic SNS (66% vs. 38% use by doctoral students) and other SNS (43% vs. 27%). Doctoral students who also serve as research associates use reference managers very intensively (79% vs. 40% use by private lecturers). Postdocs stand out for their use of weblogs (33% vs. 20% use by professors). Learning management systems are most widely used by junior professors and professors (61% each vs. 23% use by postdocs).

When focusing on **subject groups** (table 26), scientists from social sciences, economics and law use online tools most intensively for scientific purposes, closely followed by scientists from culture, humanities and education. Professional and academic SNS (59%) and microblogs (16%) are more often used in social sciences, economics and law than in any of the other four major subject groups. The tools most popular among culture, humanities and education scientists are online archives/databases (83%) as well as video/photo communities (62%) and personal organizers/schedule managers (52%), while reference managers (59% and 62% respectively) and mailing lists (83% each) are similarly popular among respondents from both culture, humanities and education as well as social sciences, economics and law. The latter of these two tools is also prevalent among those working in mathematics and natural sciences (81%). Wikis (68%) are used particularly intensively in mathematics and natural sciences in comparison to the other three major subject groups. In contrast, engineers are generally more reluctant to use online-based tools and social media applications. This reticence is particularly noticeable in their use of professional and academic SNS (33% vs. 60% in social sciences) and weblogs (15% vs. 34% in humanities). However, discussion forums (59%) and wikis (64%) are two exceptions to this trend.

Professional and private usage

	Universities											
		ofessionally (1)	profes	narily ssionally (2)	and p	ssionally rivately (3)	priv	narily ately 4)	, ,	orivately (5)	М	N professional usage (1–4)
Wikipedia	18	1,3%	71	5%	1.098	77,4%	142	10%	54	3,8%	3,10	1.330
Mailing list	335	23,6%	321	22,6%	402	28,4%	18	1,3%	18	1,3%	2,14	1.077
Online archive/database	444	31,3%	423	29,8%	184	13%	8	0,6%	6	0,4%	1,79	1.059
Content sharing/cloud service	127	9%	186	13,1%	576	40,6%	103	7,2%	93	6,6%	2,86	991
Discussion forum	52	3,6%	115	8,1%	473	33,3%	167	11,8%	150	10,6%	3,26	806
Other wiki	183	12,9%	244	17,2%	342	24,1%	35	2,5%	32	2,3%	2,39	804
Videoconference/VoIP	105	7,4%	151	10,7%	377	26,6%	165	11,6%	185	13%	3,18	798
Reference manager	499	35,1%	173	12,2%	91	6,4%	7	0,5%	5	0,3%	1,51	770
Video/photo community platform	25	1,7%	49	3,5%	387	27,3%	307	21,6%	337	23,7%	3,80	768
Learning management system	521	36,7%	147	10,4%	30	2,1%	8	0,6%	11	0,8%	1,38	706
Chat/instant messenger	32	2,2%	70	4,9%	348	24,5%	212	14,9%	289	20,4%	3,69	662
Professional and academic SNS	231	16,3%	207	14,6%	173	12,2%	46	3,2%	46	3,3%	2,25	657
Personal organizer/schedule manager	163	11,5%	180	12,7%	249	17,6%	24	1,7%	23	1,6%	4,18	616
Social network site (SNS)	27	1,9%	18	1,3%	170	12%	182	12,8%	365	25,7%	4,10	397
Online text editor	82	5,8%	112	7,9%	116	8,2%	31	2,2%	37	2,6%	2,54	342
Weblog	29	2%	42	3%	179	12,6%	89	6,3%	90	6,4%	3,40	339
Microblog	19	1,3%	30	2,1%	30	2,1%	42	3%	62	4,4%	3,54	121
Social bookmarking service	16	1,1%	19	1,3%	24	1,7%	7	0,5%	8	0,6%	2,64	67

Table 12: Professional and private usage at universities

Base: Scientists at German universities, n=1.419

	Research institutions											
	, ,	ofessionally (1)	profes	narily ssionally (2)	and p	ssionally rivately (3)	priv	narily ately 4)	, ,	rivately (5)	М	N professional usage (1–4)
Wikipedia	2	0,3%	26	3,9%	531	79,8%	80	12%	17	2,6%	3,13	639
Mailing list	186	28%	175	26,3%	191	28,7%	6	0,9%	10	1,5%	2,08	558
Online archive/database	263	39,5%	169	25,4%	64	9,6%	5	0,8%	1	0,2%	1,63	501
Content sharing/cloud service	56	8,4%	95	14,3%	258	38,8%	61	9,2%	59	8,9%	2,95	470
Discussion forum	23	3,5%	54	8,1%	230	34,6%	89	13,4%	62	9,3%	3,25	396
Other wiki	126	18,9%	128	19,2%	164	24,7%	18	2,7%	16	2,4%	2,27	436
Videoconference/VoIP	99	14,9%	88	13,2%	224	33,7%	82	12,3%	61	9,2%	2,85	493
Reference manager	280	42,1%	86	12,9%	28	4,2%	1	0,2%	1	0,2%	1,38	395
Video/photo community platform	3	0,5%	9	1,4%	99	14,9%	176	26,5%	223	33,5%	4,19	287
Learning management system	86	12,9%	23	3,5%	8	1,2%	3	0,5%	5	0,8%	1,54	120
Chat/instant messenger	20	3%	33	5%	188	28,3%	111	16,7%	146	22%	3,66	352
Professional and academic SNS	135	20,3%	116	17,4%	55	8,3%	17	2,6%	12	1,8%	1,97	323
Personal organizer/schedule manager	78	11,7%	94	14,1%	126	18,9%	8	1,2%	6	0,9%	4,11	306
Social network site (SNS)	11	1,7%	9	1,4%	61	9,2%	101	15,2%	194	29,2%	4,22	182
Online text editor	42	6,3%	51	7,7%	65	9,8%	28	4,2%	17	2,6%	2,64	186
Weblog	13	2%	31	4,7%	103	15,5%	50	7,5%	59	8,9%	3,43	197
Microblog	17	2,6%	16	2,4%	33	5%	14	2,1%	41	6,2%	3,38	80
Social bookmarking service	12	1,8%	12	1,8%	16	2,4%	2	0,3%	2	0,3%	2,32	42

Table 13: Professional and private usage at research institutionsBase: Scientists at research institutions, n=665 Source: Science 2.0-Survey 2014

	Total sample											
	, ,	ofessionally (1)	profes	marily ssionally (2)	and p	ssionally rivately (3)	priv	narily ately 4)	, ,	rivately (5)	М	N professional usage (1–4)
Wikipedia	20	1%	97	4,7%	1.629	78,2%	222	10,7%	71	3,4%	3,11	1.969
Mailing list	521	25%	496	23,8%	593	28,5%	24	1,2%	28	1,3%	2,12	1.635
Online archive/database	707	33,9%	592	28,4%	248	11,9%	13	0,6%	7	0,3%	1,74	1.560
Content sharing/cloud service	183	8,8%	281	13,5%	834	40%	164	7,8%	152	7,3%	2,89	1.461
Discussion forum	75	3,6%	169	8,1%	703	33,7%	256	12,3%	212	10,2%	3,26	1.202
Other wiki	309	14,8%	372	17,9%	506	24,3%	53	2,6%	48	2,3%	2,35	1.240
Videoconference/VoIP	204	9,8%	239	11,5%	601	28,8%	247	11,9%	246	11,8%	3,06	1.291
Reference manager	779	37,4%	259	12,4%	119	5,7%	8	0,4%	6	0,3%	1,46	1.165
Video/photo community platform	28	1,3%	58	2,8%	486	23,3%	483	23,2%	560	26,9%	3,92	1.055
Learning management system	607	29,1%	170	8,2%	38	1,8%	11	0,5%	16	0,8%	1,41	826
Chat/instant messenger	52	2,5%	103	5%	536	25,7%	323	15,5%	435	20,9%	3,68	1.014
Professional and academic SNS	366	17,6%	323	15,5%	228	10,9%	63	3%	58	2,8%	2,16	980
Personal organizer/schedule manager	241	11,5%	274	13,2%	375	18%	32	1,5%	29	1,4%	2,30	922
Social network site (SNS)	38	1,8%	27	1,3%	231	11,1%	283	13,6%	559	26,8%	4,14	579
Online text editor	124	6%	163	7,8%	181	8,7%	59	2,8%	54	2,6%	2,58	528
Weblog	42	2%	73	3,5%	282	13,5%	139	6,7%	149	7,2%	3,41	536
Microblog	36	1,7%	46	2,2%	63	3%	56	2,7%	103	5%	3,48	201
Social bookmarking service	28	1,4%	31	1,5%	40	1,9%	9	0,5%	10	0,5%	2,52	109

Table 14: Professional and private usage – total sampleBase: Scientists at German universities and research institutions, n=2.084

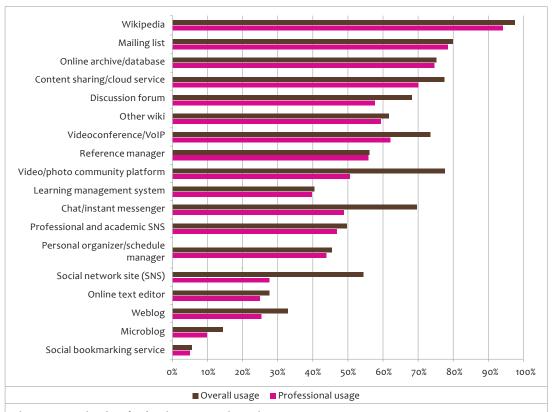
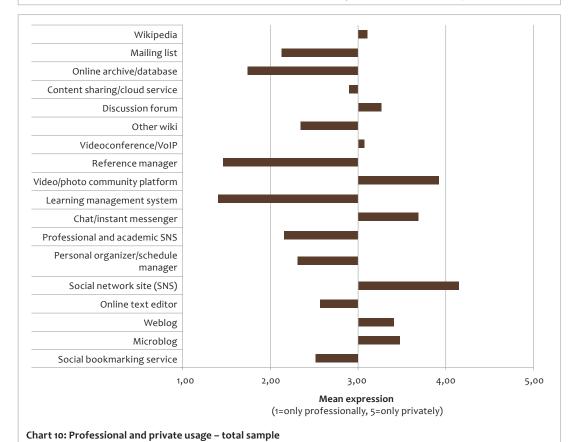


Chart 9: General and professional usage - total sample

use the respective tool (tab. 10). | Source: Science 2.0-Survey 2014

"Professional usage" means that the respondents use the respective tool at least partially in their working context (including the category "primarily privately").

Base: Scientists at German universities and research institutions, n=2.084 | Source: Science 2.0-Survey 2014



Given are the averages of the answers to the focus of usage (professional/private) for the queried tools. The scale ranges from 1 (only professionally) to 5 (only privately). | Base: Scientists at German universities and research institutions who

Frequency of professional usage

	Universities														
		al times day	Onc	e a day		al times veek	Once	a week	Once	a month	Ra	arely		N.s.	Total
Wikipedia	138	10,4%	223	16,8%	454	34,1%	293	22 %	161	12,1%	43	3,2%	17	1,3%	1.330
Mailing list	79	7,4%	164	15,2%	233	21,6%	256	23,8%	207	19,2%	121	11,2%	17	1,5%	1.077
Online archive/database	58	5,4%	81	7,7%	252	23,8%	222	20,9%	267	25,2%	165	15,5%	15	1,4%	1.059
Content sharing/cloud service	147	14,8%	117	11,8%	169	17 %	183	18,5%	204	20,6%	161	16,3%	10	1,1%	991
Discussion forum	30	3,7%	51	6,4%	187	23,2%	217	26,9%	182	22,5%	121	15 %	19	2,4%	806
Other wiki	29	3,6%	52	6,4%	134	16,6%	201	25 %	233	29 %	144	17,9%	12	1,5%	804
Videoconference/VoIP	15	1,9%	15	1,9%	79	9,9%	146	18,3%	263	32,9%	266	33,3%	15	1,8%	798
Reference manager	70	9 %	113	14,6%	206	26,8%	148	19,2%	118	15,3%	100	12,9%	16	2,1%	770
Video/photo community platform	16	2,1%	51	6,6%	151	19,7%	239	31,1%	187	24,4%	114	14,8%	10	1,2%	768
Learning management system	56	8 %	84	11,9%	202	28,6%	129	18,2%	130	18,4%	96	13,6%	10	1,4%	706
Chat/instant messenger	73	11 %	61	9,2%	107	16,2%	111	16,7%	148	22,4%	150	22,7%	12	1,8%	662
Professional and academic SNS	7	1,1%	30	4,5%	107	16,2%	169	25,7%	193	29,4%	138	21 %	13	2 %	657
Personal organizer/schedule manager	20	3,2%	30	4,8%	54	8,7%	99	16,1%	259	42 %	146	23,7%	8	1,4%	616
Social network site (SNS)	69	17,3%	71	17,8%	74	18,5%	77	19,3%	42	10,6%	56	14,1%	9	2,3%	397
Online text editor	16	4,8%	17	4,9%	49	14,2%	65	19,1%	106	31 %	82	24 %	7	2 %	342
Weblog	11	3,2%	24	7,1%	71	20,9%	83	24,5%	87	25,8%	54	15,9%	9	2,6%	339
Microblog	22	17,8%	14	11,7%	25	20,9%	22	18,5%	17	13,9%	19	15,9%	2	1,4%	121
Social bookmarking service	5	6,8%	7	10,1%	10	15,5%	6	9,4%	10	15,7%	25	36,9%	4	5,6%	67

Table 15: Frequency of professional usage at universitiesBase: Scientists at German universities who use the respective tool professionally (see column Total)

Source: Science 2.0-Survey 2014

	Research institutions														
		al times day	Onc	e a day		al times veek	Once	a week	Once	a month	Ra	arely		N.s.	Total
Wikipedia	90	14,1%	98	15,3%	215	33,6%	142	22,2%	65	10,2%	24	3,8%	5	0,8%	639
Mailing list	73	13,1%	117	21%	115	20,6%	95	17%	94	16,8%	56	10%	8	1,4%	558
Online archive/database	46	9,2%	62	12,4%	114	22,8%	99	19,8%	90	18%	85	17%	5	1%	501
Content sharing/cloud service	64	13,6%	54	11,5%	58	12,3%	79	16,8%	106	22,6%	102	21,7%	7	1,5%	470
Discussion forum	10	2,5%	25	6,3%	86	21,7%	116	29,3%	83	21%	70	17,7%	6	1,5%	396
Other wiki	18	4,1%	30	6,9%	82	18,8%	98	22,5%	136	31,2%	71	16,3%	1	0,2%	436
Videoconference/VoIP	8	1,6%	11	2,2%	46	9,3%	90	18,3%	171	34,7%	163	33,1%	4	0,8%	493
Reference manager	49	12,4%	66	16,7%	97	24,6%	69	17,5%	63	15,9%	47	11,9%	4	1%	395
Video/photo community platform	7	2,4%	12	4,2%	45	15,7%	72	25,1%	75	26,1%	72	25,1%	4	1,4%	287
Learning management system	1	0,8%	2	1,7%	11	9,2%	20	16,7%	35	29,2%	50	41,7%	1	0,8%	120
Chat/instant messenger	38	10,8%	30	8,5%	52	14,8%	54	15,3%	77	21,9%	99	28,1%	2	0,6%	352
Professional and academic SNS	2	0,6%	12	3,7%	47	14,6%	106	32,8%	88	27,2%	63	19,5%	5	1,5%	323
Personal organizer/schedule manager	15	4,9%	10	3,3%	27	8,8%	56	18,3%	116	37,9%	81	26,5%	1	0,3%	306
Social network site (SNS)	37	20,3%	28	15,4%	31	17%	31	17%	32	17,6%	22	12,1%	1	0,5%	182
Online text editor	10	5,4%	6	3,2%	25	13,4%	45	24,2%	43	23,1%	56	30,1%	1	0,5%	186
Weblog	9	4,6%	18	9,1%	48	24,4%	48	24,4%	39	19,8%	32	16,2%	3	1,5%	197
Microblog	19	23,8%	9	11,3%	14	17,5%	17	21,3%	10	12,5%	11	13,8%	0	0%	80
Social bookmarking service	4	9,5%	0	0%	11	26,2%	7	16,7%	11	26,2%	9	21,4%	0	0%	42

Table 16: Frequency of professional usage at research institutions

Base: Scientists at research institutions who use the respective tool professionally (see column Total)

	Total sample														
		al times day	Onc	e a day		al times veek	Once	a week	Once	a month	R	arely		N.s.	Total
Wikipedia	228	11,6%	321	16,3%	669	34%	435	22,1%	226	11,5%	67	3,4%	22	1,1%	1.969
Mailing list	152	9,3%	281	17,2%	348	21,3%	351	21,5%	301	18,4%	177	10,8%	25	1,5%	1.635
Online archive/database	104	6,6%	143	9,2%	366	23,4%	321	20,6%	357	23%	250	16 %	20	1,3%	1.560
Content sharing/cloud service	211	14,4%	171	11,7%	227	15,5%	262	17,9%	310	21,2%	263	18 %	17	1,2%	1.461
Discussion forum	40	3,3%	76	6,3%	273	22,7%	333	27,7%	265	22 %	191	15,9%	25	2,1%	1.202
Other wiki	47	3,8%	82	6,6%	216	17,4%	299	24,1%	369	29,8%	215	17%	13	1,1%	1.240
Videoconference/VoIP	23	1,8%	26	2 %	125	9,7%	236	18%	434	33,6%	429	33,2%	19	1,4%	1.291
Reference manager	119	10%	179	15,3%	303	26 %	217	18,6%	181	15,5%	147	12,6%	20	1,7%	1.165
Video/photo community platform	23	2,2%	63	6 %	196	19%	311	29,5%	262	24,9%	186	17,6%	14	1,3%	1.055
Learning management system	57	7 %	86	10,4%	213	25,8%	149	18 %	165	20 %	146	17,7%	11	1,3%	826
Chat/instant messenger	111	10,9%	91	8,9%	159	15,7%	165	16%	225	22,2%	249	24,6%	14	1,4%	1.014
Professional and academic SNS	9	1 %	42	4,3%	154	15,7%	275	28,1%	281	28,7%	201	20,5%	18	1,9%	980
Personal organizer/schedule manager	35	3,8%	40	4%	81	8,7%	155	16,9%	375	40,6%	227	24,6%	9	1 %	922
Social network site (SNS)	106	18,3%	99	17 %	105	18,1%	108	18,6%	74	12,8%	78	13,5%	10	1,7%	579
Online text editor	26	5 %	23	4,3%	74	14 %	110	20,9%	149	28,2%	138	26%	8	1,5%	528
Weblog	20	3,7%	42	7,9%	119	22,2%	131	24,4%	126	23,6%	86	16 %	12	2,2%	536
Microblog	41	20,2%	23	11,5%	39	19,6%	39	19,6%	27	13,3%	30	15 %	2	1%	201
Social bookmarking service	9	7,9%	7	6,2%	21	19,7%	13	12,2%	21	19,7%	34	30,9%	4	3,4%	109

Table 17: Frequency of professional usage – total sample

Base: Scientists at German universities and research institutions who use the respective tool professionally (see column Total) Source: Science 2.0-Survey 2014

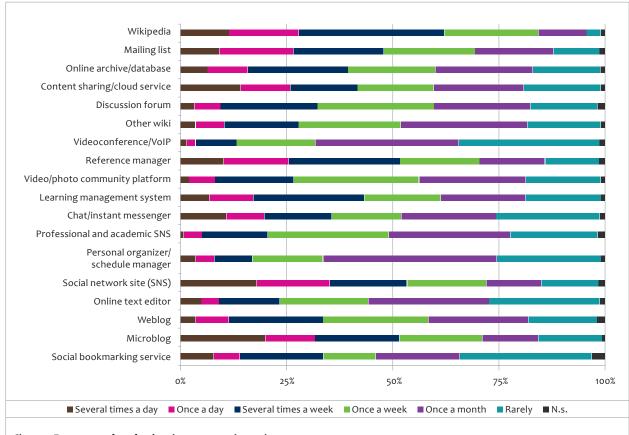


Chart 11: Frequency of professional usage – total sample

Base: Scientists at German universities and research institutions who use the respective tool professionally (tab. 14) Source: Science 2.0-Survey 2014

Professional usage by gender

			Unive	rsities		
	Fe	male	Ma	ale	1	N.s.
Wikipedia	577	43,4%	733	55,1%	20	1,5%
Mailing list	479	44,5%	581	54%	17	1,6%
Online archive/database	454	42,8%	590	55,7%	15	1,4%
Content sharing/cloud service	460	46,4%	518	52,3%	13	1,3%
Discussion forum	338	42%	456	56,5%	12	1,5%
Other wiki	312	38,8%	483	60,1%	9	1,1%
Videoconference/VoIP	335	42%	449	56,3%	14	1,8%
Reference manager	387	50,2%	376	48,9%	7	0,9%
Video/photo community platform	324	42,2%	431	56,1%	13	1,7%
Learning management system	315	44,6%	378	53,5%	13	1,9%
Chat/instant messenger	280	42,4%	369	55,7%	12	1,9%
Professional and academic SNS	297	45,3%	351	53,5%	8	1,2%
Personal organizer/schedule manager	249	40,4%	361	58,6%	7	1,1%
Social network site (SNS)	200	50,4%	191	48,2%	5	1,4%
Online text editor	146	42,6%	191	55,8%	5	1,6%
Weblog	137	40,5%	193	57%	8	2,4%
Microblog	51	42%	70	57,3%	1	0,7%
Social bookmarking service	29	44,3%	37	55,7%	0	0%

Table 18: Professional usage by gender at universities

Base: Scientists at German universities who use the respective tool professionally (tab. 12) Source: Science 2.0-Survey 2014

			Research i	nstitutions	;	
	Fe	male	Ma	ale	N.	.s.
Wikipedia	289	45,2%	345	54%	5	0,8%
Mailing list	267	47,8%	284	50,9%	7	1,3%
Online archive/database	221	44,1%	273	54,5%	7	1,4%
Content sharing/cloud service	216	46%	248	52,8%	6	1,3%
Discussion forum	180	45,5%	213	53,8%	3	0,8%
Other wiki	182	41,7%	251	57,6%	3	0,7%
Videoconference/VoIP	211	42,8%	279	56,6%	3	0,6%
Reference manager	194	49,1%	198	50,1%	3	0,8%
Video/photo community platform	140	48,8%	145	50,5%	2	0,7%
Learning management system	59	49,2%	59	49,2%	2	1,7%
Chat/instant messenger	161	45,7%	189	53,7%	2	0,6%
Professional and academic SNS	159	49,2%	162	50,2%	2	0,6%
Personal organizer/schedule manager	135	44,1%	167	54,6%	4	1,3%
Social network site (SNS)	99	54,4%	83	45,6%	0	0%
Online text editor	80	43%	105	56,5%	1	0,5%
Weblog	87	44,2%	110	55,8%	0	0%
Microblog	40	50%	40	50%	0	0%
Social bookmarking service	17	40,5%	25	59,5%	0	0%

Table 19: Professional usage by gender at research institutionsBase: Scientists at research institutions who use the respective tool professionally (tab. 13)
Source: Science 2.0-Survey 2014

			Total	sample		
	Fe	male	М	ale	1	N.s.
Wikipedia	866	94,4%	1.078	94,8%	25	83,5%
Mailing list	746	81,3%	865	76,1%	24	80,1%
Online archive/database	675	73,6%	863	75,9%	22	73,8%
Content sharing/cloud service	676	73,7%	766	67,4%	19	63,1%
Discussion forum	518	56,5%	669	58,8%	15	50,5%
Other wiki	494	53,9%	734	64,6%	12	39,7%
Videoconference/VoIP	546	59,5%	728	64,1%	17	57,1%
Reference manager	581	63,3%	574	50,5%	10	33,6%
Video/photo community platform	464	50,6%	576	50,7%	15	49,4%
Learning management system	374	40,8%	437	38,4%	15	51,5%
Chat/instant messenger	441	48,1%	558	49,1%	14	48,2%
Professional and academic SNS	456	49,7%	513	45,1%	10	33,6%
Personal organizer/schedule manager	384	41,8%	528	46,4%	11	35,7%
Social network site (SNS)	299	32,6%	274	24,1%	5	18%
Online text editor	226	24,6%	296	26%	6	21,3%
Weblog	224	24,5%	303	26,7%	8	27,6%
Microblog	91	9,9%	110	9,6%	1	2,8%
Social bookmarking service	46	5,1%	62	5,5%	0	0%

Table 20: Professional usage by gender – total sample

Base: Scientists at German universities and research institutions (Female: n=917, Male: n=1.137, N.s.: n=30) Source: Science 2.0-Survey 2014

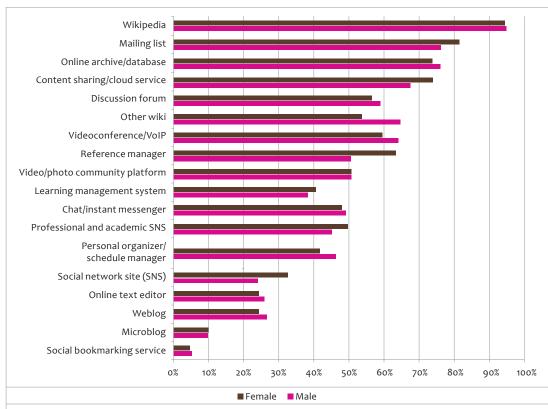


Chart 12: Professional usage by gender – total sample

Base: Scientists at German universities and research institutions (Female: n=917, Male: n=1.137) Source: Science 2.0-Survey 2014

Professional usage by age

					Univer	sities				
	20-24 years	25–29 years	30–34 years	35-39 years	40–44 years	45-49 years	50-54 years	55-59 years	6o+ years	N.s.
Wikipedia	10 0,8%	279 21%	331 24,9%	174 13,1%	94 7%	110 8,3%	119 9%	111 8,3%	80 6,1%	21 1,6%
Mailing list	8 0,7%	236 21,9%	280 26%	137 12,7%	76 7%	84 7,8%	90 8,4%	81 7,6%	63 5,9%	21 2%
Online archive/ database	8 0,7%	210 19,8%	271 25,6%	133 12,6%	81 7,7%	87 8,2%	100 9,5%	92 8,7%	59 5,6%	19 1,8%
Content sharing/ cloud service	4 0,4%	216 21,8%	250 25,2%	148 14,9%	80 8%	88 8,8%	92 9,2%	64 6,5%	34 3,4%	16 1,6%
Discussion forum	5 0,6%	192 23,8%	228 28,3%	99 12,2%	62 7,7%	54 6,7%	58 7,2%	61 7,5%	34 4,3%	14 1,7%
Other wiki	9 1,1%	175 21,8%	220 27,4%	104 12,9%	59 7,4%	62 7,7%	66 8,2%	61 7,5%	38 4,7%	11 1,3%
Videoconference/ VoIP	5 0,6%	156 19,6%	202 25,2%	115 14,3%	66 8,3%	71 8,9%	63 7,9%	66 8,3%	42 5,2%	13 1,6%
Reference manager	4 0,5%	205 26,6%	233 30,3%	104 13,6%	53 6,9%	53 6,9%	43 5,6%	44 5,7%	22 2,9%	9 1,1%
Video/photo com- munity platform	7 0,9%	153 19,9%	175 22,7%	114 14,9%	60 7,8%	68 8,8%	65 8,5%	73 9,5%	39 5,1%	15 2%
Learning manage- ment system	3 0,4%	139 19,6%	162 22,9%	92 13%	51 7,2%	67 9,5%	79 11,1%	65 9,2%	34 4,8%	17 2,4%
Chat/instant mes- senger	3 0,5%	142 21,5%	181 27,4%	98 14,8%	44 6,7%	62 9,4%	57 8,7%	39 5,9%	24 3,7%	10 1,6%
Professional and academic SNS	1 0,1%	119 18,2%	177 26,9%	90 13,7%	57 8,7%	62 9,5%	59 9%	54 8,2%	32 4,8%	6 0,9%
Personal organizer/ schedule manager	2 0,3%	95 15,4%	156 25,4%	83 13,5%	54 8,8%	74 12%	62 10%	48 7,7%	35 5,7%	8 1,4%
Social network site (SNS)	2 0,4%	77 19,4%	111 27,9%	52 13,1%	32 8,1%	39 9,7%	34 8,6%	37 9,4%	10 2,5%	4 1,1%
Online text editor	2 0,5%	76 22,2%	110 32,1%	43 12,7%	28 8,1%	26 7,6%	17 4,9%	19 5,7%	15 4,4%	6 1,8%
Weblog	1 0,2%	72 21,3%	96 28,3%	49 14,6%	28 8,4%	31 9,1%	28 8,3%	20 6%	10 3,1%	3 0,7%
Microblog	0 0%	25 20,3%	40 33,1%	18 15%	6 4,8%	13 10,7%	7 5,8%	12 9,5%	1 0,7%	0 0%
Social bookmarking service	0 0%	12 17,6%	18 27%	12 18,1%	3 5%	3 3,8%	5 8,1%	9 13%	4 6,1%	1 1,3%

Table 21: Professional usage by age at universitiesBase: Scientists at German universities who use the respective tool professionally (tab. 12)
Source: Science 2.0-Survey 2014

					Research ins	stitutions				
	20–24 years	25–29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years	60+ years	N.s.
Wikipedia	3 0,5%	137 21,4%	161 25,2%	114 17,8%	60 9,4%	44 6,9%	45 7%	28 4,4%	41 6,4%	6 0,9%
Mailing list	3 0,5%	119 21,3%	149 26,7%	96 17,2%	53 9,5%	38 6,8%	39 7%	25 4,5%	26 4,7%	10 1,8%
Online archive/ database	3 0,6%	94 18,8%	123 24,6%	92 18,4%	51 10,2%	36 7,2%	37 7,4%	20 4%	36 7,2%	9 1,8%
Content sharing/ cloud service	3 0,6%	107 22,8%	123 26,2%	94 20%	46 9,8%	25 5,3%	31 6,6%	16 3,4%	18 3,8%	7 1,5%
Discussion forum	3 0,8%	86 21,7%	104 26,3%	78 19,7%	35 8,8%	19 4,8%	28 7,1%	15 3,8%	22 5,6%	6 1,5%
Other wiki	3 0,7%	83 19%	110 25,2%	83 19%	42 9,6%	28 6,4%	30 6,9%	24 5,5%	29 6,7%	4 0,9%
Videoconference/ VoIP	2 0,4%	88 17,8%	128 26%	101 20,5%	45 9,1%	34 6,9%	35 7,1%	24 4,9%	30 6,1%	6 1,2%
Reference manager	2 0,5%	101 25,6%	124 31,4%	76 19,2%	28 7,1%	12 3%	24 6,1%	10 2,5%	14 3,5%	4 1%
Video/photo com- munity platform	1 0,3%	68 23,7%	76 26,5%	57 19,9%	28 9,8%	17 5,9%	13 4,5%	11 3,8%	12 4,2%	4 1,4%
Learning manage- ment system	0 0%	27 22,5%	28 23,3%	34 28,3%	11 9,2%	4 3,3%	7 5,8%	5 4,2%	1 0,8%	3 2,5%
Chat/instant mes- senger	1 0,3%	80 22,7%	101 28,7%	74 21%	33 9,4%	15 4,3%	23 6,5%	12 3,4%	9 2,6%	4 1,1%
Professional and academic SNS	0 0%	59 18,3%	86 26,6%	68 21,1%	32 9,9%	16 5%	25 7,7%	14 4,3%	20 6,2%	3 0,9%
Personal organizer/ schedule manager	2 0,7%	52 17%	75 24,5%	61 19,9%	30 9,8%	20 6,5%	29 9,5%	14 4,6%	15 4,9%	8 2,6%
Social network site (SNS)	1 0,5%	46 25,3%	58 31,9%	38 20,9%	14 7,7%	5 2,7%	7 3,8%	5 2,7%	7 3,8%	1 0,5%
Online text editor	2 1,1%	38 20,4%	60 32,3%	41 22%	18 9,7%	5 2,7%	8 4,3%	4 2,2%	5 2,7%	5 2,7%
Weblog	2 1%	39 19,8%	54 27,4%	49 24,9%	18 9,1%	7 3,6%	13 6,6%	6 3%	8 4,1%	1 0,5%
Microblog	1 1,3%	17 21,3%	21 26,3%	18 22,5%	10 12,5%	1 1,3%	6 7,5%	3 3,8%	1 1,3%	2 2,5%
Social bookmarking service	0 0%	6 14,3%	11 26,2%	11 26,2%	5 11,9%	3 7,1%	1 2,4%	2 4,8%	2 4,8%	1 2,4%

Table 22: Professional usage by age at research institutionsBase: Scientists at research institutions who use the respective tool professionally (tab. 13)
Source: Science 2.0-Survey 2014

	Total sample									
	20–24 years	25–29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years	60+ years	N.s.
Wikipedia	13 100%	416 95,5%	492 94,2%	288 94,6%	154 94,3%	154 86,1%	164 91,8%	139 99,1%	121 97,2%	27 75,6%
Mailing list	11 80,7%	355 81,5%	429 82,1%	233 76,6%	129 79%	122 68,4%	129 72,2%	106 76%	89 71,4%	31 86,7%
Online archive/ database	11 80,7%	304 69,6%	394 75,5%	225 74,1%	132 81,1%	123 68,5%	137 76,7%	112 79,8%	95 76,3%	28 77%
Content sharing/ cloud service	7 55,1%	323 74%	373 71,5%	242 79,6%	126 77,2%	113 63%	123 68,5%	80 57,5%	52 41,7%	23 63,4%
Discussion forum	8 61,5%	278 63,8%	332 63,6%	177 58,1%	97 59,8%	73 40,6%	86 48%	76 54%	56 45,1%	20 54,7%
Other wiki	12 93,6%	258 59,2%	330 63,3%	187 61,4%	101 62,1%	90 50,1%	96 53,6%	85 60,5%	67 53,2%	15 41,1%
Videoconference/ VoIP	7 53,8%	244 56,1%	330 63,1%	216 70,9%	111 68,2%	105 58,7%	98 54,8%	90 64,4%	72 57,3%	19 52,6%
Reference manager	6 47,4%	306 70,1%	357 68,5%	180 59,4%	81 49,6%	65 36,3%	67 37,4%	54 38,5%	36 28,8%	13 35,4%
Video/photo com- munity platform	8 59%	221 50,7%	251 48%	171 56,3%	88 53,9%	85 47,3%	78 43,6%	84 59,8%	51 40,8%	19 52,8%
Learning manage- ment system	3 19,3%	166 38%	190 36,3%	126 41,4%	62 37,8%	71 39,6%	86 47,8%	70 49,9%	35 28%	20 55,7%
Chat/instant mes- senger	4 33,3%	222 51%	282 54%	172 56,5%	77 47,3%	77 43%	80 45%	51 36,3%	33 26,8%	14 40%
Professional and academic SNS	1 6,4%	178 40,9%	263 50,3%	158 51,9%	89 54,5%	78 43 , 8%	84 47,1%	68 48,6%	52 41,3%	9 24,6%
Personal organizer/ schedule manager	4 28,2%	147 33,7%	231 44,3%	144 47,4%	84 51,6%	94 52,3%	91 50,8%	62 43,9%	50 39,9%	16 45,5%
Social network site (SNS)	3 20,5%	123 28,2%	169 32,3%	90 29,6%	46 28,2%	44 24,4%	41 22,9%	42 30,1%	17 13,4%	5 14,4%
Online text editor	4 28,2%	114 26,1%	170 32,5%	84 27,7%	46 27,9%	31 17,4%	25 13,8%	23 16,8%	20 16,1%	11 31,2%
Weblog	3 21,7%	111 25,5%	150 28,7%	98 32,4%	46 28,4%	38 21,1%	41 22,9%	26 18,8%	18 14,7%	4 9,8%
Microblog	1 7,7%	42 9,5%	61 11,7%	36 11,9%	16 9,7%	14 7,8%	13 7,3%	15 10,4%	2 1,5%	2 5,6%
Social bookmarking service	0 0%	18 4,1%	29 5,5%	23 7,6%	8 5,1%	6 3,1%	6 3,6%	11 7,6%	6 4,9%	2 5,1%

Table 23: Professional usage by age – total sample
Base: Scientists at German universities and research institutions (20–24: n=13, 25–29: n=436, 30–34: n=522, 35–39, n=304, 40–44: n=163, 45–49: n=164, 50–54: n=179, 55–59: n=140, 60+: n=125, N.s.: n=36)
Source: Science 2.0-Survey 2014

Professional usage by subject group

					Unive	ersities				
	Agriculture and food			medicine/ sciences		eering nces		humanities ducation	А	rts
Wikipedia	37	2,8%	67	5,1%	277	20,8%	233	17,5%	53	4%
Mailing list	22	2%	52	4,8%	193	18%	202	18,8%	41	3,8%
Online archive/database	24	2,3%	52	4,9%	213	20,1%	213	20,1%	42	3,9%
Content sharing/cloud service	25	2,5%	47	4,8%	184	18,5%	191	19,3%	47	4,7%
Discussion forum	14	1,8%	33	4%	171	21,2%	129	16%	31	3,9%
Other wiki	15	1,8%	39	4,8%	187	23,3%	122	15,2%	29	3,5%
Videoconference/VoIP	19	2,4%	33	4,1%	146	18,2%	137	17,2%	33	4,1%
Reference manager	24	3,2%	48	6,2%	128	16,6%	146	18,9%	20	2,6%
Video/photo community platform	17	2,2%	29	3,7%	151	19,6%	177	23%	42	5,5%
Learning management system	15	2,2%	22	3,1%	147	20,9%	169	24%	30	4,3%
Chat/instant messenger	14	2,1%	22	3,3%	96	14,5%	120	18,1%	39	5,8%
Professional and academic SNS	17	2,5%	33	5,1%	95	14,4%	118	18%	36	5,5%
Personal organizer/schedule manager	14	2,3%	31	5%	118	19,2%	128	20,8%	20	3,3%
Social network site (SNS)	9	2,3%	16	4%	37	9,4%	88	22,3%	30	7,5%
Online text editor	3	0,8%	14	4%	49	14,2%	80	23,5%	12	3,5%
Weblog	4	1,1%	9	2,7%	45	13,2%	89	26,3%	18	5,3%
Microblog	0	0%	4	3,5%	15	12,3%	27	21,8%	7	5,5%
Social bookmarking service	0	0%	2	2,5%	3	3,8%	20	29,4%	3	4,4%

Table 24: Professional usage by subject group at universitiesBase: Scientists at German universities who use the respective tool professionally (tab. 12)
Source: Science 2.0-Survey 2014

	Research institutions										
	Agriculture and food			nedicine/ sciences	E	ngine scier	eering nces	,	numanities Iucation	А	rts
Wikipedia	8	1,3%	18	2,8%	2	25	3,9%	107	16,7%	2	0,3%
Mailing list	4	0,7%	15	2,7%		17	3%	104	18,6%	2	0,4%
Online archive/database	4	0,8%	9	1,8%	:	21	4,2%	93	18,6%	2	0,4%
Content sharing/cloud service	5	1,1%	13	2,8%		17	3,6%	82	17,4%	2	0,4%
Discussion forum	5	1,3%	8	2%	1	18	4,5%	69	17,4%	2	0,5%
Other wiki	6	1,4%	6	1,4%		17	3,9%	72	16,5%	2	0,5%
Videoconference/VoIP	5	1%	15	3%	1	18	3,7%	83	16,8%	1	0,2%
Reference manager	3	0,8%	10	2,5%		15	3,8%	74	18,7%	1	0,3%
Video/photo community platform	4	1,4%	11	3,8%	1	10	3,5%	52	18,1%	1	0,3%
Learning management system	2	1,7%	1	0,8%		1	0,8%	44	36,7%	0	0%
Chat/instant messenger	4	1,1%	12	3,4%		11	3,1%	54	15,3%	1	0,3%
Professional and academic SNS	3	0,9%	11	3,4%		12	3,7%	58	18%	2	0,6%
Personal organizer/schedule manager	4	1,3%	5	1,6%		12	3,9%	65	21,2%	1	0,3%
Social network site (SNS)	1	0,5%	4	2,2%		4	2,2%	37	20,3%	0	0%
Online text editor	1	0,5%	1	0,5%		3	1,6%	34	18,3%	0	0%
Weblog	2	1%	2	1%		4	2%	37	18,8%	1	0,5%
Microblog	0	0%	0	0%		1	1,3%	18	22,5%	0	0%
Social bookmarking service	0	0%	0	0%		1	2,4%	11	26,2%	0	0%

Table 25: Professional usage by subject group at research institutions

Base: Scientists at research institutions who use the respective tool professionally (tab. 13)

Professional usage by subject group

				Unive	rsities					
	natics and sciences		ciences, nics, law	Sports	science	Veterinar	y medicine	0	ther	
416	31,3%	224	16,8%	8	0,6%	6	0,5%	8	0,6%	Wikipedia
341	31,7%	206	19,1%	7	0,6%	5	0,5%	7	0,7%	Mailing list
310	29,3%	190	17,9%	7	0,6%	4	0,4%	5	0,5%	Online archive/database
288	29%	194	19,6%	6	0,6%	5	0,5%	5	0,5%	Content sharing/cloud service
267	33,1%	154	19%	4	0,5%	1	0,1%	3	0,3%	Discussion forum
279	34,7%	129	16,1%	3	0,3%	2	0,2%	0	0%	Other wiki
254	31,8%	167	20,9%	4	0,5%	2	0,2%	5	0,6%	Videoconference/VoIP
248	32,2%	147	19,1%	3	0,3%	3	0,4%	3	0,3%	Reference manager
198	25,7%	146	19%	6	0,8%	2	0,2%	3	0,3%	Video/photo community platform
166	23,6%	145	20,6%	6	0,8%	2	0,3%	3	0,4%	Learning management system
209	31,5%	154	23,2%	3	0,5%	2	0,3%	4	0,6%	Chat/instant messenger
192	29,2%	155	23,7%	4	0,6%	3	0,4%	4	0,6%	Professional and academic SNS
176	28,5%	119	19,3%	3	0,5%	3	0,4%	3	0,5%	Personal organizer/schedule manager
111	27,9%	95	23,9%	3	0,8%	3	0,7%	5	1,1%	Social network site (SNS)
116	34,1%	65	19,1%	2	0,5%	0	0%	1	0,2%	Online text editor
102	30,1%	70	20,7%	2	0,5%	0	0%	1	0,2%	Weblog
35	28,8%	34	28,1%	0	0%	0	0%	0	0%	Microblog
18	26,4%	22	33,6%	0	0%	0	0%	0	0%	Social bookmarking service

				Research ins	titution	s				
	natics and sciences		ciences, nics, law	Sports so	ience	Veterinar	y medicine	0	ther	
351	54,9%	121	18,9%	0	0%	3	0,5%	4	0,6%	Wikipedia
302	54,1%	108	19,4%	0	0%	2	0,4%	4	0,7%	Mailing list
276	55,1%	91	18,2%	0	0%	2	0,4%	3	0,6%	Online archive/database
252	53,6%	94	20%	0	0%	3	0,6%	2	0,4%	Content sharing/cloud service
218	55,1%	72	18,2%	0	0%	1	0,3%	3	0,8%	Discussion forum
260	59,6%	70	16,1%	0	0%	2	0,5%	1	0,2%	Other wiki
272	55,2%	94	19,1%	0	0%	2	0,4%	3	0,6%	Videoconference/VoIP
204	51,6%	88	22,3%	0	0%	0	0%	0	0%	Reference manager
149	51,9%	56	19,5%	0	0%	3	1%	1	0,3%	Video/photo community platform
40	33,3%	31	25,8%	0	0%	1	0,8%	0	0%	Learning management system
196	55,7%	70	19,9%	0	0%	2	0,6%	2	0,6%	Chat/instant messenger
165	51,1%	70	21,7%	0	0%	1	0,3%	1	0,3%	Professional and academic SNS
159	52%	55	18%	0	0%	1	0,3%	4	1,3%	Personal organizer/schedule manager
92	50,5%	42	23,1%	0	0%	1	0,5%	1	0,5%	Social network site (SNS)
98	52,7%	48	25,8%	0	0%	0	0%	1	0,5%	Online text editor
103	52,3%	46	23,4%	0	0%	1	0,5%	1	0,5%	Weblog
32	40%	28	35%	0	0%	0	0%	1	1,3%	Microblog
16	38,1%	14	33,3%	0	0%	0	0%	0	0%	Social bookmarking service

					Total :	sample				
		e, forestry I sciences	Human n health s	nedicine/ ciences	_	eering nces	,	numanities Iucation	A	Arts
Wikipedia	45	100%	85	100%	302	93,7%	340	91,9%	55	94%
Mailing list	26	57,7%	67	78,5%	210	65,4%	306	82,8%	43	73,5%
Online archive/database	28	63,2%	61	71,4%	234	72,5%	306	82,7%	44	73,8%
Content sharing/cloud service	30	66,3%	60	70,8%	201	62,3%	273	73,8%	49	82,6%
Discussion forum	19	43,1%	41	47,7%	189	58,6%	198	53,5%	33	56,6%
Other wiki	21	45,6%	45	52,6%	204	63,5%	194	52,5%	31	51,7%
Videoconference/VoIP	24	53,3%	48	56,5%	164	50,8%	220	59,5%	34	57,1%
Reference manager	27	61%	58	68,1%	143	44,3%	220	59,4%	21	36,1%
Video/photo community platform	21	46,5%	40	46,8%	161	49,9%	229	61,8%	43	72,7%
Learning management system	17	38,3%	23	26,7%	148	46,1%	213	57,7%	30	51,2%
Chat/instant messenger	18	40,1%	34	40,2%	107	33,2%	174	47%	40	67%
Professional and academic SNS	20	43,4%	44	52,1%	107	33,2%	176	47,6%	38	64,4%
Personal organizer/schedule manager	18	40,9%	36	42,1%	130	40,5%	193	52,2%	21	36,2%
Social network site (SNS)	10	22,5%	20	23,3%	41	12,9%	125	33,9%	30	50,4%
Online text editor	4	8,6%	15	17,4%	52	16%	114	30,9%	12	20,4%
Weblog	6	12,7%	11	13,2%	49	15,1%	126	34,1%	19	31,9%
Microblog	О	0%	4	4,9%	16	5%	45	12%	7	11,2%
Social bookmarking service	О	0%	2	2%	4	1,1%	31	8,3%	3	4,9%

Table 26: Professional usage by subject group – total sample
Base: Scientists at German universities and research institutions (Agriculture, forestry and food sciences: n=45, Medicine/health sciences: n=85, Engineering: n=322, Culture, humanities and education, n=370, Arts: n=59, Mathematics and natural sciences: n=793, Social sciences, economics, law: n=380, Sports science: n=8, Veterinary medicine: n=9, Other: n=12) Source: Science 2.0-Survey 2014

				Total s	ample					
	natics and sciences		ciences, nics, law	Sports	science	Veterina	ry medicine	0	ther	
767	96,8%	345	90,8%	8	94,2%	9	100%	12	99,2%	Wikipedia
643	81,1%	314	82,5%	7	83,7%	7	82,1%	11	92,2%	Mailing list
586	73,9%	281	73,9%	7	83,7%	6	68,7%	8	69,9%	Online archive/database
540	68,1%	288	75,9%	6	73,2%	8	84%	7	61,6%	Content sharing/cloud service
485	61,2%	226	59,3%	4	52,3%	2	20,4%	6	45,9%	Discussion forum
539	68%	199	52,5%	3	31,4%	4	40,8%	1	8,3%	Other wiki
526	66,3%	261	68,7%	4	52,3%	4	40,8%	8	63%	Videoconference/VoIP
452	57%	235	61,9%	3	31,4%	3	37,2%	3	20,9%	Reference manager
347	43,7%	202	53,1%	6	73,2%	5	51,9%	4	29,3%	Video/photo community platform
206	26%	176	46,4%	6	73,2%	3	33,8%	3	20,9%	Learning management system
405	51%	224	58,8%	3	41,9%	4	40,8%	6	47,7%	Chat/instant messenger
357	45%	225	59,3%	4	52,3%	4	39%	5	39,3%	Professional and academic SNS
335	42,2%	174	45,8%	3	41,9%	4	39%	7	61,2%	Personal organizer/schedule manager
203	25,5%	137	36%	3	41,9%	4	43,1%	6	46,3%	Social network site (SNS)
214	27%	113	29,8%	2	20,9%	0	0%	2	15,3%	Online text editor
205	25,8%	116	30,5%	2	20,9%	1	11,1%	2	15,3%	Weblog
67	8,4%	62	16,3%	0	0%	0	0%	1	8,3%	Microblog
34	4,2%	36	9,6%	0	0%	0	0%	0	0%	Social bookmarking service

Professional usage by position

	Universities									
	Academic	councillor	Doctora	l student		tudent and associate	Pos	stdoc	Private	lecturer
Wikipedia	26	2%	64	4,8%	297	22,3%	85	6,4%	34	2,5%
Mailing list	23	2,1%	51	4,7%	252	23,4%	76	7,1%	24	2,2%
Online archive/database	23	2,1%	48	4,6%	240	22,7%	68	6,4%	21	2%
Content sharing/cloud service	17	1,7%	50	5,1%	229	23%	73	7,4%	21	2,1%
Discussion forum	17	2,1%	42	5,2%	202	25,1%	57	7,1%	17	2,1%
Other wiki	14	1,8%	40	5%	200	24,8%	48	6%	24	3%
Videoconference/VoIP	11	1,4%	32	4%	170	21,2%	64	8,1%	18	2,3%
Reference manager	11	1,4%	44	5,7%	241	31,3%	58	7,6%	12	1,6%
Video/photo community platform	18	2,3%	37	4,9%	153	19,9%	39	5,1%	22	2,8%
Learning management system	16	2,3%	17	2,4%	151	21,4%	28	3,9%	13	1,9%
Chat/instant messenger	8	1,1%	36	5,4%	148	22,4%	51	7,6%	19	2,8%
Professional and academic SNS	10	1,5%	26	3,9%	138	21%	54	8,3%	23	3,5%
Personal organizer/ schedule manager	11	1,8%	22	3,6%	119	19,3%	36	5,9%	16	2,6%
Social network site (SNS)	8	2,1%	22	5,5%	95	24%	20	5,1%	16	3,9%
Online text editor	6	1,7%	20	5,8%	83	24,2%	23	6,7%	7	1,9%
Weblog	5	1,5%	21	6,3%	79	23,4%	23	6,9%	8	2,3%
Microblog	1	0,7%	3	2,1%	29	24,1%	8	6,2%	4	3,1%
Social bookmarking service	1	1,3%	4	5,6%	9	13,8%	8	12,6%	2	3,1%

Table 27: Professional usage by position at universitiesBase: Scientists at German universities who use the respective tool professionally (tab. 12)
Source: Science 2.0-Survey 2014

	Research institutions									
	Academic	councillor	Doctora	l student		tudent and associate	Pos	stdoc	Private	lecturer
Wikipedia	1	0,2%	77	12,1%	114	17,8%	110	17,2%	2	0,3%
Mailing list	1	0,2%	69	12,4%	102	18,3%	102	18,3%	2	0,4%
Online archive/database	0	0%	52	10,4%	86	17,2%	89	17,8%	2	0,4%
Content sharing/cloud service	1	0,2%	59	12,6%	93	19,8%	87	18,5%	2	0,4%
Discussion forum	1	0,3%	51	12,9%	78	19,7%	71	17,9%	1	0,3%
Other wiki	1	0,2%	49	11,2%	80	18,3%	80	18,3%	1	0,2%
Videoconference/VoIP	1	0,2%	44	8,9%	86	17,4%	100	20,3%	2	0,4%
Reference manager	0	0%	51	12,9%	96	24,3%	79	20%	2	0,5%
Video/photo community platform	1	0,3%	40	13,9%	60	20,9%	47	16,4%	2	0,7%
Learning management system	0	0%	12	10%	23	19,2%	20	16,7%	1	0,8%
Chat/instant messenger	0	0%	41	11,6%	73	20,7%	74	21%	2	0,6%
Professional and academic SNS	1	0,3%	29	9%	59	18,3%	64	19,8%	1	0,3%
Personal organizer/ schedule manager	1	0,3%	23	7,5%	64	20,9%	53	17,3%	2	0,7%
Social network site (SNS)	1	0,5%	24	13,2%	37	20,3%	42	23,1%	0	0%
Online text editor	0	0%	18	9,7%	44	23,7%	47	25,3%	1	0,5%
Weblog	0	0%	20	10,2%	39	19,8%	47	23,9%	0	0%
Microblog	0	0%	7	8,8%	20	25%	17	21,3%	0	0%
Social bookmarking service	0	0%	1	2,4%	11	26,2%	12	28,6%	0	0%

Table 28: Professional usage by position at research institutions

Base: Scientists at research institutions who use the respective tool professionally (tab. 13)

Professional usage by position

					Universitie							
Junior	orofessor	Pro	fessor	Research	assistant	Research	n associate	0	ther	N	l.s.	
14	1,1%	299	22,5%	22	1,7%	435	32,7%	53	4%	1	0,1%	Wikipedia
12	1,1%	232	21,6%	15	1,4%	350	32,5%	42	3,9%	0	0%	Mailing list
11	1%	254	24%	15	1,5%	347	32,7%	32	3%	1	0,1%	Online archive/database
14	1,4%	226	22,8%	11	1,1%	313	31,6%	36	3,6%	1	0,1%	Content sharing/cloud service
7	0,8%	151	18,8%	15	1,8%	269	33,4%	29	3,6%	0	0%	Discussion forum
9	1,1%	164	20,4%	15	1,9%	264	32,8%	26	3,3%	0	0%	Other wiki
13	1,7%	209	26,2%	6	0,7%	248	31,1%	27	3,4%	0	0%	Videoconference/VoIP
8	1%	121	15,7%	10	1,3%	251	32,7%	13	1,7%	0	0%	Reference manager
12	1,5%	178	23,1%	9	1,1%	265	34,5%	36	4,7%	0	0%	Video/photo community platform
10	1,4%	211	29,9%	13	1,8%	227	32,1%	20	2,8%	1	0,1%	Learning management system
11	1,6%	157	23,7%	8	1,2%	201	30,3%	25	3,8%	0	0%	Chat/instant messenger
8	1,3%	178	27,2%	5	0,8%	192	29,2%	22	3,4%	0	0%	Professional and academic SNS
8	1,2%	176	28,6%	5	0,9%	210	34,2%	12	2%	0	0%	Personal organizer/ schedule manager
5	1,3%	91	22,8%	3	0,6%	119	29,9%	19	4,8%	0	0%	Social network site (SNS)
8	2,2%	71	20,9%	7	2%	108	31,6%	10	2,9%	0	0%	Online text editor
4	1,2%	69	20,3%	5	1,3%	111	32,7%	13	3,8%	1	0,2%	Weblog
2	1,4%	30	24,5%	1	0,7%	38	31,1%	7	6,1%	0	0%	Microblog
3	3,8%	15	22,4%	1	1,3%	16	24,5%	8	11,8%	0	0%	Social bookmarking service

Research institutions												
Junior	orofessor	Prof	essor	Research	assistant	Researcl	n associate	0	ther	١	۱ . s.	
2	0,3%	19	3%	16	2,5%	268	41,9%	29	4,5%	1	0,2%	Wikipedia
3	0,5%	11	2%	13	2,3%	229	41%	25	4,5%	1	0,2%	Mailing list
2	0,4%	14	2,8%	14	2,8%	217	43,3%	24	4,8%	1	0,2%	Online archive/database
3	0,6%	15	3,2%	11	2,3%	178	37,9%	20	4,3%	1	0,2%	Content sharing/cloud service
2	0,5%	10	2,5%	11	2,8%	161	40,7%	9	2,3%	1	0,3%	Discussion forum
2	0,5%	10	2,3%	11	2,5%	182	41,7%	19	4,4%	1	0,2%	Other wiki
3	0,6%	16	3,2%	8	1,6%	208	42,2%	24	4,9%	1	0,2%	Videoconference/VoIP
1	0,3%	8	2%	11	2,8%	133	33,7%	13	3,3%	1	0,3%	Reference manager
0	0%	7	2,4%	6	2,1%	113	39,4%	11	3,8%	0	0%	Video/photo community platform
1	0,8%	5	4,2%	5	4,2%	47	39,2%	6	5%	0	0%	Learning management system
3	0,9%	12	3,4%	7	2%	123	34,9%	16	4,5%	1	0,3%	Chat/instant messenger
1	0,3%	10	3,1%	8	2,5%	137	42,4%	12	3,7%	1	0,3%	Professional and academic SNS
1	0,3%	9	2,9%	6	2%	131	42,8%	16	5,2%	0	0%	Personal organizer/ schedule manager
0	0%	4	2,2%	6	3,3%	63	34,6%	5	2,7%	0	0%	Social network site (SNS)
2	1,1%	2	1,1%	6	3,2%	60	32,3%	5	2,7%	1	0,5%	Online text editor
0	0%	3	1,5%	6	3%	78	39,6%	4	2%	0	0%	Weblog
0	0%	1	1,3%	2	2,5%	32	40%	1	1,3%	0	0%	Microblog
0	0%	1	2,4%	0	0%	17	40,5%	0	0%	0	0%	Social bookmarking service

	Academic	councillor	Doctora	l student		student and associate	Pos	stdoc	Private	e lecturer
Wikipedia	27	96,3%	141	96,4%	411	94,3%	195	93,9%	36	98,6%
Mailing list	24	84,3%	120	82,1%	354	81,1%	178	85,6%	26	72,2%
Online archive/database	23	80,7%	100	68,7%	326	74,8%	157	75,4%	23	63,2%
Content sharing/cloud service	18	63,4%	109	74,9%	322	74%	160	77%	23	63%
Discussion forum	18	63,4%	93	63,8%	280	64,3%	128	61,7%	18	50,9%
Other wiki	15	54,4%	89	61%	280	64,2%	128	61,6%	25	69,5%
Videoconference/VoIP	12	42,4%	76	51,9%	256	58,6%	164	79%	20	56%
Reference manager	11	38,9%	95	65,2%	337	77,3%	137	65,9%	14	40,2%
Video/photo community platform	19	66,4%	77	53,1%	213	48,8%	86	41,5%	24	66,3%
Learning management system	16	56,8%	29	19,9%	174	39,9%	48	22,9%	14	39,5%
Chat/instant messenger	8	26,9%	77	52,6%	221	50,7%	125	59,9%	21	57%
Professional and academic SNS	11	39,4%	55	37,6%	197	45,2%	118	56,9%	24	65,9%
Personal organizer/ schedule manager	12	42,4%	45	30,9%	183	42%	89	43%	18	49,3%
Social network site (SNS)	9	33,5%	46	31,3%	132	30,3%	62	29,9%	16	43,4%
Online text editor	6	20,9%	38	26%	127	29,1%	70	33,6%	8	21,2%
Weblog	5	17,9%	41	28,3%	118	27,1%	70	33,9%	8	21,7%
Microblog	1	3%	10	6,5%	49	11,3%	25	11,8%	4	10,4%
Social bookmarking service	1	3%	5	3,2%	20	4,6%	20	9,8%	2	5,7%

Table 29: Professional usage by position – total sample
Base: Scientists at German universities and research institutions (Academic councillor: n=28, Doctoral student: n=146, Doctoral student/
research associate: n=436, Postdoc, n=208, Private lecturer: n=36, Junior professor: n=18, Professor: n=352, Research assistant: n=41, Research associate: n=734, Other: n=83, N.s.: n=2)

					Total samp	le						
Junior	professor	Pro	fessor	Researc	h assistant	Researc	h associate	0	ther	١	l.s.	
16	90,2%	318	90,3%	38	93%	703	95,7%	82	99%	2	91,9%	Wikipedia
15	81,8%	243	69,1%	28	69,4%	579	78,9%	67	81,1%	1	50%	Mailing list
13	71,6%	268	76,1%	29	71,8%	564	76,8%	56	67,6%	2	91,9%	Online archive/database
17	95,7%	241	68,6%	22	54,3%	491	66,9%	56	67%	2	91,9%	Content sharing/cloud service
9	48,3%	161	45,8%	26	62,4%	430	58,6%	38	45,5%	1	50%	Discussion forum
11	62,3%	174	49,3%	26	64,5%	446	60,7%	45	54,5%	1	50%	Other wiki
16	91,1%	225	63,9%	14	33,8%	456	62,2%	51	61,3%	1	50%	Videoconference/VoIP
9	47,4%	129	36,7%	21	51,3%	384	52,4%	26	31,2%	1	50%	Reference manager
12	65,1%	185	52,4%	15	36%	378	51,5%	47	56,6%	0	0%	Video/photo community platform
11	61,4%	216	61,4%	18	43,7%	274	37,3%	26	31,4%	1	41,9%	Learning management system
14	77,1%	169	48,1%	15	36,4%	324	44,1%	41	49,3%	1	50%	Chat/instant messenger
9	52,1%	188	53,5%	13	31,8%	329	44,8%	34	41,1%	1	50%	Professional and academic SNS
9	47,4%	185	52,6%	11	27,8%	341	46,5%	28	33,8%	0	0%	Personal organizer/ schedule manager
5	27,9%	95	26,9%	9	20,8%	182	24,8%	24	28,9%	0	0%	Social network site (SNS)
10	53%	73	20,8%	13	31%	168	22,9%	15	18%	1	50%	Online text editor
4	23,3%	72	20,3%	11	26%	189	25,7%	17	20,3%	1	41,9%	Weblog
2	9,3%	31	8,7%	3	6,9%	70	9,5%	8	10,2%	0	0%	Microblog
3	14%	16	4,5%	1	2%	33	4,5%	8	9,5%	0	0%	Social bookmarking service

4.3 Use of online-based tools and social media applications in various areas of academic activity

In order to better understand professional usage practices, enquiries regarding the specific areas of activity in which scientists use online-based tools and social media applications are also relevant. While designing the survey, the models provided by Nentwich (2003) and Nentwich & König (2012) as well as Weller (2011) were used as a basis for the structure of academic areas of activity and were expanded and substantiated. As a result, this study differentiates between research, teaching, science administration⁸ and science communication⁹ as the central areas of academic work. In the areas of research and science communication, further in-depth questions were also asked about the use of tools for specific activities.

Context of professional usage

	Universities								
	Research		Teaching		Science administration		Science communication		N
Wikipedia	905	68%	802	60,3%	80	6%	151	11,4%	1.330
Mailing list	399	37%	388	36%	315	29,2%	577	53,6%	1.077
Online archive/database	882	83,3%	409	38,6%	69	6,5%	99	9,3%	1.059
Content sharing/cloud service	587	59,2%	371	37,4%	278	28,1%	370	37,3%	991
Discussion forum	485	60,2%	231	28,7%	65	8,1%	228	28,3%	806
Other wiki	486	60,4%	304	37,8%	144	17,9%	155	19,3%	804
Videoconference/VoIP	316	39,6%	117	14,7%	205	25,7%	440	55,1%	798
Reference manager	671	87,1%	174	22,6%	95	12,3%	84	10,9%	770
Video/photo community platform	285	37,1%	465	60,6%	30	3,9%	128	16,7%	768
Learning management system	65	9,2%	591	83,7%	77	10,9%	91	12,9%	706
Chat/instant messenger	234	35,3%	97	14,7%	156	23,6%	356	53,8%	662
Professional and academic SNS	177	26,9%	44	6,7%	94	14,3%	418	63,6%	657
Personal organizer/schedule manager	196	31,8%	168	27,3%	367	59,6%	220	35,7%	616
Social network site (SNS)	108	27,2%	90	22,7%	49	12,3%	234	58,9%	397
Online text editor	180	52,6%	101	29,5%	114	33,3%	116	33,9%	342
Weblog	182	53,7%	105	31%	15	4,4%	121	35,7%	339
Microblog	49	40,5%	23	19%	9	7,2%	68	56,2%	121
Social bookmarking service	39	58,2%	18	26,9%	8	11,9%	12	17,9%	67

Table 30: Context of professional usage at universities

Multiple answers possible.

Base: Scientists at German universities who use the respective tool professionally (see culumn N)

Science administration is understood to include the management and coordination of research projects and the procurement of external funding.

⁹ Science communication is understood to include internal and external exchange on specialist topics. In addition to interaction with colleagues, presenting research findings to the general public is also considered a key component of science communication.

				Research	h institutior	ıs			
	Res	earch	Tea	aching		cience nistration	-	ience nunication	N
Wikipedia	497	77,8%	171	26,8%	54	8,5%	120	18,8%	639
Mailing list	250	44,8%	56	10%	190	34,1%	338	60,6%	558
Online archive/database	436	87%	68	13,6%	38	7,6%	67	13,4%	501
Content sharing/cloud service	301	64%	56	11,9%	125	26,6%	193	41,1%	470
Discussion forum	265	66,9%	34	8,6%	40	10,1%	112	28,3%	396
Other wiki	255	58,5%	44	10,1%	123	28,2%	114	26,1%	436
Videoconference/VoIP	197	40%	21	4,3%	155	31,4%	279	56,6%	493
Reference manager	345	87,3%	34	8,6%	51	12,9%	47	11,9%	395
Video/photo community platform	144	50,2%	59	20,6%	16	5,6%	79	27,5%	287
Learning management system	20	16,7%	77	64,2%	8	6,7%	8	6,7%	120
Chat/instant messenger	139	39,5%	21	6%	100	28,4%	196	55,7%	352
Professional and academic SNS	102	31,6%	9	2,8%	36	11,1%	209	64,7%	323
Personal organizer/schedule manager	101	33%	23	7,5%	192	62,7%	110	35,9%	306
Social network site (SNS)	63	34,6%	10	5,5%	19	10,4%	129	70,9%	182
Online text editor	112	60,2%	9	4,8%	69	37,1%	59	31,7%	186
Weblog	125	63,5%	15	7,6%	12	6,1%	86	43,7%	197
Microblog	38	47,5%	4	5%	6	7,5%	53	66,3%	80
Social bookmarking service	24	57,1%	5	11,9%	9	21,4%	12	28,6%	42

Table 31: Context of professional usage at research institutions

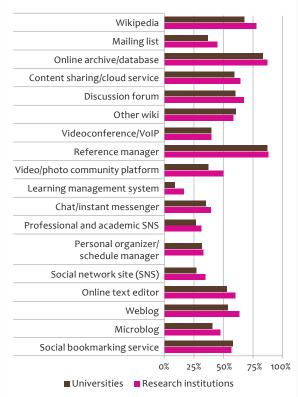
Multiple answers possible.

Base: Scientists at research institutions who use the respective tool professionally (see culumn N)

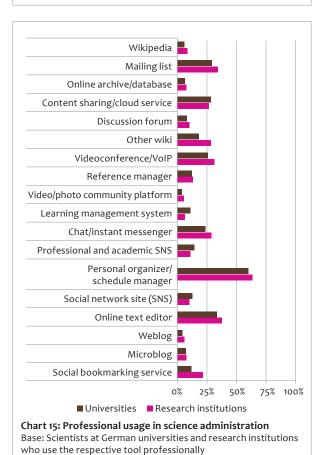
Source: Science 2.0-Survey 2014

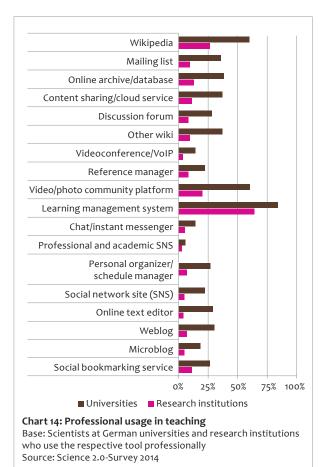
					Total samp	ole			
	Res	earch	Tea	aching		cience nistration		cience nunication	N
Wikipedia	1.402	71,2%	973	49,4%	134	6,8%	271	13,8%	1.969
Mailing list	649	39,7%	444	27,2%	505	30,9%	915	56%	1.635
Online archive/database	1.318	84,5%	477	30,6%	107	6,9%	166	10,6%	1.560
Content sharing/cloud service	888	60,8%	427	29,2%	403	27,6%	563	38,5%	1.461
Discussion forum	750	62,4%	265	22%	105	8,7%	340	28,3%	1.202
Other wiki	741	59,7%	348	28,1%	267	21,5%	269	21,7%	1.240
Videoconference/VoIP	513	39,7%	138	10,7%	360	27,9%	719	55,7%	1.291
Reference manager	1.016	87,2%	208	17,9%	146	12,5%	131	11,2%	1.165
Video/photo community platform	429	40,7%	524	49,7%	46	4,4%	207	19,6%	1.055
Learning management system	85	10,3%	668	80,8%	85	10,3%	99	12%	826
Chat/instant messenger	373	36,8%	118	11,6%	256	25,3%	552	54,5%	1.014
Professional and academic SNS	279	28,5%	53	5,4%	130	13,3%	627	64%	980
Personal organizer/schedule manager	297	32,2%	191	20,7%	559	60,6%	330	35,8%	922
Social network site (SNS)	171	29,5%	100	17,3%	68	11,7%	363	62,7%	579
Online text editor	292	55,3%	110	20,8%	183	34,7%	175	33,2%	528
Weblog	307	57,3%	120	22,4%	27	5%	207	38,6%	536
Microblog	87	43,2%	27	13,4%	15	7,3%	121	60,1%	201
Social bookmarking service	63	58,1%	23	21,2%	17	15,7%	24	22,1%	109

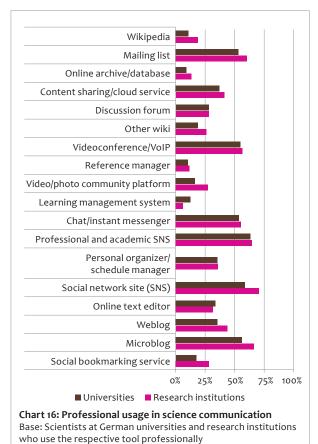
Table 32: Context of professional usage – total sample
Multiple answers possible.
Base: Scientists at German universities and research institutions who use the respective tool professionally (see culumn N) Source: Science 2.0-Survey 2014











Source: Science 2.0-Survey 2014

Source: Science 2.0-Survey 2014

4.3.1 Use of online-based tools and social media applications in research

The use of online-based tools is generally most prevalent in the field of research. In particular, the top tools used for research by scientists at German universities (table 30) are research tools such as online archives/databases (used by 83% of professional users), Wikipedia (68%) and discussion forums (60%) as well as tools for the organisation and administration of knowledge and information, such as reference managers (87%), wikis (60%) and content sharing/cloud services (60%). Despite their overall usage rates being significantly lower, weblogs (54%) and online text editors (53%) are primarily used by their users for research purposes, while SNS (27%) and learning management systems (9%) are less relevant to research activities. A similar picture emerged among the research institutions sample, even though the proportion of users utilising each tool for research purposes was almost consistently several percentage points higher in this sample (table 31).

With regard to all respondents in the total sample, Wikipedia (67% usage rate) and online archives/databases (63%) play a particularly central role in research, followed by reference managers (49%), content sharing/cloud services (43%), discussion forums (36%), wikis (36%) and mailing lists (31%). Usage rates were less than 25 per cent for all other tools.

Scientists who use online-based tools for research purposes were also asked about the specific research-related activities for which they use each tool (table 35). The responses to these questions showed that online-based tools are most widely used for research activities. Ten of the 18 tools were used for this purpose by at least half of all scientists using the tools in a research context. The most popular applications in this regard are Wikipedia (92%), online archives/databases (91%), discussion forums (85%) and weblogs (81%). For the exchange of data and materials, scientists most commonly use tools such as content sharing/cloud services (87%), online text editors (59%), mailing lists (40%) and learning management systems (39%) as well as turning to professional and academic SNS (35%). The most relevant online-based tools for data collection and evaluation are reference managers (27%). Although scientists primarily use videoconferences/VoIP (91%), chats/instant messengers (84%) and mailing lists (70%) to exchange information and for communication in a research context, social media applications such as professional and academic SNS (84%), other SNS (64%), online text editors (42%) and microblogs (40%) are also used for this purpose. Although 34 per cent of users of personal organizers/schedule managers also use these tools for communication purposes and to exchange information relating to research activities, the majority of users of personal organizer/schedule managers (85%) primarily use them to coordinate and organise working processes. Other methods frequently used to coordinate research processes are videoconferences/VoIP (63%) and chats/instant messengers (63%). Almost half of scientists (48%) who use online-based tools in a research context also rely on mailing lists for coordination purposes. There is generally no marked difference in usage between scientists from universities and those from research institutions.

Online-based tools are thus widely used for research activities in particular. As a result, it can be observed that relatively steady usage patterns have already emerged and that specific tools such as Wikipedia or online archives/databases have already established their place in everyday scientific research. While these two tools are primarily used for research purposes, the coordination of work processes and exchange of information are generally carried out by means of videoconferences/VoIP and chats/instant messengers. Scientists prefer to exchange materials and data via content sharing/cloud services or online text editors. The influence of online-based tools on academia is particularly clear in the exchange of data and materials and recourse to browser-based technologies such as Etherpad. These tools enable work to be carried out simultaneously by several different authors. As a result, potential further questions might also be asked about the type of texts produced by online-based tools such as online text editors in order to better understand the effects of online-based tools on scientific work.

Use of online tools in research

						Univer	sities						
	organi	ation and zation of rocesses	and exc	unication thange of mation		ollection aluation	data	inge of a and erials	Res	earch	Ot	ther	N
Wikipedia	7	0,8%	23	2,5%	87	9,6%	27	3%	841	92,9%	64	7,1%	905
Mailing list	193	48,4%	269	67,4%	26	6,5%	155	38,8%	99	24,8%	33	8,3%	399
Online archive/database	8	0,9%	20	2,3%	157	17,8%	52	5,9%	807	91,5%	33	3,7%	882
Content sharing/cloud service	123	21%	210	35,8%	85	14,5%	515	87,7%	42	7,2%	37	6,3%	587
Discussion forum	15	3,1%	82	16,9%	34	7%	54	11,1%	420	86,6%	33	6,8%	485
Other wiki	67	13,8%	90	18,5%	44	9,1%	100	20,6%	379	78%	45	9,3%	486
Videoconference/VoIP	198	62,7%	288	91,1%	34	10,8%	77	24,4%	18	5,7%	12	3,8%	316
Reference manager	54	8%	49	7,3%	197	29,4%	133	19,8%	406	60,5%	159	23,7%	671
Video/photo community platform	3	1,1%	29	10,2%	30	10,5%	26	9,1%	232	81,4%	48	16,8%	285
Learning management system	21	32,3%	16	24,6%	12	18,5%	25	38,5%	20	30,8%	9	13,8%	65
Chat/instant messenger	145	62%	202	86,3%	15	6,4%	72	30,8%	13	5,6%	15	6,4%	234
Professional and academic SNS	10	5,6%	88	49,7%	16	9%	66	37,3%	100	56,5%	44	24,9%	177
Personal organizer/ schedule manager	163	83,2%	68	34,7%	3	1,5%	5	2,6%	2	1%	7	3,6%	196
Social network site (SNS)	32	29,6%	74	68,5%	18	16,7%	31	28,7%	48	44,4%	16	14,8%	108
Online text editor	60	33,3%	71	39,4%	30	16,7%	98	54,4%	28	15,6%	21	11,7%	180
Weblog	3	1,6%	34	18,7%	14	7,7%	18	9,9%	146	80,2%	15	8,2%	182
Microblog	5	10,2%	22	44,9%	6	12,2%	9	18,4%	37	75,5%	10	20,4%	49
Social bookmarking service	2	5,1%	1	2,6%	6	15,4%	5	12,8%	22	56,4%	5	12,8%	39

Table 33: Use of online tools in research at universities

Multiple answers possible.

Base: Scientists at German universities who use the respective tool in research (see column N) | Source: Science 2.0-Survey 2014

					R	esearch ir	nstitution	ıs					
	organi	ation and zation of rocesses	and exc	unication hange of mation		ollection	data	nge of and erials	Res	earch	0	ther	N
Wikipedia	4	0,8%	10	2%	56	11,3%	15	3%	452	90,9%	52	10,5%	497
Mailing list	117	46,8%	182	72,8%	25	10%	106	42,4%	66	26,4%	23	9,2%	250
Online archive/database	1	0,2%	17	3,9%	81	18,6%	44	10,1%	387	88,8%	14	3,2%	436
Content sharing/cloud service	52	17,3%	108	35,9%	49	16,3%	259	86%	22	7,3%	21	7%	301
Discussion forum	8	3%	34	12,8%	23	8,7%	19	7,2%	215	81,1%	29	10,9%	265
Other wiki	44	17,3%	75	29,4%	32	12,5%	77	30,2%	169	66,3%	23	9%	255
Videoconference/VoIP	125	63,5%	179	90,9%	21	10,7%	42	21,3%	18	9,1%	11	5,6%	197
Reference manager	26	7,5%	23	6,7%	80	23,2%	51	14,8%	218	63,2%	85	24,6%	345
Video/photo community platform	2	1,4%	11	7,6%	12	8,3%	11	7,6%	109	75,7%	33	22,9%	144
Learning management system	1	5%	7	35%	2	10%	8	40%	5	25%	6	30%	20
Chat/instant messenger	88	63,3%	111	79,9%	13	9,4%	33	23,7%	11	7,9%	12	8,6%	139
Professional and academic SNS	6	5,9%	47	46,1%	9	8,8%	32	31,4%	66	64,7%	23	22,5%	102
Personal organizer/ schedule manager	90	89,1%	34	33,7%	1	1%	4	4%	2	2%	7	6,9%	101
Social network site (SNS)	14	22,2%	36	57,1%	13	20,6%	20	31,7%	24	38,1%	11	17,5%	63
Online text editor	34	30,4%	51	45,5%	22	19,6%	73	65,2%	9	8%	13	11,6%	112
Weblog	4	3,2%	21	16,8%	11	8,8%	17	13,6%	101	80,8%	12	9,6%	125
Microblog	1	2,6%	12	31,6%	6	15,8%	7	18,4%	21	55,3%	8	21,1%	38
Social bookmarking service	2	8,3%	3	12,5%	4	16,7%	7	29,2%	17	70,8%	5	20,8%	24

Table 34: Use of online tools in research at research institutions

Multiple answers possible.

Base: Scientists at research institutions who use the respective tool in research (see column N) | Source: Science 2.0-Survey 2014

						Total s	ample						
	organiz	ation and zation of rocesses	and exc	inication hange of mation		ollection aluation	data	nge of a and erials	Res	earch	01	ther	N
Wikipedia	11	0,8%	33	2,4%	143	10,2%	42	3%	1.293	92,2%	116	8,3%	1.402
Mailing list	310	47,8%	451	69,5%	51	7,9%	261	40,2%	165	25,4%	56	8,6%	649
Online archive/database	9	0,7%	37	2,8%	238	18,1%	96	7,3%	1.194	90,6%	47	3,6%	1.318
Content sharing/cloud service	175	19,7%	318	35,8%	134	15,1%	774	87,2%	64	7,2%	58	6,5%	888
Discussion forum	23	3,1%	116	15,5%	57	7,6%	73	9,7%	635	84,7%	62	8,3%	750
Other wiki	111	15%	165	22,3%	76	10,3%	177	23,9%	548	74%	68	9,2%	741
Videoconference/VoIP	323	63%	467	91%	55	10,7%	119	23,2%	36	7%	23	4,5%	513
Reference manager	80	7,9%	72	7,1%	277	27,3%	184	18,1%	624	61,4%	244	24%	1016
Video/photo community platform	5	1,2%	40	9,3%	42	9,8%	37	8,6%	341	79,5%	81	18,9%	429
Learning management system	22	25,9%	23	27,1%	14	16,5%	33	38,8%	25	29,4%	15	17,6%	85
Chat/instant messenger	233	62,5%	313	83,9%	28	7,5%	105	28,2%	24	6,4%	27	7,2%	373
Professional and academic SNS	16	5,7%	135	48,4%	25	9%	98	35,1%	166	59,5%	67	24%	279
Personal organizer/ schedule manager	253	85,2%	102	34,3%	4	1,3%	9	3%	4	1,3%	14	4,7%	297
Social network site (SNS)	46	26,9%	110	64,3%	31	18,1%	51	29,8%	72	42,1%	27	15,8%	171
Online text editor	94	32,2%	122	41,8%	52	17,8%	171	58,6%	37	12,7%	34	11,6%	292
Weblog	7	2,3%	55	17,9%	25	8,1%	35	11,4%	247	80,5%	27	8,8%	307
Microblog	6	6,9%	34	39,1%	12	13,8%	16	18,4%	58	66,7%	18	20,7%	87
Social bookmarking service	4	6,3%	4	6,3%	10	15,9%	12	19%	39	61,9%	10	15,9%	63

Table 35: Use of online tools in research – total sample
Multiple answers possible.
Base: Scientists at German universities and research institutions who use the respective tool in research (see column N)
Source: Science 2.0-Survey 2014

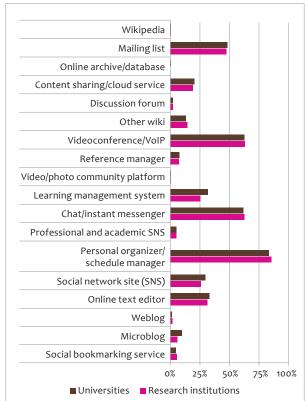
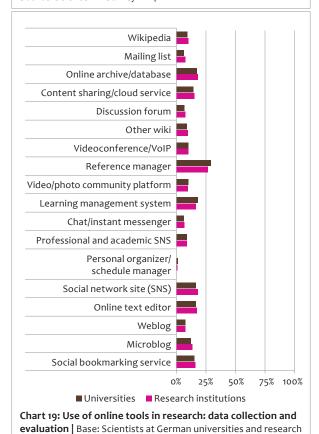


Chart 17: Use of online tools in research: organization of work

Base: Scientists at German universities and research institutions who use the respective tool in research Source: Science 2.0-Survey 2014



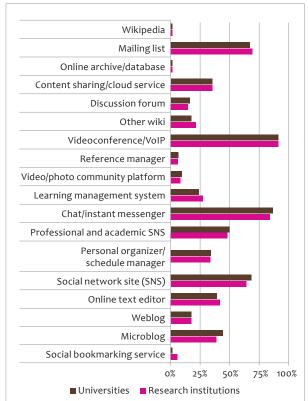


Chart 18: Use of online tools in research: communication and exchange of information

Base: Scientists at German universities and research institutions who use the respective tool in research Source: Science 2.0-Survey 2014

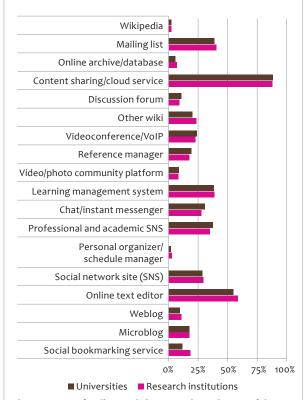
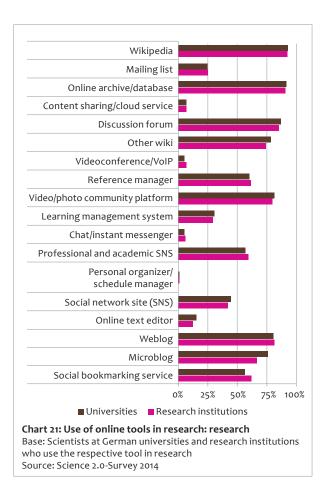


Chart 20: Use of online tools in research: exchange of data and materials | Base: Scientists at German universities and research institutions who use the respective tool in research Source: Science 2.0-Survey 2014

Source: Science 2.0-Survey 2014

institutions who use the respective tool in research



4.3.2 Use of online-based tools and social media applications in teaching

Online-based tools are generally used to a lesser extent for teaching purposes than for research purposes, while clear differences can also be seen in the work structures of universities and research institutions. In 2014, scientists at universities primarily used Wikipedia (57%), learning management systems (42%), video/photo communities (33%), online archives/databases (29%) and content sharing/cloud services (26%) to support their teaching. Social media applications such as professional and academic SNS, microblogs and weblogs play only a marginal role in teaching, with no more than eight per cent of scientists using these tools for this purpose. Tools far more commonly used by scientists in this context include mailing lists (27%), online archives/databases (29%), content sharing/cloud services (26%) and wikis (21%). As a result, the tools primarily used in teaching are research-oriented, as well as tools enabling the exchange and sharing of data and information.

Looking specifically at university scientists who use these online-based tools in any kind of professional context (table 30), it is also clear that social media applications are of great importance to this group. Just as in the field of research, it can be observed that at least one-fifth of scientists used these tools for teaching purposes in this case, with weblogs used for teaching purposes by 31 per cent of the scientists who use this tool. Although online text editors (30%) and personal organizers/schedule managers (27%) are also used far more intensively for teaching purposes, three tools and applications are used in teaching by more than half of the scientists who use them in a professional context: Wikipedia (60%), video/photo communities (61%) and learning management systems (84%). In contrast, professional and academic SNS, chats/instant messengers and videoconferences/VoIP are less relevant for use in teaching and are deployed for this purpose by just seven or 15 per cent of scientists who use the tools professionally.

As scientists at research institutions rarely teach, the use of tools in this context is correspondingly low compared with their counterparts at universities. Usage rates for Wikipedia only amount to one quarter (26%) when taking into account all respondents in this group. Learning management systems are used by 64 per cent of respondents who use the tool in a professional context.

4.3.3 Use of online-based tools and social media applications in science administration

Online-based tools and social media applications are generally used least often for science administration purposes. In this context, tools that can be used to coordinate appointments, exchange information and data or build up knowledge databases play a particularly prominent role. The tools most frequently mentioned by the scientists surveyed for science administration tasks were personal organizers/schedule managers (27%), mailing lists (24%), content sharing/cloud services (19%) and videoconferences/VoIP (17%).

When considering the group of scientists who use these online-based tools in any kind of professional context (table 32), 61 per cent use personal organizers/schedule managers for administrative tasks. Furthermore, online text editors are used by 35 per cent, mailing lists by 31 per cent, content sharing/cloud services as well as videoconferences/VoIP by 28 per cent each and chats/instant messengers by 25 per cent of the scientists surveyed. A comparison of universities and research institutions shows that wikis (18% vs. 28%), chats/instant messengers (24% vs. 28%), videoconferences/VoIP (26% vs. 31%), personal organizers/schedule managers (60% vs. 63%), online text editors (22% vs. 37%) and mailing lists (29% vs. 43%) are more intensively used by research institutions.

4.3.4 Use of online-based tools and social media applications in science communication

In general, mailing lists (44%) top the list of the most popular tools used for (internal or external) science communication purposes, followed by videoconferences/VoIP (34%), professional and academic SNS (30%), content sharing/cloud services (27%) and chats/instant messengers (27%). Social media applications such as weblogs (10%) and microblogs (6%) are generally less often used for purposes of science communication.

However, looking only at the users of the respective tools in a professional context, we see that social media applications are used to a significant extent for science communication purposes (table 32), with professional and academic SNS (64%), other SNS (63%) and microblogs (60%) all proving popular for science communication among this sub-sample. When comparing experiences at universities and research institutions, it is also apparent that these social media applications are often used far more frequently at research institutions – a difference that is particularly apparent in the use of SNS (59% vs. 71%) and microblogs (56% vs. 66%).

In addition, and much as in the area of research activities, more in-depth questions were asked regarding specific activities within a science communication context (table 38). A majority of those surveyed use online-based tools for internal science communication and/or interaction with colleagues. The tools most commonly utilised here were videoconferences/VoIP (92%), chats/instant messengers (90%) and content sharing/cloud services (82%), although SNS (73%) and mailing lists (73%) also play a significant role when it comes to interaction with colleagues. Another area in which online-based tools are frequently used is the gathering of information for a scientist's own field of work. Although classical research tools such as online archives/databases (84%), Wikipedia (77%) and discussion forums (72%) tend to dominate here, wikis (60%), video/photo communities (54%), weblogs (59%) and microblogs (54%) also have a role to play. Up to now, documenting one's own work seems to have primarily taken place within the context of internal science communication, with reference managers (60%), online text editors (47%), wikis (37%) and content sharing/cloud services (34%) as the main tools of choice here; 27 per cent of respondents also use professional and academic SNS and weblogs for this purpose. Meanwhile, online-based tools appear to play virtually no role when it comes to personal presentation, with SNS, professional and academic SNS as well as microblogs being favoured in this area of science communication by 44 per cent, 67 per cent and 34 per cent of respondents respectively. This shows that, while there is still potential for development in this area, social media applications are clearly the method of choice for presenting oneself in an academic context. Although important events and references are still primarily disseminated via mailing lists (55%), personal organizers/schedule managers have now emerged as a similarly popular tool for this purpose. In addition, almost half of SNS users (46%) use these applications to publicising important events, although this figure drops to just eight per cent when taking into account the entire population of scientists surveyed.

It is interesting to note that general SNS are used more frequently for presenting information to the public and publicising events than specialised professional and academic SNS. Further enquiries must therefore be made into the functions fulfilled by different SNS, the kind of connections that originate from the different SNS and the functions that emerge for internal or external networking. Different usage patterns for SNS and professional or academic SNS can be observed based on the data collected. SNS are more frequently used for external science communication, i.e. primarily for presenting information to the public, while professional and academic SNS primarily facilitate networking and interaction with colleagues, personal presentation and the acquisition of information for one's own field of work. In addition to social media applications such as microblogs (55%), weblogs (59%) or video/photo communities (54%), online archives/databases (84%), discussion forums (72%) and Wikipedia (77%) are also particularly relevant for the latter purposes. Social media channels such as microblogs (59%), SNS (46%) and weblogs (39%) are most intensively used by users in the field of external science communication when it comes to presenting content to the public.

There are only occasional clear differences between universities and research institutions in their use of online-based tools for science communication (table 36/37). Scientists at German universities more commonly use tools such as reference managers (68% vs. 47%) or online text editors (53% vs. 37%) to document their work, while research institution respondents are more likely to use wikis (31% vs. 45%) or professional and academic SNS (24% vs. 32%) for the same purpose. Similarly, microblogs are more frequently utilised by scientists at research institutions when it comes to presenting information to the public (55% vs. 64%), personal presentation (28% vs. 42%) or searching for information in their own field of work (49% vs. 62%). In contrast, when it comes to publicising events, university scientists are more regular users of personal organizers/schedule managers (57% vs. 50%) and SNS (49% vs. 40%) compared to their research institution counterparts.

Use of online tools in science communication

							Univ	ersities							
		essing public		inge with eagues		nentation vn work		rsonal sentation	porta	hing im- nt dates notes	info for o	hering rmation wn work area	C	ther	N
Wikipedia	16	10,6%	5	3,3%	9	6%	3	2%	4	2,6%	113	74,8%	30	19,9%	151
Mailing list	133	23,1%	415	71,9%	35	6,1%	13	2,3%	315	54,6%	180	31,2%	39	6,8%	577
Online archive/database	10	10,1%	15	15,2%	24	24,2%	3	3%	4	4%	80	80,8%	8	8,1%	99
Content sharing/cloud service	6	1,6%	302	81,6%	132	35,7%	3	0,8%	50	13,5%	56	15,1%	41	11,1%	370
Discussion forum	28	12,3%	80	35,1%	15	6,6%	14	6,1%	35	15,4%	157	68,9%	27	11,8%	228
Other wiki	12	7,7%	78	50,3%	48	31%	5	3,2%	31	20%	87	56,1%	17	11%	155
Videoconference/VoIP	19	4,3%	398	90,5%	10	2,3%	9	2%	66	15%	50	11,4%	37	8,4%	440
Reference manager	8	9,5%	21	25%	57	67,9%	0	0%	2	2,4%	36	42,9%	16	19%	84
Video/photo community platform	49	38,2%	20	15,6%	25	19,5%	11	8,6%	7	5,5%	61	47,5%	21	16,4%	128
Learning management system	22	24,2%	46	50,5%	17	18,7%	1	1,1%	38	41,8%	19	20,9%	19	20,9%	91
Chat/instant messenger	7	2%	319	89,6%	17	4,8%	10	2,8%	76	21,3%	38	10,7%	21	5,9%	356
Professional and academic SNS	91	21,8%	249	59,6%	99	23,7%	282	67,5%	34	8,1%	175	41,9%	25	6%	418
Personal organizer/ schedule manager	4	1,8%	143	65%	12	5,5%	0	0%	125	56,8%	16	7,3%	14	6,4%	220
Social network site (SNS)	111	47,4%	168	71,8%	47	20,1%	104	44,4%	114	48,7%	93	39,7%	23	9,8%	234
Online text editor	4	3,4%	78	67,2%	61	52,6%	2	1,7%	21	18,1%	12	10,3%	18	15,5%	116
Weblog	44	36,4%	39	32,2%	33	27,3%	26	21,5%	23	19%	69	57%	13	10,7%	121
Microblog	37	54,4%	30	44,1%	18	26,5%	19	27,9%	29	42,6%	33	48,5%	5	7,4%	68
Social bookmarking service	3	25%	3	25%	6	50%	1	8,3%	0	0%	7	58,3%	2	16,7%	12

Table 36: Use of online tools in science communication at universities

Multiple answers possible.

Base: Scientists at German universities who use the respective tool in science communication (see column N)

Source: Science 2.0-Survey 2014

						Re	esearch	institution	ns						
		essing public		nge with eagues		nentation vn work		rsonal sentation	porta	hing im- nt dates notes	info for o	hering rmation wn work area	C	ther	N
Wikipedia	21	17,5%	5	4,2%	10	8,3%	0	0%	3	2,5%	95	79,2%	17	14,2%	120
Mailing list	58	17,2%	253	74,9%	32	9,5%	7	2,1%	184	54,4%	117	34,6%	19	5,6%	338
Online archive/database	11	16,4%	13	19,4%	21	31,3%	2	3%	4	6%	59	88,1%	8	11,9%	67
Content sharing/ cloud service	7	3,6%	162	83,9%	60	31,1%	2	1%	25	13%	17	8,8%	13	6,7%	193
Discussion forum	15	13,4%	36	32,1%	3	2,7%	6	5,4%	17	15,2%	88	78,6%	8	7,1%	112
Other wiki	9	7,9%	63	55,3%	51	44,7%	5	4,4%	36	31,6%	75	65,8%	8	7%	114
Videoconference/VoIP	5	1,8%	263	94,3%	9	3,2%	10	3,6%	38	13,6%	47	16,8%	18	6,5%	279
Reference manager	2	4,3%	10	21,3%	22	46,8%	4	8,5%	2	4,3%	24	51,1%	10	21,3%	47
Video/photo community platform	21	26,6%	12	15,2%	11	13,9%	3	3,8%	2	2,5%	51	64,6%	15	19%	79
Learning management system	1	12,5%	4	50%	0	0%	0	0%	1	12,5%	3	37,5%	3	37,5%	8
Chat/instant messenger	4	2%	180	91,8%	5	2,6%	4	2%	32	16,3%	16	8,2%	11	5,6%	196
Professional and academic SNS	48	23%	128	61,2%	67	32,1%	139	66,5%	18	8,6%	107	51,2%	15	7,2%	209
Personal organizer/ schedule manager	0	0%	77	70%	7	6,4%	0	0%	55	50%	4	3,6%	7	6,4%	110
Social network site (SNS)	56	43,4%	97	75,2%	17	13,2%	54	41,9%	51	39,5%	68	52,7%	12	9,3%	129
Online text editor	0	0%	43	72,9%	22	37,3%	0	0%	6	10,2%	7	11,9%	5	8,5%	59
Weblog	36	41,9%	24	27,9%	23	26,7%	12	14%	16	18,6%	54	62,8%	6	7%	86
Microblog	34	64,2%	22	41,5%	10	18,9%	22	41,5%	25	47,2%	33	62,3%	3	5,7%	53
Social bookmarking service	2	16,7%	2	16,7%	3	25%	1	8,3%	1	8,3%	7	58,3%	4	33,3%	12

Table 37: Use of online tools in science communication at research institutions
Multiple answers possible.
Base: Scientists at research institutions who use the respective tool in science communication (see column N)
Source: Science 2.0-Survey 2014

							Total	sample							
		essing public		nge with eagues		nentation vn work		rsonal sentation	porta	hing im- nt dates notes	info for o	hering rmation wn work area	C	Other	N
Wikipedia	37	13,7%	10	3,7%	19	7%	3	1,1%	7	2,6%	208	76,8%	47	17,3%	271
Mailing list	191	20,9%	668	73%	67	7,3%	20	2,2%	499	54,5%	297	32,5%	58	6,3%	915
Online archive/database	21	12,7%	28	16,9%	45	27,1%	5	3%	8	4,8%	139	83,7%	16	9,6%	166
Content sharing/ cloud service	13	2,3%	464	82,4%	192	34,1%	5	0,9%	75	13,3%	73	13%	54	9,6%	563
Discussion forum	43	12,6%	116	34,1%	18	5,3%	20	5,9%	52	15,3%	245	72,1%	35	10,3%	340
Other wiki	21	7,8%	141	52,4%	99	36,8%	10	3,7%	67	24,9%	162	60,2%	25	9,3%	269
Videoconference/VoIP	24	3,3%	661	91,9%	19	2,6%	19	2,6%	104	14,5%	97	13,5%	55	7,6%	719
Reference manager	10	7,6%	31	23,7%	79	60,3%	4	3,1%	4	3,1%	60	45,8%	26	19,8%	131
Video/photo community platform	70	33,8%	32	15,4%	36	17,4%	14	6,8%	9	4,3%	112	54%	36	17,4%	207
Learning management system	23	23,2%	50	50,5%	17	17,2%	1	1%	39	39,4%	22	22,2%	22	22,2%	99
Chat/instant messenger	11	2%	499	90,4%	22	4%	14	2,5%	108	19,6%	54	9,8%	32	5,8%	552
Professional and academic SNS	139	22,2%	377	60,1%	166	26,5%	421	67,1%	52	8,3%	282	45%	40	6,4%	627
Personal organizer/ schedule manager	4	1,2%	220	66,7%	19	5,8%	0	0%	180	54,5%	20	6,1%	21	6,4%	330
Social network site (SNS)	167	46%	265	73%	64	17,6%	158	43,5%	165	45,5%	161	44,4%	35	9,6%	363
Online text editor	4	2,3%	121	69,1%	83	47,4%	2	1,1%	27	15,4%	19	10,9%	23	13,1%	175
Weblog	80	38,6%	63	30,4%	56	27,1%	38	18,4%	39	18,8%	123	59,4%	19	9,2%	207
Microblog	71	58,7%	52	43%	28	23,1%	41	33,9%	54	44,6%	66	54,5%	8	6,6%	121
Social bookmarking service	5	20,8%	5	20,8%	9	37,5%	2	8,3%	1	4,2%	14	58,3%	6	25%	24

Table 38: Use of online tools in science communication – total sample

Multiple answers possible.

Base: Scientists at German universities and research institutions who use the respective tool in science communication (see column N)

Source: Science 2.0-Survey 2014

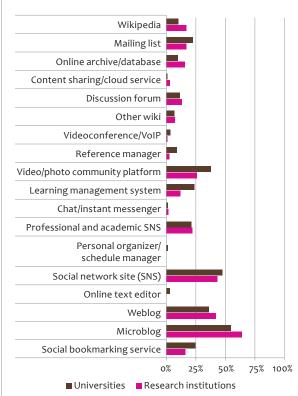
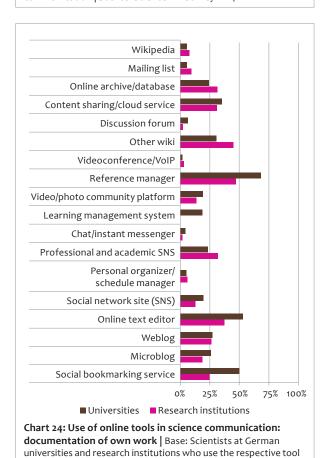


Chart 22: Use of online tools in science communication: adressing the public | Base: Scientists at German universities and research institutions who use the respective tool in science communication | Source: Science 2.0-Survey 2014



in science communication | Source: Science 2.0-Survey 2014

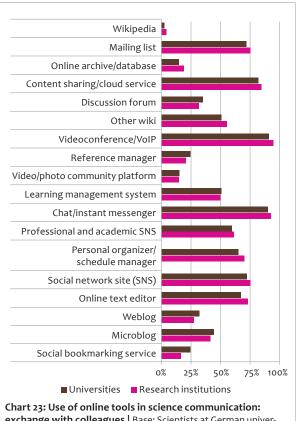


Chart 23: Use of online tools in science communication: exchange with colleagues | Base: Scientists at German universities and research institutions who use the respective tool in science communication | Source: Science 2.0-Survey 2014

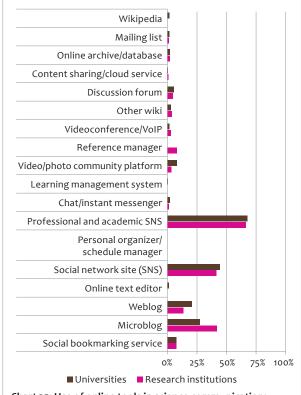


Chart 25: Use of online tools in science communication: personal representation | Base: Scientists at German universities and research institutions who use the respective tool in science communication | Source: Science 2.0-Survey 2014

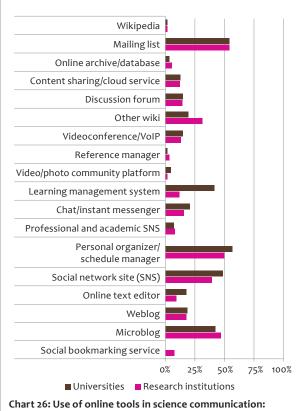
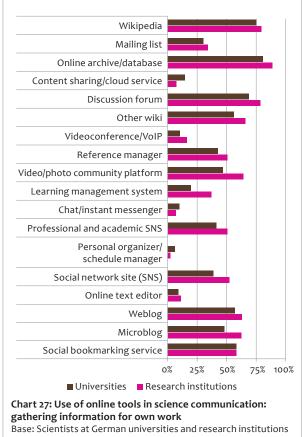


Chart 26: Use of online tools in science communication: publishing important dates and notes

Base: Scientists at German universities and research institutions who use the respective tool in science communication Source: Science 2.0-Survey 2014



Base: Scientists at German universities and research institutions who use the respective tool in science communication Source: Science 2.0-Survey 2014

4.4 Barriers to the use of social media applications and online-based tools in everyday academic life

In 2013, motivation for using online-based tools and social media applications was ascertained by enquiring about respondents' primary reasons for use (Pscheida et al. 2014, p. 16). A slightly adjusted question about the motivation for use was also asked in 2014. However, responses to this question could not be evaluated due to technical problems when programming the questionnaire.

Scientists who do not use each online-based tool professionally were asked about the reasons for their decision (table 41). The primary factors hindering the professional use of online-based tools and social media applications were the fact that the scientists could see no added value in using the tools (30%), had no current need of technical assistance of this kind (21%) or had insufficient time to become familiar in handling the tool (15%). The tools scientists most commonly professed not to use for professional purposes due to a lack of added value were microblogs (53%), discussion forums (41%) and weblogs (40%) – tools primarily designed to facilitate interaction and communication. Scientists primarily eschew tools aimed at helping them to organize and structure their working processes, such as videoconferences/VoIP (45%), mailing lists (26%) and personal organizers/schedule managers (27%) because they have no current need of technical assistance in this context.

Online archives/databases (33%), social bookmarking services (27%) and learning management systems (24%) were among the tools not used by scientists professionally because they had no other previous experience of using them. In particular, respondents' refusal to consent to the terms of use for SNS (28%) and content sharing/cloud services (21%) presented an obstacle to their professional use, while the distinction between private and professional use was also a significant barrier to the professional use of SNS (18%). Of the few people who do not use Wikipedia professionally (109 of 2,084 respondents), 24 per cent indicated that they do not use Wikipedia because such use is not customary in their field. In addition, this does not represent a relevant reason for the non-use of online tools.

Reasons for professional non-use of online tools

						Un	iversitie	S							
	Wikipedia	Mailing list	Online ar databa	ise shar	ontent ing/cloud ervice		ussion rum	Oth	er wiki		oconfer- e/VoIP		erence nager	Video/ comm platf	unity
Because the application has no added value for me.	33 39,1%	80 26,1%	46 16	3% 6.	17%	249	42,2%	127	23,8%	117	19,4%	101	22,9%	235	37,2%
Because I don't need technical assistance in this form at the moment.	5 5,4%	80 26,1%	72 25	7% 8.	1 22,3%	104	17,6%	113	21,2%	252	41,9%	106	24,2%	122	19,3%
Because I have not yet concerned myself with it.	1 1%	51 16,8%	85 30	2% 3	7 9,8%	35	6%	121	22,6%	46	7,7%	88	20,2%	18	2,9%
Because I don't have the time to become familiar with the application.	3 4%	17 5,4%	29 10	2% 1	5 4,3%	24	4%	23	4,3%	13	2,1%	51	11,6%	3	0,5%
Because I do not agree with the Terms of Use.	1 1%	4 1,2%	2 0,	6% 68	3 18%	17	2,8%	5	0,9%	12	1,9%	3	0,6%	33	5,2%
Because it is uncommon to use such a tool in my scientific discipline.	21 25,1%	10 3,1%	7 2,	4%	3 2%	36	6,1%	40	7,6%	30	5%	3	0,8%	71	11,3%
Because I have been using it for private communication and am trying to keep private and professional communication apart.	2 2%	3 0,9%	0	0% 2	3 6,2%	13	2,3%	3	0,5%	48	8%	0	0%	56	8,8%
For other reasons.	9 10,8%	13 4,4%	13 4	7% 2	5,4%	34	5,8%	28	5,3%	19	3,1%	24	5,5%	20	3,2%
N.s.	10 11,8%	49 15,9%	28 9	9% 5	5 15%	79	13,3%	74	13,9%	66	10,9%	63	14,3%	74	11,7%
Total	85 100%	305 100%	280 10	0% 37	5 100%	590	100%	535	100%	603	100%	439	100%	633	100%

Table 39: Reasons for professional non-use of online tools at universities

Base: Scientists at German universities who do not or only privately use the respective tool (see row Total, Deviations in the totals are due to rounding in the course of weighting within the university sample.) Source: Science 2.0-Survey 2014

Reasons for professional non-use of online tools

								Univers	ities								
mana	arning igement stem		instant senger	and a		nizer/s	nal orga- schedule nager		network (SNS)		ne text litor	We	blog	Microblog	booki	ocial marking rvice	
88	18,3%	237	32,1%	217	30,7%	86	22,6%	292	29,1%	214	26,1%	381	40,4%	649 51,9%	219	33,4%	Because the application has no added value for me.
129	26,6%	184	24,9%	124	17,5%	99	25,9%	49	4,9%	180	22%	154	16,3%	121 9,7%	99	15,1%	Because I don't need technical assistance in this form at the moment.
120	24,8%	32	4,3%	129	18,4%	87	22,8%	11	1,1%	145	17,8%	147	15,6%	89 7,1%	167	25,5%	Because I have not yet concerned myself with it.
43	8,9%	10	1,4%	40	5,7%	20	5,2%	7	0,7%	29	3,6%	32	3,4%	21 1,7%	20	3,1%	Because I don't have the time to become familiar with the applica- tion.
3	0,5%	24	3,2%	47	6,7%	8	2,1%	287	28,6%	104	12,7%	12	1,3%	78 6,2%	12	1,9%	Because I do not agree with the Terms of Use.
14	2,9%	41	5,6%	12	1,7%	7	1,9%	29	2,9%	12	1,5%	52	5,5%	71 5,7%	13	2%	Because it is uncommon to use such a tool in my scientific discipline.
2	0,4%	96	13%	19	2,6%	3	0,7%	186	18,5%	1	0,1%	10	1,1%	29 2,3%	3	0,4%	Because I have been using it for private communication and am trying to keep private and professional communication apart.
32	6,5%	25	3,4%	36	5,1%	11	3%	35	3,5%	32	3,9%	40	4,2%	48 3,9%	34	5,1%	For other reasons.
54	11,1%	88	11,9%		11,6%	61	16%	108	10,8%		12,3%	114	12,1%	144 11,5%		13,6%	N.s.
484	100%	738	100%	705	100%	382	100%	1.006	100%	818	100%	943	100%	1.250 100%	655	100%	Total

							Re	esearc	h institu	ıtions							
	Wikipedia	Mailing	glist		e archive/ cabase	sharin	ntent ng/cloud rvice		ussion rum	Othe	er wiki		confer- e/VoIP		erence nager	Video/j comm platf	unity
Because the application has no added value for me.	10 41,7%	36	36%	12	10,3%	33	18,1%	103	39,5%	43	22,9%	18	10,8%	33	17,6%	158	42,2%
Because I don't need technical assistance in this form at the moment.	2 8,3%	26 2	26%	29	24,8%	45	24,7%	49	18,8%	47	25%	95	56,9%	47	25,1%	69	18,4%
Because I have not yet concerned myself with it.	0 0%	19	19%	46	39,3%	13	7,1%	29	11,1%	47	25%	10	6%	35	18,7%	10	2,7%
Because I don't have the time to become familiar with the application.	0 0%	1	1%	2	1,7%	8	4,4%	7	2,7%	6	3,2%	0	0%	33	17,6%	5	1,3%
Because I do not agree with the Terms of Use.	0 0%	2	2%	0	0%	50	27,5%	8	3,1%	2	1,1%	7	4,2%	4	2,1%	22	5,9%
Because it is uncommon to use such a tool in my scientific discipline.	5 20,8%	3	3%	6	5,1%	7	3,8%	22	8,4%	21	11,2%	8	4,8%	5	2,7%	44	11,8%
Because I have been using it for private communication and am trying to keep private and professional communication apart.	1 4,2%	0	0%	0	0%	5	2,7%	5	1,9%	0	0%	11	6,6%	0	0%	24	6,4%
For other reasons.	4 16,7%	3	3%	5	4,3%	6	3,3%	12	4,6%	5	2,7%	4	2,4%	12	6,4%	12	3,2%
N.s.	2 8,3%	10	10%	17	14,5%	15	8,2%	26	10%	17	9%	14	8,4%	18	9,6%	30	8%
Total	24 100%	100 1	00%	117	100%	182	100%	261	100%	188	100%	167	100%	187	100%	374	100%

Table 40: Reasons for professional non-use of online tools at research institutionsBase: Scientists at research institutions who do not or only privately use the respective tool (see row Total) Source: Science 2.0-Survey 2014

							Rese	earch ins	stitution	s								
mana	arning agement stem		instant senger	and a	essional cademic SNS	nizer/s			network (SNS)		ne text litor	We	blog	Mic	roblog	booki	ocial marking rvice	
53	16,6%	97	31,6%	114	35,7%	37	21,1%	160	33,7%	106	29%	155	39,1%	312	54,5%	97	32,4%	Because the application has no added value for me.
122	38,2%	98	31,9%	50	15,7%	52	29,7%	19	4%	86	23,5%	60	15,2%	54	9,4%	43	14,4%	Because I don't need technical assistance in this form at the moment.
74	23,2%	9	2,9%	64	20,1%	41	23,4%	10	2,1%	71	19,4%	73	18,4%	43	7,5%	86	28,8%	Because I have not yet concerned myself with it.
14	4,4%	2	0,7%	16	5%	10	5,7%	1	0,2%	13	3,6%	14	3,5%	10	1,7%	13	4,3%	Because I don't have the time to become familiar with the applica- tion.
3	0,9%	11	3,6%	20	6,3%	4	2,3%	133	28%	38	10,4%	8	2%	41	7,2%	10	3,3%	Because I do not agree with the Terms of Use.
8	2,5%	17	5,5%	11	3,4%	3	1,7%	24	5,1%	6	1,6%	27	6,8%	45	7,9%	7	2,3%	Because it is uncommon to use such a tool in my scientific discipline.
0	0%	37	12,1%	6	1,9%	0	0%	78	16,4%	1	0,3%	9	2,3%	11	1,9%	1	0,3%	Because I have been using it for private communication and am trying to keep private and professional communication apart.
15	4,7%	8	2,6%	13	4,1%	9	5,1%	14	2,9%	14	3,8%	14	3,5%	13	2,3%	12	4%	For other reasons.
30	9,4%	28	9,1%	25	7,8%	19	10,9%	36	7,6%	31	8,5%	36	9,1%	43	7,5%	30	10%	N.s.
319	100%	307	100%	319	100%	175	100%	475	100%	366	100%	396	100%	572	100%	299	100%	Total

					Total sampl	le			
	Wikipedia	Mailing list	Online archive, database	Content sharing/cloud service	Discussion forum	Other wiki	Videoconfer- ence/VoIP	Reference manager	Video/photo community platform
Because the application has no added value for me.	43 39,7%	116 28,5%	58 14,5%	97 17,4%	352 41,3%	170 23,6%	135 17,5%	134 21,4%	393 39,1%
Because I don't need technical assistance in this form at the moment.	7 6%	106 26%	101 25,4%	129 23,1%	153 18%	160 22,2%	347 45,1%	153 24,4%	191 19%
Because I have not yet concerned myself with it.	1 0,8%	70 17,4%	131 32,9%	50 9%	64 7,6%	168 23,2%	56 7,3%	123 19,7%	28 2,8%
Because I don't have the time to become familiar with the application.	3 3,1%	18 4,4%	31 7,7%	24 4,3%	31 3,6%	29 4%	13 1,7%	84 13,4%	8 0,8%
Because I do not agree with the Terms of Use.	1 0,8%	6 1,4%	2 0,4%	118 21,1%	25 2,9%	7 1%	19 2,4%	7 1%	55 5,5%
Because it is uncommon to use such a tool in my scientific discipline.	26 24,1%	13 3,1%	13 3,2%	15 2,6%	58 6,8%	61 8,5%	38 5%	8 1,3%	115 11,4%
Because I have been using it for private communication and am trying to keep private and professional communication apart.	3 2,5%	3 0,7%	o 0%	28 5%	18 2,1%	3 0,3%	59 7,7%	0 0%	80 7,9%
For other reasons.	13 12,1%	16 4%	18 4,6%	26 4,7%	46 5,4%	33 4,6%	23 3%	36 5,8%	32 3,2%
N.s.	12 11%	59 14,4%	45 11,3%	71 12,8%	105 12,3%	91 12,6%	80 10,3%	81 12,9%	104 10,3%
Total	109 100%	405 100%	397 100%	558 100%	851 100%	723 100%	770 100%	626 100%	1.007 100%

Table 41: Reasons for professional non-use of online tools – total sample

Base: Scientists at German universities and research institutions who do not or only privately use the respective tool (see row Total, Deviations in the totals are due to rounding in the course of weighting within the university sample.)
Source: Science 2.0-Survey 2014

								Total sa	mple								
mana	arning Igement stem		instant senger	and a	essional cademic SNS	nizer/s			network (SNS)		ne text litor	We	blog	Microblog	booki	ocial marking rvice	
141	17,6%	334	32%	331	32,3%	123	22,2%	452	30,5%	320	27%	536	40%	96152,8%	316	33,1%	Because the application has no added value for me.
251	31,2%	282	27%	174	17%	151	27,1%	68	4,6%	266	22,5%	214	16%	175 9,6%	142	14,9%	Because I don't need technical assistance in this form at the moment.
194	24,2%	41	3,9%	193	18,9%	128	23%	21	1,4%	216	18,3%	220	16,4%	132 7,2%	253	26,5%	Because I have not yet concerned myself with it.
57	7,1%	12	1,2%	56	5,5%	30	5,4%	8	0,5%	42	3,6%	46	3,4%	31 1,7%	33	3,5%	Because I don't have the time to become familiar with the applica- tion.
6	0,7%	35	3,3%	67	6,5%	12	2,1%	420	28,4%	142	12%	20	1,5%	119 6,5%	22	2,4%	Because I do not agree with the Terms of Use.
22	2,8%	58	5,6%	23	2,3%	10	1,8%	53	3,6%	18	1,5%	79	5,9%	116 6,4%	20	2,1%	Because it is uncommon to use such a tool in my scientific discipline.
2	0,3%	133	12,8%	25	2,4%	3	0,5%	264	17,8%	2	0,2%	19	1,4%	40 2,2%	4	0,4%	Because I have been using it for private communication and am trying to keep private and professional communication apart.
47	5,8%	33	3,1%	49	4,8%	20	3,6%	49	3,3%	46	3,9%	54	4%	61 3,4%	46	4,8%	For other reasons.
84	10,4%	116	11,1%	107	10,4%	80	14,4%	144	9,7%	131	11,1%	150	11,2%	187 10,2%		12,5%	N.s.
803	100%	1.045	100%	1.024	100%	557	100%	1.481	100%	1.184	100%	1.339	100%	1.822 100%	954	100%	Total

4.5 Active and passive use of social media applications in everyday academic life

Web 2.0 is sometimes referred to as the "participatory web" (see e.g. Fisch & Gscheidle 2008, p. 356) because it enables users to publish their own content online as what is known as "usergenerated content" with relatively little effort. The tools defined by the Science 2.0-Survey as being used both to consume content (passive use) and to produce content (active use) include microblogs, weblogs, other wikis, Wikipedia, discussion forums, video/photo communities and social network sites (SNS).

Although previous studies have shown that only a small proportion of users use Web 2.0 to publish and distribute their own content, whereas the majority receive existing Web 2.0 content (Busemann 2013, p. 391), this is only partly true within the scientific community. Although offerings such as weblogs, other wikis, discussion forums, microblogs and video/photo communities are more widely used in a passive sense by respondents of the Science 2.0-Survey than to publish their own contributions, videos/photos or commentaries, it cannot be said that there is a lack of interest in participating actively in Web 2.0, given that almost 30 per cent of those who use the respective offerings primarily for professional purposes or at least for both professional and private purposes equally are active users (table 42). Nevertheless, most of these tools primarily serve as sources of information and research, i.e. scientists also generally consume existing content more frequently than they create, disseminate and share content of their own.

Scientists primarily use microblogs and SNS actively. 57 per cent of respondents who use microblogs professionally and personally at least in equal measure post their own material, whereas 50 per cent comment on and share other users' content. SNS achieve the highest levels of active scientist participation. The surveyed scientists mainly use them to make and maintain colleague contacts (73%) and keep up with the latest news from their network (72%). They also report wide use of SNS to post links and information (62%), write their own posts and comments (52%) and share information with colleagues (55%). Wikipedia is where the most significant differences between passive and active usage are evident. While Wikipedia is used by almost all scientists for academic purposes, it should also be noted that only a very small proportion take an active part in creating articles (10%) or commenting on entries created by others (4%). 32 per cent of scientists who use wikis professionally and privately at least in equal measure create and edit the pages of other wikis, whereas 25 per cent of scientists who use discussion forums professionally and privately at least in equal measure create posts, and 21 per cent respond to posts made by others. Weblogs achieve an equally high level of engagement. 25 per cent of scientists who use blogs professionally and privately at least in equal measure write their own blog posts. 17 per cent comment on other bloggers' posts, but comments on video and photo sharing sites are not so common. Only 6 per cent of scientists who use this tool professionally comment on videos or photos.

Gender differences are only apparent when it comes to active use of certain social media. Men and women are relatively equally active on blogs and microblogs. In contrast, around 10 per cent of the male scientists surveyed also contribute to writing new articles and features for Wikipedia, compared to just 5 per cent of their female colleagues. The passive use of Wikipedia is also relatively equal for both sexes, with a slight increase for men (82% vs. 86%). There is a similar difference when it comes to the active use of wikis in general: only around 15 per cent of the female scientists surveyed edit their own wiki pages, compared to 22 per cent of their male counterparts. In addition, only around 5 per cent of women leave comments, compared to 8 per cent of men. There is also a slight difference in the passive use of wikis: 47 per cent of women use them passively, in contrast to 56 per cent of men, indicating that active participation in discussion forums is primarily a male activity. 14 per cent of male scientists post their own articles, whereas only 8 per cent of the female scientists surveyed do the same. 12 per cent of men respond to the questions and contributions of other users, compared to 7 per cent of the women. However, the relationship between the genders is different when it comes to SNS. Female scientists use them much more intensely than their male colleagues in all categories, although the difference of 1-2 percentage points at most is not pronounced.

35 to 44-year-olds are the most active users of social media in all of the categories surveyed. In general, there are significant **age group** differences concerning the active usage of different tools. 6 and 9 per cent of the 40 to 44-year-old scientists surveyed who use each tool professionally and privately at least in equal measure write their own posts on blogs and microblogs respectively. The figure is 5 per cent for 30 to 34-year-olds and 2 and 4 per cent for 55 to 59-year-olds. The middle age group of 35 to 39-year-olds seem to be the main active users of SNS. Wikis are most commonly actively used by 40 to 49-year-olds, and 55 to 59-year-olds are prolific commenters. Uploading and downloading videos and photos via suitable platforms is primarily done by 50 to 59-year-olds with 19 per cent, compared to only 5 and 2 per cent of 30 to 34-year-olds respectively.

In comparison between the main subject groups there is significant active usage of social media by scientists from the faculties of social sciences, economics, law and culture, humanities and education. In contrast, the active use of social media by engineers is surprisingly low. Around 8 per cent of scientists from the social sciences, economics, law faculties who use microblogs professionally and privately at least in equal measure share their own news in this manner, and a further 8 per cent comment on and/or share articles created by other users. In the mathematics and natural sciences group, this figure is only 3 per cent and drops again to 1 and 0.3 per cent respectively for engineers. The same applies to their active use of blogs. 9 per cent of the participating scientists from the social sciences, economics, law faculties who use blogs professionally and privately at least in equal measure also post their own content, with only 1 per cent of engineers doing the same. Scientists from the culture, humanities and education faculties are the most active users of SNS: 11 per cent of the aforementioned respondents write their own content and 12 per cent share links and information via the network, whereas only 4 and 5 per cent respectively of engineers do the same. However, a different picture emerges for active usage of wikis and discussion forums, where scientists from the mathematics and natural sciences are the most active, compared to the four main subject groups. 27 per cent of the respondents in this group who use the tool professionally and privately at least in equal measure edit their own wiki pages, and 10 per cent post comments. In contrast, only 14 and 6 per cent respectively of scientists from the culture, humanities and education faculties and 14 and 3 per cent of scientists from the social sciences, economics, law report doing the same. Viewed in isolation, the differences between the subject groups' active use of Wikipedia are rather small.

Active and passive use of social media applications, Part I

				Mi	croblog						Weblog		
			ng other s tweets	me	ing own ssages account)	sharing	nting on and other user's essages		ng other 's blogs		ting own og-posts		enting on ser's blogs
	Universities	72	91,1%	44	55,7%	37	46,8%	237	94,8%	64	25,6%	47	18,8%
	Research institutions	61	92,4%	38	57,6%	35	53 %	142	96,6%	35	23,8%	22	15 %
	Total sample	133	91,7%	82	56,6%	72	49,7%	379	95,5%	99	24,9%	69	17,4%
r.	Female	58	40 %	37	25,5%	32	22,1%	163	41,1%	41	10,3%	28	7,1%
Gender	Male	75	51,7%	45	31 %	40	27,6%	210	52,9%	57	14,4%	40	10,1%
J	N.s.	0	o %	0	o %	0	o %	7	1,8%	1	0,3%	1	0,3%
	20–24 years	0	o %	0	o %	0	o %	2	0,5%	0	o %	0	o %
	25–29 years	23	15,9%	10	6,9%	11	7,6%	65	16,4%	8	2 %	5	1,3%
	30-34 years	40	27,6%	28	19,3%	24	16,6%	101	25,4%	28	7,1%	16	4 %
	35–39 years	30	20,7%	17	11,7%	18	12,4%	72	18,1%	18	4,5%	18	4,5%
Age	40-44 years	13	9 %	10	6,9%	10	6,9%	35	8,8%	14	3,5%	9	2,3%
Ą	45-49 years	7	4,8%	5	3,4%	2	1,4%	27	6,8%	12	3 %	3	0,8%
	50-54 years	7	4,8%	6	4,1%	3	2,1%	32	8,1%	10	2,5%	6	1,5%
	55-59 years	11	7,6%	3	2,1%	3	2,1%	26	6,5%	6	1,5%	8	2 %
	60+ years	1	0,7%	2	1,4%	0	o %	17	4,3%	3	0,8%	3	0,8%
	N.s.	2	1,4%	1	0,7%	1	0,7%	3	0,8%	0	o %	0	o %
	Agriculture, forestry and food sciences	0	о %	0	o %	0	o %	4	1 %	0	0 %	1	0,3%
	Human medicine/ health sciences	2	1,4%	2	1,4%	1	0,7%	8	2 %	2	0,5%	3	0,8%
	Engineering sciences	10	6,9%	3	2,1%	1	0,7%	29	7,3%	4	1 %	1	0,3%
dno	Culture, humanities and education	25	17,2%	20	13,8%	15	10,3%	97	24,4%	27	6,8%	23	5,8%
ctgr	Arts	6	4,1%	0	о%	0	o %	14	3,5%	4	1 %	3	0,8%
Subjectgroup	Mathematics and natural sciences	43	29,7%	27	18,6%	25	17,2%	138	34,8%	28	7,1%	19	4,8%
	Social sciences, economics, law	47	32,4%	30	20,7%	31	21,4%	87	21,9%	34	8,6%	19	4,8%
	Sports science	0	o %	0	o %	О	o %	2	0,5%	0	o %	0	o %
	Veterinary medicine	0	o %	0	o %	0	o %	0	0 %	0	o %	0	o %
	Other	0	o %	0	o %	0	o %	1	0,3%	0	o %	0	0 %

Table 42: Active and passive usage of social media applications, Part I

Base: Scientists at German universities and research institutions who do use the respective tool mainly professionally or professionally and privately at equal parts (Universities: Microblog: n=79, Weblog: n=250, Social Network Site (SNS): n=215; Research institutions: Microblog: n=66, Weblog: n=147, Social Network Site (SNS): n=81; Total sample: Microblog: n=145, Weblog: n=397, Social network site (SNS): n=296) Source: Science 2.0-Survey 2014

Active and passive use of social media applications, Part I

	Social network site (SNS)													
up cont	nd keeping act with agues	on what i	informed is going on network		personal sages	tribu	ing con- itions or nments	posting	links and informa- on	with c	ging views olleagues ser-groups)			
150	69,8%	155	72,1%	128	59,5%	113	52,6%	127	59,1%	115	53,5%	Universities		
66	81,5%	59	72,8%	53	65,4%	42	51,9%	55	67,9%	47	58 %	Research institutions		
216	73 %	214	72,3%	181	61,1%	155	52,4%	182	61,5%	162	54,7%	Total sample		
102	34,5%	103	34,8%	93	31,4%	77	26 %	91	30,7%	71	24 %	Female	و.	
112	37,8%	109	36,8%	88	29,7%	78	26,4%	91	30,7%	91	30,7%	Male	Gender	
2	0,7%	2	0,7%	0	o %	0	о %	1	0,3%	1	0,3%	N.s.	<u> </u>	
0	o %	0	o %	0	o %	0	о %	0	о %	0	o %	20-24 years		
36	12,2%	35	11,8%	38	12,8%	26	8,8%	31	10,5%	30	10,1%	25–29 years		
51	17,2%	51	17,2%	46	15,5%	40	13,5%	45	15,2%	40	13,5%	30-34 years		
46	15,5%	44	14,9%	39	13,2%	35	11,8%	38	12,8%	31	10,5%	35-39 years		
22	7,4%	21	7,1%	14	4,7%	11	3,7%	18	6,1%	14	4,7%	40-44 years	Age	
19	6,4%	23	7,8%	13	4,4%	16	5,4%	19	6,4%	12	4,1%	45-49 years	ě	
14	4,7%	13	4,4%	13	4,4%	9	3 %	14	4,7%	12	4,1%	50-54 years		
16	5,4%	19	6,4%	11	3,7%	12	4,1%	11	3,7%	13	4,4%	55-59 years		
9	3 %	6	2 %	7	2,4%	6	2 %	6	2 %	9	3 %	6o+ years		
2	0,7%	2	0,7%	1	0,3%	0	о %	1	0,3%	2	0,7%	N.s.		
2	0,7%	4	1,4%	3	1 %	2	0,7%	5	1,7%	2	0,7%	Agriculture, forestry and food sciences		
6	2 %	5	1,7%	5	1,7%	5	1,7%	4	1,4%	6	2 %	Human medicine/ health sciences		
18	6,1%	17	5,7%	13	4,4%	13	4,4%	15	5,1%	8	2,7%	Engineering sciences		
51	17,2%	49	16,6%	49	16,6%	39	13,2%	43	14,5%	37	12,5%	Culture, humanities and education	Sub	
15	5,1%	17	5,7%	12	4,1%	12	4,1%	15	5,1%	14	4,7%	Arts	ject į	
73	24,7%	67	22,6%	58	19,6%	50	16,9%	61	20,6%	58	19,6%	Mathematics and natural sciences	Subject group	
46	15,5%	52	17,6%	38	12,8%	33	11,1%	36	12,2%	35	11,8%	Social sciences, economics, law		
2	0,7%	0	o %	0	o %	0	о %	0	0 %	0	o %	Sports science		
2	0,7%	1	0,3%	1	0,3%	1	0,3%	1	0,3%	1	0,3%	Veterinary medicine		
1	0,3%	2	0,7%	2	0,7%	1	0,3%	2	0,7%	1	0,3%	Other		

Active and passive use of social media applications, Part II

				Wikip	edia					Other	wiki		
		Reading	garticles		ng and entries	Comm	enting	Rea	ding		ing and wiki-pages	Comn	nenting
	Universities	1.187	100 %	114	9,6%	51	4,3%	703	91,4%	231	30 %	86	11,2%
	Research institutions	557	99,6%	52	9,3%	18	3,2%	380	90,9%	154	36,8%	51	12,2%
	Total sample	1.744	99,9%	166	9,5%	69	4 %	1.083	91,2%	385	32,4%	137	11,5%
-	Female	747	42,8%	48	2,7%	23	1,3%	431	36,3%	133	11,2%	44	3,7%
Gender	Male	973	55,7%	115	6,6%	44	2,5%	640	53,9%	248	20,9%	92	7,8%
J	N.s.	18	1 %	3	0,2%	2	0,1%	11	0,9%	5	0,4%	1	0,1%
	20–24 years	12	0,7%	0	o %	1	0,1%	11	0,9%	3	0,3%	0	o %
	25–29 years	348	19,9%	19	1,1%	6	0,3%	238	20,1%	68	5,7%	16	1,3%
	30-34 years	422	24,2%	40	2,3%	16	0,9%	290	24,4%	104	8,8%	37	3,1%
	35–39 years	257	14,7%	26	1,5%	7	0,4%	160	13,5%	48	4 %	12	1 %
Age	40-44 years	138	7,9%	16	0,9%	3	0,2%	93	7,8%	38	3,2%	13	1,1%
Ã	45-49 years	143	8,2%	20	1,1%	8	0,5%	69	5,8%	44	3,7%	14	1,2%
	50-54 years	152	8,7%	18	1 %	9	0,5%	78	6,6%	35	2,9%	11	0,9%
	55–59 years	130	7,4%	18	1 %	14	0,8%	74	6,2%	20	1,7%	22	1,9%
	6o+ years	116	6,6%	7	0,4%	6	0,3%	58	4,9%	17	1,4%	10	0,8%
	N.s.	22	1,3%	3	0,2%	0	о %	12	1 %	8	0,7%	3	0,3%
	Agriculture, forestry and food sciences	41	2,3%	2	0,1%	3	0,2%	18	1,5%	6	0,5%	3	0,3%
	Human medicine/ health sciences	72	4,1%	5	0,3%	2	0,1%	37	3,1%	5	0,4%	4	0,3%
	Engineering sciences	271	15,5%	20	1,1%	5	0,3%	186	15,7%	55	4,6%	14	1,2%
dno	Culture, humanities and education	298	17,1%	37	2,1%	14	0,8%	163	13,7%	52	4,4%	21	1,8%
ctgr	Arts	47	2,7%	7	0,4%	3	0,2%	29	2,4%	1	0,1%	3	0,3%
Subject group	Mathematics and natural sciences	685	39,2%	60	3,4%	26	1,5%	474	39,9%	215	18,1%	79	6,7%
	Social sciences, economics, law	296	17 %	35	2 %	15	0,9%	169	14,2%	53	4,5%	13	1,1%
	Sports science	8	0,5%	0	0 %	0	о%	2	0,2%	0	о %	0	o %
	Veterinary medicine	9	0,5%	0	0 %	0	о%	4	0,3%	0	о %	0	o %
	Other	12	0,7%	0	o %	0	о%	1	0,1%	0	о %	0	o %

Table 42: Active and passive usage of social media applications, Part II

Base: Scientists at German universities and research institutions who do use the respective tool mainly professionally or professionally and privately at equal parts (Universities: Wikipedia: n=1.187, Other wiki: n=769, Discussion forum: n=640, Video/photo community platform: n=461; Research institutions: Wikipedia: n=559, Other wiki: n=418, Discussion forum: n=307, Video/photo community platform: n=111; Total sample: Wikipedia: n=1.746, Other wiki: n=1.187, Discussion forum: n=947, Video/photo community platform: n=572)
Source: Science 2.o-Survey 2014

Active and passive use of social media applications, Part II

			Discussion forum Video/photo community platform										
		nenting os/photos		ading /photos			Viewing pho	ering to r user's ibutions	othe	sting	Ро	g posts	Reading
	Universities	5,9%	27	35,6%	164	89,8%	414	21,9%	140	25 %	160	97,3%	623
	Research institutions	8,1%	9	22,5%	25	95,5%	106	18,6%	57	25,1%	77	97,4%	299
	Total sample	6,3%	36	33 %	189	90,9%	520	20,8%	197	25 %	237	97,4%	922
و.	Female	2,4%	14	13,1%	75	42,1%	241	6,8%	64	7,9%	75	41,4%	392
Gender	Male	3,8%	22	19,8%	113	47,9%	274	13,8%	131	17 %	161	55,1%	522
4	N.s.	o %	0	0,2%	1	0,9%	5	0,2%	2	0,2%	2	0,8%	8
	20-24 years	0,2%	1	0,2%	1	0,5%	3	0,1%	1	0,1%	1	0,8%	8
	25–29 years	0,7%	4	2,8%	16	15 %	86	3,1%	29	5 %	47	22,2%	210
	30-34 years	1,9%	11	4,7%	27	18 %	103	4,6%	44	6,9%	65	27,6%	261
	35–39 years	1,4%	8	3,7%	21	15,4%	88	2,9%	27	3,6%	34	13,4%	127
Age	40-44 years	0,9%	5	2,4%	14	8,6%	49	1,9%	18	2 %	19	7,2%	68
ĕ	45-49 years	o %	0	4,5%	26	8,7%	50	1,8%	17	2,2%	21	5,9%	56
	50-54 years	0,5%	3	5,9%	34	8,6%	49	2,7%	26	2,2%	21	7,4%	70
	55–59 years	0,9%	5	4,7%	27	8,2%	47	1,9%	18	1,6%	15	6,8%	64
	6o+ years	o %	0	3,1%	18	7 %	40	1,4%	13	1,3%	12	4,6%	44
	N.s.	0,2%	1	0,7%	4	1,2%	7	0,4%	4	0,3%	3	1,6%	15
	Agriculture, forestry and food sciences	0,2%	1	0,7%	4	1,4%	8	0,4%	4	0,3%	3	1,9%	18
	Human medicine/ health sciences	0,5%	3	1 %	6	3,5%	20	1,2%	11	0,8%	8	3,4%	32
	Engineering sciences	0,5%	3	6,3%	36	13,1%	75	3,6%	34	3,8%	36	15,9%	151
Subject	Culture, humanities and education	1,2%	7	8,4%	48	22,6%	129	3 %	28	4,5%	43	14,5%	137
ject ;	Arts	0,2%	1	1,9%	11	5,4%	31	1 %	9	0,3%	3	2 %	19
group	Mathematics and natural sciences	2,1%	12	7,3%	42	26 %	149	8,8%	83	10,8%	102	40 %	379
	Social sciences, economics, law	1,7%	10	7,3%	42	17,1%	98	2,7%	26	4,3%	41	19 %	180
	Sports science	o %	0	0 %	0	0,5%	3	o %	0	o %	0	0,2%	2
	Veterinary medicine	o %	0	о%	0	0,5%	3	0,1%	1	0,2%	2	0,2%	2
	Other	o %	0	o %	0	0,7%	4	0,1%	1	o %	0	0,4%	4

5. Attitudes to the use of social media applications and online-based tools in everyday academic life

Understanding scientists' attitudes towards Internet technologies can help us to better estimate how the use of online-based tools and social media applications will develop in the future. Above all, however, recording the surveyed scientists' attitudes towards the Internet helps us to evaluate user behaviour. As a result, attitudes play a crucial role in the adoption of computer technologies (Venkatesh & Bala 2008).

The attitudinal evaluation in this study is based on scales for measuring the acceptance of technology (ibid.) and includes the following four attitudinal dimensions: privacy concerns (based on Xu et al. 2011), computer anxiety and self-efficacy (based on Venkatesh & Bala 2008) and curiosity (based on Kashdan et al. 2004).

Privacy concerns

- I am concerned that any data I disclose on the Internet could be abused.
- I tend not to disclose information on the Internet because I don't know what others might do with it.
- I'm reluctant to publish data on the Internet because it could be used in ways I might not be able to foresee.^a
- I'm familiar with the Terms of Use of the Web 2.0 tools I use.

Computer anxiety

- It makes me nervous to work with social media.
- I fear that improper use of social media could lead to data loss.
- When using social media, I fear I might make mistakes I cannot straighten out.
- I find social media somewhat intimidating.

Curiosity

- I try to gather information on technical innovations such as smart phones, computers, software and Internet applications as often as possible.
- I often ask myself how I could make use of technical innovations.
- If I am interested in a technical innovation, I inform myself thoroughly.
- My friends and acquaintances would say that I am interested in technology.

Computer self-efficacy

I could complete a task (such as answering a question) with the help of social media...

- ...even if there was no one there to give me instructions.
- ...if I could ask someone for help when I get stuck.
- ...if I had enough time to work my way into the matter.
- ...if I could only draw on the platform's built-in help function for support.

Table 43: Overview items for the survey of attitude dimensions "Privacy concerns", "Computer anxiety", "Computer self-efficacy" und "Curiosity"

a slight adjustment of the wording in relation to the original phrase

The attitudinal evaluation was presented to all participants. Scientists were asked to rate their acceptance of the individual items using a five-level Likert scale (1="I strongly disagree", 2="I tend to disagree", 3="Undecided", 4="I tend to agree" and 5="I strongly agree"). The internal consistency of these scales ranges from 0.686 to 0.855, and can therefore be rated as acceptable to good (table 45).

Overall, it can be ascertained that scientists are aware of privacy issues and have relatively high concerns about the spread of and access to personal data by other people on the Internet (table 43). Slightly more than two-thirds (62%) of the scientists are reluctant to submit data online as they cannot foresee how this data might be used (M=3.52, SD=1.290) or fear that published data could be misused (M=3.79, SD=1.172). Substantially more than half of the respondents (58%) are reluctant to submit data online because they do not know what others do with it (M=3.48, SD=1.269), while female scientists are somewhat more concerned about the handling of personal data (M=3.57, SD=0.808) than their male colleagues (M=3.27, SD=0.919). When comparing universities with research institutions, scientists from universities prove to be slightly more concerned than their research institution counterparts when it comes to the publication of data on the Internet, for example (M $_{\rm HS}$ =3.58 vs. M $_{\rm FF}$ =3.40).

Scientists generally have few reservations about dealing with social media applications in particular and are open to them. Although almost three quarters of the scientists surveyed (72%) indicated that they do not feel intimidated or are not likely to feel intimidated by social media (M=1.94, SD=1.146), no more than a quarter of the scientists are confident about their ability to interact with social media so as to ensure that no data is lost and errors are corrected (M=2.41, SD=1.257).

As the following results show, although many of the scientists surveyed still need to familiarise themselves with the handling and use of social media offerings, they generally feel able to deal with the challenges posed by social media. Time is a crucial factor in whether or not the respondents tackle tasks with the help of social media applications. Two thirds (67%) partly or completely agreed that they would be able to complete a task with the help of social media if they had enough time to do so. Three quarters of scientists surveyed (74%) partly or completely agreed that they would also be able to complete a task even if nobody was there to walk them through it. Despite this result, in-built help functions or support from others are important factors when dealing with social media applications. 57 per cent of the scientists surveyed partly or completely agreed that they could solve a problem with the help of social media if they were able to ask someone for help. The use of help functions is also important in enabling respondents to work with social media applications. Half of the scientists surveyed partly or completely agreed that they would be able to use social media applications if only the in-built help functions of the appropriate application were available. At the same time, however, almost one quarter of the scientists surveyed were uncertain whether they would be able to work within social media applications with the help of the online help functions alone (24%), while 21 per cent of the respondents partly or completely disagreed with this statement. Despite this scepticism, scientists are generally confident in their ability to interact with social media applications, with at least half of those surveyed agreeing that they would be able to tackle tasks with the help of social media applications.

Furthermore, the scientists surveyed are generally open to new technological developments. In particular, three quarters of the respondents (74%) indicated that they would seek out information about any technical innovations that interested them. At the same time, 42 per cent of the scientists surveyed consider how they might be able to make use of technical innovations, while a similar number indicated that friends and acquaintances consider them to be interested in technology. In addition, 35 per cent of the scientists surveyed regularly keep themselves upto-date with technical innovations of their own accord.

When comparing respondents based on **age** (tab. 47), scientists aged 60 and over showed slightly less confidence in their dealings with social media applications (M=2.789, SD=1.034), while the 55- to 59-year-old age group are also slightly less confident about using these tools (M=3.138, SD=1.065). Compared with both of these age groups, younger scientists – particularly those aged between 20 and 34, exhibit much greater confidence when dealing with social media applications (M=3.831–3.869, SD=1.045–1.048). However, when examining age groups it must also be

observed that scientists aged 55 and over describe themselves as very open-minded, while those in the 40 to 44 age group profess to being less interested in this regard. Marked differences in **gender** (table 46) are also apparent here, with male scientists viewing themselves as more interested in new technologies than female scientists (M_{women} = 2.757 vs. M_{Men} =3.459, SD_{women} =0.997, SD_{Men} =1.022).

Differences can also be observed between the different **status groups** (table 48): while PhD students serving as research associates (M=3.819, SD=1.168) demonstrate a relatively high level of confidence, professors are somewhat less confident in their dealings with social media applications (M=3.2262, SD=1.097). On the other hand, interest in new technologies is particularly high among private lecturers (M=3.413, SD=0.951) and academic councillors (M=3.352, SD=1.049) according to their own statements.

Overall attitudes

								Univer	sities						
		ongly agree		nd to agree	Und	ecided		nd to gree		rongly gree	1	N.s.	N	Mean (M)	Standard deviation (SD)
I am concerned that any data I disclose on the Internet could be abused.	40	2,8%	190	13,4%	186	13,1%	518	36,5%	472	33,3%	13	0,9%	1.419	3,81	1,169
I tend not to disclose informa- tion on the Internet because I don't know what others might do with it.	79	5,6%	273	19,2%	220	15,5%	464	32,7%	368	26%	15	1,1%	1.419	3,51	1,272
I'm reluctant to publish data on the Internet because it could be used in ways I might not be able to foresee.	73	5,2%	244	17,2%	207	14,6%	477	33,6%	396	27,9%	21	1,5%	1.419	3,58	1,279
I'm familiar with the Terms of Use of the Web 2.0 tools I use.	196	13,8%	372	26,2%	349	24,6%	368	25,9%	109	7,7%	25	1,8%	1.419	2,82	1,229
It makes me nervous to work with social media.	437	30,8%	445	31,4%	212	14,9%	185	13%	107	7,5%	34	2,4%	1.419	2,28	1,294
I fear that improper use of social media could lead to data loss.	391	27,6%	474	33,4%	229	16,2%	207	14,6%	84	5,9%	32	2,3%	1.419	2,31	1,246
When using social media, I fear I might make mistakes I cannot straighten out.	353	24,9%	443	31,2%	256	18%	252	17,8%	84	5,9%	32	2,2%	1.419	2,42	1,259
I find social media somewhat intimidating.	608	42,8%	429	30,3%	182	12,8%	116	8,2%	50	3,5%	33	2,3%	1.419	1,92	1,135
I try to gather information on technical innovations such as smart phones, computers, soft- ware and Internet applications as often as possible.	242	17%	420	29,6%	226	15,9%	346	24,4%	168	11,9%	17	1,2%	1.419	2,81	1,330
I often ask myself how I could make use of technical innovations.	179	12,6%	373	26,3%	223	15,7%	459	32,3%	166	11,7%	19	1,3%	1.419	3,00	1,296
If I am interested in a technical innovation, I inform myself thoroughly.	63	4,4%	115	8,1%	169	11,9%	636	44,8%	422	29,7%	15	1,1%	1.419	3,84	1,133
My friends and acquaintances would say that I am interested in technology.	215	15,2%	279	19,7%	309	21,8%	358	25,2%	231	16,3%	26	1,8%	1.419	3,02	1,368
I could complete a task (such as answering a question) with the help of social media															
even if there was no one there to give me instructions.	62	4,4%	93	6,5%	182	12,8%	523	36,9%	528	37,2%	31	2,2%	1.419	3,89	1,222
if I could ask someone for help when I get stuck.	116	8,2%	150	10,6%	241	17%	405	28,5%	417	29,4%	90	6,3%	1.419	3,41	1,515
if I had enough time to work my way into the matter.	90	6,3%	105	7,4%	209	14,7%	478	33,7%	460	32,4%	77	5,4%	1.419	3,62	1,437
if I could only draw on the platform's built-in help function for support.	137	9,7%	163	11,5%	327	23%	358	25,2%	345	24,3%	88	6,2%	1.419	3,24	1,494

Table 43: Overall attitudes at universitiesBase: Scientists at German universities, n=1.419
Source: Science 2.0-Survey 2014

							Res	earch in	stituti	ions					
		ongly agree		nd to agree	Und	ecided		nd to gree		rongly gree	1	N.s.	N	Mean (M)	Standard deviation (SD)
I am concerned that any data I disclose on the Internet could be abused.	26	3,9%	83	12,5%	85	12,8%	276	41,5%	187	28,1%	8	1,2%	665	3,74	1,177
I tend not to disclose informa- tion on the Internet because I don't know what others might do with it.	40	6%	132	19,8%	104	15,6%	238	35,8%	142	21,4%	9	1,4%	665	3,43	1,263
I'm reluctant to publish data on the Internet because it could be used in ways I might not be able to foresee.	48	7,2%	127	19,1%	99	14,9%	236	35,5%	143	21,5%	12	1,8%	665	3,40	1,305
I'm familiar with the Terms of Use of the Web 2.0 tools I use.	103	15,5%	166	25%	153	23%	185	27,8%	45	6,8%	13	2%	665	2,80	1,247
It makes me nervous to work with social media.	199	29,9%	207	31,1%	112	16,8%	96	14,4%	34	5,1%	17	2,6%	665	2,26	1,242
I fear that improper use of social media could lead to data loss.	195	29,3%	217	32,6%	122	18,3%	87	13,1%	30	4,5%	14	2,1%	665	2,25	1,197
When using social media, I fear I might make mistakes I cannot straighten out.	169	25,4%	204	30,7%	123	18,5%	117	17,6%	37	5,6%	15	2,3%	665	2,40	1,254
I find social media somewhat intimidating.	282	42,4%	176	26,5%	105	15,8%	66	9,9%	22	3,3%	14	2,1%	665	1,99	1,167
I try to gather information on technical innovations such as smart phones, computers, soft- ware and Internet applications as often as possible.	112	16,8%	222	33,4%	108	16,2%	155	23,3%	60	9%	8	1,2%	665	2,71	1,275
I often ask myself how I could make use of technical innovations.	84	12,6%	203	30,5%	125	18,8%	174	26,2%	69	10,4%	10	1,5%	665	2,87	1,268
If I am interested in a technical innovation, I inform myself thoroughly.	34	5,1%	59	8,9%	88	13,2%	299	45%	175	26,3%	10	1,5%	665	3,74	1,177
My friends and acquaintances would say that I am interested in technology.	114	17,1%	120	18%	135	20,3%	171	25,7%	111	16,7%	14	2,1%	665	3,00	1,408
I could complete a task (such as answering a question) with the help of social media															
even if there was no one there to give me instructions.	28	4,2%	42	6,3%	82	12,3%	244	36,7%	250	37,6%	19	2,9%	665	3,89	1,256
if I could ask someone for help when I get stuck.	63	9,5%	75	11,3%	113	17%	169	25,4%	207	31,1%	38	5,7%	665	3,40	1,532
if I had enough time to work my way into the matter.	50	7,5%	43	6,5%	87	13,1%	236	35,5%	216	32,5%	33	5%	665	3,64	1,435
if I could only draw on the platform's built-in help function for support.	54	8,1%	82	12,3%	169	25,4%	168	25,3%	154	23,2%	38	5,7%	665	3,26	1,441

Table 44: Overall attitudes at research institutionsBase: Scientists at research institutions, n=665 Source: Science 2.0-Survey 2014

								Total sa	ample						
		ongly agree		nd to agree	Und	ecided		nd to gree		rongly gree	1	N.s.	N	Mean (M)	Standard deviation (SD)
I am concerned that any data I disclose on the Internet could be abused.	66	3,2%	273	13,1%	271	13%	794	38,1%	659	31,6%	21	1%	2.084	3,79	1,172
I tend not to disclose informa- tion on the Internet because I don't know what others might do with it.	119	5,7%	405	19,4%	324	15,5%	702	33,7%	510	24,5%	24	1,2%	2.084	3,48	1,269
I'm reluctant to publish data on the Internet because it could be used in ways I might not be able to foresee.	121	5,8%	371	17,8%	306	14,7%	713	34,2%	539	25,9%	33	1,6%	2.084	3,52	1,290
I'm familiar with the Terms of Use of the Web 2.0 tools I use.	299	14,4%	538	25,8%	502	24,1%	553	26,5%	154	7,4%	38	1,8%	2.084	2,81	1,235
It makes me nervous to work with social media.	636	30,5%	652	31,3%	324	15,5%	281	13,5%	141	6,7%	51	2,5%	2.084	2,27	1,277
I fear that improper use of social media could lead to data loss.	586	28,1%	691	33,2%	351	16,9%	294	14,1%	114	5,5%	46	2,2%	2.084	2,29	1,231
When using social media, I fear I might make mistakes I cannot straighten out.	522	25%	647	31%	379	18,2%	369	17,7%	121	5,8%	47	2,2%	2.084	2,41	1,257
I find social media somewhat intimidating.	890	42,7%	605	29,1%	287	13,8%	182	8,8%	72	3,4%	47	2,3%	2.084	1,94	1,146
I try to gather information on technical innovations such as smart phones, computers, soft- ware and Internet applications as often as possible.	354	17%	642	30,8%	334	16%	501	24%	228	11%	25	1,2%	2.084	2,78	1,313
I often ask myself how I could make use of technical innovations.	263	12,6%	576	27,7%	348	16,7%	633	30,4%	235	11,3%	29	1,4%	2.084	2,96	1,288
If I am interested in a technical innovation, I inform myself thoroughly.	97	4,6%	174	8,3%	257	12,3%	935	44,9%	597	28,6%	25	1,2%	2.084	3,81	1,148
My friends and acquaintances would say that I am interested in technology.	329	15,8%	399	19,2%	444	21,3%	529	25,4%	342	16,4%	40	1,9%	2.084	3,02	1,381
I could complete a task (such as answering a question) with the help of social media															
even if there was no one there to give me instructions.	90	4,3%	135	6,5%	264	12,7%	767	36,8%	778	37,3%	50	2,4%	2.084	3,89	1,233
if I could ask someone for help when I get stuck.	179	8,6%	225	10,8%	354	17%	574	27,5%	624	29,9%	128	6,1%	2.084	3,41	1,520
if I had enough time to work my way into the matter.	140	6,7%	148	7,1%	296	14,2%	714	34,3%	676	32,5%	110	5,3%	2.084	3,63	1,436
if I could only draw on the platform's built-in help function for support.	191	9,2%	245	11,8%	496	23,8%	526	25,2%	499	24%	126	6,1%	2.084	3,25	1,477

Table 45: Overall attitudes – total sampleBase: Scientists at German universities and research institutions, n=2.084
Source: Science 2.0-Survey 2014

Attitude measurement reliability analysis

	М	SD	Cronbach's alpha
Privacy concerns	3,401	0,8926	0,686
Computer anxiety	2,23	0,9873	0,818
Computer self-efficacy	3,544	1,1320	0,802
Curiosity	3,141	1,0739	0,855

Table 46: Internal validity of the scales

Base: Scientists at German universities and research institutions, n=2.084 Source: Science 2.0-Survey 2014

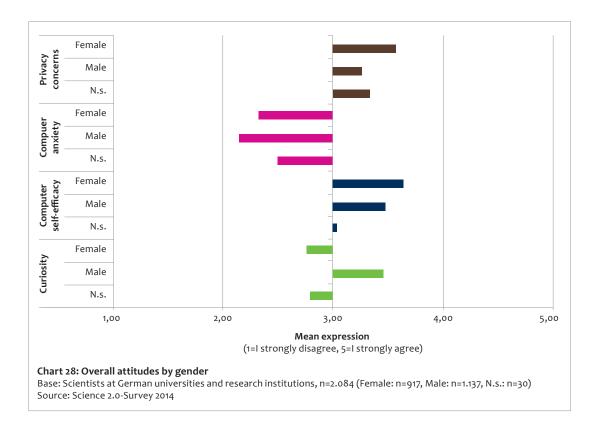
Attitudes by gender

		N	М	SD	Kruskal-Wallis, H-test
y.	Female	917	3,5694	0,80758	
Privacy concerns	Male	1.137	3,2661	0,91937	0,000
<u>~</u> 9	N.s.	30	3,3377	1,38473	
ier ty	Female	917	2,3292	0,96096	
Compuer anxiety	Male	1.137	2,1434	0,99011	0,000
9 E	N.s.	30	2,4967	1,33411	
ter cy	Female	917	3,6374	1,03275	
Computer self- efficacy	Male	1.137	3,4825	1,18347	0,002
ဝ မ	N.s.	30	3,0377	1,67976	
ity	Female	917	2,7574	0,99686	
Curiosity	Male	1.137	3,4587	1,02234	0,000
3	N.s.	30	2,7949	1,33433	

Table 47: Overall attitudes by gender

Average values of the attitude scales (M), standard deviation (SD) and significance (α =0.05) of the mean differences between the groups according to H-test Base: Scientists at German universities and research institutions

Source: Science 2.0-Survey 2014



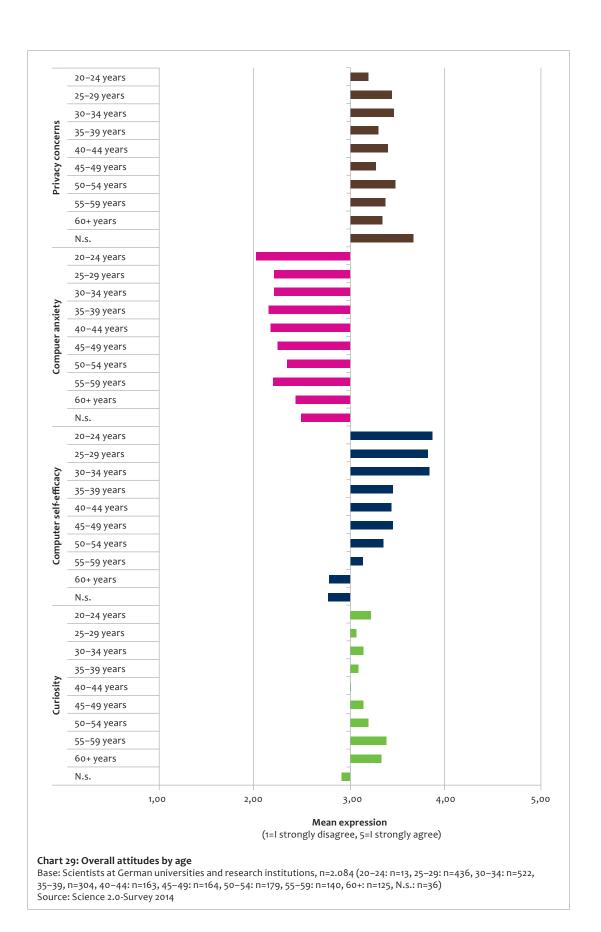
Attitudes by age

	Age	N	М	SD	Kruskal-Wallis, H-test
	20-24 years	13	3,1894	0,55934	
	25-29 years	436	3,4391	0,83996	
	30-34 years	522	3,4548	0,88812	
Privacy concerns	35-39 years	304	3,2935	0,88054	
ouo	40-44 years	163	3,3980	0,85661	0.053
acy 6	45-49 years	164	3,2723	0,96975	0,053
Priv	50-54 years	179	3,4766	0,83393	
	55-59 years	140	3,3717	0,91506	
	60+ years	125	3,3412	0,94729	
	N.s.	36	3,6663	1,36099	
	20-24 years	13	2,0258	0,56160	
	25–29 years	436	2,2104	0,88566	
>	30-34 years	522	2,2100	0,96472	
xiety	35-39 years	304	2,1519	0,96666	
Compuer anxiety	40-44 years	163	2,1682	0,88346	0,248
endi	45-49 years	164	2,2470	1,05403	0,240
Com	50-54 years	179	2,3475	1,03782	
	55-59 years	140	2,2051	1,03300	
	60+ years	125	2,4385	1,21909	
	N.s.	36	2,4940	1,41095	
	20-24 years	13	3,8690	1,04842	
	25–29 years	436	3,8202	1,06425	
асу	30-34 years	522	3,8306	1,04473	
effic	35-39 years	304	3,4486	1,19468	
Computer self-efficacy	40-44 years	163	3,4358	1,08733	0,000
ter	45-49 years	164	3,4528	1,01551	0,000
шри	50-54 years	179	3,3598	1,04720	
ပ	55-59 years	140	3,1382	1,06546	
	60+ years	125	2,7889	1,03427	
	N.s.	36	2,7788	1,76707	
	20-24 years	13	3,2242	1,06293	
	25–29 years	436	3,0745	1,09428	
	30-34 years	522	3,1441	1,08936	
>	35-39 years	304	3,0918	1,07597	
Curiosity	40-44 years	163	3,0094	1,06084	0,02
Curi	45-49 years	164	3,1473	1,01117	0,02
•	50-54 years	179	3,1973	1,03196	
	55-59 years	140	3,3866	0,91391	
	60+ years	125	3,3339	1,12853	
	N.s.	36	2,9191	1,34071	

Table 48: Overall attitudes by age
Average values of the attitude scales (M), standard deviation (SD) and significance (α=0.05) of the mean differences between the groups according to H-test

Base: Scientists at German universities and research institutions

Source: Science 2.0-Survey 2014



Science 2.0-Survey 2014 Data report

Attitudes by position

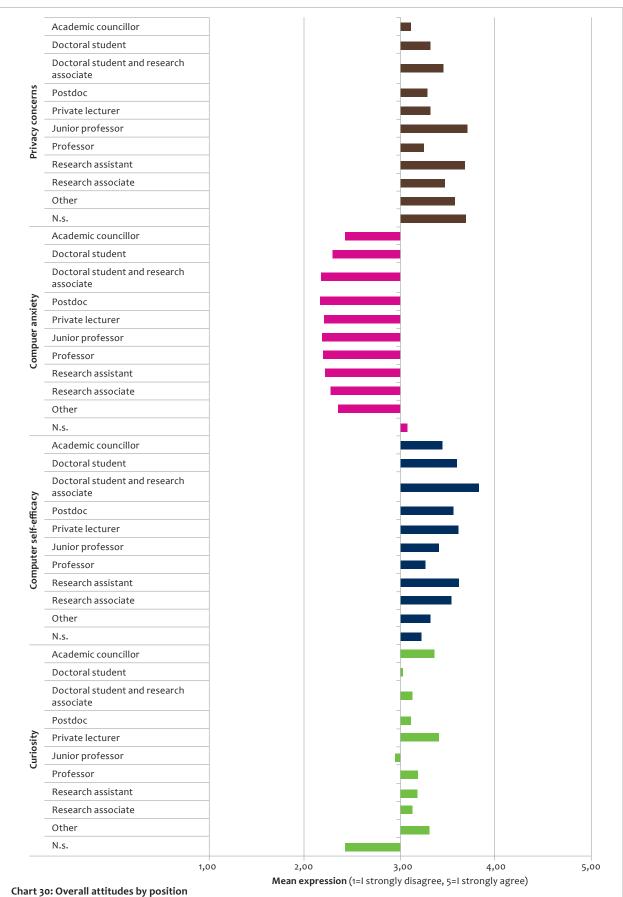
		N	М	SD	Kruskal-Wallis, H-test
rns	Academic councillor	28	3,1142	0,93966	
	Doctoral student	146	3,3160	0,85400	
	Doctoral student and research associate	436	3,4540	0,87346	
	Postdoc	208	3,2818	1,00275	
Privacy concerns	Private lecturer	36	3,3158	0,82796	
y co	Junior professor	18	3,7059	0,83513	0,000
ivac	Professor	352	3,2443	0,95265	
P	Research assistant	41	3,6757	0,72180	
	Research associate	734	3,4671	0,85414	
	Other	83	3,5672	0,79643	
	N.s.	2	3,6804	0,92223	
	Academic councillor	28	2,4203	0,95849	
	Doctoral student	146	2,2978	0,92415	
	Doctoral student and research associate	436	2,1737	0,92522	
ť	Postdoc	208	2,1625	0,98179	
nxie	Private lecturer	36	2,2097	0,81462	
ler a	Junior professor	18	2,1856	1,04352	0,541
Compuer anxiety	Professor	352	2,1979	1,08095	
S	Research assistant	41	2,2134	0,92241	
	Research associate	734	2,2649	1,00189	
	Other	83	2,3525	0,98246	
	N.s.	2	3,0696	0,92223	
	Academic councillor	28	3,4354	1,12285	
	Doctoral student	146	3,5932	1,02916	
>	Doctoral student and research associate	436	3,8190	1,16794	
Computer self-efficacy	Postdoc	208	3,5600	1,22419	
lf-efl	Private lecturer	36	3,6040	0,71743	
r se	Junior professor	18	3,4025	1,32534	0,000
pute	Professor	352	3,2628	1,09725	
mo:	Research assistant	41	3,6181	1,24983	
	Research associate	734	3,5298	1,09211	
	Other	83	3,3142	1,12110	
	N.s.	2	3,2278	0,36889	
	Academic councillor	28	3,3523	1,04880	
	Doctoral student	146	3,0287	1,04818	
	Doctoral student and research associate	436	3,1299	1,11043	
	Postdoc	208	3,1068	1,12679	
ity	Private lecturer	36	3,4133	0,95147	
Curiosity	Junior professor	18	2,9463	1,19658	0,488
J	Professor	352	3,1865	1,04601	
	Research assistant	41	3,1774	1,18587	
	Research associate	734	3,1208	1,05461	
	Other	83	3,3097	1,05017	
	N.s.	2	2,4304	0,92223	

Table 49: Overall attitudes by position

Average values of the attitude scales (M), standard deviation (SD) and significance (α=0.05) of the mean differences between the groups according to H-test

Base: Scientists at German universities and research institutions

Source: Science 2.0-Survey 2014



Base: Scientists at German universities and research institutions, n=2.084 (Academic councillor: n=28, Doctoral student: n=146, Doctoral student/research associate: n=436, Postdoc, n=208, Private lecturer: n=36, Junior professor: n=18, Professor: n=352, Research assistant: n=41, Research associate: n=734, Other: n=83, N.s.: n=2) | Source: Science 2.0-Survey 2014

Attitudes by subject group

		N	М	SD	Kruskal-Wallis, H-test					
Privacy concerns	Agriculture, forestry and food sciences	45	3,2416	0,90995						
	Human medicine/health sciences	85	3,4005	0,88335						
	Engineering sciences	322	3,4714	0,89918						
	Culture, humanities and education	370	3,4845	0,86962						
onc:	Arts	59	3,4037	0,88555	0 111					
acy 6	Mathematics and natural sciences	793	3,3715	0,88898	0,111					
Priv	Social sciences, economics, law	380	3,3387	0,91446						
	Sports science	8	3,0750	1,22117						
	Veterinary medicine	9	3,3250	0,83573						
	Other	12	3,6758	0,61814						
	Agriculture, forestry and food sciences	45	2,0682	0,83802						
	Human medicine/health sciences	85	2,3720	0,97832						
	Engineering sciences	322	2,3374	1,03780						
Compuer anxiety	Culture, humanities and education	370	2,2280	0,93665						
r an)	Arts	59	2,5971	0,92926	0.004					
bne	Mathematics and natural sciences	793	2,2160	0,99152	0,001					
Com	Social sciences, economics, law	380	2,0926	0,99154						
	Sports science	8	2,5000	1,07231						
	Veterinary medicine	9	1,9735	0,58704						
	Other	12	2,5313	1,07087						
	Agriculture, forestry and food sciences	45	3,5816	0,98529						
	Human medicine/health sciences	85	3,5010	1,02893						
acy	Engineering sciences	322	3,4306	1,18190						
Computer self-efficacy	Culture, humanities and education	370	3,7098	1,05450						
self-	Arts	59	3,4378	1,02221	0,002					
ter:	Mathematics and natural sciences	793	3,5682	1,15474	0,002					
шрп	Social sciences, economics, law	380	3,4988	1,14467						
ပိ	Sports science	8	3,1250	1,18698						
	Veterinary medicine	9	3,3042	0,79571						
	Other	12	2,5138	1,29749						
	Agriculture, forestry and food sciences	45	2,7228	0,92599						
	Human medicine/health sciences	85	3,0375	1,06398						
	Engineering sciences	322	3,4169	0,98227						
	Culture, humanities and education	370	2,8626	1,01617						
osity	Arts	59	3,3621	1,01039	0.000					
Curiosity	Mathematics and natural sciences	793	3,2936	1,03879	0,000					
-	Social sciences, economics, law	380	2,9396	1,17768						
	Sports science	8	2,7750	1,08841						
	Veterinary medicine	9	2,5927	1,13661						
	Other	12	2,4393	0,99705						

Table 50: Overall attitudes by subject group Average values of the attitude scales (M), standard deviation (SD) and significance (α =0.05) of the mean differences between the groups according to H-test

Base: Scientists at German universities and research institutions

Source: Science 2.0-Survey 2014

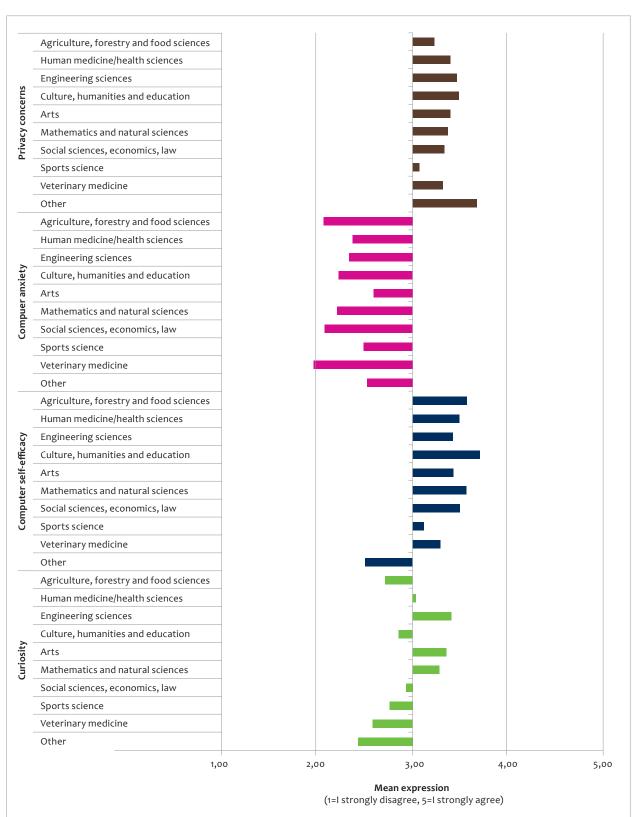


Chart 31: Overall attitudes by subject group

Base: Scientists at German universities and research institutions, n=2.084 (Agriculture, forestry and food sciences: n=45, Medicine/health sciences: n=85, Engineering: n=322, Culture, humanities and education, n=370, Arts: n=59, Mathematics and natural sciences: n=793, Social sciences, economics, law: n=380, Sports science: n=8, Veterinary medicine: n=9, Other: n=12)
Source: Science 2.0-Survey 2014

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Cover letter English

Dear Ladies and Gentlemen

we would like to address you with a request to help us with our current research project by participating in an online survey.

With this survey, we would like to learn more about to what extent **researchers** at German universities and scientific research institutions make use of online-based tools and social media applications within the scope of their work.

The survey aims to gain a better understanding of the scientists' habits of media use so as to be able to provide reliable information about how common online-based forms of communication and working are in the field of science. We are interested in **the complete range of existing forms of use and mindsets** – which is why this survey is also meant to address those who don't use online-based tools and applications often or not at all, or those who have a critical point of view about them.

Data collection and processing will serve scientific purposes only. Of course, your participation is voluntary. Any information you provide us with will be treated anonymously – thus, we will neither collect nor process any IP addresses or other features that could connect given answers to certain persons.

Answering the questions will take about 15 minutes of your time.

You can participate in the survey until **20**th **of july** under the following link: http://ww3.unipark.de/uc/science20-2014 en/

(If the survey does not open in a new browser window, please copy the link to the address bar of your browser and press the Return key. There is no possibility to close the survey and continue with the questions later. The online survey's design is optimized for Mozilla Firefox and Internet Explorer.)

The survey is part of the project eScience – Forschungsnetzwerk Sachsen (http://www.escience-sachsen.de), which is a joint ESF project of the universities in Saxonia, coordinated by the TU Dresden, the TU Bergakademie Freiberg and the HTWK Leipzig. It is part of a Germany-wide survey in cooperation with the Leibniz Research Alliance Science 2.0 (http://www.leibniz-science20.de/).

Sincerely,

The survey project team of the Leibniz Research Alliance Science 2.0

Contact:

Technical University of Dresden Media Center / Department Media Strategies Dr. Daniela Pscheida

Tel: +49 351 463-4246 3

E-mail: Daniela.Pscheida @ tu-dresden.de URL: http://www.escience-sachsen.de

Cover letter German

Betreff: Bitte um Teilnahme an Online-Befragung zum Thema "Kommunikations- und Arbeitsformen in der Wissenschaft"

(English version see below)

Sehr geehrte Damen und Herren,

wir wenden uns mit der Bitte an Sie, uns bei einem aktuellen Forschungsvorhaben zu unterstützen und an einer Online-Umfrage teilzunehmen.

Mit dieser Befragung möchten wir mehr darüber erfahren, inwieweit **Wissenschaftler/-innen** an deutschen Hochschulen und wissenschaftlichen Forschungseinrichtungen onlinebasierte Werkzeuge und Social Media-Anwendungen im Rahmen ihrer Arbeit einsetzen.

Ziel der Befragung ist es, die medialen Nutzungsgewohnheiten von Wissenschaftler/-innen besser zu verstehen, um fundierte Aussagen zum Stand der Verbreitung onlinebasierter Kommunikations- und Arbeitsformen in der Wissenschaft treffen zu können. Dabei interessiert uns das gesamte Spektrum existierender Nutzungsformen und Einstellungen – weshalb mit dieser Befragung genauso auch Personen angesprochen sind, die bislang noch wenig bis keinen Gebrauch von onlinebasierten Werkzeugen und Anwendungen machen und/oder diesen kritisch gegenüber stehen.

Die Datenerhebung und -verarbeitung erfolgen ausschließlich zu wissenschaftlichen Zwecken. Ihre Teilnahme ist selbstverständlich freiwillig. Alle Ihre Angaben sind anonym, d.h. weder IP-Adressen noch andere Merkmale, die es erlauben würden aus den Antworten Rückschlüsse auf eine Person zu ziehen, werden durch uns erhoben und/oder verarbeitet.

Die Beantwortung der Fragen wird ca. 15 Minuten Ihrer Zeit in Anspruch nehmen.

Unter folgendem Link können Sie bis zum **20.07.2014** an der Befragung teilnehmen: http://ww3.unipark.de/uc/science20-2014 deu/

(Sofern sich die Umfrage nicht in Ihrem Browser öffnet, kopieren Sie den Link bitte in die Adresszeile Ihres Browsers und drücken Sie die Return-Taste. Eine Unterbrechung und spätere Fortsetzung der Umfrage ist leider nicht möglich. Die Web-Darstellung des Online-Fragebogens ist optimiert für Mozilla Firefox und Internet Explorer.)

Die Befragung findet im Rahmen des Projektes eScience – Forschungsnetzwerk Sachsen (http://www.escience-sachsen.de) statt, einem ESF-Verbundprojekt aller sächsischen Hochschulen unter Federführung der TU Dresden, der TU Bergakademie Freiberg und der HTWK Leipzig. Sie ist Teil einer deutschlandweiten Befragung in Kooperation mit dem Leibniz-Forschungsverbund Science 2.0 (http://www.leibniz-science20.de).

Mit freundlichen Grüßen: Das Projektteam des Science 2.0-Survey

Kontakt:

Technische University Dresden Medienzentrum/Abteilung Medienstrategien Dr. Daniela Pscheida Tel.: +49 351 463-42463

E-Mail: Daniela.Pscheida@tu-dresden.de URL: http://www.escience-sachsen.de

Questionnaire English

science 2.0



The science-related use of online tools and social media

the following survey aims to identify how – and to what extent – researchers at German universities and scientific research institutions make use of online-based tools and social media applications and also to investigate their opinions concerning the use of such technologies.

The data is collected for scientific purposes only. Your participation is voluntary at all times. Of course, any information you provide will be treated anonymously. The processing time is approximately 15 minutes.

Why take part? Your answers will help us to understand how the Internet and its many applications are changing scientific research and communication. Therefore, all your statements are very valuable to us.

The survey is conducted in the context of the Leibniz Research Alliance "Science 2.0". For further information on the Research Alliance, please visit: www.leibniz-science20.de. There, we will also provide information concerning the evaluation and publication of the study after the survey period.

If you would like to start with the survey, please click on "next" below. To navigate within the survey, please use the survey's "back"-button only, but not the "back"-button of the browser.

The online survey team of the Leibniz Research Alliance Science 2.0

Contact: Technische Universität Dresden Medienzentrum/Abteilung Medienstrategien

Dr. Daniela Pscheida
Tel.: +49 351 463-42463
E-Mail: Daniela.Pscheida@tu-dresden.de
URL: http://www.escience-sachsen.de

Continue

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What is your highest academic degree?



0	Bachelor's degree (university/UAS)
0	Master's degree (university/UAS)
0	Diploma (university/UAS)
0	State examination
0	M.A. or MSc
0	Doctoral degree / PhD
0	Habilitation
0	Other, namely:
	at is your current position at the university/research institute? Member of the Academic Council
0	Doctoral student
0	Doctoral student and scientific employee
0	PostDoc
0	Private lecturer
0	Junior Professor
0	Professor
0	Research assistant (WHK)
0	Scientific staff
0	Non-academic staff
0	Other, namely:

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Which subject area are you currently working in?	
Agriculture, Forestry and Food Sciences	
Culture, Humanities and Education	
Human Medicine / Health Sciences	
Engineering	
Arts	
Mathematics and natural sciences, Computer Science	
Psychology	
○ Law	
Social Sciences	
Sports Science	
Linguistics	
Administrative Sciences Veterinary Medicine	
Veterinary Medicine Economics	
Other, namely:	
	Back Continue
	Impressum
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science 2.0	Network
Leibniz-Forschungsverbund	e Science
Please specify your field of expertise within the subject area!	
▼	
If your enceific subject area is not listed above, please enter it here.	
If your specific subject area is not listed above, please enter it here:	
l l	Back Continue
	Impressum
science 2.0	Network
Leibniz-Forschungsverbund	Science
	Coscience
Where are you currently working as researcher?	
Important: Please only name the university or the type of institution – no s	specific names.
University or other academic institution with a right to award doctorate	es
University of Applied Sciences ("Fachhochschule") or other college with	out doctoral degrees
Art College or Academy of Music	
Extra-curricular Research Institute (e.g. Leibniz, Helmholtz, Fraunhofer,	Max Planck)
Other, namely:	
For how many years have you been employed at a university and/or:	science-related institution since reaching your academic degree (Diploma, Master, M.A. /
MSC, etc.)?	27 2 11 7 7 1
	Back Continue
	- Continue
	Impressum
science 2.0	· ·
	Network e Science
Leibniz-Forschungsverbund	e Science
Where is your facility located?	
▼	
·	
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Please indicate how much of your overall scientific work is related to the following activities!							
Research %							
■ Teaching (including organizing lectures, student advice)	%						
Science Administration (e.g. third-party funding, project manage	gement) %						
Science Communication (e.g. public relations, networking)	%						
Other areas of activity %							
	Back Continue						

science 2.0
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To what extent do you use the following tools?

	professionally	professionally	and personally (in roughly equal proportions)		privately	at all	don't know	
Social bookmarking services (e.g. Delicious, Bibsonomy)	0	0	0		0	0		
Personal organizers, task schedulers (e.g. Foodle, Asana, Trello)	0	0	0	0	0	0	0	
Blogs	0	0	0	0	0	0	0	
Content sharing / cloud services (e.g. Dropbox, Slideshare)	0	0	0	0	0	0	0	
Online forums	•	0	0	0	0	0	•	
Reference management (e.g Mendeley, Zotero)	6	0	0	0	0	0	0	
Online text editors (e.g. EtherPad, Google Docs)	0	0	0		0	0	0	
Social Networks (e.g. Facebook, Google+)	0	0	0	0	0	0	0	
earning management systems (e.g. OLAT / OPAL, Moodle)	0	0	0	0	0	0	•	
Vikipedia	0	0	0	0	0	0	0	
Online-Archives / Databases (e.g. Deutsche Digitale Bibliothek, Arxiv.org)	•	•	•	0	0	0	•	
Other wikis (e.g. Corporate Wiki, subject-specific wikis, etc.)	0	0	0	0	0	0	0	
/ideo / photo community portals (e.g. YouTube, Flickr)	•	0	0			0		
Chat / Instant messaging (e.g. Skype, ICQ)	0	0	0	0	0	0	0	
Microblogs (e.g. Twitter)	0	0	0	0	0	0	•	
Scientific / professional networks (e.g. Xing, Academia.edu)	6	0	0	0	0	0	0	
/ideoconferencing / VoIP (e.g. Skype, Adobe Connect)	0	0	0		0	0	0	
Mailing list	0	0	0	0	0	0	0	

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Hinweis: Die im Folgenden angezeigte Anzahl der Items variiert je nach Anzahl der beruflich genutzten Werkzeuge.





In w	hat way do you use the online-based tools for your work?
Mic	oblogs (z.B. Twitter)
	Reading other user's Tweets
	Posting own messages (own account)
	Commenting on and sharing other user's messages
Wel	ologs
	Reading other user's Blogs
	Writing own Blog-postsRead other tweets
	Commenting on other people's blogscount)
wik	pedia
	Reading articles
	Nesturn a ruces Writing and editing entrie
	William and educing elicitie Commenting
	Committee
Oth	er Wikis (e.g. Corporate Wiki, subject-specific wikis, etc)
	Reading
	Creating and editing Wiki-pages
	Commenting
Onli	ne forums
	Reading posts
	Posting
	Answering to other users' contributions
Vide	eo / photo community portals (e.g. YouTube, Flickr)
	Viewing videos / photos
	Uploading Videos / photos
	Commenting on videos / photos
Soci	al Networks
	Seeking and keeping up contact with colleagues
	Staying informed on what is going on in one's network
	Sending personal messages
	Writing contributions or comments
	Sharing links and posting information
	Exchanging views with colleagues (e.g. in user-groups)
	Back Continue

Hinweis: Die im Folgenden angezeigte Anzahl der Items variiert je nach Anzahl der beruflich genutzten Werkzeuge.

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How often do you use the following tools for work-related tasks?



	Several times a day	Once a day	Several times a week	Once a week	Once a month	rarely
Social bookmarking services (e.g. Delicious, Bibsonomy)	•	0	©	0	0	0
Blogs	0	0	0	0	0	0
Online-Archives / Databases (e.g. Deutsche Digitale Bibliothek, Arxiv.org)	0	0	•	0	0	0
Wikipedia	0	0	0	0	0	0
Scientific / professional networks (e.g. Xing, Academia.edu)	0	0	0	0	0	0
Online forums	0	0	0	0	0	0
Online text editors (e.g. EtherPad, Google Docs)	0	0	0	0	0	0
Personal organizers, task schedulers (e.g Foodle, Asana, Trello)	. 0	0	0	0	0	0
Videoconferencing / VoIP (e.g. Skype, Adobe Connect)	0	0	0	0	0	0
Mailing list	0	0	0	0	0	0
Learning management systems (e.g. OLAT / OPAL, Moodle)	0	0	•	0	0	0
Reference management (e.g Mendeley, Zotero)	0	0	0	0	0	0
Video / photo community portals (e.g. YouTube, Flickr)	•	0	•	0	0	0

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Hinweis: Die im Folgenden angezeigte Anzahl der Items variiert je nach Anzahl der beruflich genutzten Werkzeuge.

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Other wikis, e.g. Corporate Wiki, subjectspecific wikis, etc.)
Social Networks (e.g. Facebook, Google+)

Microblogs (e.g. Twitter)

Content sharing / cloud services (e.g. Dropbox, Slideshare)

Chat / Instant messaging (e.g. Skype, ICQ)



For what purpose / in what context do you use the respective tools during your work? (Multiple answers are possible)

0

0

0

0

0

0

0

0

	Teaching	Research	Science Communication	Science Administration	
Personal organizers, task schedulers (e.g. Foodle, Asana, Trello)					
Online-Archives / Databases (e.g. Deutsche Digitale Bibliothek, Arxiv.org)					
Content sharing / cloud services (e.g. Dropbox, Slideshare)					
Learning management systems (e.g. OLAT / OPAL, Moodle)					
Blogs					
Social Networks (e.g. Facebook, Google+)					
Videoconferencing / VoIP (e.g. Skype, Adobe Connect)					
Chat / Instant messaging (e.g. Skype, ICQ)					
Online forums					
Online text editors (e.g. EtherPad, Google Docs)					
Other wikis (e.g. Corporate Wiki, subject-specific wikis, etc.)					
Reference management (e.g Mendeley, Zotero)					
Wikipedia					
Mailing list					
Scientific / professional networks (e.g. Xing, Academia.edu)					
Microblogs (e.g. Twitter)					
Social bookmarking services (e.g. Delicious, Bibsonomy)					
Video / photo community portals (e.g. YouTube, Flickr)					

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Hinweis: Die im Folgenden angezeigte Anzahl der Items variiert je nach Anzahl der in der Forschung eingesetzten Werkzeuge.





	Coordination and organization of work processes (e.g. scheduling)	Communication and exchange of information (e.g. meetings, collaboration)	Data collection / evaluation	Exchange of data and materials	Research	Other
Position ändern Social Networks (e.g. Facebook, Google+)						
Videoconferencing / VoIP (e.g. Skype, Adobe Connect)						
Wikipedia						
Content sharing / cloud services (e.g. Dropbox, Slideshare)						
Online text editors (e.g. EtherPad, Google Docs)						
Chat / Instant messaging (e.g. Skype, ICQ)						
Online-Archives / Databases (e.g. Deutsche Digitale Bibliothek, Arxiv.org)						
Reference management (e.g Mendeley, Zotero)						
Social bookmarking services (e.g. Delicious, Bibsonomy)						
Video / photo community portals (e.g. YouTube, Flickr)						
Learning management systems (e.g. OLAT / OPAL, Moodle)						
Personal organizers, task schedulers (e.g. Foodle, Asana, Trello)						

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Hinweis: Die im Folgenden angezeigte Anzahl der Items variiert je nach Anzahl der für die Wissenschaftskommunikation eingesetzten Werkzeuge.

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You stated that you use the following tools in the context of science communication. For what tasks exactly? (Multiple answers are possible)

	Addressing the public	Exchange with colleagues	Documentation of own work	Personal representation	Publishing important dates and notes	Gathering information for own work area	Other
Social Networks (e.g. Facebook, Google+)							
Videoconferencing / VoIP (e.g. Skype, Adobe Connect)							
Microblogs (e.g. Twitter)							
Blogs							
Online forums							
Mailing list							
Chat / Instant messaging (e.g. Skype, ICQ)							

Back Continue

Hinweis: Die im Folgenden angezeigte Anzahl der Items variiert je nach Anzahl der beruflich genutzten Werkzeuge. Hinweis: Über die Drop-Down-Liste sind verschiedene Antwortmöglichkeiten wählbar.





What are the primary reasons for you to use the following tools for your work?	
Other wikis (e.g. Corporate Wiki, subject-specific wikis, etc.)	I use the following tool vocationally
Online-Archives / Databases (e.g. Deutsche Digitale Bibliothek, Arxiv.org)	·
Online text editors (e.g. EtherPad, Google Docs)	•
Mailing list	*
Wikipedia	•
Online forums	•
Scientific / professional networks (e.g. Xing, Academia.edu)	Y
Social bookmarking services (e.g. Delicious, Bibsonomy)	•
Social Networks (e.g. Facebook, Google+)	▼
Reference management (e.g Mendeley, Zotero)	¥
Video / photo community portals (e.g. YouTube, Flickr)	₩
Blogs	•
Microblogs (e.g. Twitter)	
Learning management systems (e.g. OLAT / OPAL, Moodle)	•
Chat / Instant messaging (e.g. Skype, ICQ)	¥
Videoconferencing / VoIP (e.g. Skype, Adobe Connect)	<u>*</u>
Content sharing / cloud services (e.g. Dropbox, Slideshare)	•
Personal organizers, task schedulers (e.g. Foodle, Asana, Trello)	¥
Back	Continue
science 2.0 Leibniz-Forschungsverbund	e Science
What are the reasons for you not to use the following tools for your work?	I don't use the following
If there are other reasons for you not to use the aforementioned online-based tools	tool vocationally for your work, you can specify them here:
Back Cor	tinue
science 2.0	Impressum Network
Leibniz-Forschungsverbund	eScience
Which devices do you use to access the tools? (Multiple answers are possible)	
☐ PC ☐ Notebook	
Tablet	
☐ Smartphone	
Other, namely:	
Back Cou	





To what extent do you agree with the following statements?

	I strongly agree	I tend to agree	Undecided	I tend to disagree	I strongly disagree	
I am concerned that any data I disclose on the Internet could be abused.	0	0		0		
I tend not to disclose any information on the Internet because I don't know what others might do with it.		0	0	0	0	
'm reluctant to publish data on the Internet because it could be used in ways I might not be able to foresee.		0	•	0	•	
I'm familiar with the Terms of Use of the Web 2.0 tools I use.	0	0	0	0	6	
It makes me nervous to work with social media.	0	0	0	0	0	
I fear that improper use of social media applications could lead to data loss.	0	0	0	0	6	
When using social media, I fear I might make mistakes I cannot straighten out.	0	0	0	0	0	
I find social media somewhat intimidating.	0	0	0	0	0	

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To what extent do you agree with the following statements?

	I strongly agree	I tend to agree		I tend to disagree	
I try to gather information on technical innovations such as smart phones, computers, software and Internet applications as often as possible.		0	0	0	0
I often ask myself how I could make use of technical innovations.	0	0	0	0	0
If I am interested in a technical innovation, I inform myself thoroughly.	0	0	0	0	0
My friends and acquaintances would say that I am interested in technology.	0	0	0	0	0

I could complete a task (such as answering a question) with the help of social media...

	I strongly agree	I tend to agree	Undecided	I tend to disagree	
even if there was no one there to give me instructions.	0	0	0	0	0
if I could ask someone for help when I get stuck.	0	0	0	0	0
if I had enough time to work my way into the matter.	0	0	0	0	0
if I could only draw on the platform's built-in help function for support.	0	0	0	0	0

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Please tell us your year of birth:

female male

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Thank you very much!

Dear participant,

thank you very much for taking part in the survey! Your answers will help us to better understand how scientists currently use online-based tools and social media applications.

After the evaluation phase, the results of the nationwide survey will be published on the homepage of the research network: www.leibniz-science20.de.

Also, we can gladly send you the results. Simply send us a prepared and non-binding e-mail by means of the following link: Results of the Science 2.0 Study.

Of course, all data you entered will remain anonymous.

Sincerely, The online survey team of the Leibniz Research Alliance Science 2.0

Contact: Technische Universität Dresden Medienzentrum/Abteilung Medienstrategien Dr. Daniela Pscheida Tel.: +49 351 463-42463 E-Mail: Daniela.Pscheida@tu-dresden.de URL: http://www.escience-sachsen.de

You can now close this window of your browser.

Questionnaire German

science 2.0



Befragung zur wissenschaftsbezogenen Nutzung von Online-Werkzeugen und Social Media

Liebe Teilnehmerin, lieber Teilnehmer,

Ziel der folgenden Befragung ist es zu untersuchen, in welchem Umfang und wie Wissenschaftler/innen an bundesdeutschen Hochschulen und wissenschaftlichen Forschungseinrichtungen onlinebasierte Werkzeuge und Social Media-Anwendungen nutzen und welche Einstellung sie bezüglich des Einsatzes dieser Technologien vertreten. Die Datenerhebung dient ausschließlich wissenschaftlichen Zwecken. Ihre Teilnahme ist zu jedem Zeitpunkt freiwillig. Alle Ihre Angaben werden selbstverständlich anonym

Warum mitmachen?

Mit Ihren Antworten helfen Sie uns zu verstehen, wie das Internet mit seinen zahlreichen Werkzeugen Forschungs- und Kommunikationsprozesse in der Wissenschaft verändert. Alle Ihre Angaben sind daher sehr wertvoll für uns.

Die Befragung wird im Kontext des Leibniz-Forschungsverbunds "Science 2.0" durchgeführt. Weitere Informationen zum Forschungsverbund erhalten Sie unter: http://www.leibniz-science20.de/. Dort werden nach Abschluss der Befragung auch Hinweise zur Auswertung und Publikation der Studie veröffentlicht.

Wenn Sie mit der Umfrage starten wollen, klicken Sie unten auf "weiter".

Für das Navigieren innerhalb des Fragebogens nutzen Sie bitte ausschließlich den "Zurück"-Button im Fragebogen und nicht den "Zurück"-Button des Browsers.

Mit freundlichen Grüßen Das Befragungsteam Science 2.0 des Leibniz-Forschungsverbunds

Kontakt: Technische Universität Dresden Medienzentrum/Abteilung Medienstrategien Dr. Daniela Pscheida Tel.: +49 351 463-42463 E-Mai: Daniela.Pscheida@tu-dresden.de URL: http://www.escience-sachsen.de

Weiter

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Was ist Ihr höchster akademischer Abschluss? Bachelor (Uni/FH) Master (Uni/FH) Diplom (Uni/FH) Staatsexamen Magister Promotion Habilitation In welcher Funktion sind Sie aktuell an einer Hochschule/Forschungseinrichtung tätig? Akademischer Rat O Doktorand/in O Doktorand/in und gleichzeitig wissenschaftliche/r Mitarbeiter/in Postdoktorand/in Privatdozent/in O Jun.-Professor/in Professor/in Wissenschaftliche Hilfskraft (WHK) Wissenschaftliche/r Mitarbeiter/in Nicht-wissenschaftliches Personal Sonstiges, und zwar:



In welchem Fachgebiet sind Sie aktuell tätig?	
Agrar-, Forst- und Emährungswissenschaften	
Kultur-, Geistes- und Erziehungswissenschaften	
Humanmedizin/ Gesundheitswissenschaften Ingenieurwissenschaften	
Kunst, Kunstwissenschaft	
Psychologie	
© Rechtswissenschaften © Sozialwissenschaften	
© Sportwissenschaften	
Sprachwissenschaften	
O Verwaltungswissenschaften	
Veterinärmedizin Wirtschaftswissenschaften	
Anderes Fach, und zwar	
Zurück Weiter	
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science 2.0	Network
Leibniz-Forschungsverbund	e Science
Bitte grenzen Sie Ihr Fachgebiet innerhalb der Fächergruppe näher ein!	
Politikwissenschaft/Politologie ▼	
Sollten Sie Ihren Fachbereich in der oben angezeigten Auswahl nicht gefunden haben, geben Sie ihn bitte hier ein:	
Zurück Weiter	
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Leibniz-Forschungsverbund	e Science
Wo sind Sie aktuell als Wissenschaftler/in tätig?	
Wichtig: Bitte geben Sie hier lediglich den Hochschul- bzw. Einrichtungtstyp an und nennen Sie keinen konkreten Namen. Mehrfachantworten sind m	öglich.
Universität oder andere Hochschule mit Promotionsrecht	
Fachhochschule oder andere Hochschule ohne Promotionsrecht Kunst- oder Musikhochschule	
Außeruniversitäres Forschungsinstitut (z.B. Leibniz, Helmholtz, Fraunhofer, Max Planck)	
Sonstige, und zwar:	
Wie viele Jahre sind Sie seit Ihrem Studienabschluss (Diplom, Master, Magister etc.) insgesamt an einer Hochschule und/oder einer wis Einrichtung beschäftigt?	senschaftsbezogenen
<u></u>	
Zurück Weiter	
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Leibniz-Forschungsverbund	e Science
In welches Bundesland befindet sich Ihre Hochschule?	
Sachsen ▼	
	_
Zurück Weiter	
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Leibniz-Forschungsverbund	Network
Editorie i Grooter Garanta	e -Science
Bitte geben Sie an, wieviel Prozent Ihrer gesamten wissenschaftlichen Tätigkeit die jeweiligen Tätigkeitsbereiche in etwa ausmachen!	
Forschung %	
Lehre (inklusive Organisation v. Lehre, Beratung v. Studierenden) %	
Wissenschaftsadministration (z.B. Drittmitteleinwerbung, Projektverwaltung) %	
☐ Wissenschaftskommunikation (z.B. Öffentlichkeitsarbeit, Vernetzung) %	
Andere Tätigkeitsbereiche %	
Zurück Weiter	

science 2.0 Leibniz-Forschungsverbund



Inwiefern nutzen Sie die folgenden Werkzeuge?

Video/Foto Community-Portale (z.B. YouTube, Flickr)
Online-Archive/Datenbanken (z.B. Deutsche Digitale Bibliothek, Arxiv.org) Literaturverwaltung (z.B. Mendeley, Zotero) Mailinglisten
Arxiv.org) Literaturverwaltung (z.B. Mendeley, Zotero) Mailinglisten
Mailinglisten
Terminierungs- und Koordinationstools (z.B. Foodle, Asana, Trello)
$\begin{tabular}{lllllllllllllllllllllllllllllllllll$
Online-Texteditoren (z.B. EtherPad, Google Docs)
Internetforen ⊕ ⊕ ⊕ ⊕ ⊕ ⊕
Lernmanagementsysteme (z.B. OLAT/OPAL, Moodle)
Microblogs (z.B. Twitter)
Weblogs • • • • • • • •
Chat/Instant Messaging (z.B. Skype, ICQ)
Soziale Netzwerke (z.B. Facebook, Google+)
andere Wikis (z.B. Firmenwiki, fachspezifische Wikis etc.)
Wissenschaftliche/Berufliche Netzwerke (z.B. Xing, Academia.edu)
Social Bookmarking Services (z.B. Delicious, Bibsonomy)
Wikipedia
Content Sharing/Cloud-Dienste (z.B. Dropbox, Slideshare)

Zurück Weiter

Hinweis: Die im Folgenden angezeigte Anzahl der Items variiert je nach Anzahl der beruflich genutzten Werkzeuge.

science 2.0



Leibniz-Forschungsverbund	e Science
Wie nutzen Sie die von Ihnen beruflich eingesetzten onlinebasierten Werkzeuge?	
Microblogs (z.B. Twitter)	
lesen anderer Tweets	
eigene Beiträge (unter eigenem Account) posten	
Beiträge anderer Personen kommentieren/weiterleiten	
Weblogs	
Beiträge anderer Blogger lesen	
eigene Blogbeiträge verfassen	
Beiträge anderer Blogger kommentieren	
Wikipedia	
Artikel lesen	
Einträge verfassen und bearbeiten	
kommentieren	
Andere Wikis (z.B. Firmenwiki, fachspezifische Wikis etc.)	
lesen	
Wiki-Seiten erstellen und bearbeiten	
kommentieren	
Internetforen	
Beiträge lesen	
☐ Beiträge verfassen	
Beiträge anderer Nutzer beantworten	
Video/Foto Community-Portale (z.B. YouTube, Flickr)	
□ Videos/Fotos ansehen	
□ Videos/Fotos hoch- bzw. runterladen	
☐ Videos/Fotos kommentieren	
Soziale Netzwerke	
■ Kontakte mit Kolleg/innen suchen und pflegen	
informieren was im eigenen Netzwerk aktuell passiert	
persönliche Nachrichten verschicken	
☐ Beiträge/Kommentare schreiben	
Links und Informationen posten	
Austausch mit Kolleg/innen (z.B. in Gruppen)	

Hinweis: Die im Folgenden angezeigte Anzahl der Items variiert je nach Anzahl der beruflich genutzten Werkzeuge.





	mehrmals täglich	täglich	mehrfach wöchentlich	wöchentlich	monatlich	seltener
Online-Archive/Datenbanken (z.B. Deutsche Digitale Bibliothek, Arxiv.org)	0	0	0	•	0	0
Weblogs	0	0	0	0	0	0
Lernmanagementsysteme (z.B. OLAT/OPAL, Moodle)	0	0	•	•	0	•
Content Sharing/Cloud-Dienste (z.B. Dropbox, Slideshare)	0	0	0	0	0	0
Chat/Instant Messaging (z.B. Skype, ICQ)	0	0	•	0	0	0
Online-Texteditoren (z.B. EtherPad, Google Docs)	0	0	0	0	0	0
Video/Foto Community-Portale (z.B. YouTube, Flickr)	0	0	•	0	0	0
Wissenschaftliche/Berufliche Netzwerke (z.B. Xing, Academia.edu)	0	0	0	0	0	0
andere Wikis (z.B. Firmenwiki, fachspezifische Wikis etc.)	0	0	0	0	0	0
Wikipedia	0	0	0	0	0	0
Videokonferenz/VoIP (z.B. Skype, Adobe Connect)	0	0	•	0	0	
Literaturverwaltung (z.B. Mendeley, Zotero)	0	0	0	0	0	0
Soziale Netzwerke (z.B. Facebook, Google+)	0	0	•	0	0	0
Terminierungs- und Koordinationstools (z.B. Foodle, Asana, Trello)	0	0	0	6	0	0
Microblogs (z.B. Twitter)	0	0		0		
Social Bookmarking Services (z.B. Delicious, Bibsonomy)	0	0	0	0	0	0
Internetforen	0	0		0		0

Hinweis: Die im Folgenden angezeigte Anzahl der Items variiert je nach Anzahl der beruflich genutzten Werkzeuge.





Für welchen Zweck/ in welchem Kontext nutzen Sie die jeweiligen Werkzeuge beruflich? (Mehrfachantworten sind möglich.) Wissenschafts-Wissenschafts-Lehre Forschung Video/Foto Community-Portale (z.B. YouTube, Flickr) Soziale Netzwerke (z.B. Facebook, Google+) Online-Archive/Datenbanken (z.B. Deutsche Digitale Bibliothek, Arxiv.org) Terminierungs- und Koordinationstools (z.B. Foodle, Asana, Trello) andere Wikis (z.B. Firmenwiki, fachspezifische Wikis etc.) Weblogs Literaturverwaltung (z.B. Mendeley, Zotero) Chat/Instant Messaging (z.B. Skype, ICQ) Content Sharing/Cloud-Dienste (z.B. Dropbox, Slideshare) Social Bookmarking Services (z.B. Delicious, Bibsonomy) Lernmanagementsysteme (z.B. OLAT/OPAL, Moodle) Wikipedia Microblogs (z.B. Twitter) Internetforen Online-Texteditoren (z.B. EtherPad, Google Docs) Videokonferenz/VoIP (z.B. Skype, Adobe Connect) Wissenschaftliche/Berufliche Netzwerke (z.B. Xing, Academia.edu)

Hinweis: Die im Folgenden angezeigte Anzahl der Items variiert je nach Anzahl der in der Forschung eingesetzten Werkzeuge.

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Sie haben angegeben, die folgenden Werkzeuge im Kontext Ihrer Forschungstätigkeit zu nutzen. Wofür genau setzen Sie diese ein? Mehrfachantworten sind möglich.

	Abstimmung/ Organisation von Arbeits- abläufen	Kommunikation und Austausch von Informa- tion (z.B. Be- sprechungen)	Datenerhebung/ -auswertung	Austausch von Daten und Materialien	Recherche	Andere	
Videokonferenz/VoIP (z.B. Skype, Adobe Connect)							
Wikipedia							
Content Sharing/Cloud- Dienste (z.B. Dropbox, Slideshare)							
Online-Texteditoren (z.B. EtherPad, Google Docs)							
Internetforen							
Online-Archive/Datenbanken (z.B. Deutsche Digitale Bibliothek, Arxiv.org)							
Literaturverwaltung (z.B. Mendeley, Zotero)							
Social Bookmarking Services (z.B. Delicious, Bibsonomy)							
Video/Foto Community- Portale (z.B. YouTube, Flickr)							
Terminierungs- und Koordinationstools (z.B. Foodle, Asana, Trello)							

Zurück Weiter

Hinweis: Die im Folgenden angezeigte Anzahl der Items variiert je nach Anzahl der für die Wissenschaftskommunikation eingesetzten Werkzeuge.

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Sie haben angegeben, die folgenden Werkzeuge im Kontext der Wissenschaftskommunikation zu nutzen. Wofür genau setzen Sie diese ein? (Mehrfachantworten möglich)

	Vermittlung an Öffent- lichkeit	Austausch mit Kol- leg/innen	Dokumentation der eigenen Arbeit	Darstellung der eige- nen Person	von wich- tigen Ter- minen und Hinweisen	Informations- gewinnung für eigenes Arbeitsfeld	Andere	
Soziale Netzwerke (z.B. Facebook, Google+)								
Microblogs (z.B. Twitter)								
Weblogs								
Mailinglisten								
Chat/Instant Messaging (z.B. Skype, ICQ)								

Hinweis: Die im Folgenden angezeigte Anzahl der Items variiert je nach Anzahl der beruflich genutzten Werkzeuge. Hinweis: Über die Drop-Down-Liste sind verschiedene Antwortmöglichkeiten wählbar.





Aus welchen vorrangigen Gründen nutzen Sie die folgenden Werkzeuge für Ihre berufl	
vissenschaftliche/Berufliche Netzwerke (z.B. Xing, Academia.edu)	Ich nutze das folgende Werkzeug beruflich,
ernmanagementsysteme (z.B. OLAT/OPAL, Moodle)	
andere Wikis (z.B. Firmenwiki, fachspezifische Wikis etc.)	
Vikipedia	
Inline-Archive/Datenbanken (z.B. Deutsche Digitale Bibliothek, Arxiv.org)	
ioziale Netzwerke (z.B. Facebook, Google+)	,
fideo/Foto Community-Portale (z.B. YouTube, Flickr)	
/ideokonferenz/VoIP (z.B. Skype, Adobe Connect) Veblogs	
iteraturverwaltung (z.B. Mendeley, Zotero)	
Content Sharing/Cloud-Dienste (z.B. Dropbox, Slideshare)	
online-Texteditoren (z.B. EtherPad, Google Docs)	
licroblogs (z.B. Twitter)	
erminierungs- und Koordinationstools (z.B. Foodle, Asana, Trello)	
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hat/Instant Messaging (z.B. Skype, ICQ)	
ocial Bookmarking Services (z.B. Delicious, Bibsonomy)	
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science 2.0	ortmöglichkeiten wählbar.
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Inwieweit stimmen Sie den folgenden Aussagen zu?

	stimme völlig zu	stimme eher zu	unentschieden	stimme eher nicht zu	stimme nicht zu
Ich mache mir Sorgen, dass Daten, die ich im Internet bereitstelle, missbraucht werden könnten.	0	0		0	0
Ich stelle ungern Informationen ins Internet, weil ich nicht weiß, was Andere mit ihnen machen könnten.	0	0	0	0	0
Ich veröffentliche ungern Daten im Internet, weil diese in einer Weise verwendet werden könnten, die ich nicht vorhersehen kann.	0	0	•	•	0
Ich kenne die Nutzungsbedingungen der Web 2.0-Tools, die ich nutze	0	0	0	0	0
Es macht mich nervös, mit Sozialen Medien zu arbeiten.	0	0	0	0	0
Der Gedanke, dass es beim fehlerhaften Gebrauch von Sozialen Medien zu Datenverlust kommen könnte, ängstigt mich.	0	0	0	0	0
Wenn ich Soziale Medien nutze, habe ich Angst, Fehler zu machen, die ich nicht mehr korrigieren kann.	•	0	•	0	0
Soziale Medien wirken auf mich etwas einschüchternd.	0	0	0	0	0

Zurück Weiter

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Inwieweit stimmen Sie den folgenden Aussagen zu?

	stimme völlig zu	stimme eher zu	unentschieden	stimme eher nicht zu	stimme nicht zu
Ich informiere mich so häufig wie möglich über technische Neuheiten wie z.B Smartphones, Computer, Software, Internet-Applikationen		0	0	0	0
Ich überlege häufig, wie ich technische Neuheiten für mich nutzen kann	0	0	6	0	0
Wenn mich eine technische Neuheit interessiert, dann informiere ich mich gründlich darüber		0	•	0	0
Freunde oder Bekannte beschreiben mich als technikinteressiert	0	0	0	0	0

Ich könnte eine Aufgabe mit Hilfe von Social Media erfüllen (z.B. eine Anfrage beantworten)...

	trifft völlig zu	trifft eher zu	unentschieden		trifft nicht zu
auch wenn niemand da wäre, der mir sagt, wie ich dabei vorzugehen habe.	0	0			0
wenn ich jemanden um Hilfe bitten könnte, falls ich feststecke.	. 0	0	0	0	0
wenn ich genügend Zeit für die Nutzung hätte.		0		0	0
wenn ich nur die eingebaute Hilfefunktion der Plattformen zur Unterstützung verwenden kann.		0	0	0	0

Zurück Weiter

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Bitte nennen Sie uns Ihr Geburtsjahr:

19

Sie sind:



Vielen Dank für Ihre Mitarbeit!

Liebe Teilnehmerin, lieber Teilnehmer,

wir danken Ihnen herzlich, dass Sie sich an der Befragung beteiligt haben! Ihre Antworten helfen uns, die aktuelle Nutzung von onlinebasierten Werkzeugen und Social Media-Anwendungen durch Wissenschaftler/innen besser kennen zu lernen.

Nach Abschluss der Auswertung werden die Ergebnisse der bundesweiten Befragung auf der Homepage des Forschungsverbunds www.leibniz-science20.de einsehbar sein. Gern senden wir Ihnen die Ergebnisse auch zu. Senden Sie dafür einfach eine bereits vorgefertigte unverbindliche E-Mail mittels folgendem Link an uns zurück: Ergebnisse Science 2.0-Studie

Ihre eingegebenen Daten bleiben dabei selbstverständlich weiterhin anonym.

Mit freundlichen Grüßen Das Befragungsteam Science 2.0 des Leibniz-Forschungsverbunds

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Imprint

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Science 2.0-Survey of the Leibniz Research Alliance "Science 2.0"

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Further information on Leibniz Research Alliance "Science 2.0":

http://www.leibniz-science20.de

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