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Abstract

The thesis deals with the use of Web 2.0- to gather health-related information. Social media (SM) and the use of the Internet have become more and more important in recent years. The ways to use SM and the ways to use the Internet have changed due to communication, search for information, communities etc. As social media and the Internet / Web 2.0 have changed a lot in recent years, health-related Web 2.0 has changed too. More and more people are using the internet in a health-related way. Netdoctors, health-related blogs, chats and forums, advertisement and e-commercials are emerging in parallel to the online health communication. But who is using SM to collect health-related information? What are these people looking for? And why are they searching for these issues?

The World Wide Web has created a new section within Public Health: Cybermedicine (Cybermedizin). Telemedicine is also part of this alteration, but it applies to clinical data transfer whereas Cybermedicine includes the communication between laymen and their exchange of non-clinical, preventive medical information. Cybermedicine is part of Consumer Health Informatics (CHI). CHI analyses the information needs of laymen and creates electronic systems that help people to manage their health issues. (Eysenbach G, 2001)

The Internet is getting more and more important as a resource of health-related information. As the Internet offers information on almost every request many people are using it to look up health-related issues. (Bansil et al, 2006) Fox and Meave called

them “health seekers”. Those who want to find out more about their medical concern are called “online diagnosers”. (Fox et al, 2012)

To understand the use of the Internet for health issues and health-related activities it is important to analyse the audience. Who is using the Internet with this motivation, what are their preferences and why are they searching for health-related information? The Internet use is classified into four sectors: information seeking (content), communities (chat rooms etc.), communications (email), e-commerce (Amazon etc). In case of health-related use the function was mainly information seeking. (Eysenbach G, 2003)

A questionnaire has been distributed to Austrian students aged between 18 and 30. 127 persons answered; therefore it can be seen as a convenience sample. 86% of these students are feeling perfectly healthy and only 2% are feeling sick. 90% of the interviewed persons are using the Internet every day.

88% are using health-related apps (including sports and diet). One third is searching online for a medical professional or how to lose weight. Half of the students who are gathering health-related information online are doing it for themselves and not for someone else. Most of the students (78%) go online at least once to gather health-related information.

There can't be noticed any relevant difference between male and female students using the Internet in a health-related way. People are more likely to make use of the Internet on health topics in a passive way than in an active way. 96% of the health seekers (persons who are looking online for health-related information) were reading

comments, searching for other persons, receiving mailings, reading wikis etcetera, while only 27% health seekers are posting their own experience or questions.

90% of the interviewed persons are using apps concerning health, fitness or diet on their smartphone or tablet. About 40% of them are using apps concerning sports or fitness. 51% of the students are using apps due to another health-related topic, but none of the other categories is used as often as sports apps.

List of abbreviations

CHI.....	Consumer Health Informatics
H.....	Hypothesis
HINTS	Health Information National Trends Study
SES.....	socio-economic status
SM.....	Social Media
SPSS.....	Statistics Package for Social Science

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Introduction

Social media (SM) and the use of the Internet have become more and more important in recent years. The ways to use SM and the ways to use the Internet have changed due to communication, search for information, communities etc. Almost everyone knows Facebook, Twitter and co. About 5.2 million Austrians aged between 16 and 74 were using the Internet for private purpose in 2014. More than 3 million Austrians were using social networks (Statistik Austria, 2014) Many people are using tablets or smartphones to google or to communicate via a social network. The Internet can be used everywhere and at any time. There are wikis, blogs and much more information due to almost every topic. Everyone can get any information he or she wants due to every topic.

As the use of social media and the Internet in general have changed that much, the use of the Internet regarding health-related topics has changed as well. There are communities, blogs, advertisement, e-commercial issues and many more information that is health-related. Day by day new apps concerning health, especially sports and fitness are launched. Many people are interested in sports and diet, and they are searching for information online. Health-related apps are facilitating to control weight, to control medication and training. These may be reasons why many people are using health-related apps. But that's not all: Mentality has changed to. In former times it was important to visit a doctor. People met there, exchanged experiences etcetera. Furthermore people did not have possibilities to get informed by other sources, so they had to trust their medical professionals. Nowadays people want to be prepared, when they are consulting a medical professional. They like to have a second opinion and they want to un-

derstand their diagnosis. Another reason to use the Internet to do some health-related research is anonymity. People like to stay anonymous, when they have a health problem.

As the Internet has become more and more important in recent years a new section of Public Health was created: Cybermedicine. Cybermedicine is including clinical data as well as health-related communication between laymen and their exchange of non-clinical information (Eysenbach G, 2001). So the Internet has become an important source for health-related information and people are using it to google health information (Bansil et al, 2006). Those who are searching online for health-related information are called “health seekers”. People who want to check their medical concern are called “online diagnosers” (Fox et al, 2012).

But who are these people who are using SM to collect health-related information online? What are these people looking for? And why are they searching for these issues? An analysis of the audience and the motivations of using the Internet in a health-related way is important to understand this special Web 2.0 use. According to Eysenbach there are four different ways to use the Internet: information seeking (content), communities (chat rooms etc.), communications (email), e-commerce (Amazon etc). Information seeking is the main motivation to use Web 2.0 in a health-related way (Eysenbach G, 2003). Motivations to do research on health topics online are: frustration (not enough information of doctors), lack of confidence in medical professionals, anonymity, lack of information of doctors, search for others with the same problems (Hierhold R, 2002). According to Rossmann the health seekers can be departed in three groups: the well, who wants to be prepared, the newly diagnosed, who wants to get spe-

cific information on their disease, the chronically ill, who is more dependent on the internet than the well (Rossmann C., 2010).

There is no similar study in Austria that is dealing with a user profile of people who use the Internet concerning the research of health-related information. It is important and interesting to discover who is using the Internet in a health-related way. Besides it is interesting to investigate the functions of the Internet considering health communication.

To proof the hypothesis a questionnaire will be distributed to Austrian students that is adapted and modified for an US American study. The study that is used for the questionnaire was a research by Susannah Fox and Maeve Duggan in 2012 and was conducted by Princeton Data Source. The presented results came from a nationwide survey. 3,014 adults, living in the U.S. were asked via telephone interviews. 1808 were interviewed by landline and 1206 by cell phone. The survey ran from August 7 to September 6 in 2012 (Fox et al, 2012). The questionnaire will be distributed to Austrian students. About 100 to 150 persons will be questioned. The questionnaire is going to be distributed via Facebook, E-Mail and in printed version.

The questionnaire contains four big parts: questions about socio demographics, health in general, Internet use and health-related Internet use. So there will be questions about age, gender, education etc. as well as questions about the individual health. It is important to know if the respondent is feeling healthy or not. Further it is interesting to find out the Internet use and the use of social networks. So the people will be asked how often and which social networks they use. The most important part of the questionnaire deals with questions about health-related Internet use: which apps, websites etc. they

use, how often they use the Internet in this way, for whom they are searching, what are they doing with the information they got etc.

The results will be interpreted and worked out with SPSS to prove the hypotheses. Frequencies, relations and dependences shall be proved, so that the thesis becomes more interesting and useful.

Theoretical Framework

The thesis contains two big parts, a theoretical part and an empirical part. The theoretical part deals with a brief description of Internet use, social media und Web 2.0 on the one hand and with health and health communication (online) on the other hand.

Mass communication, information gathering and especially the Internet use have changed a lot in recent years. More and more people are using the Internet and Web 2.0, mainly to communicate with others or to gather information. Health communication has also changed a lot. The Internet and especially social networks are playing a big part in the modern health communication. People are posting, reading blogs and wikis etcetera to get informed. In the questionnaire to this thesis people are going to be asked about their health-related social media use. Therefore, the theoretical part contains definitions of the terms Internet, Web 2.0 & social web and health communication. The classification and use of social web are going to be defined, as well as social networks are going to be described. To interpret and understand the results it is important to get some general information about health and health communication. So there is going to be a chapter about health communication online, as well as mass communication and public health. Furthermore there will be a chapter about patients and health communication and their motivations to gather health-related information.

The second part of the thesis will deal with the results of the survey. A survey will be distributed to Austrian students to prove the hypothesis. The results are going to be interpreted with help of SPSS.

The Internet use

In recent years the Internet has become more and more important. According to Statistik Austria in 2014 81% of the Austrians aged between 16 and 74 were using the Internet. 55% thereof are using social networks (Statistik Austria, 2014). Many people gathering information online, are connected to others via social networks and are posting private issues. Social networks, emails, blogs and wikis are becoming more essential every day.

Robert Kahn and Vinton Cerf only were two of those who enabled the modern Web 2.0 use as we know it nowadays. They developed the Internet program to integrate various networks into another. The introduction of E-Mails was the most important development of the Internet. This enabled a worldwide interactive communication. At the beginning the ARPA-Net was a network reserved for scientist only. The net was split into two parts in the year 1981: the ARPA-Net and the MIL-Net (Military Network). The National Science Foundation superseded the ARPA-Net in the year 1979. CSNet (Computer Sciences Network) was found and soon the first chats were invented. The World Wide Web (WWW) was a further development of the Internet in the 1990ies. The WWW was developed to be more structured and easier to operate with, so that it could be used by anyone. The WWW was used the first time in Geneva. New standards were created by the HTML (Hypertext Markup Language), a file format and HTTP (Hypertext Transfere Protocol), an Internet transcript (Mutsch U, 2008).

There are three big forms of Internet use: most of the Internet users use it for social networking, followed by blogging and the participation in online support groups (Hawn C, 2009). The way of communication, including the health-related communica-

tion on the Internet has changed a lot from 2005 (Jones S, 2009). Due to higher technical standards, the improved ways to communicate and research, social media has an important influence the health-related Internet use (Eysenbach G, 2008). Social networks “may increase perceived social support and interconnectivity among individuals.” (Eysenbach G, 2009, p.2).

Information is more democratic and patient controlled due to the fact that there is more user-generated content. The most important renewal was the UGC, the User Generated Content. Content is created by users for users. Therefore the user decides what goes online in which way (Bakula S, 2013). Information is more democratic and patient controlled due to the fact that there is more user-generated content. Therefore the information has to be more patient-centered oriented especially in social media and the Internet in general. Social media also has developed the communication for health promotion efforts for example smoking cessation (Vance et al, 2009).

Anyone can publish anything via the Internet. It is kind of citizen journalism, where Dan Gillmor and Steve Safran were acting as pioneers (Maier M, 2008). People don't want to kill classic media, but they want to change media. Anyone can publish anything; it is kind of a public opinion (Hamann G, 2008). One can distinguish between four categories in network publishing:

- Citizen Journalists: media-related publications are being organized by citizens
- Activists: political and other actions are planned and organized by citizens via Internet.
- Blogger: individuals or groups are publishing on blogs.
- Wikis or Wikipedians: individuals or groups are publishing information on online-encyclopaedias or other platforms (Maier M, 2008).

Internet and *World Wide Web* cannot be seen as synonyms or as the same thing. There are many different ways of social communication in the Internet. Those types of communication can be defined and divided in different dimensions (Emmer M, 2005).:

- synchronicity: It can be distinguished between a synchronous and an asynchronous communication. Chats are part of the contemporaneous or synchronous communication, emails and visits on webpages are part of the asynchronous or staggered communication (Emmer M, 2005).
- Configuration of actors: In classic media there is a configuration of one sender to many addressees. This has changed with the Internet:

addressee	ONE	FEW	MANY
sender			
ONE	E-Mail, Chat, ICQ	E-Mail, Chat, BBS, MUDs	WWW
FEW	E-Mail, Chat	Chat, BBS, MUDs, Listserv, Usenet	WWW, Usenet
MANY	Transaktionssysteme (E-Commerce, E-Voting)	Usenet, BBS	Usenet

Figure 1. One to many (Emmer M, 2005).

According to health communication the most important configurations of actors are few to many (blogs and wikis) and many to many (e-voting).

- Individuality: Individual communication needs to become more and more important. It is kind of a hybrid-medium, where individuals, groups and dispersed audience co-exist. Interpersonal and mass media communications are being united (Emmer M, 2005).
- Interactivity: One can distinguish between three ways of interactivity in communication. First there is a two-way communication, from sender to addressee and reversed, but there is no real interactivity. Then there is a quasi-interactive or relative communication, the addressee is reacting. At last there is a complete interactive communication. One is sending some information, and this information is being integrated in the communication of others (Emmer M, 2005).
- Monitoring of communication: Content is being monitored and regulated by the information provider. The recipient is checking the programs and services, where he or she is gathering the information (Emmer M, 2005).
- Multi-modality: This is part of the media psychology. Information is being presented in different ways – text, audio, video, and image (Emmer M, 2005).

It is important to understand the change of the Internet and Web 2.0 and the use of the Internet to understand the changes in the health communication and why people are using especially social networks and the Web 2.0 to get informed (Emmer M, 2005).

Web 2.0 or Social Web

Social networks, chats, postings etcetera are the most important way to use the Internet. Almost everyone knows Facebook, twitter and co. Many people are using these social networks to communicate and to search for information on almost every topic. Web 2.0 enabled the social use of the Internet and social networks and is additionally defined by this special use of the Internet. This form to use the Internet is the most common way in health communication of laymen.

There is no general definition of Web 2.0. It is neither easy to define the difference between a service and an application, nor is it easy to find a general definition of the difference between the second and the first generation of the web. Many services of the Web 2.0 are based on specific software. That means they are based on applications. Those software or applications are in receipt of the service provider. Therefore the terms application and service can be seen as synonyms. The difference between applications and services of the first and the second generation can be seen in the content. Applications of Web 2.0 are characterized by a user generated content (Alpar P. et al, 2008).

Web 2.0 is a further development of the Web 1.0. At the beginning of the Internet (in the years 1994 – 2004) it was an information platform but in recent years it has become more and more an interactive platform where everyone can take part. The burst of the dotcom bubble and the downfall of the New Economy (millennium) didn't lead to a crash or collapse of the Internet, like everyone expected, but has become of more importance to the society. Every user can play a part in the Internet and is able to use it and to present oneself individually at onthis platform. More and more social networks are

coming up. O'Reilly defines the term Web 2.0 as various changes in technique and developments within social part the platform is playing. The use of the Internet becomes easier because of various technical renewals and changes (Stanoevska-Slabeva K, 2008). "Durch unterschiedliche Kombination der technologischen Entwicklungen sind eine neue Art von Web 2.0 Plattformen und Communities entstanden." (Stanoevska-Slabeva K, 2008, S. 15). (A new kind of Platforms and communities of Web 2.0 arise with various combinations of technological developments.) Web 2.0 is a big challenge to the classic media.

Tim O'Reilly, a publisher, has coined Web 2.0 in the year 2004. The term has transpired all over the world very quickly. Web 2.0 defines changes and developments in the software sector and in the use of the Internet. 2.0 shows that these changes are kind of a renewal. O'Reilly defines in an essay that the Internet or the web is a platform. More and more services enable the user to use just one browser and therefore don't need to use desktop programs any more. The particular about the Web 2.0 is that every user can be a sender. Everyone can upload information to the net and connect this information to other contents. Like every other social activity, social web can be defined by duality. An individual act can only exist, can take place if it is pitched by some kind of social structure, rules and norms. Any kind of action is determined by those structures. Acts can be reproduced by other acts (Schmidt J, 2008).

About 85% of the content on the web are being uploaded and published by individuals and very often this information is as qualitative as the information of classic media. Blogs are kind of a news- and media-watch- format. Pundit Blog is an important form of blogs (Stanoevska-Slabeva, 2008). "Pundit-Blogger sehen sich als Experten für bestimmte Themen und als globale Kritiker von Medien und Politik. Ihr Ziel ist es

Falschmeldungen aufzudecken. Sie stellen ein Gegengewicht zu etablierten Medien dar und bearbeiten zudem Themen, die von traditionellen Medien vernachlässigt werden." (Stanoevska-Slabeva K, 2008, S. 24). (Pundit Bloggers see themselves as experts for distinct themes and as global critics / reviewers of media and politics. They want to publish and to uncover false reports/ canards. They are a counterpart to established media and work out / deal with themes which aren't presented or neglected in traditional media.)

As already mentioned there have to be rules and norms about the use of the Internet. So the Web 2 can be defined via three dimensions:

- Rules of utilization: There are several rules and norms that are important for the use of the Web 2.0. These rules are being sanctioned.
- Relations: Relations are being established with diverse applications in the social web. Hyperlinks enable relations and relations enable public.
- Code: Many applications can be joined in the social web (Schmidt J, 2008).

Types of social web and classification.

Web 2.0 is defined as a social web, a social platform, where everyone can exchange information, news and opinion. There are four important prototypes of social web where an exchange of opinion and information can take place: Wikis, Blogs, Social-Networks, Social Sharing.

- Wikis: Wikis are software that are web based and can be used by everyone. Every visitor of the website can change the content by editing the site online. Everyone has the right to change the text and the content. It is kind of a many-to-many media. Users are responsible for the content and the arrangement of the content. Wikipedia is the most important and most famous encyclopaedia in the Internet (Ebersbach et al, 2008)
- Blogs: Blogs or Weblogs are Websites, that show various entries and articles in reverse chronological order. Personal homepages, forums and commentaries are united. Everyone can establish a blog to every theme. Blogs are often seen as competitor to classic media. Blogs are selective, specified for a special audience, communities of interest. They are communicating subjective, personal content and therefore they are seen to be authentic. They are networked to other blogs and websites. There are different kinds of Weblogs: Private blogs of individuals, which are dealing with private themes, journalistic blogs and media blogs by professional authors (journalistic blogs), media blogs (Ebersbach et al, 2008).
- Social networks: They are enabling relations between individuals. One must be registered to use a social network. Relations, acquaintances, personal interests

and activities can be seen on a profile of an individual (Facebook, Xing, Myspace are some examples for social networks) (Ebersbach et al, 2008). There are two different kinds of social networks. On the one hand there are social networks, where members are sharing special interests and are operating with a pseudonym. On the other hand there are social networks like Facebook or Myspace where members are being connected and relations can be seen by others. So it can be distinguished between content-relevant, relation-specific and professional social networks (Hugger K, 2010).

- Social Sharing: These platforms are the oldest and most known applications of social web. Users can upload photos, videos and others can see and comment them. The most important social sharing platform is youtube (Hugger K, 2010).

All these types of social web are important in the health-related Web 2.0 use. People are looking for information on wikis, posting experience and questions on blogs and are talking to others via social networks.

Social media and Society.

Web 2.0 improved the ways of communication between individuals. Social Networking, Blogs and Wikis allow a more and more interactive way to communicate. It is a completely new form of Media (Bakula S, 2013).

Boyd and Ellison defined Social networks as web-based services with which people are able to construct a public or semi-public profile within a bounded system, communicate, view and create a list of other users they are connected to (Boyd D, Ellison N., 2007).

The Social Web is a big part of Web 2.0. Social Web and Social Software are web based applications that are supporting the exchange of information, communication and relations for individuals. Individuals need to integrate in various groups.

Web 2.0 covers a big part in the health communication. Many people are looking for information, exchanging experience or are posting questions due to health-related topics. The second part of this thesis will be an interpretation why and how Austrian students are using Web 2.0 for health-related issues. This is leading us to the second part of the theoretical framework: a short definition of health. It is as important to define health as to give an overview over Web 2.0.

Health – a brief definition

„Health is a state of complete physical, mental and social well-being and not merely the absence of disease and infirmity“.(World Health Organisation. Constitution of the World Health Organisation (WHO, 2014, p.2).

Health is a composition of natural abilities (dignified, nowadays manipulable), state of health (can change and deteriorate more or less rapid, can be influenced by the way of thinking and acting, dependent on the aging process), knowledge (variable, knowledge of resources and risks), state of mind (variable, trainable, the most important part), health-related behaviour (variable, trainable), social material background, social experience (easily influenced when a person is younger, not so when the person is older). It can be distinguished between an absolute and a relative health. Health is not just a state of being but depends on various events of disputes and acquirement, which are lasting lifelong. Those events are embossed by success and failure. Health is a lifelong process of developments and individual efforts about coordination of interior and exterior requirements. A person needs social relationships, needs to be integrated and needs to adapt his or her life to the changing conditions and burdens of life environment. The more and better the competences of communication a person got and the better he or she can use them in contact with others and is able to gather information about development targets, the better, more self-determined, more satisfied and healthier he or she can live (WHO, 2014).

The Internet is getting more and more important as a resource for health-related information. As the Internet will offer information due to almost every concern many people are using it to look up health-related information. Fox and Duggan called them “health seekers”. Those who want to find out more about their medical concern are called “online diagnosers” (Fox et al, 2012). Those health seekers and online diagnosers are using the Internet in various ways:

health or medical information seeking for oneself, use of online support groups for people with similar health and medical issues, and online purchase of medicine and vitamins - in order for a better understanding of the potential of different health-related activities, to influence people’s lives (Atkinson et al, 2007, p. 2).

The health topics that they are most frequently looking up are:

- 1) background information as well as symptoms and treatment of a disease or condition, 2) medications and prescription drugs, 3) diagnostic tools, 4) new or experimental treatments, 5) diet, 6) exercise, and 7) support groups (Bansil et al, 2006, p.2).

Health communication can be defined as every information and communication concerning medical- and health-related topics. This includes every form of communica-

tion – face-to-face communication or communication via media. So the communication between a medical professional and a patient, as specialized media, mass media and the Internet is part of the health communication (Gottesberg C, 2010).

Health communication is being researched since the 1970ies in Northern America. “Health communication is an area of study concerned with human interaction in the health care process.” (Kreps et al. 1992, p.2). Much later the topic social communication and communication concerning organisations was included in the research interest of health communication (Neverla et al. 2007).

Health communication is not just the information exchange of selected persons and groups. Almost every information and competence we are gathering as laymen in communication with other laymen and experts and as experts in contact with other experts or laymen can be seen as part of the requirement to assure the own survival and health. This can be more or less successful and qualitative. Every experience and all knowledge we are gathering is influencing our behaviour and our action regarding health. The acquirement of knowledge, skill and experience happens in a social environment. This environment is determined by systems, organisations and institutions, which do not have the target to heal their members but to be functional (Gottesberg C, 2010). Health communication has various capacities for our society and their systems:

- information about the health problem
- information about the target group → who got this problem, who wants to be informed
- information about the target and the outcomes of a behaviour modification → What is the target? What is my benefit? The target has to be defined clearly and attractive.

- Information about the path-goal and the offer → information about solutions and the offer are published. What am I supposed to do?
Who is supporting me?
- Information about the provider → who is supporting me and why?
(Krause R., 1989).

Digital divide and social disparities in health issues are overlapping. The access to the Internet in Europe and the digital divide may not be expected to influence disparities in health care. Although the Internet is playing a role in this. The Internet use has a direct positive relation to subjective health, an indirect positive relation that is found via social support. Internet is better correlated with social support. As any other media the Internet is used for information seeking. As it is used for information seeking you got to have a basic knowledge about the issue you are searching for. Therefore, it isn't that remarkable the results of the research of Wangberg et al show that those who used the Internet are higher educated, have more social relations and are in a better subjective health. Better subjective health means that they are feeling healthier than others. This shows that subjective health, Internet use and social interaction is correlated positively (Wangberg et al, 2007). Online eHealth tools, Blogs, social networks and Apps can help people solving their health issues. Millions of people are using the Internet to surf health issues (Atkinson et al, 2007).

According to a research of HINTS (Health Information National Trends Study) in the year 2007 more than 7000 people were interviewed in a survey. 69% of all the adults in the US are having access to the Internet. 27% are using SM (Cantor et al, 2007). They found out that the less-educated individuals are and if they are part of an

ethnic minority they are even more likely to use SM in order to look up health issues. The older the Internet users are, the more likely they are to use SM for health-related information seeking. Many of those who use the Internet for health-related information seeking are surfing in blogs and are participating in the blogosphere. The blogosphere is an enormous opportunity for health communication (Eysenbach G, 2009). “Particularly so, because bloggers have been observed to act as important communication stakeholders – not only are they information disseminators, but they play a crucial role in directing Internet traffic through opinions and hyperlinks.” (Eysenbach G, 2009, p. 6).

Forms of health communication.

There are new forms of health communication, especially in the Internet (Web 2.0). Patients can be part of the health communication and can be active via the Internet. Laymen now got the chance to gather health-related information and specialized information, so that they are independent or no longer depend on medical professionals (Jörleemann C, 2000).

You can find pharmaceutical industry, food maker, medical professionals, research centers and universities, health insurance, government, NGOs and support groups offering health information on the Internet. There is a difference between websites that are offering specific information about various topics (kopfschmerzen.de) others are publishing information to various themes (netdoctor.de). Then there are websites that are offering information for experts and others that are offering information for

laymen (Stadtler M, 2006). It can be distinguished between Profit- and Non-Profit-Organisations that are offering information in the Internet. Profit-Organisations are for example pharmacies, health-insurance, netdoctor.de. Universities and support groups can be seen as Non-Profit-Organisation (Gottesberg C, 2010).

Health communication and public health are synonyms. According to Kreps and Thornton it can be defined as “Health communication is an area of study concerned with human interaction in the health care process. It is the way we seek, process and share health information. Human communication is the singularly most important tool health professionals have to provide health care to their clients. Not only do health care providers offer their services to consumers through communication contact, but they also gather pertinent information from their clients, explain procedures and regimes to clients, and elicit cooperation among members of their health care team through their ability to communicate (Kreps et al, 1992, p.2).

Mass Communication and Public Health.

Media and regulatory environment is changing and increasing more and more the relation between mass communication and public health (Atkin C. et al., 1990). “...there is a trend toward diversification of the media. The three television networks now account for only two-thirds of all television viewing, as exposure to independent stations, cable

channels, and VCRs have grown dramatically ... public interest in health information has increased in recent years; there is a corresponding rise in health-related media content and health claims in advertising, and both advertisers and broadcasters are more sensitive to public opinion and to organized advocacy efforts of special-interest groups.”

“Conflicting priorities of mass media versus public health institutions” (Atkin C. et al., 1990, S. 16).: Mass media tends to entertain, persuade, inform and make profit while public health institutes wants to educate and improve public health. Mass media reflects society, health institutes wants to change society (Atkin C. et al., 1990).

One of the most important questions concerning health issues deals with the role media plays in health promotion and health education. There are three different perceptions (Atkin C. et al., 1990).:

- Mass media is positively influencing public health education. “...if only we could get the right message to the right people in the right way at the right time, then even the most interact able public health problems would yield.” (Atkin C. et al., 1990, S. 41).
- Mass media is negatively influencing public health education. Mass media is a barrier to health education, because its main aim is to make a profit and not to educate (Atkin C. et al., 1990).
- Mass media has no influence and no effect on individuals and their behaviour. “This “null effects” hypothesis suggests that the media strictly reinforce rather than shape public opinion and individual behaviour. The mass media are viewed as part of the general environment but not as change agents or targets of change.” (Atkin C. et al., 1990; p. 41).

None of these perceptions can be defined as the right one, so that the influence and the effect of mass media on public health issues must be seen somewhere in the middle. Mass media is setting agenda, it doesn't tell us what to think, but it does tell us what to think about (Atkin C. et al., 1990). "The media tend to reinforce conventional definitions of health problems and hence determine, to a large extent, the legitimacy of various solutions. Conventional definitions that have led to unsuccessful approaches are tried repeatedly with little success. While public health problems are, to a large extent, socially generated, the mass media reinforce individual-level explanation." (Atkin C. et al., 1990, p.42).

There are some requirements to mass media to assure the greatest possible use to improve health education and public health:

- Mass media has to act as a forum for health professionals and for their information they want to tell the public. Mass media sets the public agenda in health issues.
- To improve the communication and the flow of information mass media professionals and health professionals should work together. Information about risks, medication and any other health issue may get through to public.
- Mass media are responsible for the accuracy of health-related facts.
- Health professionals have to work closely with mass media professionals to assure a changing individual behaviour and the improvement in economic and social conditions (Atkin C. et al., 1990).
- "Mass media professionals must be more willing to examine critically theories of disease causality and health promotion derived from the needs of a mass-production-oriented society." (Atkin C. et al., 1990, P. 50).

- Mass media contributes knowledge, but people also need the skill to analyse and use this knowledge (Atkin C. et al., 1990).

Modern health communication and e-health.

Health Communication contains the research of the communication between patient and medic and the research of the relation between Health Education (Health Campaigning, schooling) and the public, subjective and individual health. In the 1980ies they also added the research of the relation of mass media and health behaviour. Health Communication has become an important part of the modern Health Politics since the 1990ies (Hurrelmann et al, 2001).

Health Communication defines the exchange of knowledge, opinion and emotions between professional service providers, patients or persons who are interested in health-related information. On the one hand there is direct-personal communication, as doctor-patient-communication, on the other hand there is indirect communication via media. Telecommunication combines both: indirect communication and direct communication (Hurrelmann, et al, 2001).

The World Wide Web has created a new section of Public Health: Cybermedicine (Cybermedizin). Telemedicine is also part of the renewals, but it applies to clinical data transfer while Cybermedicine includes the communication between laymen and their exchange of non-clinical, preventive medical information. Cybermedicine is part of the Consumer Health Informatics (CHI). CHI analyses the information needs of lay-

men and creates electronic systems that helps people to manage their health issues (Eysenbach G, 2001).

The health care system in Austria and Germany is based on the division of labour. This leads to many problems in the coordination of patient-centred care. Since the Health Care Reform in the year 2000 professionals have been discussing a new integrative health care system. The main ambition of this new and more integrative system is to simplify the patient-centred care. The health care system is separated in many specialist fields. Variable specialists are responsible for different sections and mostly they are not centred but departed. Therefore the prevention care and the follow-up care are not assured and not easy to manage for patients. In order to improve the health care system it is important to enhance the communication between patients, doctors and health insurance institutes. To manage and improve their health, patients need to gain more information. For doctors and medical professionals it is important to gather information of new and modern therapies and medication systems. A better communication will increase the quality of the health care system. New Media, as the Internet play an important part in this new integrative system (Mühlbacher A. et al, 2001):

- Content: exchange of relevant content and information for laymen and specialists
- Commerce: shopping platforms, online drugstores, electronic transfer of Charging of medical services
- Computer Application: for the exchange of information and the e-commerce
- Connectivity: connection of patients, drugstores, doctors etc. via the Internet
- Care: improve the health care via Internet and e-communication (Mühlbacher A. et al, 2001).

Telemedicine, Telehealth and E-Health.

Telehealth can be seen as a synonym to telemedicine in the 1990ies. Telehealth includes the communication of patients and doctors, and not like telemedicine only communication of medical professionals (Hierhold R, 2002). The term E-health was established in the year 1999. It defines health care via the Internet. E-health includes every form of electronic communication concerning health. First the term was used by marketing experts and later medical professionals and researchers were using it too (Darkins A et al. 2000).

In recent years more and more health-related websites, services, portals and forums appeared in the Internet. Furthermore more people are using the Internet in a health-related way for various reasons (Kristiansen et al, 2013).

According to Eysenbach E-health should be declared by:

- Efficiency → decreasing costs, avoid unnecessary diagnostics
- Enhancing quality of care
- Evidence based → effectiveness and efficiency should be proved by scientific evaluation
- empowerment of consumers and patients by increasing their medical knowledge
- encouragement → a new patient – medical professional relationship
- education of consumers and physicians via the Internet
- enabling information exchange online (between health care establishments)
- extending → consumers can use health services online

- ethics → privacy, equity
- equity → rich and poor, everyone can use it equally (Eysenbach G, 2001).

Although or because there are so many different health-related offers in the Internet it is not so easy to define e-health clearly. According to e-health Suisse e-health is seen as the use of information and communication technologies for designing, supporting and networking of the processes and members of the health system (BAG, 2007, 12). E-health is developing processes, increasing productivity and is supporting and increasing health awareness and competence in society. Therefore health-related portals, electronic data record, monitoring systems are necessary (BAG, 2007, 12).

Eng, on the other hand defines e-health as “... the use of emerging information and communication technology, especially the Internet, to improve or enable health and healthcare.” (Eng T, 2001, p.12). According to Rossmann providers of health portals and addressees are the most important authorities in the Internet. Practicality and interactivity are only important if there are possibilities to interact. Communities are getting more and more important for web 2.0 (Kristiansen S. et al. 2013).

There are new challenges for health care that come up with the Internet:

1. B2C business to consumer → consumers can interact online
2. B2B business to business → transmission of data for institution
3. C2C consumer to consumer → peer to peer communication of consumers (Eysenbach G, 2001).

E-Health is an emerging field in the intersection of medical informatics, public health and business, referring to health services and

information delivered or enhanced through the Internet and related technologies. In a broader sense, the term characterizes not only technical development, but also a state-of-mind, a way of thinking, an attitude, and a commitment for networked, global thinking, to improve health care locally, regionally, and worldwide by using information and communication technology (Eysenbach G, 2001).

E-health: access, use and motive.

About 75% of the EU-citizens got access to the Internet. A notable number of people are using the Internet regularly to gather health-related information. According to a study of Latzer et al 70% the interviewed people (77% of all interviewed persons are the age of 14) are gathering health-related information in the Internet. A typical e-health user is a young (age 18-39), better educated and wealthier person (Latzer, 2012). Women are more interested in health than men, but men are more likely to have access to the Internet (Rossmann C, 2010).

According to Rossmann there are three types of e-health-user:

1. “TheWell” – 60% They are collecting information because they want to be prepared, information about prevention.
2. “The Newly Diagnosed” – 5% They are searching very intense and for specific information about their diagnosis.

3. “The Chronically Ill and their Caregivers” – 35%: They are searching health-related information more often than the well ones and are more dependent on the Internet (Rossmann C, 2010).

Motivations to gather health-related information.

In former times patients were using medical journals and special medical informative material to gather information about hospitals, medical treatments and health in general. In recent years more and more patients are using the Internet to gather health-related information. There is a dividing line between the younger generation, who is using new technologies and the older generation, who is still using conventional informative materials (Janßen U, 2010).

There are five big information mediums in the Internet:

1. Forums: Patients can exchange information. They talk about their problems and health issues.
2. Information services of cost bearers: Information about diseases, therapies and diagnoses are put online.
3. Rankings of performances: rankings of doctors, hospitals etc.
4. Clinical portals: hospitals, clinics etc. are being presented.
5. Information pages of hospitals (Janßen U, 2010).

Reasons to use E-Health.

Health awareness is increasing in recent years, people are more interested in their own health and are tending to self-medication. More and more people are searching for health-related information and they wish to be better informed. Many times they are frustrated because there is an information overload, so that there is a desire for a better organized website or more schema (Kristiansen S. et al. 2013).

According to a study of PEW the most named motive to use the Internet to search health-related information was that a person is caring for someone (a relative, friend). Most of the times people are gathering health-related information for someone else and not for themselves. There can't be seen any difference in the use of the Internet between people who are chronically ill and others. Mostly people are collecting information about specific medical problems. This is followed by the search of specific health care and therapy. On third place there is the search for a medical professional (PEW, 2011).

Furthermore people are collecting additional information and are searching for a second opinion from their doctors. Most of the information that is collected is about health, illness and healthcare, followed by the search for a medical professional (Kristiansen S. et al. 2013).

People are using the Internet to gather health-related information:

- frustration and search for information because they don't get enough information of their doctors

- lack of confidence in the doctor, especially when a therapy fails
 - anonymity: it is easier to ask a question if it isn't asked face to face
 - lack of information of the doctor
 - search for others: people are looking for information for their friends and family
- (Hierhold R, 2002).

The use of media and the Internet in case of health problems.

When people are using the Internet to gather health-related information in case they are sick it is more likely they are looking for information than for entertainment. It is more likely that in almost every case people are searching for this kind of information, they aren't doing it because they are looking for entertainment. It can be seen as a recipient centred and not as media centred aspect of using the Internet. The use of the media is kind of an intentional social acting (Gottesberg C, 2010).

pros and cons of e-health.

There are many positive aspects about e-health for example that almost everyone has an economical access to health-related information. Some medical professionals would prefer more face-to-face communication to assure their information monopole. Fur-

thermore not everyone has access to health-related information in the Internet, because not everyone has access to the Internet. On the other hand various target groups (as migrants) can easily gather health-related information online, especially in their mother tongue (Kristiansen S. et al. 2013).

Anonymity and immediacy are advantages of e-health. On the other hand there is a necessity more transparency and quality of the information. Furthermore it is important for users to be competent and have some basic knowledge, so that they can distinguish between high-quality and low-quality information. Ill-informed patients can be a result and a problem for medical professionals. Patients have less confidence in doctors (Kristiansen S. et al. 2013).

Table 2: pros and cons of e-health

pros	contras
<i>Provider: economical, immediacy</i>	Offer: quality, credibility, confidence aren't clear
Hypertextuality: image-text-audio	Information overload is overtaxing user
Offer: topical, unlimited, diverse	Digital divide
Target group: tailoring, contextualizing	Internet literacy and skills: user navigation
User condition: spatial and temporal demarcation (Entgrenzung)	Knowledge gap

User: user control, feedback, anonymity Medicalisation (Medikalisierung) and
healthism

Patient: empowerment, user – produser Data security, security, liability

(Rossmann C, 2010)

Table 1: classification of health-related offers in the Internet

Practicality	Interactivity	Interest	Provider	Adressee
<i>Content</i>	Information: one-sided	Commercial	Health system	Health system
Communities	Interactivity: mutual	Non- commercial	Politics	Politics
Provision	Transaction: mutual		Science	Science
			Media	Laymen: pub- licity, target group, persons affected

(Rossmann C, 2010).

Those are different categories of electronic health communication. Telemedicine offers health services, clinical information and correspondence via telecommunication and exists long before the Internet (Hierhold R, 2002).

If telehealth is understood to mean the integration of telecommunications systems into the practice of protecting and promoting health, while telemedicine is the incorporation of these systems into curative medicine, then it must be acknowledged that telehealth

corresponds more closely to the international activities of WHO in the field of public health. It covers education for health, public and community health, health systems development and epidemiology, whereas telemedicine is oriented more towards the clinical aspect (Maheu M. et al, 2001, p.3).

To use Web 2.0 in a health-related way one has to have some basic knowledge about the topic. Most of the users (according to Wangberg). are higher educated and are healthier. Social networks can help people to solve their problems. Health communication, like any other mass media communication or online communication may be few to many, many to many or one to one etcetera. Especially at the health communication online some individuals are “talking” to many interested persons, often it is a communication between laymen (in blogs, forums). Therefore it is hard to find out whether the information is of high quality or not (Wangberg S, 2007)

The bigger the Internet becomes, the more people are searching for health-related information and the more persons are sharing their experiences and problems. Up to a certain extent the health system and consequently public health could be improved by e-health. People are using Web 2.0 to exchange information and experiences in forums, blogs and wikis, to post questions, to gather information about various diseases, medication and therapies, to evaluate and rank medical professionals and hospitals.

The motivations to use the Internet in a health-related way are frustration, because people do not get enough information of medical professionals, because they have a lack of confidence in doctors, medication or therapies and because they want to be anonymous. Furthermore they can find others with the same problems. So they are us-

ing Web 2.0 in a health-related way to get gratification. They want to find solutions for their health problems and they are using the Internet in an active way. This is leading us to the Uses and Gratification Approach.

Uses and Gratification Approach

The uses and gratification approach is a research strategy, a theory that was developed in the 1970ies as a counterpart to classic research on media impact. While classic research on media impact is asking “What impact does media has on humans? What is media doing to humans?” the uses and gratification approach is asking “What are humans doing to media? What impact do humans have on media?” (Hugger K, 2008). The percipient is being seen as active and no longer as a passive element in mass media processes. The use of media is seen as kind of social action that is responsible, active and purposive. A percipient determines the use of a specific media and of specific media content due to his needs, problems and expectations. Media is a way to solve problems and to satisfy needs. Media is not used automatically; therefore media only shows effect if it is used (Bonfadelli, 2004).

There are three central elements that are defining the uses and gratification approach:

1. The percipient is active and not only an addressee of media news. Percipients are subjects who are choosing what they want to consume. In other, recent theories, like the Lasswell’s model of communication and the stimulus response model, the percipient is being seen as quasi active, so that he or she is choosing, but his or her choice is conducted by the media and the percipient has no effect on media. The uses and gratification approach the percipient has an initiative on his or

her own. Communication processes only arise with the individual needs and expectations of users.

2. Media offers are selected because percipients are hoping for satisfaction of their needs (satisfied needs – gratifications). Media is only used if it is seen as useful and lucrative.
3. Media use can be seen as a social action. Media content is not determined by the communicator but has to be interpreted by the percipient (Sander U, 2008).

Social media and Web2.0 is being used to gather health-related information and to solve health problems. Users are looking for health-related topics when they need it, when they are sick or when someone they know has a disease. Hardly anyone will google for information about heart disease if he/ she is not suffering from it or if he/she does not know anyone who is. The health-related Web 2.0 use is arising with the individual needs and expectations. The Internet will only be used in a health-related way if the person wants to satisfy any need or solve any problem.

There is loads of information, millions of websites, blogs, and forums to almost every health-related topic. Users have to interpret and evaluate the information whether it is of high quality or not.

Research Questions

The ways of communication are changing more and more and there can also be noticed changes in the health-related communication. With the emergence of the web 2.0 and social media a new way of health-related communication appeared cyber medicine. Professionals as laymen are publishing health-related information in blogs, forums, and social networks or on special issue webpages. Therefore it is interesting and important to find out who is using the Internet for gathering health-related information. Although there is done much research in the USA, like the studies of HINT, where US-adults were asked about their health-related social media use, there is hardly or no research done in Austria.

- Is there a gender-related difference in the use of Social media concerning health issues?
- What are the motivations to use social media for health-related information seeking?
- Is there a positive relation between health-related social media use and subjective health?

Hypothesis

H1 Female gender is positively related to the use of social media for seeking information about health care.

According to Wangberg those who are using the Internet in a health-related way are more likely to be female than male (Wangberg et al, 2007). Women are more interested in health than men (Rossmann C, 2010).

H2 People are more likely to use social media and the Internet in a passive way to gather health-related information than in an active way. It is more likely that they are searching for information than that they are posting or sharing information or their experiences or that they are logged on.

As there are new forms of health communication and many possibilities to get health-related information in the Internet patients are no longer dependent on medical professionals. Users can get well informed by laymen who have the same problems and experiences (Jörlemann C, 2000). More likely people want to be prepared, want to find out specific information about their disease or want to find a good medical professional, other therapies or medications than people are posting their problems (Rossmann C, 2010). Furthermore patients like to be anonymous. It is easier to google a disease or a health-related information than to talk about it face to face (Hierhold R, 2002).

H3 People are more likely to search health-related information for themselves than for others.

People are more concerned on their own health than on the health of others. According to Rossmann there are types of e-health users. According to Rossmann, the well ones, who want to be prepared and informed, the newly diagnosed, who are looking for specific information about their disease and the chronical ill are those who use the Internet to The chronical ill are searching more often online for health-related information than all of the others and those people will search for themselves and not for any other person (Rossmann C., 2010).

H4 Apps concerning sports, fitness and diet are more likely to be used than other health-related apps.

“The health topics that are most frequently looked up are to collect background information about symptoms, treatments and disease, to look up medication and prescription drugs, diagnostic tools, to find out more about diet, exercise and support groups.” (Bansil et al, 2006, p.2). Not only persons who are sick are using the Internet in a health-related way. People are using the Internet in a health-related way to stay healthy.

H5 There is a positive relation between health-related social media use and subjective health. People are more likely to feel healthier the more they use social media to gather health-related information.

“Internet use was found to be a mediator between socio-economic variables and health.” (Wangberg et al, 2007, p.76). Up to a certain mass media is improving and influencing health education, health system and health promotion (Atkin C., 1990). People who are using the Internet in a health-related way are better informed, more concerned about their health and therefore they may feel healthier than others. Furthermore Apps, Online Tools, Blogs etcetera are able to help people solving their health issues (Atkinson et al,

2007). Everything we know, every experience is influencing our behaviour and or perception about health (Gottesberg C, 2010).

Methodology

To test the hypothesis a mix of methodologies will be applied. First the paper will present and interpret data collected by the PEW Internet and American Life Project (PEW). Further an examination via a questionnaire distributed to Austrian students will be carried out.

PEW is a non-profit organization that is collecting and analysing data concerning social life, Media, Politics, Religion, Internet and Hispanics in the U.S (Fox et al, 2012).

Pew Research Center is a nonpartisan fact tank that informs the public about issues, attitudes and trends shaping America and the world (<http://www.pewresearch.org/about/>).

The PewResearchCenter is conducting demographic research, media content analyses and public opinion polling. The following study was supported by the California HealthCare Foundation. This is an independent philanthropy, committed to improve health care (Fox et al, 2012).

The study that is used in this paper was a research by Susannah Fox and Maeve Duggan in 2012 and was conducted by Princeton Data Source. The presented results came from a nationwide survey. 3,014 adults, living in the U.S. were asked via telephone interviews. 1808 were interviewed by landline and 1206 by cell phone. The survey ran from August 7 to September 6 in 2012 (Fox et al, 2012).

Statistical results are weighted to correct known demographic discrepancies. The margin of sampling error for the complete set of weighted data is ± 2.4 percentage points (Fox et al, 2012).

81% of the interviewed adults are using the Internet. 72% of them use it to look up health information. 55% of Internet users say they looked online for information about a specific disease or medical problem.

The US study will be used as a reference and as kind of contrast medium to better understand the results of the survey that will be distributed to Austrian students. 127 persons will be questioned. The questionnaire is going to be distributed via Facebook, E-Mail and in a printed version.

The questionnaire consists of four big parts: (a) questions about socio demographics, (b) health in general, (c) Internet use and (d) health-related Internet use. There will be questions about age, gender, education etc. as well as questions about the individual health. It is important to know if the respondent is feeling healthy or not, e.g. “Are you now living with any of the following health problems or conditions? Diabetes or sugar diabetes, High blood pressure, Asthma, bronchitis, emphysema, or other lung conditions, Heart disease, heart failure of heart attack, Cancer, Any other chronic health problem or condition, I am healthy.”

Further it is interesting to find out the Internet use and the use of social networks. for example: “Do you use the internet on your cell phone? every day, several times a week, several times a month, rarely.” Consequently the people will be asked how often and which social networks they use.

The most important part of the questionnaire deals with questions about health-related Internet use: what kind of apps, websites etc. they use, how often they use the Internet for that purpose, for whom they are searching, what are they doing with the information they got etc. e.g. “Thinking about the LAST time you had a serious health issue or experience any significant change in your physical health... Did you get information, care support from a doctor or a health care professional (offline, online, both, no, not a source, don’t know), friends and family (offline, online, both, no, not a source, don’t know), others who have the same health condition (offline, online, both, no, not a source, don’t know).” Another question will be: “Still thinking about the LAST time you went online to look for health information. How did you begin looking? Did you start at a search engine such as Google, Bing or Yahoo, at a site that specializes in health information, wie netdoktor.at, at a more general site like Wikipedia, that contains information on all kinds of topics, at a social network site like Facebook, don’t know.” To find out more about the app use: What kind of health apps do you currently have on your phone? What health issues or topic do your apps deal with? exercise, fitness, pedometer, heart rate monitoring (includes specific types of exercise like running, ab workouts, yoga...), diet, food, calorie counter, weight, period or menstrual cycle, blood pressure, NetDoktor App (or similar ones), Pregnancy, Blood sugar or diabetes, Medication management (tracking, alerts), Mood, Sleep, I don’t have any health apps.”

The results will be interpreted and worked out with SPSS to prove the hypotheses. Frequencies, relations and dependences shall be proved, so that the paper becomes more interesting and useful.

State of the Art and Expected Results

The Internet is used as a diagnostic tool. Therefore 59% of all U.S. adults used the Internet to look up health information. 36% of the adults diagnosed their medical condition (online diagnosers).

53% of those who figured out their medical status on the Internet talked to a clinician afterwards, 41% of the online diagnosers had their condition confirmed by a medical professional. Women are more likely than men to use the Internet to search health-related information. Moreover younger people, white adults, better educated people and those who live in households earning \$75,000 or more, are more likely to look up health-related information online. U.S. adults are searching on the Internet for information concerning their medical diagnoses, their health-status, to lose weight etc. more likely than to communicate with others or do some e-shopping. U.S. adults are more likely to search health-related information for themselves than for others. 39% of the health seekers are searching information related to their own situation. 39% are searching for someone else 15% are doing both.

Comparing to the U.S. adults there will be some differences. Health care is much cheaper in Austria than in the U.S., because of the compulsory health insurance for everyone. Consulting a doctor has more or less become a *tradition* in Austria. Therefore there will be more people consulting a doctor in Austria than in the U.S. and less people will look up information on the Internet. Nevertheless, there will be a difference between men and women using the Internet due to health-related research. As in the U.S., in Austria more women will go online to search for this specific information. In addition

and similar to the U.S. adults more educated and wealthier people, will use this type of Internet-research.

Online diagnosers

35% of the U.S. adults who have looked up health-related information online, have gone online trying to figure out in what medical condition they themselves or someone else might be. More women are online diagnostician than men. Better educated U.S. adults, white and wealthier U.S. adults are more likely to figure out their medical condition than others. There is no statistically significant difference between those who have health insurance and those who do not when it comes to using the Internet to figure out an illness.

The online diagnosticians where asked if they had the feeling to attend a medical professional after finding the information on the Internet concerning their medical condition. 46% of them agreed, they had the feeling to need professional help. 38% said that they could take care of themselves at home. 11% said it was either both or in-between. 35% of the online diagnosticians talked to a medical professional about the information they found. 46% did not talk to a doctor. In 41% of the cases where the U.S. adults talked about their search result to a professional, said that their diagnosis were confirmed. 2% said that it was partially confirmed.

77% of the health seekers started to search at Google, Bing, Yahoo and other search engines. 13% began to look at sites that specialize in health information, as

WebMD. 2% started to research at Wikipedia and 1% at a social network site like Facebook. Health seekers who first used Google tend to be younger, 82% of them were aged 18-29.

Serious health issue: Information seeking and conversation mostly offline.

In case of a serious health issue 70% of the U.S. adults got their information from a professional. 60% got support from relatives and friends, while 24% got help from others. 24% got help from others. Women, non-Hispanic and better educated U.S. adults are significantly more likely to consult a medical professional with serious health issues. Three-quarters of those who are holding a health insurance were asked for a clinical health advice, while only 49% of the uninsured U.S. adults are looking for professional help. 68% of the women and 53% of the non-Hispanic whites are asking relatives for help. 63% of the insured did so too and 48% of the uninsured. 28% of women did receive health advice from others with similar problems, while only 21% of men did so. 26% of the insured U.S. adults are consulting others with similar problems, compared to 19% of uninsured ones.

39% of the health seekers are searching information, related to their own situation. 39% are searching for someone else, 15% are doing both. Those who are at the age of 65 and older are more likely to search on their own behalf (48%, compared to 39% of 50-64 years old).

The reason why the surf – special diseases.

The better educated the U.S. adults are, the more likely it is that they use the Internet for health-related research. Women are more likely to surf the net due to health-related issues than men. 55% of the Internet users said that they looked for health-related information in the past year.

Seeking health information online – Internet access.

Information about specific disease or treatment is significantly more likely to be looked up by those with health insurance than by those without.

59% of the adults in the U.S. adults are using the Internet to search for health information. Men and women are equally likely to have access to the Internet, but women are more likely to use it due to health-related information seeking.

Results

127 Austrian students have been interviewed via a questionnaire. All of them are students at the University of Vienna. They are aged between 18 and 30. 48% of these persons are male. Nearly all of the students own a smartphone and more than 90% of them are using it on a daily basis to get access to the Internet. About 98% of the persons are using the Internet at least several times a month.

86% of the interviewed students are feeling perfectly healthy. Only 2% are in poor health or even sick. Not even one fourth (23%) is suffering from a chronic disease, like diabetes, high blood pressure, asthma, bronchitis or other problems concerning the lung or respiratory ducts, heart diseases, cancer or other chronic diseases. One third of the students had a medical emergency within the past year and 7% have been admitted to a hospital or to an emergency room within the past 12 months. 7% have noticed a change of their state of health in the last year. One third of the persons asked holding an additional insurance, 7% said that another person is co-insured with them.

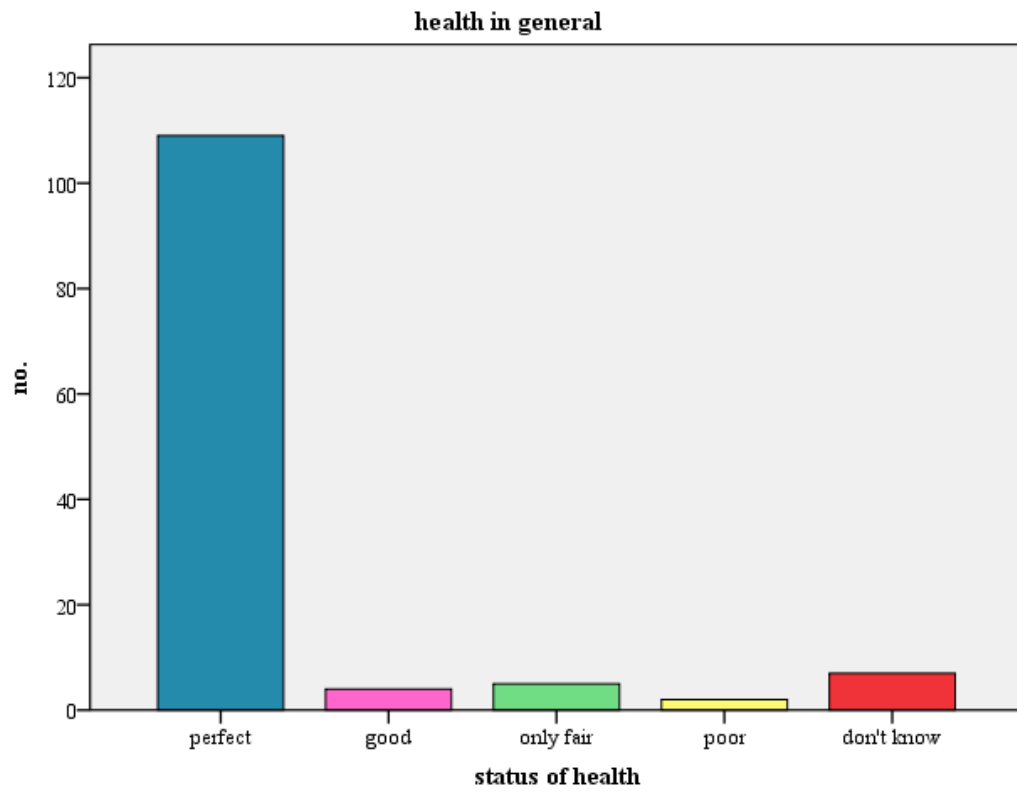
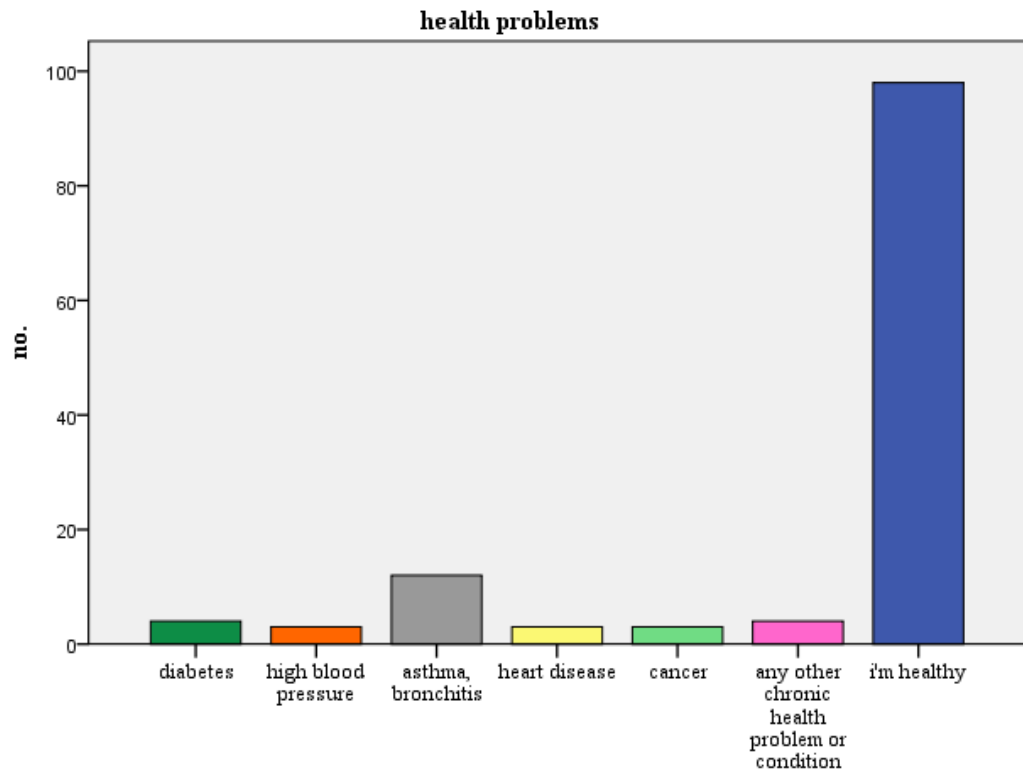


image: state of health



health problems

image: health problems

88% of the interviewees have apps concerning health topics and 85% are receiving health-related SMS. One third of the interviewed persons is looking online for a medical professional or for others with the same problems or medical experiences and nearly half of them is contacting a relative or a friend online to gather health-related information. 22% are searching for a specific disease or a medical problem. 3% are looking online for medical treatment or therapy or for drug safety or recalls. About 1% is gathering information about health insurance (including private insurance), how to reduce health care costs or any other health-related topics. 20% are looking up information concerning food safety or recalls or results of medical tests. One third is collecting information how to lose or control weight. Half of the persons are doing this research for themselves and not for others.

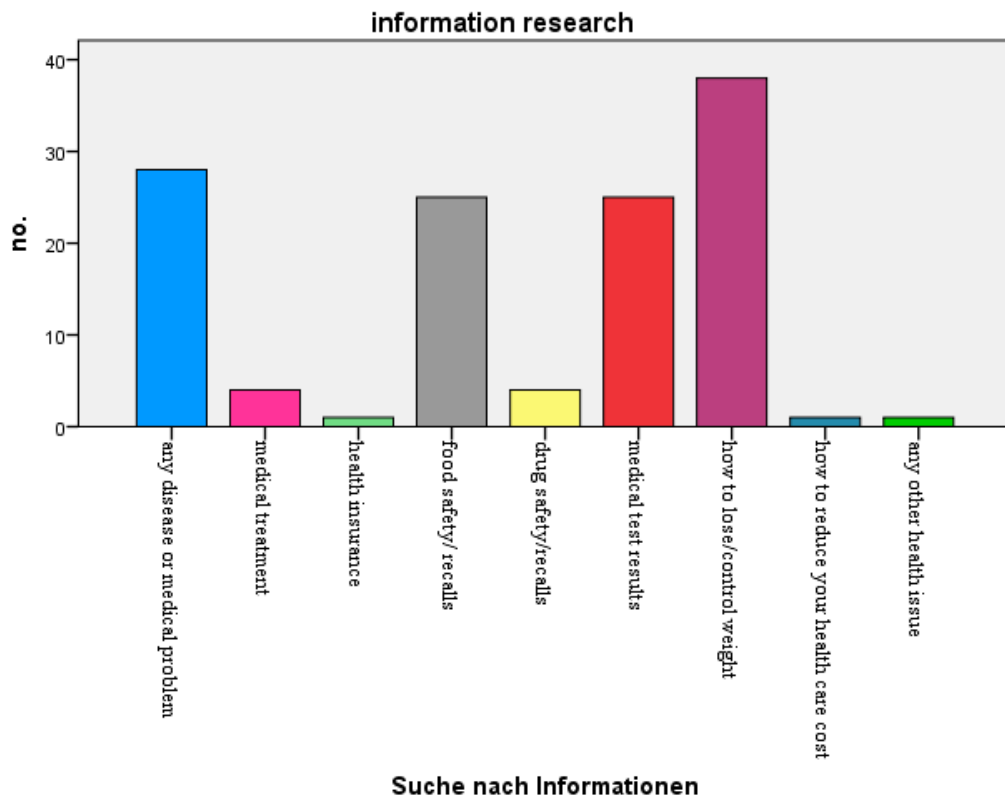


image: information research

78% have at least once gone online to find out in what medical condition they or another person might be. 43% are starting the research with google, bing, yahoo or any other search engine. A quarter looked up information at Wikipedia or other general sites first that contain information on all kinds of topics. 13% are starting their research on a site that specializes in health information (like netdoktor.at) or at a social network site (like Facebook). 37% have been asked to pay for the access to health-related information and 10% of the interviewees indeed paid for the access.

About 40% think that the attention of a doctor or a medical specialist was needed due to the information they found online. 12% consider a treatment at home as possible. 15% think a combination of both would be the best. About half of the persons asked talked to a medical professional about the information they found. In 35% of

these cases the medical professional confirmed the diagnosis the students were doing on their own and in 12% the medical professional partly confirmed the diagnosis. Only in 5% of the cases the medical professional did not confirm the diagnosis.

About 5% of the students registered online to receive health-related information. 74% are reading comments of other persons. About 17% are searching for another person with similar medical and health-related experiences. About 4% posted a health-related question online. 16% shared their own personal health experiences online. 7% are doing both. 7% are posting to receive feedback and information of a medical professional. 15% are posting to a more general audience and 5% are doing both. 13% consulted online rankings or reviews of doctors. 4% consulted online rankings or reviews of hospitals or other medical facilities. 58% consulted online reviews of particular drugs or medical treatments. 22% of the students posted an online review of a doctor. Less than 2% posted an online review of a hospital and not even 1% posted their experience with a particular drug or medical treatment online.

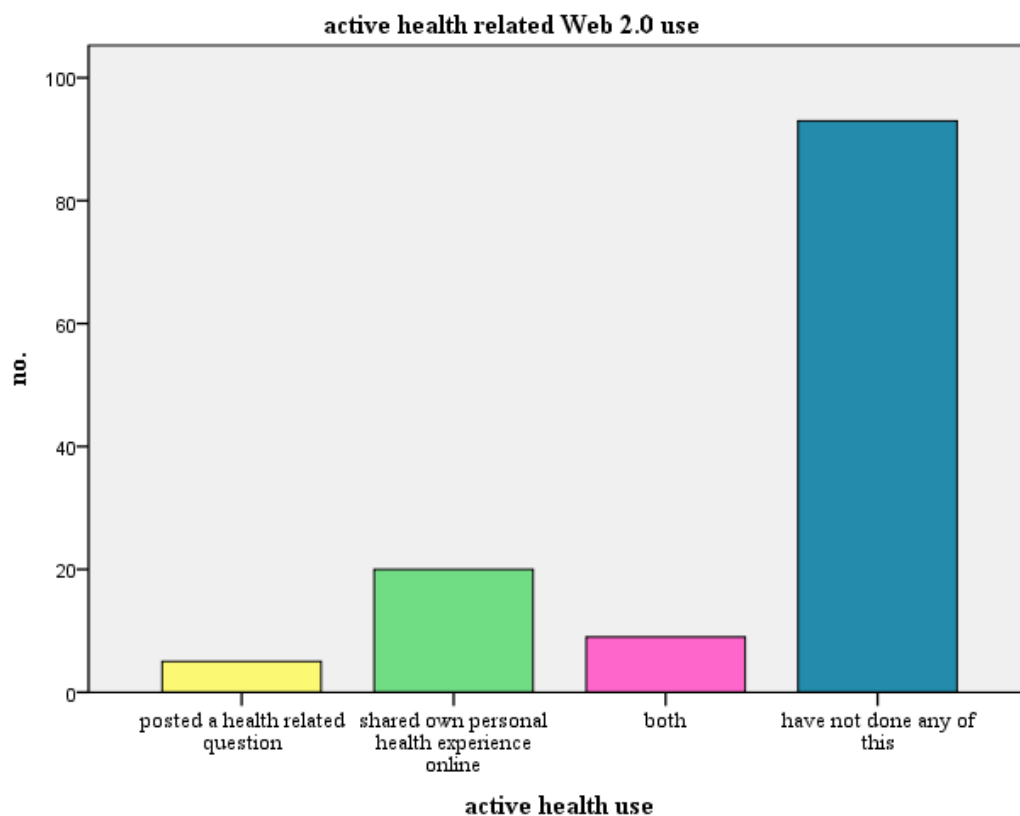


image: active health-related Web 2.0 use

Male vs. female health seekers

There can be noticed a correlation between gender and the passive way to use the Internet in a health-related way. More female than male students are using the Internet to search for other persons who share the same health-related experiences. Furthermore, there can be noticed a positive correlation between gender and the active way to use the Internet in a health-related way. More male students are using the Internet to post comments or questions about their own state of health.

One third of the students in general, 38% of the male and one third of the female participants looked up a medical professional online. Half of all interviewees have been

contacting friends or family online when they got a health-related question, so have done half of the female students and nearly two thirds of the male ones. About three quarters of the interviewed male and nearly as many of the female students are reading health-related comments of others, while only 16% of the male ones and 15% of the female ones are posting comments on their own state of health. Only ca 5% of each gender either registered online to receive health-related information or posted a question about a health topic or disease. Nearly 90% of all interviewed students, slightly more female (92%) than male persons (84%), have health-related apps.

As it will be illustrated later, apps concerning sports and fitness are used more often than other health-related apps. 37% of all interviewees are using such apps, 36% of the male students and 38% of the female students do so. 17% of the female students and 8% of the male persons interviewed are using apps concerning diet. 8% of either gender are using weight and weight control related apps. 6% of the women and 7% of the men have applications?? concerning the period or the menses. 2% of either gender is using apps to control or to be informed about their blood pressure. 2% of the male students are using apps concerning pregnancy while none of the women does. None of the men and 2% of the female students are using diabetes related apps. 17% of the female interviewees and 15% of the male interviewees are using apps concerning mood. 7% of the men and 5% of the women asked are using other health-related apps.

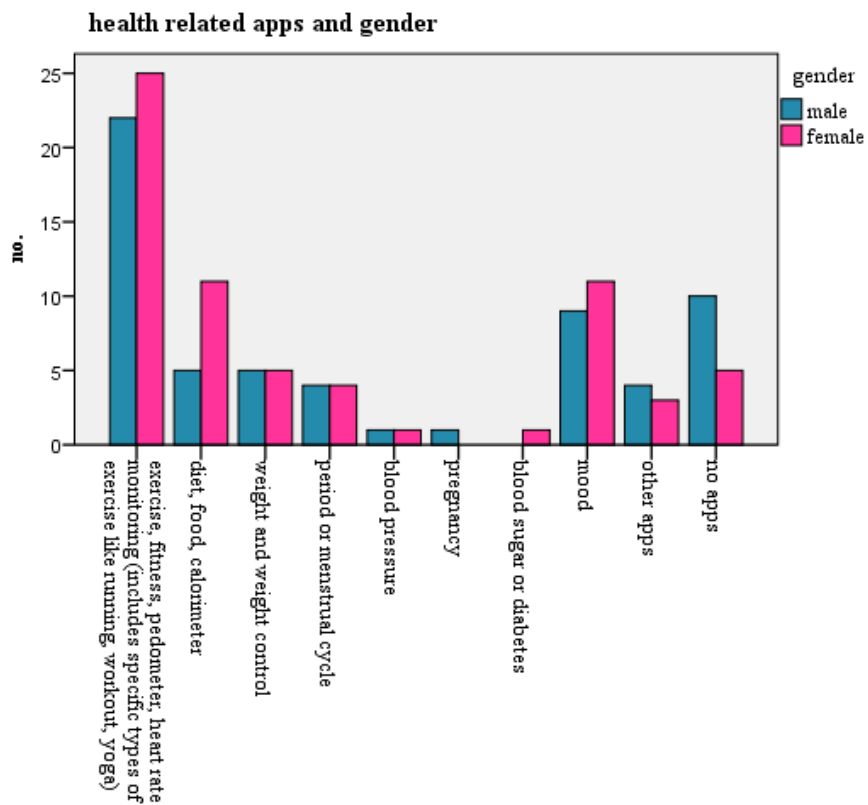


image: health-related apps and gender

There can't be noticed any correlations between gender and the health-related social media use. Nearly as many men as many women are using the Internet in a health-related way. H1 that more women than men are using social media to gather health-related information can't be verified.

Passive vs. active health related Web 2.0 use

About 75% of the students were visiting or searching for evaluations or rankings about medical professionals, hospitals or other medical institutions, medication or therapies. One quarter of the interviewed persons were posting evaluations about medical professionals, hospitals or medication and therapies themselves. So there can be seen obviously a passive way using the Internet due to health information.

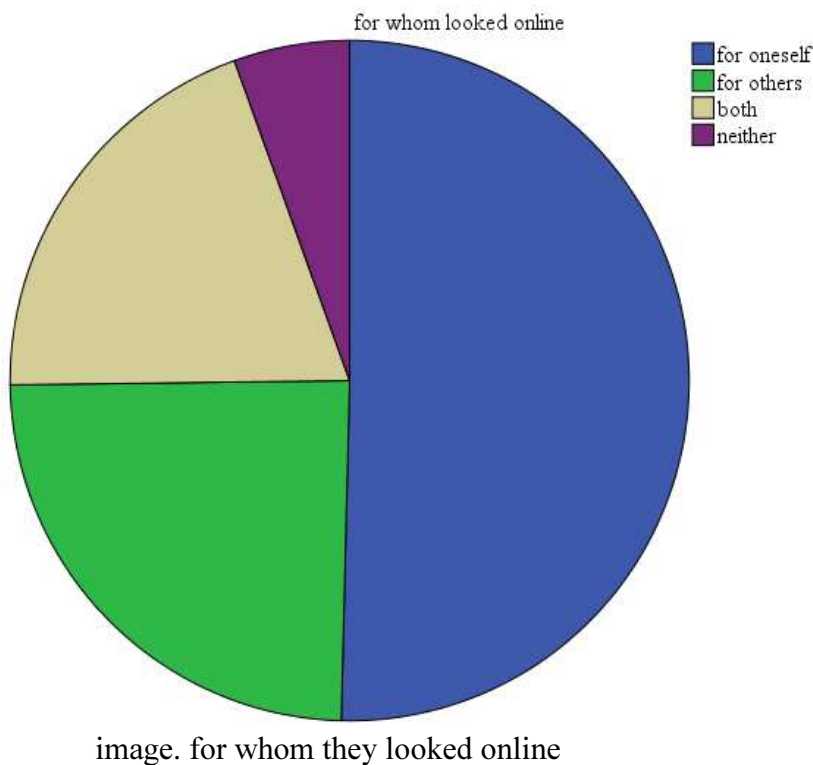
96% of the students are using the Internet to look up health-related information in a passive way. This means they are registered to receive mailings etc. or they are reading comments blogs of others with the same problems, conditions or diseases. About 4% don't use the Internet that way. A bit more than a quarter is using the Internet because of health-related needs actively. Most of them who are using the Internet in that way are posting comments about their own state of health. About 6% were posting questions about medicine, health or a specific disease. More than 70% weren't posting anything or were using the Internet in this way.

About three quarters of those are using the Internet in a passive way were looking for comments of others with same or similar conditions, experiences and diseases. About 17% were searching for other persons who experienced the same or similar problems or diseases. About 5% registered online to receive mailings concerning health topics.

H2, that people are more likely to use social media and the Internet in a passive way to gather health-related information than in an active way can be verified. It is more likely that they are searching for information than that they are posting or sharing in-

formation or their experiences or that they are logged on. While 96% of the persons interviewed are using the health-related offers on the Internet in a passive way (reading comments, receiving mailings, searching other persons etc.) only 27% are using such offers on the Internet in an active way (posting comments and questions etc.). 17% of the female students and 13% of the male ones are receiving health-related messages on their mobile phone.

For whom they are searching for



About half of the interviewed students are searching online for health-related information for themselves. Approximately a quarter is gathering health-related infor-

mation for other persons. These other persons can be family, friends, relatives or persons they are carrying for. Nearly 20% are doing both, collecting information concerning health issues for themselves and for others.

The questions concerning the information they are searching for included the possibility to choose the response “carrying for an aging relative or friend” and “health status of a relative or a friend”. None of the interviewed persons picked those response options.

H3 that people are more likely to search health-related information for themselves than for others can be verified. The results show that the students are more likely to collect health-related information for themselves than for others.

Sports apps are the “best”

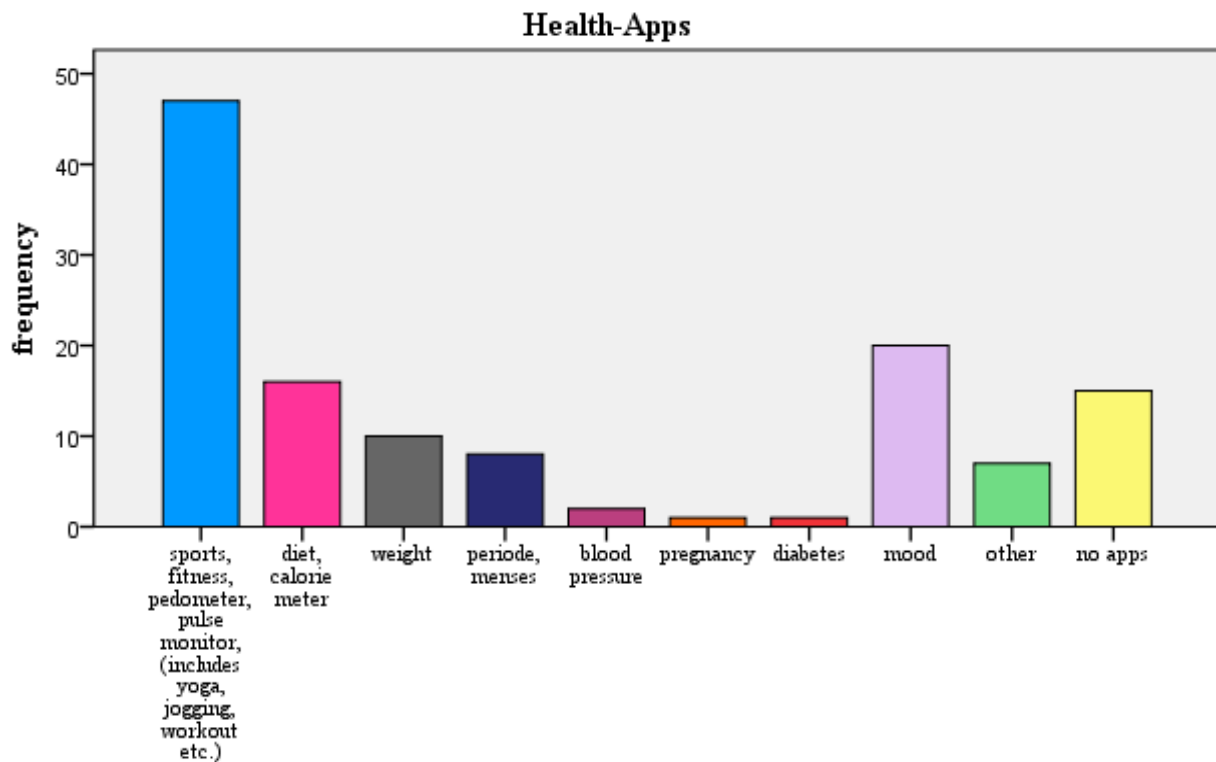


image: health apps

Nearly 90% of the students use apps concerning health, fitness, diet etc. on their smartphone or tablet. Almost 40% of those having apps, are using them concerning fitness and sports too. These apps include pedometer, pulse monitor, yoga, workout and jogging. Apps concerning mood or emotions are being used the second most, by about 16% of the students. On the third place there are apps about diet, feeding and calorimeter, which are used by more than 12% of the interviewed persons. 8% are using apps

concerning weight and about 6% are using apps about period or the menstrual cycle. Not even 2% of the students do have apps about blood pressure and 1% each use apps concerning pregnancy or diabetes.

According to these results, H4, that apps concerning sports and fitness are more likely to be used than others can be verified, because these are the most used apps, even though 51% are using other apps, but none of the categories are being used as often this one.

“Healthier” through Web 2.0

Most of the students are healthy, so they are not suffering from a chronic disease, they are feeling healthy in general. 33% of those who are healthy were searching online for a medical professional, while 35% of those who are sick or are not feeling healthy are looking online. About a third of them who are suffering of a chronic disease and about a third of them who are suffering of a chronic disease are using the Internet to gather health-related information of a doctor or a medical professional. One third of those who did not have a medical emergency and 40% of those who did have a medical emergency were searching for a medical professional online. 22% of the students who have been to the emergency room in recent years and more than a third of those who haven't, were collecting information through a doctor online. Only 11% of those who are feeling a change in their health status in the past 12 months are searching for online information of a medical professional, while more than a third of them who were not noticing a change in their health status did.

About half of those who are feeling healthy, half of those who are feeling sick, half of those who are suffering from a chronic disease and half of those who are not, half of those who had a medical emergency and half of those who had not and half of those who had been admitted to an emergency room in the last year and half of those who are not feeling a change in their state of health are contacting friends or family online to get informed about health-related topics. 22% of the students who have not been admitted to an emergency room and 33% of the students who are feeling a change in their state of health are gathering health-related information online via their friends or family.

About one third of the interviewed persons who are healthy without any chronic disease, who had no medical emergency, who have not been admitted to an emergency room and who are not feeling a change in their state of health are looking online for others with similar medical experiences. 18% of the persons who are feeling sick, 19% of the students who have a chronic disease, 26% of those who had a medical emergency within the past 12 months and 22% of those who had been admitted to an emergency room as well as slightly more than half of those who are feeling a change in their state of health are doing so.

Of those students who are feeling healthy 23% and 18% of the sick ones are searching for a specific disease or a medical problem. About 4% of the healthy ones and none of the sick ones are looking up a certain medical treatment or therapy. None of those who are feeling healthy and 6% of those who are not feeling healthy are gathering information about health insurance or private insurance. 19% of the healthy students and 24% of the sick ones are searching for food safety or recalls of food. About 4% of the healthy persons and none of the sick ones are searching for drug safety or respectively recalls. 2% of the healthy ones are gathering information about pregnancy while none of the sick ones do so. None of them is looking up information about the treatment of an aging relative or friend or a drug seen on advertisements. 21% of the healthy interviewees are gathering information about medical test results. 1% of the healthy persons asked and none of them are searching for information how to reduce health care costs or any other health issue. 3% of the healthy students and 41% of those who are feeling sick are looking up information how to lose or to control weight.

A correlation between the state of health and the search for special medical information can be noticed. More of those who are feeling excellent are looking up infor-

mation about health topics than others. Nearly none of those who are feeling poor were using the Internet to gather health-related information.

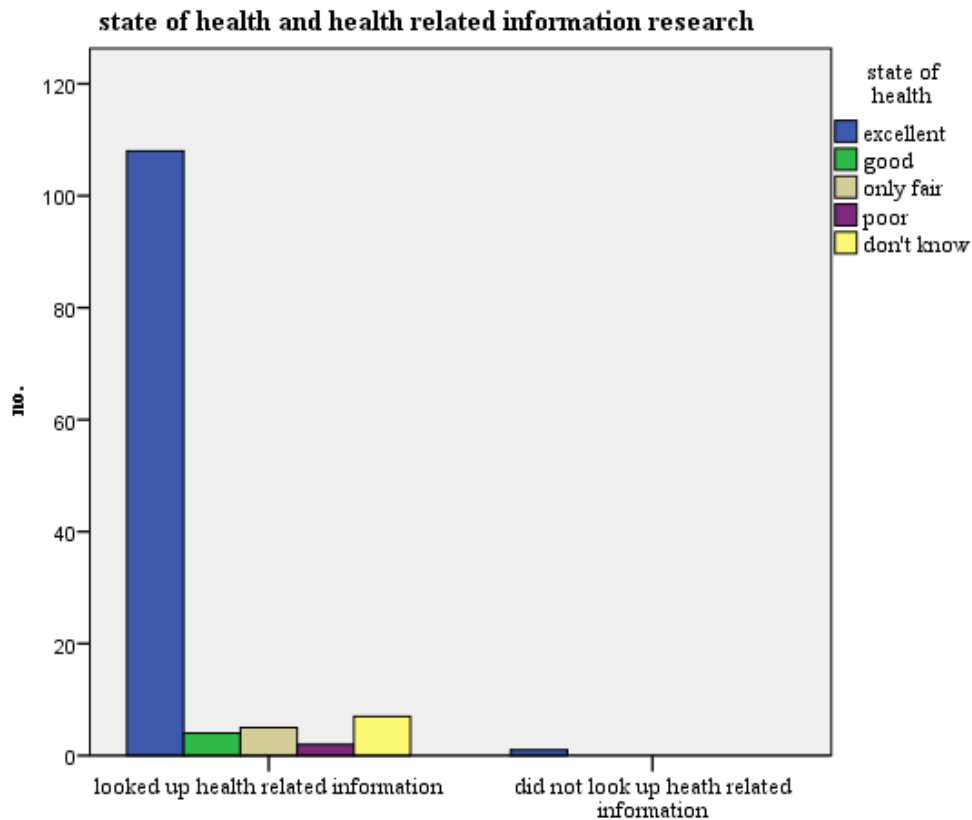


image: state of health and information research

There is a correlation between health problems and the information research. More of those students who do not experience any health problems are looking up any health-related information.

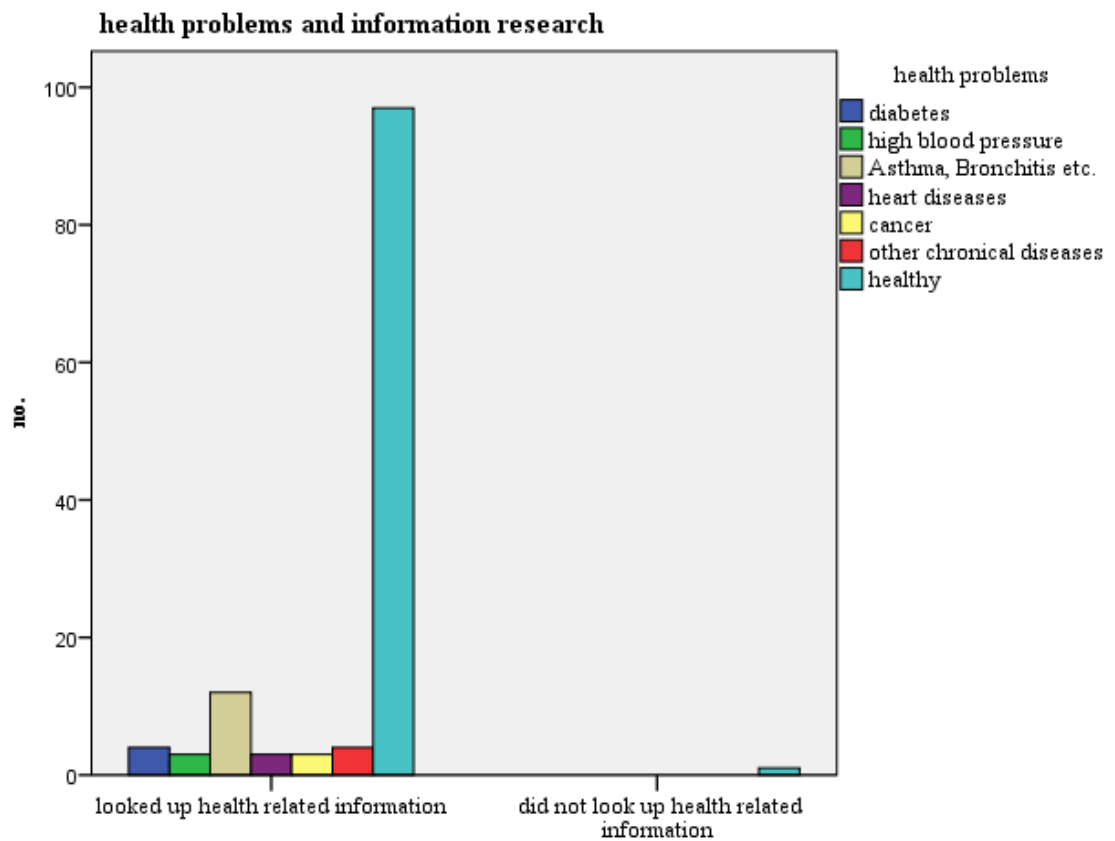


image: health problems and information research

Furthermore there can be noticed a positive correlation between the change of the health status and health-related information research. More of those who are not feeling a change in their state of health are looking online for health-related information.

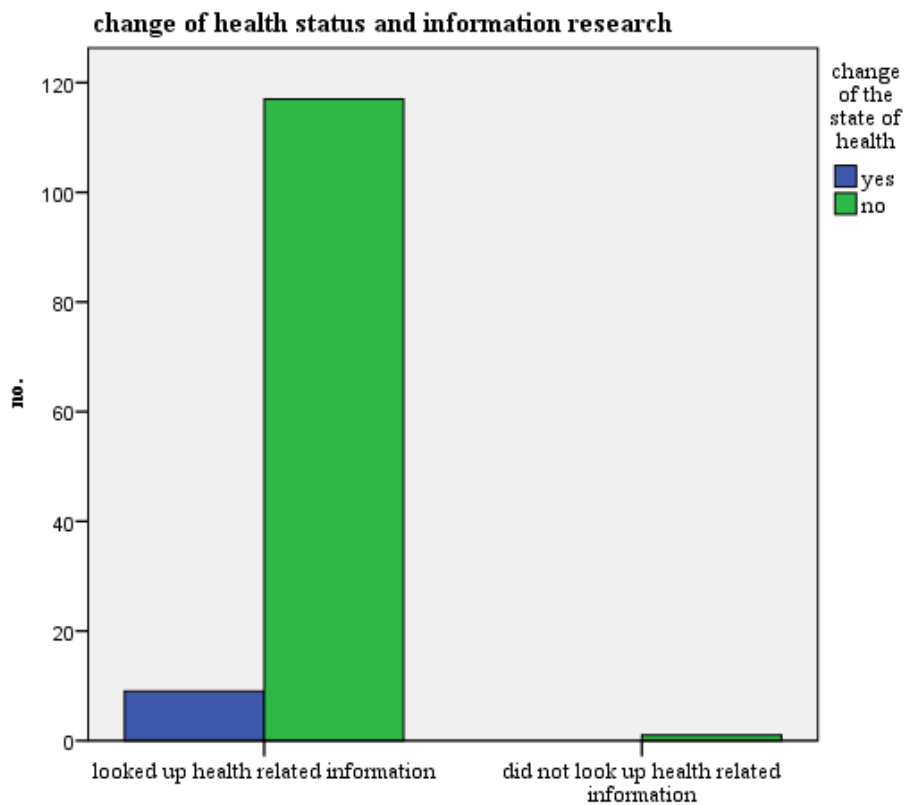


image: change of health status and information research

Moreover a positive correlation between apps and SMS used and a change of the health status can be observed. More of those who did not notice a change of their state of health are using apps or are receiving SMS concerning health topics.

H5, that people are feeling healthier the more they use social media and the Internet to gather health-related information can be verified. More of those who are feeling healthy are using the apps, SMS or are looking up health-related information online.

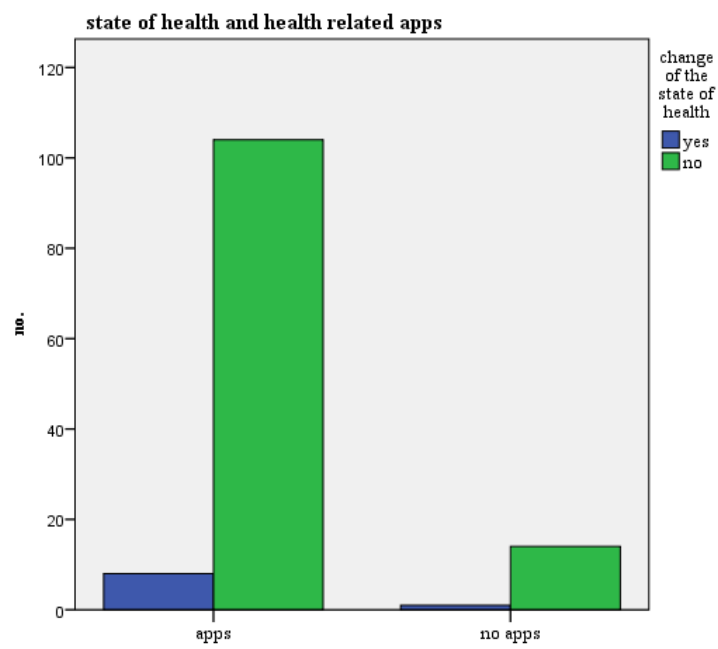


image: state of health and health-related apps

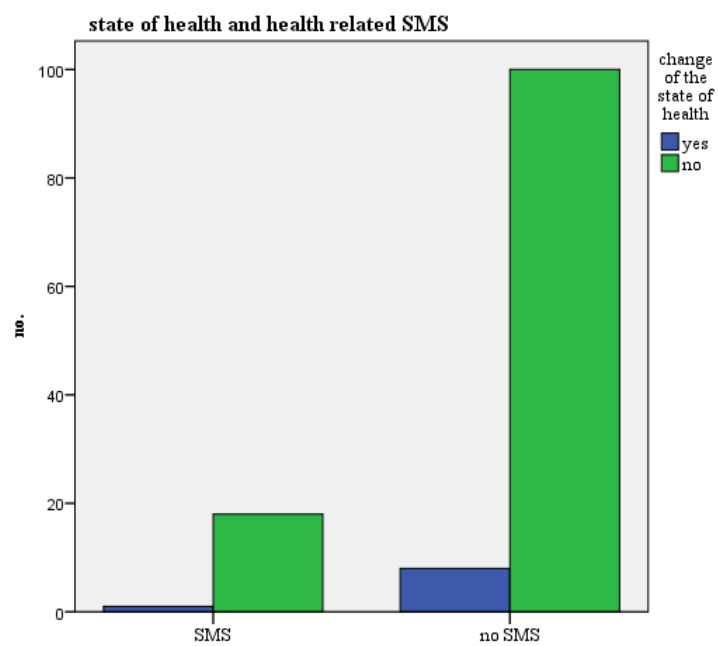


image: state of health and health-related SMS

Interpretation of results

In this research a questionnaire was distributed to students of the University of Vienna. 127 persons were interviewed. Therefore, it cannot be considered as a representative study but as a random sample. If there had been more and better resources like time and money, more persons could have been interviewed. The questionnaire would even allow a representative research of all Austrian inhabitants. It would be possible to compare the results of the US American research and the Austrian, but this too would require more and better resources. Furthermore, the questionnaire and the results would allow more researches and interpretations, if only time would allow. It would be possible to compare and analyse the health-related Internet use in a better way to demographic data and to check more correlations.

It is important to know that the sample of students that had been taken is quite homogeneous (accessibility was given). They were aged between 18 and 30, a younger group, using the Internet more than the older ones. As all of them are students, they are of course better educated. Due to the better education the younger people are using the Internet more often in a health-related way than others. If the questionnaire would be distributed to a more heterogeneous group of people, there could be done research and analyses on demographical variables. Furthermore, most of the students felt perfectly healthy, what can probably be explained by their age. So one could indicate that the results would have been different, if other persons had been asked.

The results show hardly any difference between male and female health seekers. If there had been interviewees of another age (older than 30), the results maybe would

have been different. Another reason could be the fact that sports apps are counted to health research online too. But as a matter of fact one male student was searching for menstruation problems online, so maybe times are changing. The US results show that more women than men are interested in health research online. It would be interesting to compare Austrian adults to the US adults, as mentality is very different.

A passive health-related Web 2.0 use is more likely than an active use. This means that more people like to read information than to post questions or their own experiences. According to Hierhold frustration (not enough information of medical professional), lack of confidence in medical professionals, search for others and anonymity are reasons to use the Internet in a health-related way. All these motivations include information research, what is passive. Most people don't want to talk about their health problems, they just want to figure out what they can do about it. They want to stay anonymous and they want to get prepared.

As most of the interviewed persons were feeling perfectly well at the moment they answered the questionnaire, it is hard to figure out a difference in the health-related Web 2.0 between healthy and sick persons.

Sports apps are the most popular, about 40% are using apps concerning to sports and fitness. Those apps are possibly used more often than others because the interviewed persons are of young age and most of them are feeling perfectly healthy. Those who are interested in their health may be interested in sports too. They are doing sports to stay healthy and therefore they are using apps to control their training. According to Wangberg health seekers are better educated, have better social relations and are in a better subjective health. All of these properties are fitting on the interviewed students. As mentioned most of them are in perfect health or are feeling healthy. Health research

online and health apps may help them to stay well. As they are interested in their health, they are doing anything to stay healthy and therefore they are feeling better. As they are interested in their health, they are doing anything to stay healthy and therefore they are feeling better.

To summarize: The results would have been different if persons of a different age, different education, with a different health status etcetera had been interviewed.

Conclusion

With the aim to better understand the use of the Internet for health issues and health-related activities in this thesis the audience has been analysed due to various demographic variables like age, education, sex, ethnic background. Most times regarding health-related activities the Internet is used for information research. There is a significant difference between the Internet use concerning health-related research between men and women. Women are more likely to do this. It can also be observed a difference between the activities of various ethnic groups, between higher and lower educated U.S. adults and due to age.

To proof the hypothesis this study used a survey that was created by the PEW Internet and American Life Project (PEW). The study was a research by Susannah Fox and Maeve Duggan in 2012. The survey will be adapted and most of the questions will be used for the new research. A sample of students of the University of Vienna is going to be surveyed. The survey contains questions about demographics, health in general, Internet use in general and the health-related Internet use.

According to the US study women are more likely than men to use the Internet to search health-related information. The hypothesis (H1) that women are more likely than man to use the Internet for health-related research cannot be proofed. 64% of all women are doing health-related research on the Internet, compared to 53% of men.

H2a that content and e-commerce are more likely to be motivations for a health-related SM-use than communication or community can be partially verified: U.S. adults are searching on the Internet for information concerning their medical diagnoses, their

health-status, to lose weight etc. more likely than to communicate with others or do some e-shopping.

U.S. adults are more likely to search health-related information for themselves than for others (H3). This can also be falsified: 39% of the health seekers are searching information related to their own situation. 39% are searching for someone else 15% are doing both.

Apps concerning sports and fitness are used more often than all of the other health concerning apps, although 51% are using health-related apps that are not concerned to sports. Furthermore people who are doing research on health online or who are using health-related apps are feeling healthier than those who don't.

All of the results are based on a convenience sample of Austrian students aged between 18 and 30. The sample can be seen as a homogenous group of people, with more or less the same education, the same age, the same interest. Most of them are feeling perfectly healthy. This means that the results would have been not the same, if the interviewed people would have been more heterogeneous (various age groups, different education, more "sick" people etcetera).

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Appendix

Questionnaire

	ENGLISCH	DEUTSCH
Q1.	Do you use the Internet? - every day - serveral times a week - several times a month - rarley	Nutzen Sie das Internet? - jeden Tag - mehrmals pro Woche - mehrmals im Monat - seltener
Q2.	Do you have a smartphone? - yes - no	Besitzen Sie ein Smartphone? - ja - nein
Q3.	Do you use the Internet on your cell phone? - every day - serveral times a week - several times a month - rarley	Nutzen Sie das Internet mit Ihrem Handy? - jeden Tag - mehrmals pro Woche - mehrmals im Monat - seltener
Q4.	What is your age? - 18-24 - 25-34 - 35-44 - 45-54	Wie alt sind Sie? - 18-24 - 25-34 - 35-44 - 45-54

	- 55-64 - 65+	- 55-64 - 65+
Q5.	Gender? - feMale - Male	Geschlecht? - weiblich - männlich
Q6.	What is your citizenship? _____	Was ist Ihre Staatsbürgerschaft? _____
Q7.	Where are you born? (Nation) _____	Wo sind Sie geboren? (Nation)
Q8.	Where are your parents born? (N) _____	Wo sind Ihre Eltern geboren? (N) _____
Q9.	How many people are living at your household? - 1 - 2 - 3-5 - 6-10 - 10+	Wie viele Menschen leben in Ihrem Haushalt? - 1 - 2 - 3-5 - 6-10 - 10+
Q10.	What is your average houshold net income a year? - up to 20.500€ - up to 26.000€ - up to 32.000€ - up to 45.000€	Was ist Ihr durchschnittliches Haushaltseinkommen (netto) pro Jahr? - bis zu 20.500€ - bis zu 26.000€ - bis zu 32.000€ - bis zu 45.000€

	- up to 50.000€ - up to 65.000€ - up to 70.000€ - more than 70.000€	- bis zu 50.000€ - bis zu 65.000€ - bis zu 70.000€ - mehr als 70.000€
Q11.	Your current employment status: - employee - public servant - freelancer - self-employed - registered job seeker	Ihr derzeitiges Dienstverhältnis: - Angestellte/r - In einem öffentlichen Dienst tätig - Freier Arbeitnehmer - Selbstständig - Arbeitslos (gemeldet)
Q12.	Are you holding a complementary health insurance? - yes - no	Haben sie eine private Zusatzversicherung? - ja - nein
Q13.	Are other persons co-insured with you? - yes - no	Sind andere Personen mit Ihnen mitversichert? - ja - nein
Q14.	In general, how would you rate your own health ? - excellent - good - only fair - poor	Wie würden Sie Ihre Gesundheit allgemein bewerten? - ausgezeichnet - gut - ganz ok - schlecht

	- don't know	- weiß nicht
Q15.	Are you now living with any of the following health problems or conditions? - Diabetes or sugar diabetes - High blood pressure - Asthma, bronchitis, emphysema, or other lung conditions - Heart disease, heart failure or heart attack - Cancer - Any other chronic health problem or condition - I am healthy.	Leben Sie im Moment mit folgenden Gesundheitsproblemen oder Zuständen? - Diabetes - Bluthochdruck - Asthma, Bronchitis, Emphysem, andere Lungenprobleme - Herzkrankheiten, Herzfehler aufgrund eines Herzinfarktes - Krebs - Andere chronische Gesundheitsprobleme - Ich bin gesund.
Q16.	In the last 12 months, have you personally faced a serious medical emergency or crisis - Yes - No	Hatten Sie in den letzten 12 Monaten eine ernste/n medizinische/n Krise/Notfall? - Ja - Nein
Q17.	In the last 12 months, have you personally gone to the emergency room or been hospitalized unexpectedly? - yes	Wurden Sie in den letzten 12 Monaten unerwartet ins Krankenhaus eingeliefert oder mussten in die Notaufnahme? - Ja

	- no	- Nein
Q18.	In the last 12 months, have you personally experienced any significant change in your physical health, such as gaining or losing a lot of weight, becoming pregnant, or quit smoking? - yes - no	Haben Sie in den letzten 12 Monaten eine Veränderung Ihres Gesundheitszustandes erlebt: große Zunahme oder Abnahme von Gewicht, Schwangerschaft, Aufgehört zu Rauchen? - ja - nein
Q19.	Thinking about the LAST time you had a serious health issue or experience any significant change in your physical health... Did you get information, care support from - a doctor or a health care professional (offline, online, both, no, not a source, don't know) - friends and familiy (offline, online, both, no, not a source, don't know) - others who have the same health condition (offline,	Denken Sie an das LETZTE Mal, als Sie ein ernstes Gesundheitsproblem, oder eine entscheidende gesundheitliche Veränderung erlebt haben. Suchten Sie Informationen, Hilfe über - einen Doktor oder einer Gesundheitsspezialisten (offline, online, beides, keines von all dem, weiß nicht) - Freunden und Familie offline, online, beides, keines von all dem, weiß nicht) - Anderen mit den selben Problemen offline, online, beides, keines von

	online, both, no, not a source, don't know)	all dem, weiß nicht)
Q20.	In the last 12 months, have you looked online for information about: - a specific disease or medical problem - a certain medical treatment or procedure - health insurance, including private insurance - pregnancy or childbirth - food safety or recalls - drug safety oder recalls - medical test results - how to lose weight or how to control your weight - how to reduce your health care costs - health status of a friend or relative - caring for an aging relative or friend	Suchten Sie in den letzten 12 Monaten online nach Informationen über: - eine bestimmten Krankheit oder ein medizinisches Problem - eine bestimmte medizinische Behandlung oder Prozedur - Gesundheitsversicherung, inklusive Privatversicherung - Schwangerschaft und Geburt - Lebensmittelsicherheit und Rückholaktionen - Medikamentensicherheit und Rückholaktionen - Ergebnisse medizinischer Tests - wie man Gewicht verliert oder hält - wie man die Kosten der medizinischen Vorsorge reduzieren kann - Pflege eines alternden Verwandten oder Freund - Gesundheitszustand eines Freundes oder Verwandten

	- a drug you saw advertised - any other health issue	- ein Medikament, dass Sie in der Werbung gesehen haben - eine andere die Gesundheit betreffende Angelegenheit
Q21.	Thinking about the LAST time you went online for health or medical information. For whom did you go online to look for information? - for yourself - for someone else - both - don't know	Denken Sie an das LETZTE Mal als Sie online gegangen sind um Informationen bezüglich Medizin oder Gesundheit zu suchen. Für wen haben Sie gesucht? - für sich selbst - für jemand anderen - beides - weiß nicht
Q22.	Still thinking about the LAST time you went online to look for health information. How did you begin looking? Did you start - at a search engine such as Google, Bing or Yahoo - at a site that specializes in health information, wie netdoktor.at - at a more general site like Wikipedia, that contains information on all kinds of top-	Denken Sie weiterhin an das letzte Mal als sie online nach Informationen über Gesundheit und Medizin gesucht haben. Wo haben Sie begonnen zu suchen? - mit einer Suchmaschine wie Google, Bing oder Yahoo - mit einer speziellen Medizinseite wie netdoktor.at - mit einer allgemeineren Seite wie Wikipedia, welche Informationen zu verschiedenen Themengebieten

	ics - at a social network site like Facebook - other _____ - don't know	enthält - mit einem sozialen Netzwerk wie Facebook - andere _____ - weiß nicht
Q23.	When looking for health information online, have you ever been asked to PAY for access to something you wanted to see on the Internet? - yes - no	Als Sie online nach Informationen bezüglich Medizin/Gesundheit gesucht haben, wurden Sie jemals aufgefordert zu BEZAHLEN, um Zugang zu Informationen zu bekommen? - ja - nein
Q24.	The last time you were asked to PAY to access health content online, what did you do? Did you... - pay for the access - try to find the same information somewhere else - give up - other/have never been asked	Das letzte Mal als sie aufgefordert wurden für den Zugang zu Gesundheitsinformationen zu BEZAHLEN, was haben sie getan? Haben Sie.... - für den Zugang bezahlt - versucht die Informationen wo anders zu finden - aufgegeben - anderes/ wurde nie gefragt
Q25.	Have you ever gone online specifically to try to figure out what medi-	Haben Sie jemals versucht herauszufinden, in welcher gesundheitlichen Verfassung

	cal condition you or someone else might have? - yes - no	Sie oder jemand anderes sein könnte? - ja - nein
Q26.	Did the information you found online lead you to think that this was a condition that needed: - the attention of a doctor or other medical professional - that it was something you could take care of at home? - Both/in-between - Never lead me to think so	Hat die Information, die Sie online bezüglich Ihres Gesundheitszustandes gefunden haben, zu folgender Entscheidung geführt : - - Besuch beim Arzt oder Facharzt - -Behandlung zu Hause ist möglich - -Beides – bzw ein Mix aus Beiden - - Nein
Q27.	Did you happen to talk with a medical professional about what you found online? - yes - no	Haben Sie jemals mit einem Arzt darüber gesprochen, was sie online gefunden haben? - ja - nein
Q28.	Did a medical professional/ a doctor: - confirm what you thought the condition was with a medical diagnosis	Hat ein medizinischer Experte/ein Doktor: - die Diagnose, die Sie selbst gestellt haben durch eine medizinischen Diagnose bestätigt

	- not confirm what you thought the condition was with a medical diagnosis - confirm the diagnosis partly - was unable to unable to diagnose - I did not visit a doctor for a diagnosis	- die Diagnose, die Sie selbst gestellt haben NICHT bestätigt - die Diagnose, die Sie selbst gestellt haben TEILWEISE bestätigt - konnte keine Diagnose erstellen - Ich habe keinen Arzt etc. aufgesucht, um eine Diagnose erstellen zu lassen
Q29.	In the last 12 months, have you: - signed up to receive email updates or alerts about health or medical issues - read or watched someone else's commentary or personal experience about health or medical issues online - gone online to find others who might have health concerns similar to yours	Haben Sie in den letzten 12 Monaten: - sich online registriert, um Warnungen und Neuigkeiten zu Gesundheitsthemen per Email zu bekommen - sich Kommentare anderer persönliche gesundheitliche Themen und Erfahrungen von einer anderen Person, online angesehen oder gelesen - im Internet nach jemanden gesucht, der die gleichen gesundheitlichen Probleme wie Sie haben könnte - Ich habe nichts davon gemacht

	- I have not done any of this.	
Q30.	In the last 12 months, have you: - posted a health-related question online - shared your own personal health experience online - I have not done any of this.	Haben Sie in den letzten 12 Monaten: - eine Frage bezüglich Medizin oder Gesundheit online gepostet - persönliche Erfahrungen im Bereich Gesundheit und Medizin online geteilt - Ich habe nichts davon gemacht.
Q31.	What did you post/share online? - a specific health question - comments/stories about personal health experiences - both - neither/something else	Was haben Sie gepostet/geteilt? - spezielle Fragen zur Gesundheit - Kommentare/ Geschichte über Ihre persönlichen gesundheitlichen Erfahrungen - Beides - Keines davon/anderes
Q32.	To whom did you post your concerns/ Where did you post it? - to a health professional (to get professional feedback) - to a more general audience - both - neither/something else	Wen haben Sie mit den Postings angesprochen/ Wo haben Sie Ihre gesundheitlichen Anliegen gepostet? - einen Gesundheitsexperten (um professionelles Feedback zu bekommen) - allgemeines Publikum - beides - keines davon/anderes

Q33.	I have: - consulted online rankings or reviews of doctors - consulted online rankings or reviews of hospitals or other medical facilities - consulted online reviews of particular drugs or medical treatments - posted a review online of a doctor - posted a review online of a hospital - posted my experience with a particular drug or medical treatment online - not done any of this.	Ich habe: - ein online Rangliste oder eine Bewertung über einen Arzt aufgesucht - ein online Rangliste oder Bewertung über ein Krankenhaus oder sonstige medizinische Einrichtung aufgesucht - eine Bewertung über ein bestimmtes Medikament oder eine medizinische Behandlung aufgesucht - eine Bewertung über einen Arzt online gepostet - eine Bewertung über ein Krankenhaus online gepostet - meine Erfahrung mit einem Medikament oder einer medizinischen Behandlung gepostet - nichts davon gemacht.
Q34.	Do you receive any TEXT updates or alerts about health or medical issues, such as from your doctors or	Erhalten Sie SMS zB von Ihrem Arzt oder Apotheker mit Neuigkeiten und/oder Warnungen betreffend gesundheitlicher oder

	pharmacists? - yes - no	medizinischer Themen? - ja - nein
Q35.	On your cell phone or tablet, do you happen to have any apps (software applications) that help you track or manage your health? - yes - no	Haben Sie auf Ihrem Handy/Tablet Apps (Software Applikationen) installiert, die Ihnen helfen Ihren Gesundheitszustand zu beobachten bzw zu unterstützen? - ja - nein
Q36.	What kind of health apps do you currently have on your phone? What health issues or topic do your apps deal with? - exercise, fitness, pedometer, heart rate monitoring (includes specific types of exercise like running, ab workouts, yoga...) - diet, food, calorie counter - weight - period or menstrual cycle	Welche Medizin-Apps; inkludiert Sportarten wie Laufen, Bauchmuskeltraining und Yoga; Medikationsmanagement (Beobachten, Erinnerung) - Sport, Fitness, Schrittzähler, Pulsmesser, (inkludiert auch Laufen, workout, yoga...) - Diät, Ernährung, Kalorienzähler - Gewicht - Periode oder Menstruationszyklus - Blutdruck

	- blood pressure - NetDoktor App (or similar ones) - Pregnancy - Blood sugar or diabetes - Medication management (tracking, alerts) - Mood - Sleep - Other_____ - I don't have any health apps	- NetDoktor App (oder ähnliches) - Schwangerschaft - Blutzucker oder Diabetes - Medikationsmanagement (verfolgen, Erinnerungen) - Stimmung - Schlaf - Anderes_____ - Ich habe keine solche App
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CV

Anja Maria Werinos



Personal information

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Date of birth 15/7/1988

Education and training

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Title of qualification awarded A levels

Name and type of organisation providing education and training BORG Hartberg (primarily specializing in languages)

Dates 01/10/2006 – 31.10.2012

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Principal subjects/occupational skills covered Interpretation and knowledge of mass media, communications, journalism and marketing; Interpretation and knowledge of the Romance languages (Spanish, Portuguese, Italian, Catalan, French) and literature, history, geography and politics of Spain and Spanish America

Name and type of organisation providing education and training University of Vienna

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