# Project Report SchaschLEAK

**Team**  
Veronika Bauer  
Gabriele Fruth  
Bertram Fuchs  
Christos Gazanis  
Frederik Heetmeyer  
Thomas Just  
Daniel Körner  
Frank Latsch  
Alina Minth  
Michael Reichert  
Jakob Scheffels  
Philipp Scholl  
Patricia Sophia Wild  

**Tutor**  
Vanessa Buchweitz  
Leonard Przybilla  
Christopher Schlenk  
Evi Schmid  

**Supervisors**  
Dr. Alexander Lang  
Dr. Manuel Wiesche  

<table>
<thead>
<tr>
<th>Content</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preface by the Supervisor</td>
<td>74</td>
</tr>
<tr>
<td>Journalistic part</td>
<td>76</td>
</tr>
<tr>
<td>Scientific part</td>
<td>78</td>
</tr>
<tr>
<td>Self reflection</td>
<td>86</td>
</tr>
<tr>
<td>Posters</td>
<td>88</td>
</tr>
</tbody>
</table>
Preface SchaschLEAK by Alexander Lang

Within the call “Truth and Lies” a rather large team formed around first ideas, focusing the topic in the direction of the economy in fall 2017. The team members were particularly interested in the messages sent by companies to consumers and wanted to show the consumers how they are entrapped by those messages. The greater benefit of the project sounded ambitious but also very promising: To make people aware of the fact that companies are not telling the truth, especially when advertising a product or service.

Working as a business consultant, usually for large companies, I help my clients to make more profit. There are mainly two possibilities in doing so, reducing cost or increasing sales. Advertising, telling stories to customers or prospects – true or not so true – is often an excellent instrument to increase sales. In recent years, consumers have become more and more educated and companies have had to get better in telling stories and making them look trustworthy. This development has led to very subliminal communication concepts, which have made it harder and harder for the consumer to see what companies are up to. The aim of the project SchaschLeak was not to point to obvious lies, like “Chocolate is good for you,” but rather to the hidden or unseen practices of the advertising companies – again, a very promising but also very ambitious undertaking.

For the different teams, the two-year journey is quite a ride. At the beginning they have to research the literature, frame the topic of their project, see what others have done and develop a project goal. They have to make a plan of how to reach their goal, define work packages and finally come up with a research question they want to answer and develop an empirical experiment to answer the question. Organizing all that, together with team members from different faculties whom they did not know before and within a very limited timescale, is surely not easy. But in the end, I am always amazed by what the teams come up with after those 18 months.

Team SchaschLeak, just as in the other teams I supervised, was chaos at the beginning. But as time went by, the first training sessions offered by the Junge Akademie and the support of the Tutors and Mentors helped the team to form a clearer picture of what they wanted and what would be feasible after about 10 months. But, differing from the other teams, this team did not go through the process from divergence to convergence only once – they repeated this process many times, each time changing their direction and their approach fundamentally and by doing so constantly starting all over again. The team was large, consisting of members from many different faculties. This probably explained the numerous turnarounds. Recalling this, the question arises, “Is it really
the results that matter, or is the real takeaway for the teams the understanding of processes in complex team settings?” Is it not a takeaway to understand the different roles the team members play or the soft skills everyone involved acquires and which makes navigation in a professional setting of a company so much easier? I wish there had been these kinds of possibilities to participate in when I studied at TUM – or at least these kinds of activities were not sanctioned by the TUM administration.

After producing, I have to admit, extremely cool videos and bill boards in order to visualize the practices of the advertising companies, though with small success in regard to the project’s goal, the team agreed to target schools and to discuss the matter with students. Sure, the result of the eighteen-month project is relatively small, but, as argued above, the Junge Akademie is not about the content of the projects only. The program aims to provide four different benefits for the students. When a team finishes a project, they understand how a project is managed and how to work in a highly diverse environment, most of the time using a foreign language to communicate. Secondly, they acquire soft skills, which help them to maneuver in crises and motivational dips. Thirdly, they gain knowledge on a certain topic; and, finally and most importantly, they understand how a scientific project is organized, how a research question is derived and how an empirical experiment has to be designed in order to answer the research question.

But what is in it for the mentors? After helping to create an internet platform for the demands of the inhabitants of distinct city quarters in Munich or the development of an umbrella-share economy-system for the TUM campus in Garching or the establishment of a scavenger-hunt-game for schools to illustrate the influence of democracy on our daily life, this was my fourth Junge Akademie project. I always get to meet highly motivated and intelligent students with whom it is fun to discuss the topics around their projects, and often their different points of view get me thinking about issues which I haven’t reviewed for a long time. And all this for the small price of one evening per month – to me an extremely good deal! So will I be doing this again next year? Most likely.
Shifting Power to the Consumer

Advertisements are all around us. They follow us not only through our physical lives, looming around street corners and gazing at us on train stations, but also, over the past decade, we have let a new agent into our perception, and it communicates to us through large displays just as much as through the small slabs of glass every person now carries around in their pockets. We are nowadays more connected than ever before, carrying around electronic devices through which companies persistently try to communicate their messages, be it an online advertisement for wireless headphones, another corporate newsletter, or simply the subtle yet pervasive push notifications with their notification beeps and swooshes: Notifications like these interrupt us at any time and create distractions in our everyday activities. Yet, this state of affairs is widely accepted if not even expected, in a world where a boss may text an employee late at night or where it is rude not to respond to friends’ messages within a certain time. Social media platforms, in particular, have facilitated much of this instant and ubiquitous communication.

Therefore, it is safe to say that the presence of social media platforms on these ubiquitous devices has altered everyone’s perception of the world. Now, not just facts are instantaneously retrievable online, but also your cousin’s wedding photos, a relationship update or someone’s political opinion. This has led to serious research indicating that social media has hijacked our brains. An example is a 2018 YouGov survey where 57% of young adults in the UK agreed that “social media creates an overwhelming pressure to succeed.”

It all boils down to the fact that social media networks are not free to use. After all, servers must be maintained, employees paid and shareholders gratified. Everybody has a price to pay in this game. First of all, privacy is a valuable commodity in today’s internet. With a network not even charging money to be used, there must be another value each user provides to the network’s creator. Obviously, these are the data active users produce, from photos to location tags and event interests, to personal preferences, hobbies, education, profession, income, device use, and so on. Monetizing this data by selling targeted ad placements is vital to sustain a viable business.

However, it is an integral strategy of such an online service to disguise these needs for the common user, presenting its services as “free”. Nevertheless, nobody needs to contemplate for long to know they pay by being exposed to advertisements on these platforms. It has led to companies paying close to €60 billion for sponsored posts and other paid advertising content globally in 2018, with that figure expected to almost triple by 2022. For most social media companies, advertising represents their sole significant stream of revenue. For Facebook, the share of advertising on total revenue is 99%, according to the company’s recent financial statements. The sector’s rapid growth boosts corporate revenue and valuations and has made these networks so powerful.

Our project group, SchaschLeak, set out to challenge social media’s influence on society and created an information campaign with the goal of promoting a change of behavior. Through witty posters and videos, we tried to advertise our own campaign, which in itself presents an irony. Nonetheless, of more than 100 respondents to three different surveys, we found that although close to everyone is aware of their social media use and expects its influence to grow, this is not yet enough to alter their behavior.

For that reason, we added another component to the campaigns. We saw that the easiest way to reduce the influence of advertisements on unconscious opinion-formation and purchase-behavior is to increase users’ abilities to quickly detect such contents and consciously separate them from the actual posts, messages and news they are interested in. Moreover, we knew that in order to be remembered, conveying such knowledge requires making users apply this
knowledge in their regular use of these platforms. This explains why our posters and videos always included a call to action: One of the posters reads “Jeder fünfte Post auf Instagram ist Werbung. Probiere aus!” (Every fifth post on Instagram is an ad. Try it!), motivating users to open their feeds and specifically count ads. This opens up a new perspective: For the first time, users consciously separate content into organic and paid components. As another example, using a simple scenario of real users, our second information video visualizes the amount of ads provided through a whole network of friends – a bird’s eye view otherwise unavailable to the common user’s perspective.

Also our name “SchaschLeak” is deliberately brash, which helps us convey our message through unconventional methods. Our slogan “wir drehen den Spieß um!” (literally, “we turn around the skewer!”; metaphorically, “we turn the tables!”) illustrates the mission: By “leaking” information that social media companies usually try to underplay or hide from their users, we aim to make users more aware in their use of these platforms, and to shift power back to them.

Nevertheless, it is difficult to attest a measurable outcome from such measures. While we have been able to induce surprise and interest in many people through our campaigns, it is by no means safe to say that such measures would be sufficient to create change on a societal scale.

One may view this as a central issue of our digitized society: We have all come to accept as natural the digital devices we surround ourselves with and we don’t question the fact that they have become a gateway into our minds, where companies can place their products and messages and insinuate themselves, albeit subtly, into our subconscious. We know the truth about online advertising. We all accept the facts once made aware of them. Still, we don’t act. Perhaps that is because, for many, the only way to avoid one’s exposure to advertisements entirely – by abandoning such platforms altogether and thereby losing an easy interface with many social contacts – is just too high a price to pay. Perhaps, for others, it is just not a big enough issue. After all, if one simply believes that one cannot be influenced so easily, as we found many people do, this does not appear as a problem.

Of course, advertisements need not always be malicious and deceptive. Companies and individuals have always had the need to create awareness of the products and services they offer, providing the supply that consumers’ demand can fill. Nonetheless, social media offer a much more pervasive ad experience: Whilst we are caught up in a limbic reward cycle of doling out and receiving likes and comments from friends and acquaintances, sponsored content sneaks in, algorithmically optimized and targeted to its most susceptible prey, to place itself comfortably between those short-sighted needs and feelings. Such ad placements reach our minds much more deeply than billboards and newspaper advertisements ever could – and that makes them so powerful.

It is a shocking reminder that knowledge of truth may not be enough in our world to stimulate behavior that is best for oneself in the long term. Instead, we are persuaded to give in to short-sighted needs and feelings. This phenomenon can be observed not only in relation to advertisements on social media. Take environmental protection as another example: Whilst most of us are well aware of the facts and wish to preserve our natural environment for future generations, we still fly on vacation, or drive that car, or eat that meat. Short-term desires often prevail.

We can, however, take this as a starting point for more responsible behavior. Through our project, we have indeed succeeded in raising awareness where it had been lacking. The next step, however, to take action, can only be the result of an intrinsic ability to reflect on knowledge and act accordingly. This is something nobody should be coerced into. It must stem from independent thought. An information campaign such as ours, which encourages consumers to actively distinguish advertisements from other content and which clearly visualizes the workings of platforms such as Facebook has been shown to have a visible, yet hardly measurable, effect on the individual. Hence, further steps should also allow the users to become active and learn more responsible behavior. Instead of showing them numbers and facts everyone is already aware of, we should, for instance, encourage them to open up their feeds and identify sponsored content, or ask them what value they expect from following certain influencers. This, to us, suggests a promising future approach to fostering the development of independent critical thinking in this area because those who can reflect on their impressions will at least think twice before clicking impulsively on random ads. It need not challenge the networks’ existence, but, more importantly, shift power back to the consumer.
Is the enlightenment about advertising practices at a dead end?

Abstract
Advertisements have a substantial influence on our everyday life. One notices this influence only when trying to quantify it. Advertisements are aiming at our emotions, but usually we do not reflect on them consciously. The primary goal of our project is to raise awareness about the amount of advertising on social media platforms and thereby change consumers’ perception of advertisements. Throughout the project, two video and poster campaigns were launched, informing people about marketing methods, sponsored posts and personalized advertising in social media. To quantify the results, surveys were conducted. Consumers usually think that their decisions are not influenced by advertisements. Thus, in their opinion it is possible to escape the effect of advertisements. In fact, a significant percentage of purchases are made after the consumer has been relayed from a social media website. As a whole, one can conclude that advertisements do not address the rationality of consumers but primarily their emotions. This leads to a discrepancy between the perceived and the empirically measured influence of advertisements on the consumer’s purchasing behavior.

Background
Advertisements – our latent, loyal friends
People come into contact with advertising in the modern world on a daily basis. During prime-time television, on the way to work through the advertisements on the subway screens or through posters at the stops, it flickers towards us. Advertising is an accepted good in our society, and, in some cases, it is only perceived subconsciously. That is why only about 86 of the more than 360 advertisements we are exposed to every day are perceived consciously. The investment volume in advertising in Germany in 2017 reached 26.21 billion euros. Also, about 900,000 jobs are connected to the advertisement industry. Advertisements per se are not the problem, but manipulative practices, which lead to a strong influence on the purchasing behavior of consumers. In the following, we will present advertising methods that are regularly encountered in everyday life and whose influence is not perceived consciously.

Advertising Practices
Let us consider a typical commercial: At first glance, the ad seems inconspicuous. On closer inspection, however, the small print catches the eye. It takes up only little space, as it is kept as small as possible. Nevertheless, it contains important consumer information, which is not mentioned in the advertisement itself. In advertising jargon, this would be referred to as eye-catching advertising; the consumer’s gaze is directed to the most striking detail.

There are also rules in advertising technology. For example, there must be no untruths in the advertising message itself. The statement may not contain any untruths, but there is no requirement for exhaustiveness in the eye-catcher statement. The breakdown of the entire truth then usually takes place in the small print. Moreover, with regard to the small print, the legal guidelines remain vague. The only requirement is that additional comments must be placed in a way that is sufficiently clear and readable. This was confirmed in a ruling of the Federal Court of Justice on October 15, 2015 with regard to the advertising of a telephone provider. However, a certain font size or the duration of the display time of consumer information is not legally regulated.

These facts were of interest to our group, so that we decided to further address the subject of modern advertising practices. Typical advertising practices, such as the frequent repetition of certain slogans, are common (i.e., the radio advertisement of the Seitenbacher company, in which “Bergsteigermüslis von Seitenbacher” is used four times within 16 seconds). Another typical practice can be found in the advertisements of car manufacturers: A sports car drives through a mountainous and unspoilt landscape to suggest driving pleasure and freedom.
sumer subconsciously associates a reward with the product, which is received when buying it. The consumer is conditioned, so that so-called key impulses are associated with the advertised product. Other widespread advertising practices include the Picture Promise Prove Push and Attention Interest Desire Action Satisfaction Principle.

With the entry of social media channels into everyday life, new forms of advertising have developed. They are intended to lead consumers to their purchasing decisions in some cases much more subtly than traditional forms of advertising have ever been able to. Thus, advertising in social media usually coincides with the catchword influencer marketing. Advertising campaigns in social media often take the form of sponsored posts. This is an apparently normal post in the user’s newsfeed, but actually turns out to be a form of personalized advertisement. At first glance, it is easy to overlook, that certain posts are sponsored. But the effect of this form of advertising should by no means be underestimated. In 2015, 52 percent of all purchases made online by consumers were directly influenced by Facebook. This is due to the fact that 65 percent of Facebook users under the age of 29 find it difficult to recognize advertising as such.

Evolution of our project and methodical approach

At first, the goal of our project was to teach consumers how to gain a detailed understanding of commonly used advertising methods. This means, we wanted consumers to be able to identify manipulative advertising practices. Eventually, this should give consumers more power about their own purchasing decisions. Based on this goal, we wanted to question the following hypothesis:

An increase in consumers’ knowledge about common practices used by advertisers changes their purchasing behavior.

For the quantification of our results and to check our hypothesis, it was necessary to define the target groups that would be the focus for our data collection. Eventually, we chose to survey students in order to ensure comparable results. First, we wanted to extend the level of knowledge of students about commonly used advertising practices. Therefore, we launched an information campaign, where we used two channels (self-produced videos and posters), which dealt with manipulative advertising practices. Three different kinds of posters were spread all over university buildings; the video was published on our website. To increase our chances for a representative result, we used QR codes on our posters. The website was supposed to be a source of information about common advertising methods. Also, it was a means to collect survey results, as well as to evaluate user statistics. Additionally, individual interviews were conducted.

A quantitative evaluation of our hypothesis was not as easy as assumed. Therefore, we needed to specify a new hypothesis in the same field of study.

What could an information campaign look like that aims to increase the proportion of students and other members of TUM who are aware of the true number of sponsored posts in the news feeds of big social media platforms like Facebook or Instagram?

---

9 See chapter Outcome and Discussion
Following the success of our first campaign, we produced a new video and started a new poster campaign. Despite our repeated use of these two forms of media we changed our approach. The videos and posters were no longer intended to teach about advertisement practices but were designed to provide statistics about social media advertising. For example, one of our posters showed that every fifth post on Instagram is a sponsored one. We measured user statistics on our website and conducted new surveys.

Evaluation of the results showed that there is a demand for enlightenment about these advertisement practices. But measuring the change in the consumer’s behavior was not possible with our methods. So, we decided to collaborate with schools to reach a younger target group, which is affected by these methods the most: The consumers of tomorrow.

**Outcome and Discussion**

**Project Phase One**

**Posters**

To raise consumers’ awareness about marketing methods, we created a first poster campaign (see Fig. 1). Each poster dealt with specific advertising methods, or with companies who partly use manipulative advertising methods. To this end, we created our own slogans, which refer to known advertising slogans of companies (“Vorsprung durch Technik,” “Ich liebe es!”). A main goal during the poster campaign was to raise awareness for our project and our own website. Besides the positive feedback, we also received a certain amount of criticism, mainly focusing on the point that the message was not transmitted clearly. Additionally, the colours were too dark, so the posters did not draw much attention towards themselves. One big problem was that the call to action was not clear. People were mainly confused as to what to do with the information displayed on the posters.

**Video**

The idea behind our first video (see Fig. 2) was to tackle those elements of advertisements, which lack any clear relation to the product and therefore might lead to manipulated consumer behavior. Thus, we considered spectacular tracking shots, painted celebrities without any link to the advertised product and non-informative slogans. One can take the “Bruzzler” advertisement featuring Atze Schröder as a classic example.¹⁰
We considered the satirical style of our video to be suitable. In the video, we promote TUMuesli using the above-mentioned elements in an exaggerated manner. For instance, we invented the character TUMan as a counterpart to Atze Schröder. For further emphasis, a narrator guides the viewer through every manipulating step. This, as well as the second video, is accessible on our website. We were able to reach 480 people via Facebook as of June 2019. Unfortunately, due to the lack of appropriate sound quality, we were not able to present this video at the TU Kino as planned.

The following three lessons from our video campaign were learned. Firstly, we need to increase our outreach in order to have more points of contact with our target group of TUM students. Secondly, we therefore need to raise the video quality standards in order to be able to use more channels. Thirdly, we need to clarify our message.

**Website**

An integral component of the information campaign we designed is the website, which we hosted under schaschleak.de. We chose the medium of a web page because it serves as an information tool and also allows user interaction through online surveys. Hence, our goal was to direct as many users as possible onto our website outlet. As the first poster campaign missed a clear call to action – it just urged users to stop being manipulated by advertisements (“Tu was dagegen!”) but did not suggest how the website would help the consumer to achieve this – we figured that the user must have a clear reason to take up the effort to visit our web page.

**Results Project Phase One**

During the first project phase we collected data from a sample size of 36 people ranging from students to senior citizens. The most important aspects of advertisement turned out to be information about the product, honest advertisement and the entertainment value. In contrast, ethics and morals and the presentation of the product were regarded as less important. Additionally, questions about controversial content were asked. By a great margin, the exclusion of specific groups of people was seen most critically. Even the display of sexually explicit content and alcohol or gambling was not seen so critically. Most interestingly, the interviewed people are consuming advertisements hardly ever knowingly, as Figure 3 shows.

Therefore, it is not surprising that about 35% of the interviewed people believed that they were not influenced by advertisements at all. In conclusion, the influence of advertisements on people’s consumer behavior works mostly subconsciously and without them even noticing the consumption of advertisements.

**Project Phase Two**

**Posters**

During the design of the second poster campaign (see Fig. 4), the criticism that had been expressed in the first campaign was taken into account and the basic idea for the posters was reworked. We agreed on a design that would look like a social media post. So, the posters only contained direct questions or statements about facts concerning social media. It turned out that, while evaluating the results of our website, the second poster campaign created a significantly higher impact on the traffic of our website (see Website below), which can be interpreted as a positive result.

**Video**

After redefining the research goal, we wanted to produce a second video (see Fig. 5) in order to raise awareness of the amount of advertisement in social media. Considering previous points of criticism, we contacted a professional video producer, namely Stream...
Filmproduktion. After two weeks of a production / feedback cycle, we were able to upload the video on YouTube.\textsuperscript{12} The video itself is aimed to visualize the amount of advertisements being created by every single Facebook post. According to our survey, every fifth slot in a social media newsfeed contains sponsored advertisements, disregarding product placements and influencer posts.\textsuperscript{13} To demonstrate this, the video starts with a fictional setting of six friends sharing a post respectively. Since two personalized advertisements can be placed in each of the six identical newsfeeds, the social media platform is able to spread 12 personalized advertisements out of 6 initial posts. This can then be extrapolated to 30 friends, providing space for 240 advertisements.

The video was neither published by the official Facebook page of TUM, nor displayed on the info-screens inside university buildings. The main reason was the unclear connection between the content of the video and TUM. It reached approximately 100 people via YouTube as of June 2019 and was presented at the Städtische Berufsschule für Spedition und Touristik during our information event.

Website
The success of our campaigns could best be measured by the number of visitors on the website (see Fig. 6). The changes in the campaign described earlier resulted in much higher total website visitors and a much higher conversion rate to the online survey. Yet, it was not possible to measure exactly how many people our posters reached, and hence the conversion rate from poster impressions to our website cannot be specified.

Our website metrics improved in the second campaign as opposed to the first one by the following numbers (see Table 1):

From the numbers, it is evident we reached click rates far above numbers typical for marketing-related funnels. As a comparison, Facebook campaigns reach click-through rates of 0.11\% in Germany.\textsuperscript{14} In our second campaign as comparison, 32.6\% of users who visited the website also completed the survey. Although these two metrics do not capture the same statistic, as context and platforms are different for each of them, such a comparison still gives an interesting insight to our website’s performance.

Though we cannot derive a clear causality for this good general click performance of the website, it is possible to attribute most of the variance of the relative change between the two campaigns to the variables we changed between the campaigns, at least by correlation:

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure4}
\caption{Posters from second campaign.}
\end{figure}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure5}
\caption{Scene from second video}
\end{figure}

\textsuperscript{12} https://www.youtube.com/watch?v=kRqjHtdn69A
\textsuperscript{13} See chapter Second survey among students of TUM: JA
Different poster design, with less cluttered layout and more vivid colours
Core design element: From dark animal photos to bright emojis
Better placement of website link on posters
Less text, clearer call to action on posters
Placement of posters in more locations
Distribution of the website link through TUM: Junge Akademie channels

Furthermore, we can assume that the highest share of website visitors was brought to the web page through our posters, though we did not specifically test that. It is merely a consequence of the distribution and design of our campaign. As to assessing the high conversion rates, it is possible to assume that the socially relevant context of the project made users more likely to click on links on the website and also to fill in a survey. However, such a causality cannot be proven.

In addition, we added more useful information for users, such as digital versions of the posters, links to the videos, as well as more information about our project and ways of contacting us. A clear link of our project to the TUM: Junge Akademie was also provided. All these elements are not central to the purpose of the website, which is to inform users about manipulation techniques in advertising and record their survey responses.

Results Project Phase Two
After shifting the focus of the project towards social media marketing, a second survey among 31 students between the ages of 17 and 30 was conducted. This survey included an empirical study to test how frequently sponsored posts appear between “normal” posts on social media feeds. The study showed that, on average, every 5th post on social media is a sponsored one. In general, sponsored posts on social media were seen very critically. Nearly two thirds of the interviewed students have a negative attitude towards them. Only about 9% see sponsored posts positively.

We asked about the influence of sponsored posts on the students’ consumer behavior. The following figure Figure 7 shows that 47% of the interviewed students say the influence of social

<table>
<thead>
<tr>
<th>Campaign</th>
<th>Users</th>
<th>Total sessions</th>
<th>Clicks to survey from website sessions</th>
<th>Survey completions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oct/Nov 2018</td>
<td>75</td>
<td>95</td>
<td>21 (22% of sessions)</td>
<td>10 (48% of survey clicks)</td>
</tr>
<tr>
<td>Feb-May 2019</td>
<td>304</td>
<td>462</td>
<td>147 (32% of sessions)</td>
<td>99 (67% of survey clicks)</td>
</tr>
</tbody>
</table>

Table 1: Website statistics

Figure 6: Website schaschleak.de

Figure 7: Evaluation of the question “How does social media marketing influence your consumer behavior?”
media marketing on their consumer behavior is low. This stands in great contrast to the already stated fact that every second online purchase can be traced back to an advertisement on Facebook.

The great success of advertisements in general and social media marketing in specific relies on a false perception of the consumer. Advertisements are rarely consumed consciously, and their effects are reckoned to be insignificant. But the amount of money spent on advertisements by companies and the measurable success of marketing campaigns speaks otherwise.

**School Lecture**

Following a request, four team members conducted a workshop with two classes of a vocational school. The students were around 21 years old and were following an apprenticeship in the field of tourism and traveling. The first part of the workshop was a presentation on advertising techniques and advertising in social media followed by group work and discussion in the second part. To begin with, we established an understanding of advertising methods in general by introducing the issue of daily exposure to advertisements and their psychological impact. Several examples introducing different marketing strategies like guerrilla or ambush marketing were used. Moreover, we presented the concepts of influencer marketing, targeting options on Instagram, Facebook’s income and impact on consumers’ behavior, methods of personalized advertising and, finally, data security. We formulated seven questions, which the students worked on in groups. Afterwards we discussed their results and ideas together in class, whereby we gained interesting and unexpected insights. The following Table 2 shows the questions that were discussed and the interesting insights and feedback. This is not a list of the students’ complete responses but is intended to reflect the core message of their feedback, as well as the most surprising statements given by them.

Furthermore, the students took part in our survey and thereby helped generating data and its comparison with other sample groups. Within this school workshop and by talking to several teachers and the Principal, we realized there is a great interest in the issue of social media, and it is seen as highly relevant. There is a great demand for more information and education in this field. By conducting this workshop in a vocational school, we had the goal of sharing the insights we gained through our research pro-

<table>
<thead>
<tr>
<th>Questions</th>
<th>Insights</th>
</tr>
</thead>
<tbody>
<tr>
<td>What would make you change your social media usage behavior? What would it be worth to you to refrain from social media?</td>
<td>The students do not think anything is wrong with their social media usage. The average daily social media usage of some students is about seven hours.</td>
</tr>
<tr>
<td>What do you think about influencers? Do you think they are trustable or manipulative? With which examples can you justify that?</td>
<td>There are influencers the students see as role models (inspiring and motivating). However, they do not think influencers are affecting their consumer behavior. They do realize that product placement and advertisement can be manipulative (e.g. fitness drinks or beauty products).</td>
</tr>
<tr>
<td>Would you buy a cell phone with social media for your future children? At what age and why? What would you worry about as a parent?</td>
<td>This group was relatively critical: no phone for their child in primary school, first phone only without social media, maybe not even a smartphone. Moreover, they want to control the usage time. With 14 years their child can get a smartphone with internet and social media. They worry since “the internet does not forget anything.”</td>
</tr>
<tr>
<td>As an entrepreneur / employee: Would you advertise on social media platforms? Why? Would there be moral standards for you?</td>
<td>Yes, the students would use social media for advertisement but did not have any common opinion on moral standards.</td>
</tr>
<tr>
<td>Are social media platforms as advertising mediums an opportunity or a risk? From an entrepreneurial point of view? From the perspective of the consumer?</td>
<td>Advertisement on social media brings advantages and disadvantages for entrepreneurs as well as for consumers.</td>
</tr>
</tbody>
</table>

Table 2: Outcome of the workshop discussions
ject with a different target group and thereby to generate more impact. In conclusion, we wanted to teach the students something specific they can use as private persons and within their jobs.

**Summary and Future Goals**

So far, we have conducted our research with university students and a class of students at a vocational school. Ages ranged from 19 to 25 years. In the future, we could imagine extending our research to different age groups and also to different school types, in order to compare results and investigate trends. We are especially interested to make contact with younger students, to see if there are any differences in knowledge and behavior. As this is outside the timeframe of this project, we are planning to continue its legacy and visit schools and also compare the results between different school types. The Principal of the vocational school showed great interest in our program. There is a high potential for further schools to work with us. Generally, what surprised us towards the end of our campaigns is how large the disparity in knowledge about advertising practices is between universities and schools. In addition to holding lectures at schools and collecting results on our research, we want to display these results on our website. In particular, a comparison may be interesting between our university-focused campaign findings and our findings drawn from schools. There is scope for evaluating the differences and similarities between the two in more detail.

Research has shown that most advertisements are absorbed unconsciously because of different marketing techniques used by advertising campaigns. The importance of clarifying the amount of advertisements, especially in social media, is justified by the large amount of consumer screen time. Without knowledge and awareness about personalized advertising, the consumer is influenced easily and manipulated subconsciously. The number of schools requesting our workshop session shows that there is a great demand for enlightenment about the use of social media and personalized advertising. Everybody is affected by advertisements and should therefore deal with them consciously.
Self Reflection

At the beginning of our project, our main focus was on advertisements and consumer awareness of them. We started with the hypothesis that an increase in consumers’ knowledge about common practices used by advertisers changes their purchasing behavior. We wanted to support a more critical awareness of commercials, reward fair commercials and increase awareness of consumers' own power. In order to reach that goal, we started to analyze existing advertisements and especially focused on lies within them. We also thought about increasing awareness in advertisements by visual methods and thought about certifying fair commercials. In that process, we noticed that creating a certificate is not that easy and for that reason, we decided not to pursue this idea and, instead, focused in the subsequent process on surveys, videos posters and the creation of our own website.

During our team meetings, we soon recognized that, in our large group, it was difficult to make progress without introducing some structure and delegating work packages. That was the reason why we decided to organize our team into subgroups (“team video,” “team interview” and “team organization”). This was a good way to improve results and perform more strongly as a team.

Regarding the personal (one-on-one) interviews the evaluation team conducted, we soon recognized that it is not as easy as we had imagined reaching participants willing to take the time to sit down with us. Thus, we decided that other methods to obtain survey answers would be more successful. Perhaps, there might have been some other possibilities to continue and improve our ideas with the evaluation interviews. However, looking back, we did not put enough effort and motivation into exploring these possibilities. We could have done this better and tried different strategies to motivate interview participants for helping us in our project.

Because of the difficulties with evaluation interviews, we henceforth focused more on the improvement of our second session of posters, a new video and the online survey on our website. During this period, we also found ourselves confronted by the first problem with our research question and project goal and had to change our approach. We had to accept that our plans to raise awareness about advertisements were just not measurable, because the number of filled-in surveys was fairly small.

Therefore, we thought about a possible change in our project. We shifted our focus more onto social media, because we thought that this is an important topic especially in the young age-group we targeted. Through the feedback we received and by recognizing our own mistakes, we were able to start our second, improved campaign. The aim to improve our outreach had limited success. This was probably one of our weaknesses, as we could have pushed the boundaries further, as for instance when distributing our first video: Our aim was to have it shown in the TU-Film, but this was not put into action due to a technical sound problem. With some more effort, it would have been possible to fix that issue. Furthermore, we had the idea to print stickers in addition to the second poster series, but unfortunately, we never organized ourselves to use them effectively.

As our target group, we focused primarily on university students. About four months before the project’s end, we also had the idea that it might be interesting to see if there is a difference between university students and pupils in schools. We arranged an opportunity to give a lecture at a school and our whole project changed again. This gave our team a vital boost towards the end of the project’s runtime, as we now had a manageable activity we could pursue, and which creates significant societal impact: Giving school
lectures. After one successful lecture we were motivated to expand this concept and went to other schools. Maybe one reason for our motivation was that we were quite shocked about the lack of knowledge and the social media behavior of the pupils. We developed the goal to compare the usage behavior and opinions on advertising on social media for different age groups and levels of education. So, our focus from university students as target shifted to pupils in schools.

At the end of 2017, we mainly focused on consumer awareness of advertisement techniques. We started with the hypothesis that an increase in consumer knowledge about common practices used by advertisers changes their purchasing behavior. After a lot of discussions and various suggestions from our mentors, we had to acknowledge that the methods we wanted to use were not able to measure our impact regarding the goal. Therefore, we had to modify our goal to be more specific and more measurable. Hence, we discussed and brainstormed in different settings, coming to the result that almost no one in our group was aware of how much advertisement is placed in social media, especially on the major platforms like Facebook and Instagram. Finally, we compromised on the hypothesis. Reflecting the process and the development of our goal, we all learned how difficult it is to specify a precise and also achievable goal. This is the most important milestone in the project work. Due to different mistakes, we became aware that our first goal was not achievable. Eventually, we saw the mistakes we made and we used that knowledge for our “second try.”

In summary, we often changed our main focus during the project, first focusing on how big companies influence the population through advertisements and how we could raise more awareness and help consumers. Then, we shifted our focus onto social media and advertising, setting university students as our main target group. In the end, we got to present lectures for school pupils, which nobody in our team would have expected at the outset. Perhaps, one significant team strength we had was that we were flexible and did not shy away from new ideas and possibilities. We also were always open to feedback and suggestions for improvement and we tried to turn these into positive actions. Our team spent a lot of time at the beginning just thinking about different things without putting anything into action. Maybe this was due to the large team size, and it would have been better to develop subgroups earlier. Also, quite a few members of our team were absent for some time because of stays abroad, and two members left entirely for different reasons. Yet, these have never been problems for us. We were able to manage this very well. This might even be an argument in favor of large groups, as we could compensate for absence, and with the subgroups we created we progressed faster and produced results. Also, our team cohesion was good, and we always had fun and enjoyed our team meetings, which we held regularly with predominantly good attendance rates. Fortunately, all our decision-making processes happened free of disputes, with everyone accepting the final results, even sometimes as compromise. In case of problems, we did not hesitate to ask for help. At some points during our project, we could have shown more motivation and we perhaps gave up on some of our ideas too quickly. This was maybe one weakness of our team. Another one, perhaps, was the fluctuating motivation to find time during the project.

To reflect on almost two years of project work, we focused, on the one hand, on our content, including the development of our goal and research question and the way we used different methods in order to achieve the goals; and, on the other hand, on our teamwork, including team-structure, motivation and composition of the team.
POSTER 1: The first phase of our project was characterized by our immediate focus on the advertising industry. Our first poster reflects this early choice we made. Reason for this is provided in the ‘Background’ section: The advertising industry uses new communication media to praise their products however possible, be it with truths as well as wrongful or manipulative statements. Our first hypothesis assumes that knowledge about manipulative practices in that industry alone will be sufficient to change purchasing behavior. We envisioned that through our project, we would topple conglomerates and liberate the consumer’s mind from the instructed hand of the advertiser. Later, the truth would surface that actually changing consumer behavior comes with more difficulties than expected – the central issue being lack of measurability of consumer behavior and the causalities behind purchase decisions.

As for goals, we contemplated about creating a certification or label that fair advertisers would add to their creations to obtain consumers’ trust. This, however, would eventually not materialize. Nevertheless, our intended methods already included a research part, where existing advertising practices would be analyzed, the idea that posters and videos would be used for an information campaign, and the aim to find survey participants to measure our campaign’s effectiveness. These three components would later be materialized, in one form or another.
POSTER 2: In the project phase preceding the second poster, both target group and hypothesis remained unaltered. Yet, what did change was a more specific idea of how our information campaign would be designed: We target general consumers, and show them our videos and posters. Then, using test groups of 2 x 30 participants, we would measure the impact of our campaign on opinions about products and purchasing behavior. With external input by our mentors, emphasis was put on defining this methodology, which served as project goal, in the well-known SMART way.

Furthermore, a rough timeline was designed, which did at that time certainly not reflect the path this project eventually took. Whilst we did produce posters and videos on time and released them according to that plan, evaluating their impact would show to be more difficult than expected. Moreover, we failed to get our first video into tu-film, and we later dropped the at that time existent idea to produce a series of memes. The latter decision was a result of a consultation with Dr. Witzgall from ADBK Munich about our campaign and what it would take to create such memes.

Also in precedence of poster 2 was our decision to split up our large group into smaller sub-groups with assigned responsibilities. It would turn out that this decision greatly increased our output, especially on a creative front. Very importantly, those imparted with organizational tasks received the authority to delegate tasks and request status updates from the other sub-groups. Such a structure created accountability and naturally structured meetings (every sub-group would report and discuss with the others), without the need to bear hierarchies in the team.
Towards poster three, we had undergone significant changes in our target group, the project goal and formulated a new research question. Now, we limited our campaign’s target to students at TUM, because we could most directly and easily reach as well as demarcate this group. Moreover, instead of focusing on awareness about advertisements in general, our new research question considered only sponsored posts in social networks. We chose this focus because our targeted age group has significant contact with these media yet little self-reflection about their usage of such tools. Finally, we also had learned that even only helping those students recognize online ads as such would already be a significant first step towards a more conscious use.

A major setback in the project to that date was that although we had intended to measure change of consumer behavior after being exposed to our information campaign, actually measuring such changes is very difficult to impossible due to unknown correlations and causations and little possibilities to track individual purchasing decisions.

The modifications were reflected in our revised project goal. Now, we only aimed to have more students know how many advertisements are distributed through social networks and how they can easily recognize them. Whilst this project goal is less visionary than the previously defined one, it was much more concrete and actually achievable by our methods. Our mentors and tutors were of great significance in sharpening project goal and research question in this step.

By that time, we had already learned what components of posters and video number one worked well and where we had to improve. Examples for improvements included unpleasant color choices, prohibited logo placements on posters, bad sound quality in the video and a lack of a clear call to action of our campaign.
POSTER 4: The final phase of our project included yet some new learnings. Our research question could certainly be answered: An information campaign that includes modern references has the ability to connect with an audience such as our targeted students and incite their interest in the topic of advertisements in social media. Our posters and videos were seen by thousands, and hundreds have engaged with our website over its lifetime, with significant improvement in engagement of the second, revised campaign over the first. More importantly, we talked to peers about our project and know were able to make them think. Our revised website even included a value for its visitors: Tell us how you perceive advertisements in social media and we’ll show you lots of interesting facts about them. This is the call to action we had lacked before.

On a team side, one may conclude that our early division into subgroups had remained virtually unchanged. We were able to compensate members staying abroad in an acceptable manner. That is because responsibilities of each member were known by their belonging to a sub-group.

Finally, the latest modification of our project goal must be mentioned: Since our information campaigns had indeed aroused interest in the topic, we were able to then focus our target on schools and educating younger students about possibilities and dangers of using social media excessively. Being a completely different type of main activity, we now have the goal to convey our learnings from the project about manipulative advertising practices in social media and how to best identify them, to as many students as possible, by holding presentations at schools.