Final Report

GZ: DO 323/25-3

1 General Information

1.1 Applicant

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Transaction Reference of the prelimary report: "Nachrichtennutzung und Nachrichtenwissen junger Menschen": DO 323/25-2

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1.2 Topic

Nachrichtennutzung und Nachrichtenwissen junger Menschen (News exposure and news knowledge of adolescents)

1.3 Reporting and Funding Period

July 1, 2009-December 31, 2011

1.4 Project Publications

The project has already led into six presentations at national and international conferences, two at consecutive conferences of the International Communication Association with tough peer-review processes (see list below). Based on these two presentations we are currently preparing two manuscripts to be submitted to international flagship journals, one on news knowledge gaps by age groups (probably: Political Communication), and one on the quality of news on different platforms and by different news sources (probably: Journalism and Mass Communication Quarterly).

Conference presentations based on the project:

Donsbach, W. (2010): News Use and News Knowledge in Times of the Internet/Consumo y Conocimiento de las Noticias en los tiempos de Internet. El Consejo Latinoamericano de Acreditación de la Educación en Periodismo (CLAEP)/Medienprogramm der Konrad Adenauer Stiftung. Merida, Mexico, Nov 6, 2010

Donsbach, W. (2011): Have You Heard about...? Measuring Political Knowledge and News Sources on a Day-to-Day Basis. WAPOR Regional Seminar "Transnational Connections-

Challenges and Opportunities in Communication and Public Opinion Research", Segovia, Spain, March 17–18, 2011

Donsbach, W., Rentsch, M. & Walter, C. (2011): Everything but the News. Despite the Boom of Social Media the Youth's Daily News Consumption still Relys on Traditional News Sources. Presented at the Annual Conference of the International Communication Association, Political Communication Division, Boston, May 26–30, 2011

Walter, C. (2011): "Hast du schon gehört...?" Die Rolle der interpersonalen Kommunikation bei der täglichen Nachrichtenrezeption von Jugendlichen. Presented at the 3rd colloquium of the Nachwuchsnetzwerk politische Kommunikation (NapoKo), Dresden, June 23–25, 2011

Donsbach, W. (2011): Nothing to Deliberate on? News Knowledge in the Modern Communication Environment. Conference "Political Communication in the Era of New Technologies". Polish Communication Association and University of Warsaw, Warsaw, September 22, 2011

Donsbach, W., Rentsch, M., Walter, C. & Mothes, C. (2012): It's the Profession, Not the Platform, Stupid! The quality of news in internet and traditional sources. Annual Conference of the International Communication Association, Journalism Division, Phoenix, May 24–28, 2012 (submitted)

2 Work Report and Findings

2.3 Questions and Goal of the Project

The main goal of our study was to investigate the public's awareness and sources for news on politics and public affairs. A special focus was given to the news awareness of the younger generation. In more general terms our study wanted to investigate how the society can face the observed trend towards an alienation of the public discourse about relevant topics for society. The study was based on three major evidences: a declining news use and interest in politics and current events, a changing information behavior in the digital age, and an increasing tabloidization of political news content (cf. Überarbeiteter Neuantrag auf Gewährung einer Sachbeihilfe: 3p.). We have used an innovative methodological approach based on a two-method-design: (1) a representative survey of the German population (n=1,800; disproportional sample by age groups) conducted from April to June 2010 revealed peoples' awareness, information sources and knowledge about the most important news of the previous day (for a total of 30 days). (2) The subsequent quantitative content analysis (field time February to March 2011) examined the news quality on these issues in respondents' information sources as well as in an extensive representative sample of professional. semi-professional and non-professional news sources. On the one hand this design provides us with the current state of news knowledge, political knowledge, and news sources of generations on a descriptive level. On the other hand and in a more explicative manner it offers the relationship between characteristics of news content and its processing on the individual level. The perspectives of our study give an insight into shortcomings on both sides: the guality of news content and citizens' motivations and predispositions to actively take part in democracy today.

2.4 Status Report

The study proceeded successfully and important results have already been presented at international conferences in the USA, Latin America and Europe (cf. 1.4). However the study was substantially more complex and more difficult in its technical procedures than we expected in the project application, a fact that eventuated in the application for an extension. Two main difficulties appeared: the complexity of the survey data sets and the acquisition of news material for the content analysis. On the other hand the coding was less expensive based on less news topics compared to the project application and a significant amount of mentioned news sources overlapping with the representative sample.

The first methodological step of our study was the representative survey of 1,800 Germans conducted by the survey institute TNS Infratest, department of political research, from April

26 to June 9, 2010. The sample was arranged disproportionally and included 600 adolescents (age 14-17), 600 young adults (age 18-29) and 600 older adults (age 30 and older, cf. Fortsetzungsantrag auf Gewährung einer Sachbeihilfe: 4pp.). In the sampling process we followed the advice of the survey institute to make use of a pool of respondents who had agreed to take part in surveys repeatedly to achieve the daily rate of 20 respondents in each age group. Besides slightly higher than average levels of political interest and duty to keep informed among these respondents we found no other statistical biases in the sample (cf. Fortsetzungsantrag: 5p.).

The survey consisted of two parts, a standard part and a day-specific part based on the news situation. The standard questionnaire included important intervening variables regarding news exposure and news knowledge that we had deducted from previous research such as the respondent's general news use, the civic duty to keep informed, self efficacy, political interest, prior political knowledge, interpersonal communication, values, political participation, attitudes towards democracy, and social demographics. We also asked every day a question on the most important news from the subjective perspective of the respondent. The day-specific part of the questionnaire measured the awareness and information intake of the two most relevant news items of the previous day. These most important news items were daily chosen by a 10-person-panel of experts (editors and social scientists) based on a list of relevant news prepared by the project team (cf. Fortsetzungsantrag: 7p.). Furthermore, the knowledge questions about news-specific factual knowledge and issue-specific structural knowledge, the question about information sources, news-specific interpersonal communication, and the subjective relevance of the daily news items were part of the daily questionnaire.

These fieldwork procedures required the research of important news, the selection of relevant news by the panel of experts, as well as the discussion and final wording of the daily questionnaire before this went to the survey institute. Furthermore, we had to verify and register the information sources indicated by the respondents as they were conveyed to us by the survey institute on a day-by-day basis. This registration number was the basis for the acquisition of the information sources and the later linkage with the data set of the content analysis. We ended up with four data sets for the statistical analyses of the survey: one weighted data set for the entire population and one weighted data set for each age group. Therefore, every analysis and change in the data set (construction of indices, labeling etc.) needed to be done in each data set separately. Depending on the research question a different data set was chosen for the analysis. This complexity of survey data sets was then again enhanced by the linkage between survey data and the content analysis data.

The second methodological element of our study was a quantitative content analysis with which we measured the characteristics of the respondents' news sources and of a representative sample of professional, semi-professional and non-professional news sources (cf. Fortsetzungsantrag: 13pp.). Formal, stylistic and content characteristics were analyzed for each news item. This dual sample design allowed several routes of analysis. Formal and stylistic characteristics included the information about the source (e.g. media, media types, circulation), the visualization, the degree of interactivity, and the degree of emphasis. The content categories were derived from theoretical and empirical discussions about journalism quality including six dimensions of normative quality: news coverage of relevant topics, issue-specific information quality, objectivity, balance and plurality, non-tabloidization and understandability (cf. 2.5.2). Assuming that media coverage of a topic includes more than one item (e.g., a teaser, a background report, and a comment) the unit of analysis for most of these categories was the information source as a whole.¹

Based on problems with the acquisition of information sources (cf. Fortsetzungsantrag: 17) we did not have all the information sources mentioned by the respondents available for the content analysis. We could acquire almost all newspaper and internet sources, but only half of the television sources and only one third of the radio sources. Furthermore, not every

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¹ This applies for all media types except for online media. One information source could include up to three news items.

source indicated by the respondents did actually cover the news topic at hand, probably because the respondents did not remember exactly where they informed themselves: 128 out of 141 newspaper sources indicated in the survey covered the topic, for the television sources it was 135 out of 156 cases, for radio 37 out of 53 existent cases and for internet sources 449 out of 517.

Coders were 15 students of communication who were trained in January 2011. The intercoder-reliability was measured on the basis of 15 information sources from all media types and reached a satisfying value of r_H =.84 (r_H =.9 for formal categories and r_H =.82 for content categories). The coding procedure was implemented with an online questionnaire which was easier for the coders to handle and provided already a SPSS data set of the content analysis. This data set included 3,102 information sources: 1,935 professional sources, 496 non-professional sources (blogs) and 671 mentioned news sources, with an overlap of 154 news sources between professional media and mentioned sources.

For further analyses (tracing back the news knowledge of the respondents to their information source) the survey data and the data of the content analysis had to be merged. The hub of all linkage procedures was the identification number of each respondent's information source per news item. Two different types of linkage emerged based on our research questions: (1) the four survey data sets (whole population and age groups) were linked with the content data of the information source used by the individual respondent. As a result the maximum of two information sources and their content data were attached to the respondent. With these data sets we are able to answer research questions starting from the respondent and his or her characteristics. (2) A second type of merged data sets emerged from the individual information sources and how they had covered the news items at hand. As a result a respondent could appear twice in the data set because s/he might have used the same source for both news items. Questions about the influence of content specific categories on, for instance, knowledge about the news could be answered with these data sets. As a result we ended up with eight merged data sets to work with what made the analyses even more difficult and complex.

2.5 Findings

2.5.1 Young People and the Public Sphere

2.5.1.1 News Exposure and News Knowledge

The basic purpose of our study was to find out how news about politics and public affairs matter to the citizens and particularly to younger people and how a possible trend towards more disinterest in the public sphere can be addressed.

A look at our data concerning the normative *attitudes towards news* raised the hope that citizens have the normatively 'correct' attitude. Compared to data of the German survey institute Allensbach (Allensbach Archive 2010) the level of the *duty to keep informed* (indicated by the question how important it is to keep up with the news) in our sample is quite high: 89 percent compared to 57 percent). Even in our youngest age group 80 percent say that it is important for them to be always up to date and informed about current events (18 to 29: 82 percent, 30 and older: 92 percent). Nine in ten (92 percent) of our respondents state that it was important for them to get different viewpoints about an event (83/89/94 percent) and only 41 percent of the population feel overwhelmed by the mass of information that comes down on them (34/45/40 percent). Explanations for these astonishing results can probably be found in the sampling. Respondents who had agreed to take part in surveys repeatedly (cf. 2.4) might have a higher general interest in news and public affairs. This peculiarity of our sample does not, however, jeopardize neither our descriptive nor causal analyses.

A closer look at the *general news exposure* reveals a significantly lower level of exposure in the youngest age group. For example only 19 percent of the 14 to 17 year olds read a newspaper on a daily basis compared to 57 percent of the oldest age group. This gap between the age groups applies to all media types except for the internet. Only 13 percent of the oldest

age group receives their daily news online. But the level of news use online is quite low in all age groups: only 20 percent of the Germans read news online on a daily basis.

Switching the focus from the general news use to the awareness and information intake of the two most important news of the survey the generally low level of news exposure and the differences between the age groups is confirmed. Two out of three Germans were aware of the most important news of the previous day; the second most important news item already caught the attention of only of 57 percent. Our analyses show a clear and linear correlation between age and news awareness. The younger the citizens the less they have encountered news on politics and current affairs: 24 percent of the adolescents, 34 percent of the young adults, and 42 percent of the older adults were aware of both most important news items. Moving from awareness to information intake an average of 42 percent of all respondents not only had heard about the two most important news items but also received information about it as well. Young people again got less information than the other age groups. Only one out of four of the 14 to 17 year olds informed him- or herself about at least one news topic. The differences in the news sources between the age groups are only marginal here: all age groups inform themselves primarily via television. Traditional mass media still dominates the exposure to news. Only ten percent of the youngest and 18 percent of the middle age group stated the internet as their source of information. Online as well as offline it is the professional news providers that are used primarily for information intake. Social media play a certain but moderate role only for drawing attention to top news: 13 percent of the adolescents who heard of the news topic online caught attention in a social network, 2 percent in blogs. These results put the relevance of social media as a source of information into perspective.

With two measures we investigated the news preferences of our respondents. First, we asked them to rate the importance of news topics as selected by the expert panel. What our respondents rated as (very) important regarding the subject areas of topics were fiscal policy, party policy and foreign policy. This matches with the occurrence of subject areas in the survey. When it comes to concrete topics respondents' ratings again matched with the selection of news by the experts. The most important news topics were the crisis in Greece and the euro crisis, the elections in North Rhine-Westphalia, the resignation of Federal President Horst Köhler, the saving plans of the government and the Middle-East conflict. Surprisingly, the age groups did not differ in the subjective relevance of topics. However, they differed significantly in the overall assessment of the importance of the news: The younger the respondents the less they rate news as important. These results on the salience of concrete news items put a question mark to the above mentioned rather limited differences in the duty to keep informed. With the rating of the experts' news topics the respondents were still confined to what others had chosen as important news. Therefore, we also had asked them with an open-ended question to indicate the most important news of the previous day from their own perspective. Again, we find a very similar pattern.. The only difference is that the oil spill in the Gulf of Mexico played a much more important role for respondents of all age groups than it did in our survey. As a consequence, catastrophes come first in the ranking of subject areas and the oil spill in the mentioning of concrete news topics. Again, there seems to be no big difference between the age groups in ascribing importance to news. This is a crucial finding for the validity of our study: Obviously, our experts did not choose news items that are of a general irrelevance for the younger generation! However, while 64 percent of the oldest age group answered the open question about the most important news only 47 percent of the 14 to 17 year olds did so. This shows again the low degree of news awareness among the young.

How irrelevant news can be to young people is also seen in their *interpersonal communication* about current events. The youngest age group talks significantly less about the relevant news of the day than do the older age groups. Considering that the frequency of discussions influences political knowledge, news comprehension and political interest (Dostie-Goulet 2009; Woo, Kim, & Kim 2010; Eveland, & Hively 2009) this result is alarming. Once people talk about current events there is no difference between the age groups concerning the subject areas: It is again the 'hot' subject areas of the survey that are most frequently mentioned.

Minimal differences occur only if one looks underneath the surface of the big issues: the oldest age group talks slightly more than the others about economic policy, the young adults about catastrophes and the adolescents about culture and religion. Concerning the concrete news topic there is again no difference between the age group: the topics most talked about are the ones that were rated as important (see above). The discussion partners of the adolescents are predominantly family members (58 percent), ahead of teachers (51 percent), friends (27 percent) and schoolmates (32 percent). Family happens to be a stable partner of discussions about politics in all age groups. Friends and life partners as well as colleagues become more important only at an older age. Discussions with personally unknown people through online platforms are almost immaterial in all age groups showing again the irrelevance of social networks for political conversations. A noteworthy fact is that young people took notice as well as got informed about news significantly more often by other people than did the older age groups.

The minor relevance of news for young people is reflected in their *news knowledge*. With our sophisticated measurement we were able to assess factual and structural knowledge on the issues of the day. Young people know considerably less than adults, a result that was also found in the model study of our project (Patterson 2007). The gap of knowledge between the age groups holds true for the *specific news knowledge* as well as for the *background knowledge* (see *Tab. 1*). Besides age, news knowledge is positively related to education. Furthermore male respondents knew significantly more about the daily news than did female respondents. Respondents that just heard about but did not further inform themselves about the news items expectably had a lower knowledge score than those who informed themselves. The differences in knowledge between these two groups are more obvious for the first, i.e. the more relevant news topic (see *Tab. 2*).

2.5.1.2 The Relevance of Politics

In our causal model general political attitudes are used as independent or intervening variables for news exposure and news knowledge. Before we come to these relationships it is worthwhile presenting the marginals on these questions. In our study 63 percent of the Germans said that they were very or fairly interested in politics. As other studies have already shown in the past, *political interest* is characterized by a linear age effect. Young people are by far less politically interested (14 to 17 year olds: 41 percent; 18 to 29 year olds: 47 percent) than the people with an age of 30 and older (68 percent). This corresponds with the data of the recent Shell Youth Study (40 percent of the 12 to 25 year olds are politically interested; Shell 2010: 130pp.).

While political interest is lower among young people, the attitude towards democracy is more favorable at the same time. We asked how satisfied people are with the *functioning of democracy* in general. Two thirds of the adolescents, 45 percent of the young adults, and 34 percent of the older adults said that they were "very satisfied" or "satisfied", hence a positive linear age effect.

The same does not hold true for the evaluation of democracy's actual performance. The younger the respondent the lower is the *political efficacy*. In the case of taking responsibility for the conditions of life in Germany there are no differences between the age groups. But regarding the perceived influence on governmental policy we found that 47 percent of the adolescents, 49 percent of the young adults, and 60 percent of the older adults think to have an influence on what happens in current politics.

We have operationalized *prior political knowledge* with five statements about German politics and society which the respondents were asked to identify as correct nor incorrect (for instance: "Originally, the Grundgesetz should be valid until the reunification and be replaced by a new constitution after that" = correct). We did not find any differences in the prior knowledge level between the age groups which probably shows the effect of the knowledge conveyed in the schools.

The overall political participation and civic engagement is alarmingly low in all age groups. In our survey we asked for six different types of participation. Out of these our respondents only took part in an average of two. Participation is significantly lower in the younger age groups, only participating online plays a more important role for the younger age group. 18 percent of the adolescents and 15 percent of the young adults state that they are taking part in discussions about politics in internet forums and social networks while only 7 percent of the oldest age group say so. The voting behavior is surprisingly high in all age groups compared to the official data of the Federal Office of Statistics, where an average of 70 percent voted in the last election in 2009 (Der Bundeswahlleiter 2009). In our survey. 94 percent of the oldest age group, 86 percent of the middle age group and even 33 percent of the 14 to 17 year olds stated they voted in every, or at least almost every, election in the last years. Being active for a political party or in citizens' initiatives and NGOs only applied for an average of 13 respectively 11 percent of the respondents. 50 percent of the oldest age group and 30 percent of the youngest age group boycott or buy goods for ethical, political or environmental reasons. a very low number compared to 54 percent of possible boycotters in the recent Shell report (Shell 2010: 147). Only 20 percent of the youngest age group goes to events and discussions about political issues while 35 percent of the oldest age group does so.

2.5.2 Quality of the News Sources

2.5.2.1 Concept of News Quality: Normative and Empirical Perspective

Derived from the theoretical and empirical discussions about news quality and the societal roles of journalism we created six dimensions of *normative quality* (see Fig.1), i.e. the news coverage of relevant topics, issue-specific information quality, objectivity, balance and plurality, non-tabloidization and understandability.

Because news media are expected to enable a political discourse that includes as many citizens as possible media are first of all required to provide *relevant information*. In the literature relevance is seen either as a criterion for editors (McQuail 1992) or a news factor (Galtung & Ruge, 1965, Schulz, 1990). In our study we have used a pragmatic approach to determine the relevance of news, i.e. the judgment of experts (cf. Fortsetzungsantrag: 7p.).

Based on journalism's function to inform citizens and to integrate information into a wider social or political context (Hagen, 1995) we operationalized issue-specific information quality as the transmission of *information concerning the news event* and as provision of *additional background information*. Our measures are based on the knowledge statements implemented in the survey (cf. Fortsetzungsantrag: 6). We examined if these knowledge statements can be correctly answered based on the information given by the information source.

Our measures of *objectivity* follow Westerstahl's (1983) operationalization of truth as an indicator for factuality and, therefore, objectivity. The first criterion of objectivity, completeness, was operationalized by the level of elaboration, i.e. a high level of investigation and integration of events in a wider social political context. Following Donsbach, Brade, Degen, and Gersdorf (2010), we defined four possible levels of elaboration ranging from a profound elaboration to a coverage including context information, presenting several issue perspectives, and various thematic aspects. The accuracy of analysis as the second criterion of Westerstahl's concept was examined through the given background information, causes and consequences of an event (coded dichotomously; cf. Donsbach et al. 2010). Finally we measured factualness as the transparency of the news indicated by the mentioning of sources, numbers, and statistics (3-point-scale from never mentioned to always mentioned). The overall objectivity index was calculated on the basis of these single variables, which have therefore been z-transformed because they were measured on different scales.

Only in being confronted with a variety of different viewpoints and several evaluations of facts and events (and therefore a news coverage of *balance and plurality*) citizens are able to make up their minds about political and public affairs (Hagen, 1995; McQuail, 1992; Wyss, 2002). According to the normative assumption that news coverage should reflect society with

its subsystems and their viewpoints (cf. Rosengren, 1979), we measured plurality as the variety and diversity of actors, i.e. the number of actors quoted and their societal field. We indicated balance when (dichotomously) when both viewpoints of an issue were present in the news product (cf. Hagen, 1995). The third brick in the house of balance and plurality was neutrality. This core criterion of news quality implies a coverage that is free from emotions and subjective insinuations by the author. Neutrality was measured on a 4-point-scale ranging from the subjective opinion of the news provider being recognizable to a coverage purely sticking to the facts. All indicators for balance and plurality were z-transformed and summed up to an index.

Tabloidization is not a classical criterion to evaluate journalistic quality but interacts tightly with these by attacking the cornerstones of the normative role of mass media. A high level of non-tabloidization therefore was seen as an indicator for good quality. The main criteria for non-tabloidization are low levels of negativity, personalization, and emotionalization (cf. Donsbach & Büttner, 2005). Negativity fosters mistrust against political actors and doubts the government's ability to solve problems and promotes political alienation (Bennett, 2003; Capella & Jamieson, 1997; Norris, 2000; Putnam, 2000). Negativity was operationalized by the tenor of the news product (5-point-scale, cf. Donsbach et al., 2010). Political issues and structural components of the political system taking the backseat over single actors indicate a high level of personalization. In this case, the images of politicians become unjustly important for the evaluation of political parties and institutions as a whole (Mutz & Reeves, 2005; Schütz, 1993). Personalization was measured by the importance of single actors on a 4point-scale. Emotionalization of news is seen as a further indicator for tabloidization by focusing on emotional human interest content while the fact-oriented representation of genuine political events vanishes (Donsbach & Büttner 2005). It was measured on a 4-point-scale. The non-tabloidization-index was conducted on the basis of z-transformed variables.

An often scientifically neglected dimension of quality is understandability. News that is hard to comprehend cannot convey information and, therefore does not fulfill its main purpose. Basic qualities such as simplicity, brevity, and clarity are required (LaRoche 2008). We adopted the concept of understandability by Langer, Schulz von Thun, and Tausch (1974). Besides simplicity and brevity it also includes the structure of the text and additional stimuli (each measured on a 5-point-scale ranging from -2 to +2). The overall understandability of a news report was calculated upon the combinations of these four dimensions (3-point-scale)². An additive index was computed for each information source that included the understandability of up to three news items per news outlet.

In addition to the normative perspective we dealt with news quality from a more empirical perspective in two ways: to assess common dimensions in these various quality indicators and to investigate the relationship between the news criteria and the central dependent variable, namely the news knowledge.

A factor analysis has shown that basically our normative dimensioning is reflected in the empirical categorization of the single news criteria. For creating empirical dimensions of news quality we factor analyzed all quality criteria mentioned above. In addition to the normatively derived criteria we also considered variables that were positively related to evidence from media effects research, i.e. the role of the interaction and visualization. Analysis did not bring distinct new dimensions to light, except of two which are for the most part in accord with our two normative dimensions of quality, i.e. objectivity and non-tabloidization (see above). For that reason we decided to maintain our normative dimensions of quality for further analysis.

Furthermore we wanted to assess how our quality criteria are related to news knowledge of the recipient. Here the underlying assumption was that normatively dysfunctional characteristics of the news, i.e. too much personalization, emotionalization, or negativity, may as well have a positive effect on news awareness and news knowledge on the audience's side. Cor-

² The perfect combinations of dimensions named by Langer, Schulz von Thun, and Tausch (1974) were defined as high understandability. The inversion of these perfect combinations (exact opposites) was defined as low understandability. All the combinations in-between were defined as an average level of understandability.

relations show for all age groups that the issue-specific news quality (presence of issue-specific information and background information), degree of elaboration, accuracy of analysis, impartiality and diversity of actors are slightly positively related to the news knowledge of the respondents. We found no significant correlations for the other criteria including tabloidization which shows that the normatively derived indicators of news quality are also functional for news awareness and comprehension

2.5.2.2 News Quality of Used Information Sources and Benchmarks

2.5.2.2.1 News Quality of the Sources Used by Young People

The news quality of the used sources of the adolescents (14–17; n=128), the young adults (18–29; n=179), and the older adults (30+; n=253) does not differ in large measure. Regarding the overriding dimensions of news quality, i.e. issue-specific news quality, objectivity, balance and plurality, non-tabloidization, and understandability, we did not find significant differences. Having a closer look at the single criteria of news quality we found that only the issue-specific quality criteria make a considerable difference: both issue-specific knowledge statements could be identified correctly in 45 percent of the information sources of the adolescents, only in 28 percent of the information sources of the young adults, and in 34 percent of the information sources of the older adults. Furthermore, 59 percent of the youth's news sources supply additional background information (compared to 58 percent in the case of the sources used by young adults and 47 percent of the sources of the people over 30 years). Moreover the sources of both, the youngest and the young adults, present slightly more political or social conflicts than the sources used by the older adults.

Based on these findings we can state that – if news sources are used at all - the information sources used by young people have more or less the same quality as the sources used by the older population. In the case of the issue-specific news quality the news sources used by the 14 to 17 year have even the highest quality on average. Obviously those young people who inform themselves in the media about current events use high-quality sources. However, as we have seen above, the vast majority of the young people do not inform themselves about the top events – and therefore cannot come in contact with either high or low news quality.

2.5.2.2.2 News Quality of Provided Sources and News Sources Used by Young People

To prove if the news sources of young people differ from the wide range of news provided by the news media in general we compared their sources with our sample of professional media (n= 1,438; cf. Fortsetzungsantrag: 13). The results show that adolescents who informed themselves tend to chose news sources of high quality. The sources of the youngest group (n=128) feature a higher issue-specific information quality, objectivity and more balance and plurality than the representative sample of all media. Moreover the information sources of the representative sample covered the issues with significantly more negativity and focus on conflicts than the information sources of the adolescents. All other dimensions and criteria of news quality show no differences. The news sources of the young adults (18 to 29 year olds; n=129) display slightly different characteristics. On the one hand we found a higher level of objectivity, more balance and plurality but also a stronger focus on conflicts. On the other hand the news sources of the young adults show fewer indicators of tabloidization than the information sources of our representative media sample. Altogether the quality of the news sources used by young people is relatively high. Again we refer to a minority of 14 to 29 olds who have an information intake at all.

2.5.2.2.3 News Quality of Provided and Used News Sources in General

In addition, we investigated the differences between the quality of the all sources used by the respondents (regardless of age; n=591) and the quality of the professional media sample (n=1,565). Interestingly we found no significant quality differences between the news content provided by the whole German media system and the sources used by the population. The only exceptions are balance/plurality and non-tabloidization. The sources used by the respondents are on an average remarkably more balanced and pluralistic than the broad variety of available information sources represented through our professional media sample. The information sources used by our respondents provide more often the different viewpoints in a conflict and show a higher level of plurality by presenting actors from social and political spheres more often than do the information sources of the media sample. However, the used information sources also show a higher level of personalization and negativity. Apart from this the quality of the news provided by the professional media and of the news actually used by the audience is rather similar. The reason for this is that the media sources used to get information about the day's most important topics are a reflection of the sources offered. . Almost two in three (62 percent) of the actually used information sources are also included in our representative media sample, first of all the newscasts of the most popular German TV programs. In the pool of used sources the proportion of television news and the proportion of radio news is higher than in the media sample. Especially the lower representation of used radio sources in the pool of the used sources is a result of the complicated acquisition of the news sources which the respondents had mentioned in the survey.

2.5.2.2.4 News Quality and Degree of Professionalization

Current research revolves around the question whether non-professional information is a substitute or a complement of traditional media content (Jarren 2008; Neuberger, Nuernbergk, & Rischke 2009). Previous research assumes that a high level of professionalization of the news providers is related to a higher quality of the news content (Lacy, Duffy, Riffe, Thorson, & Fleming 2010; Tomaszeski, Proffitt, & McClung 2009). We therefore hypothesized that the higher the degree of professionalization the higher is the news quality. To put this to a test we compared the news quality of professional news media (n=1,796) to semi-professional (n=294), i.e. news aggregators and email providers, and non-professional providers (n=233), i.e. blogs.

Instead of a linear relationship between the degree of the sources' professionalization and the quality of its news we found two very distinct groups: professional and semi-professional sources on the one and non-professional sources on the other side. Semi-professional media cover the news topics as much and as good as professional media do. The similarity of these two groups is also true for the quality dimensions balance and plurality, and objectivity (see *Tab. 3*). Blogs are considerably more one-sided in their presentation of news. They provide by far more often only a single viewpoint in a conflict, are more subjective, and less pluralistic. In the case of the issue-specific information quality semi-professional media even supply a slightly higher quality than professional media. Almost half of the non-professional sources do not provide any information that allows answering even one of the two knowledge questions. Four in ten of the professional and semi-professional sources but only 26 percent of the blogs provide background information. Furthermore we found that the more professional the source the higher is the level of elaboration. The mean value for non-tabloidization is highest for semi-professional sources, followed by professional and non-professional sources. In particular blogs are remarkably more negativistic.

Obviously semi-professional sources are able to keep up with professional media to some extent. This comes, at first sight, as a surprise. But as news aggregators make use of professional media websites this result is rather plausible. On the other side, our results give a crystal-clear picture that bloggers offer the lowest news quality across all evaluated dimensions of news quality. Especially the high bias in blog news complies with the findings of others (Tomaszeski, Proffitt, & McClung 2009). This is of peculiar interest because impartiality is

the most important feature for the public in order to distinguish professional journalism from blogs (Trepte, Reinecke, and Behr 2008) and the perception of bias and the media's reputation are negatively related (Tsfati, Meyers, and Peri 2006).

2.5.2.2.5 News Quality within the Professional Media Sample

A further analysis reveals huge differences between the types of professional media. Based on previous research a gap between traditional platforms, i.e. newspaper, television, and radio, and the internet was expectable (Lacy, Duffy, Riffe, Thorson, & Fleming 2010; Maier 2010). But we found that this distinction is too crude. Instead the media type of traditional platforms plays a decisive role. Newspaper and radio news represent the poles on the quality scale: the printed press provides most knowledge on important news and the most objective, balanced, and pluralistic coverage but shows a high degree of tabloidization. Radio news, on the other hand, show a very low level of tabloidization, an expected result given the medium's fewer technical possibilities for presentation. On the other hand radio provides less knowledge and is less objective, balanced, and pluralistic. There are almost no differences between the media types in terms of understandability.

Professional online sites are in good company with traditional media types and characterized by a relatively high level of objectivity and information quality (see Tab. 4). Obviously, the platform itself has little to no effect on the quality of media news but the media type does. Other than previous studies (Maier 2010, 2011) news on traditional media platforms and news on the internet shows pretty much the same quality—if it comes from media institutions.

2.5.3 Predictors of News Knowledge

Based on our theoretical framework and causal model the news knowledge is the central dependent variable in our study. It consists of both the issue-specific news knowledge on the one side and background knowledge about the respective current news topic on the other side (see Fortsetzungsantrag: 6). The major aim of the study was to find the predictors of news knowledge within and outside of the media content. In other words: What role plays the news source in interaction with characteristics of the media user, for instance variables like the prior knowledge, general news use, political interest, interpersonal communication, participation, the duty to keep informed, political efficacy or sociodemographic factors like age or education.

Correlations between these variables and the news knowledge show that there is a positive but slight relationship between the knowledge about the most important news of the day and prior knowledge (r=.20; p<0.01), the intensity of the general news use (regardless of the media type; r=.15; p<0.01), political interest (r=.17; p<0.01), political participation (r=.14; p<0.01), the general interpersonal communication about politics and current events (r=.10; p<0.05), the subjective relevance of the news topic (r=.11; p<0.05), formal education (r=.13; p<0.01) and age (r=.09; p<0.01). As the descriptive results have already shown the older the respondent the higher the news knowledge (s=0.5.1). Surprisingly, interpersonal communication about the news topic, the duty to keep informed, and political efficacy are not significantly related to news knowledge.

We have also tested the relationship between the general news quality of the source and the news knowledge of its user. For this we have generated an overall index of quality including all of our separate indices (see 2.5.1). We did not find significant results. Obviously there is no strong relationship between the quality of the news source and the news knowledge of its users. The pattern of the respondent's general news use, however, does matter - but only in the case of newspaper use and internet use. Using newspaper and internet sources as general information sources leads to a higher degree of concrete news knowledge. This finding is in accordance with the majority of similar previous studies (Chaffee & Kanihan, 1997;

Claes & Quintelier, 2008; Eveland, Martin, & Seo, 2004; Shen & Eveland, 2010; Tewksbury, Hals, & Bilbart 2008)

Finally and in order to eliminate spurious correlations between the characteristics of the respondents and the news source on the one and the news knowledge of the respondents on the other side we tested several regression models for each of the three age groups (14-17, 18–29, 30+). In the case of the adolescents (14 to 17) information intake (B=.64; p<0.001) (for definition see 2.5.1) and general news use (B=.01; p<0.001) explain 44 percent of the variance in news knowledge. Regarding the young adults (18 to 29) again information intake (B=.59; p<0.001), general news use (B=.14; p<0.001) and political interest (B=.10; p<0.001)are the predictors of news knowledge, explaining 45 percent of the variance. For the older adults (age 30+) information intake (B=.50; p<0.001) and prior knowledge (B=.16; p<0.001) are the strongest predictors of news knowledge, explaining 30 percent of the variance. Based on these multivariate results we can sum up that the most important predictor of news knowledge is, not surprisingly, information intake on the issue at hand. However, particularly for the younger citizens it is then the degree to which they expose themselves to professional news in general! Further statistics support the assumption that getting information in the first place and not what quality of information one gets makes the difference: In the case of the youngest (14–17) the general news quality of the used source taken by itself explains only 2 percent of the variance in news knowledge (B=.14; p<0.01) and for the older adults only 1 percent (B=.13; p<0.01). For the young adults there is no significant relationship at all. .

Taking all these findings into consideration it becomes quite clear that variables of the respondent are remarkably more important for a good understanding of the news and the generation of news knowledge than the quality of the source of information. It is not so much the quality of the source that makes the difference but the person's interest in politics and the news and his or her general news use. A general civic awareness of the importance of what is going on in the public sphere is key. However, only a minority of the young people have this civic awareness – and as a result get in contact with news anyway. "If news is important, it will find me" – this thesis of US blogger Brian Stelter is not supported by our findings. On the contrary, the reverse is true.

4 Patents and industrial cooperations

Not applicable.

5 Team and Cooperation Partners

The DFG team included the head of the project Prof. Dr. Wolfgang Donsbach and the two research assistants (50 percent part-time) Cornelia Walter M.A. and Mathias Rentsch M.A.. In the field time of the survey and the content analysis 16 student assistants were part of the team, three of them almost during the complete duration of the project. The student assistants supported the researchers by identifying, acquiring and archiving the media content during the survey period, programming the digital code sheet for the content analysis and by coding the used sources and the sources of the sample. In preparing the application and throughout the project we were in close contact with Professor Dr. Thomas E. Patterson of the Shorenstein Center for the Press, Politics, and Public Policy at Harvard University. Patterson had conducted a similar study which served as our model but which we extended considerably in its theoretical and empirical scope. The representative survey of the German population was conducted by the survey institute TNS Infratest, department of political research, Berlin. During the survey period the DFG team and one staff member of TNS Infratest coordinated the daily updated questions. Because of the innovative methodology of combining survey and content analysis data and because of the high interest of TNS we consented to present the final results of the project in the foreseeable future.

6 Qualification of Young Scholars

The two research assistants have taken parts of this complex project as the core for their dissertations projects and will continue their work on the theses after the official completion of the DFG project.

Cornelia Walter's dissertation addresses the role of interpersonal communication for the daily exposure to news. Research has shown empirical evidence for the importance of discussions about politics for opinion-making, political interest, political knowledge and political participation especially for young people. The question remains how important interpersonal communication is for the daily news consumption: how much and how intensive do young people communicate about current events and how do these discussions affect the knowledge compared to other variables? What are the collocutors of young people? The goal of this dissertation is to follow these questions by using the survey data and combining it with more indepth qualitative interviews with young people.

The dissertation of Mathias Rentsch has the title "Quality of knowledge transfer in the news". His central research question is what the quality of knowledge transfer in the news is. What chance do the people have to get well informed by using different news sources? For conceptualizing quality he combines approaches and empirical evidences from quality research and media effects research. His aim is to investigate what content quality relates to a functioning transfer of knowledge serving as a key element of democratic citizenship. For the empirical work the dissertation is based on both survey data and (predominantly) and the content analysis data from the project.

7 Summary and Conclusions

The overarching interest that we have pursued with this project is the quality of democracy. Besides many structural conditions this quality is primarily affected by the performance of its main actors. We have looked at two of these actors, the citizens and the media, the latter as the key supplier of news on politics and public affairs. Starting from recent results about a declining interest in the public sphere we have been particularly interested in the younger generation. We wanted to assess how they, compared to other age groups, are aware of the news and what information sources they use.

Our study has four methodological features that make it distinct from most other research in this area. First, we have used a normative approach to identify the news items that the "good citizen" (Schudson, 1998) should know. We are convinced that there is no alternative to such a normative assessment if the quality of democracy should not depend on a relativistic "anything goes" principle where the newest love affairs of celebrities are deemed as important as discussions about possible solutions for an international financial crisis. Second, we have measured exposure to the news, news sources, and knowledge of the news in a concrete way, based on the news of the day over a period of 30 days – and not with general questions yielding by far exaggerated and distorted results. Third, we have combined a large survey with 1,800 respondents with a dual content analysis of 3,102 sources offered by the media and/or sources used by the respondents. Fourth, we have been able to apply a plethora of independent and intervening variables on both the citizens' and the media's side in order to come closer to the complexity in the real world of news production, consumption, and learning.

The complexity of the design and, as a consequence, of the data sets plus the fact that a certain proportion of the news sources could not be retrieved for content analysis turned out as major challenges for the analysis. However, following clear paths of descriptive and explicative analyses we were able to answer most of the research questions derived from previous literature. We deem out results as of high relevance for understanding the current state of political communication and for shaping political education and policy-making.

While the overall awareness of top political news is average, young people show an alarmingly low interest in political news and, as a consequence, lack the knowledge that one would expect of a "good citizen" a lively democracy. The fact that only 24 percent of the adolescents and 34 percent of the young adults had heard about the two most important news items of the previous day, and that – based on the total population – only 8, respectively 17 percent had bothered to receive at least some additional information on both topics falls by far short from what one can expect. Plus, these results have to be seen in the light of a higher than average duty to keep informed and political interest in our sample!

The sources, however, do not differ very much between the age groups. Internet and social media play only a marginal role for daily news information, even for the younger generation. In terms of quality of the news it is the profession, not the platform that counts. Professional media, and here predominantly the press, and semi-professional media (that more or less cover the professional media) offer a much higher quality than blogs covering the dame issues. However, the individual quality of the news used by the recipient does not much affect his or her news knowledge. Instead, it is important to get in contact with the news and additional information in the first place. Our study leads to the conclusion that journalism is the "knowledge profession" of our times (Hjarvard, 2008) – but the knowledge that it provides needs a broader audience than it finds today.

Dresden, December 31, 2011

Prof. Dr. Wolfgang Donsbach

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A2 Figures and Tables

A1 References

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A2 Figures and Tables

Figure 1: Dimensions and Criteria of News Quality

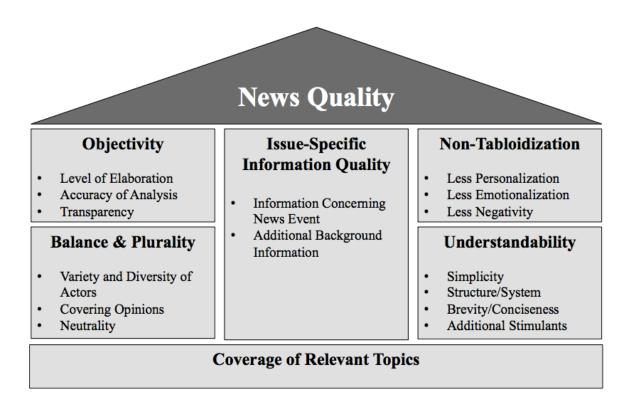


Table 1: Means of Correct Answers to the Questions about Topic 1 +2*

(in percent)

	Age			
	14–17	18–29	30+	Total
Total news knowledge (0–4)	2.44	2.52	2.64	2.62
	SD=1.03	SD=0.90	SD=0.84	SD=0.84
Issue-specific news knowledge (0-2)	1.20	1.31	1.38	1.36
	SD=0.69	SD=0.59	SD=0.56	SD=0.57
Background news knowledge (0-2)	1.18	1.21	1.26	1.25
	SD=0.69	SD=0.61	SD=0.60	SD=0.60
	307<=n	355<=n	430<=n	1,237<=n
	<=330	<=388	<=458	<=1.312

^{*} Score of min. 0 correct answers to max. 2 resp 4 correct answers

Table 2: Means of Correct Answers to the Questions about Topic 1 and Topic 2* (in percent)

	To	opic 1	Topic 2		
	Only Information		Only	Information	
	aware	intake	aware	intake	
Total news knowledge (0-4)	2.52	2.63	2.61	2.66	
	SD=0.89	SD=0.99	SD=0.96	SD=0.65	
Issue-specific news knowledge (0-2)	1.31	1.43	1.29	1.35	
	SD=0,66	SD=0,65	SD=0,64	SD=0,65	
Background news knowledge (0-2)	1.17	1.41	1.28	1.33	
	SD=0.66	SD=0.73	SD=0.66	SD=0.62	
	244<=n	702<=n	269<=n	555<=n	
	<=286	<=756	<=306	<=608	

^{*} Score of min. 0 correct answers to max. 2 resp. 4 correct answers

Table 3: News Quality and Levels of Professionalization

	Professional Source		Semi- Professional Source		Non-Professional Source		
Dimension of News Quality							
Quality Criteria	М	SD	М	SD	M	SD	F test
Issue-specific information quality	2.0	1.3	2.0	1.3	1.2	1.2	44.6 (2, 1918)***
Information concerning the news event	1.1	0.8	1.3	0.7	0.6	0.8	63.6 (2, 1918)***
Additional background information	1.4	0.5	1.4	0.5	1.3	0.5	10.7 (2, 1918)***
Objectivity	0.0	0.9	-0.1	0.9	-0.6	0.8	55.0 (2, 1917)***
Level of elaboration	2.2	0.8	2.1	0.6	1.7	0.7	46.8 (2, 1917)***
Accuracy of analysis	2.9	1.1	2.9	1.0	2.1	1.1	43.0 (2, 1789)***
Transparency	1.4	1.1	1.0	0.8	1.0	0.9	9.5 (2, 963)***
Balance and plurality	0.1	0.7	-0.1	0.4	-0.8	0.5	166.0 (2, 1914)***
Variety and diversity of actors	0.0	1.0	0.0	0.7	-0.6	1.0	46.5 (2, 1914)***
Covering opinions	1.8	0.4	1.8	0.4	1.4	0.5	64.6 (2, 1263)***
Neutrality	3.5	0.7	3.8	0.4	2.3	1.2	298.4 (2, 1913)***
Non-tabloidization	0.0	0.7	0.2	0.6	-0.3	0.7	44.3 (2, 1914)***
Personalization (-)							ns
Emotionalization (-)	1.7	0.8	2.2	0.9	2.3	1.0	75.6 (2, 1914)***
Negativity (-)	3.3	0.7	3.2	0.7	3.7	0.9	30.4 (2, 1831)***
Understandability							ns

^{*} F-values differ at p<0.05. ** F-values differ at p<0.005. *** F-values differ at p<0.001

Table 4: News Quality within the Professional Media

	Newspaper Television		Radio Internet						
Dimension of News Quality		1 1							
Quality Criteria	M	SD	M	SD	M	SD	M	SD	F test
Issue-specific information quality	2.2	1.3	1.9	1.3	1.3	1.1	2.2	1.3	26.3 (3, 1434)***
Information concerning the news event	1.3	0.7	1.1	0.7	0.8	0.7	1.2	0.7	27.8 (3, 1434)***
Additional background information	1.5	0.5	1.4	0.5	1.3	0.5	1.5	0.5	9.2 (3, 1434)***
Objectivity	0.2	1.0	0.0	0.9	-0.5	0.7	0.1	0.7	33.2 (3, 1434)***
Level of elaboration	2.4	0.9	2.2	0.8	1.7	0.6	2.3	0.7	35.0 (3, 1434)***
Accuracy of analysis	3.0	1.1	2.8	1.1	2.3	1.0	3.0	1.0	23.6 (3, 1434)***
Transparency									ns
Balance and plurality	0.4	0.8	0.1	0.7	-0.4	0.4	-0.1	0.7	77.5 (3, 1432)***
Variety and diversity of actors	0.4	1.2	-0.2	0.7	-0.7	0.3	0.0	0.8	67.2 (3, 1432)***
Covering Opinions	1.8	0.4	1.8	0.4	1.7	0.5	1.8	0.4	4.0 (3, 942)*
Neutrality	3.3	0.7	3.6	0.5	4.0	0.3	3.5	0.7	39.7 (3, 1431)***
Non-tabloidization	0.0	0.7	-0.1	0.6	0.4	0.4	0.0	0.7	28.6 (3, 1432)***
Personalization (-)	2.3	0.9	2.1	0.9	1.8	0.8	2.3	0.9	12.0 (3, 1432)***
Emotionalization (-)	1.7	0.8	1.8	0.7	1.2	0.5	1.7	0.7	23.8 (3, 1432)***
Negativity (-)	3.4	0.8	3.3	0.8	3.1	0.6	3.3	0.7	4.9 (3, 1366)*
Understandability	1.0	0.2	1.0	0.1	1.1	0.3	1.0	0.2	4.4 (3, 1432)*

^{*} F-values differ at p<0.05. ** F-values differ at p<0.005. *** F-values differ at p<0.001