Porlezza, C. & Russ-Mohl, S. (2012). Getting the Facts Straight in a Digital Era: Journalistic Accuracy and Trustworthiness. In: C. Peters & M. Broersma (Eds.), Rethinking Journalism. (pp. 45-59). London: Routledge. ISBN 9780415697026



City Research Online

Original citation: Porlezza, C. & Russ-Mohl, S. (2012). Getting the Facts Straight in a Digital Era: Journalistic Accuracy and Trustworthiness. In: C. Peters & M. Broersma (Eds.), Rethinking Journalism. (pp. 45-59). London: Routledge. ISBN 9780415697026

Permanent City Research Online URL: http://openaccess.city.ac.uk/3491/

Copyright & reuse

City University London has developed City Research Online so that its users may access the research outputs of City University London's staff. Copyright © and Moral Rights for this paper are retained by the individual author(s) and/ or other copyright holders. All material in City Research Online is checked for eligibility for copyright before being made available in the live archive. URLs from City Research Online may be freely distributed and linked to from other web pages.

Versions of research

The version in City Research Online may differ from the final published version. Users are advised to check the Permanent City Research Online URL above for the status of the paper.

Enquiries

If you have any enquiries about any aspect of City Research Online, or if you wish to make contact with the author(s) of this paper, please email the team at publications@city.ac.uk.

Getting the Facts Straight in a Digital Era: Journalistic Accuracy and Trustworthiness

Colin Porlezza and Stephan Russ-Mohl

No tenet of journalism is as widely accepted as the obligation to report the facts accurately. But from the public's point of view, journalists fall short of their high-held principles. According to a survey by the Pew Research Center (2009), the public's assessment of the accuracy of news stories is currently at its lowest level in the United States. Just 29 percent of Americans say that news organizations generally get the facts straight, while 63 percent say that news stories are often inaccurate. The public's scepticism is well founded. Journalism is a fast-paced field and therefore vulnerable to errors. More than 70 years of accuracy research in the United States has documented that error rates have been rising. According to the largest, most recent American accuracy study nearly half of all stories in US regional newspapers contain at least one factual error as perceived by news sources (Maier, 2005). If subjective errors are counted as well, inaccuracy rises to 61 percent; an error rate among the highest so far reported.

This is an alarming trend that should be of concern for journalists and researchers worldwide. Committing mistakes without correcting them endangers trust and credibility – which are possibly the most precious assets of professional journalism. When the American Society of Newspapers conducted focus groups and telephone surveys, asking readers about the trustworthiness of their papers (Urban, 1999), it found that the public saw too many errors in the press, and that readers perceived these mistakes quite differently compared to journalists themselves. The report concluded: 'Even seemingly small errors feed public skepticism about a newspaper's credibility. Each misspelled word, bad apostrophe, garbled grammatical construction, weird cutline and mislabeled map erodes public confidence in a newspaper's ability to get anything right.' Without credibility and trust, journalism may be considered superfluous by audiences in times when it is needed more than ever to reinforce democracy by providing relevant information to these very audiences, and by serving as watchdog of the powerful. According to Briggs (2008),

journalism is not only slowly disconnecting with its community but more fundamentally 'journalism's brand is broken'.

Codes of ethics worldwide stress the importance of getting the facts straight. In the United States, the Society of Professional Journalists' code of ethics states: 'Test the accuracy of information from all sources and exercise care to avoid inadvertent error. Deliberate distortion is never permissible.' The International Federation of Journalists has a similar mandate, and the Swiss Press Council (2008) goes even one step further as its guidelines state: 'The search for the truth is the starting point of every journalistic activity (...) Journalists shall correct every article, whose content is proving to be false in whole or in part.' The Chamber of Professional Journalists in Italy similarly stresses the importance of accuracy and the need to correct errors (Ordine dei Giornalisti, 1993).

However, the situation for the newsrooms is getting even more complicated. The times of one-way communication have definitely come to an end as journalism grows more interactive with Web 2.0. Scott Maier (2009) notes that 'the corrections system is often flawed in print journalism, but the checks and balances needed to assure accuracy are arguably even more haphazard with the journalism that news organizations display online'. A recent study of 155 US newspapers, carried out by John Russial (2009: 12), confirms the notion that copy editing is clearly no priority for online stories: about 50 percent of all surveyed newspapers reported that they did not always copy edit their online news stories before they were published on their web sites. Some stories are corrected after publication, others are corrected without notification, while some stories simply get "scrubbed" and disappear from the web page. As Craig Silverman (2007: 234) notes, a clear standard on handling online errors is lacking.

Accuracy as a research topic draws attention to what may be the deepest difference between professional journalism and lay communication as well as public relations: the commitment to provide accurate, relevant, trustworthy, balanced news. Our study on how Swiss and Italian regional newspapers relate to accuracy compared to their American counterparts reveals that inaccuracy

seems to be an almost inherent, though undesirable, aspect of journalism. Journalism research could and should uphold a mirror to those working in newsrooms, while at the same time being transparent about its limits. This is increasingly important since the Internet and social networks impose new challenges for accuracy in reporting and correction policies. If journalism wishes to regain its credibility and the trust among its publics – and perhaps also their willingness to pay – accuracy should remain on their agendas.

Between Credibility and Trust

According to Matthes and Kohring (2007: 232) 'research concerning trust in news media has emerged almost entirely under the label of media credibility'. However, if one analyses past research on credibility of the media, the lack of a clear conceptual basis for analysis with a certain level of complexity still remains a problem. Mainly in the United States much research has been conducted but theoretical imprecisions cause problems concerning the operationalization of the studies. The results, therefore, should be interpreted with some scepticism.

Research on credibility is rooted in psychological research on persuasion. An early, methodologically significant step was made by the so-called Yale Group led by the social psychologist Carl Hovland. Together with Walter Weiss (1951), Irving Janis and Harold Kelley (1953) he profoundly influenced later research by identifying two components of (source) credibility: expertness and trustworthiness. Expertness in this case means the communicator's ability to provide a truthful account of "reality". Trustworthiness is defined as the absence of persuasive or manipulative aims of the communicator and the desire to transmit all the information in a complete and accurate way. In their model, the effect of communication is closely linked to the source and his characteristics so that credibility seems to be an objective characteristic of the communicator; the concept of credibility, however, cannot be restricted solely to the communicator, because the content of communications has to be taken into consideration, too.

Another dominant aspect of credibility research is linked to the question of how much credibility different types of media enjoy. This was Roper's (1985) research question in his comparative media credibility approach. Regardless of the prominence of the studies, Roper's research conceals a weakness: it only takes into account the relative credibility of one media compared to the others, although recipients apply different concepts for attributing credibility to television or newspapers. Different publication types are thus put on the same level and analysed on the basis of a one-dimensional concept (cf. Matthes and Kohring, 2007: 234).

As interest in credibility increased throughout the 1960s, the theoretical debates on the concept of credibility grew more intense. As part of another American Society of Newspaper Editors (ASNE) study, Gaziano and McGrath (1986) developed an overall credibility score through factor analysis. The analysis showed that constructs such as being fair, unbiased, trustworthy, complete, factual and accurate are central dimensions of the concept of credibility. While Gaziano and McGrath identified 12 credibility factors, Meyer (1988) found that credibility could be gauged with as few as five factors. In this approach, credibility is understood to be a multidimensional construct, where 'semantic differentials of adjectives and some journalism-related items were analyzed with the help of factor analysis' (Matthes and Kohring, 2007: 235).

German communication researcher Günter Bentele (1988; 1994; 1998) analyzed the concept from a more theoretical perspective, distancing his research from a purely causal model of credibility as well as from a mere "classification" of objective characteristics which make up credibility. In his theory, credibility cannot be manufactured, or created, only on the supply side, because the communicator cannot determine the choices and behaviour of the recipient: credibility becomes an attribute awarded by the recipients during the communication process. If they award credibility to a communicator, this is their construct based on certain observations, expectations and experience linked to the media in question.

Finally, Matthes and Kohring (2007: 238ff) offered a new multidimensional approach combining the concepts of trust and credibility with theories of journalism and modern society. In

their 'multiple factor model of trust in news media', they argue that the trust of the recipients in the news media is based on four dimensions: 'trust in the selectivity of topics', 'trust in the selectivity of facts', 'trust in journalistic assessment' and, hence, 'trust in the accuracy of depictions'. This last factor, defined as a dimension that includes trust in verifiable and approvable accuracy of depicted facts, shows that accuracy plays a central role in assessing trust in media. As the two authors themselves acknowledge, the observations of recipients are highly selective and their classification into "right" or "wrong" is not objectively assignable.

Accuracy Research

Though one of the first German media researchers, Emil Dovifat (1931), described major reasons for errors in news reporting years ago, very little data has been gathered in Europe detailing the frequency with which newsrooms commit errors. In the United States, however, research done in the past seventy years estimates error rates from 40 percent to over 60 percent of news articles. Systematic empirical news accuracy research started with Mitchell Charnley's seminal pioneering study in 1936.³ He clipped thousand articles from three local newspapers and asked the people cited as sources to examine the articles for errors. Following his method, researchers have commonly classified factual accuracy into the following error categories: incorrect quotation, spellings, names, ages, other incorrect numbers, titles, addresses, other locations, time and dates. According to Charnley, close to half of all analyzed newspaper articles (46 percent) contained errors, an error rate that surprises veteran journalists even today. Almost thirty years later, Charles Brown (1965) carried out a similar study, examining 200 articles from 42 Oklahoma weeklies. Brown's sources found errors in 41 percent of the stories examined.

Fred Berry's study (1967) introduced a new perspective on accuracy research by creating a dichotomy between factual and subjective errors, i.e. information considered misleading even if factually correct. Later William B. Blankenburg (1970) examined two US West Coast dailies, one rural and one suburban. Applying Berry's identification of objective and subjective errors, he found

60 percent of news stories erroneous. Using Blankenburg's sample, Gary Lawrence and David Grey (1969) conducted personal interviews on accuracy with both news sources and reporters. In an analysis exclusively of subjective errors, sources attributed errors to sensationalism and the lack of personal contact, while reporters mentioned internal organizational problems within the newsrooms and the time pressures inherent in the profession. Tillinghast (1982) found similar results: according to sources errors occurred due to haste, while reporters cited carelessness and editors' misunderstandings. While sources claim nearly half of all articles to be in error, reporters – especially younger ones – often insist their work was accurate. Examining mathematical accuracy in the press, Maier (2003) found similar evidence that news sources and reporters often disagree about what constitutes an error, in particular when there is room for interpretation. This might lead to the conclusion that Charnley's inductive and pragmatic approach of asking news sources to examine the articles in which they are cited is still a useful option.

One other reason why Charnley's model has remained so popular is its simplicity. If one is analyzing huge quantities of articles for mistakes, there is simply no better instance for identifying errors than the primary sources mentioned. At a first glance, one might argue that the credibility of a medium is not harmed if "only" the source identifies an error. Credibility will only be affected in cases that receive a great deal of public attention (i.e. other media inform the general public about the mistakes a competitor made, as in the current News of The World crisis, the Jayson Blair scandal, or the role of the media in Princess Diana's death). But does this also hold for "isolated" cases in which only the source concerned knows that a name was misspelled or other "facts" were wrong? Firstly, it could be argued that it is highly probable that not only the primary source, but also other knowledgeable readers discover mistakes. Second, a multiplication factor is at hand; sources are frequently opinion leaders, influencing the opinions of others with their observations. By discussing mistakes, they may create a snowball effect damaging the credibility of journalism. According to Urban (1999), severe errors also have a severe impact on credibility. Sources' first hand "experience" with news media will inevitably spread by "word of mouth". Third, a dangerous

lack of quality and mistakes may cause cumulative effects. In a wake-up call to its employees, the leading Finnish newspaper, Helsingin Sanomat pointed out years ago the importance of caring for quality. Assuming that due to errors and mistakes 0.1 percent of the subscribers are "unhappy" daily, the Helsingen Sanomat noted that it would end up with 450 unhappy subscribers every day. Piling up over the year, 136,000 subscribers would be unhappy – which was more than one-third of subscribers.

On the other hand, using the source as a determinant of accuracy leaves identification of errors open to interpretation. Therefore Kocher and Shaw (1979) suggested a so-called "record comparison" model. 'This involves comparing what is said in newspaper accounts with an official record that has been stipulated in advance as a "verifiable certainty" (Kocher, 1981: 172). This finally seemed to be an improvement to Charnley's method. However, only in a few cases newspapers have such an "official record" as counterpart, and "official records" can, too, be very dubious sources – as most journalists knew even before President Bush went to war claiming that Saddam Hussein had command over weapons of mass destruction.

Some research on news accuracy has also been conducted in the German-speaking world. A pioneer was Bernd Wetzenbacher (1998), discussing the poor handling of errors and lack of correction policies in German newspapers. Several other studies refer to the relationship between public relations and journalism. Breiden (2002, as quoted in Baerns, 2007: 50f) studied how press releases were used by the major news agencies in Germany. According to her study, the handling of the incoming information by news agencies was, overall, 'accurate'. Sources of errors were 'distributed evenly, that is to say that (a) errors caused by adopting information from sources which contain errors, (b) errors in the processing of the information by sources and (c) errors in the agency's own research occurred in equal proportions'. Baerns (1999) studied the next step of news processing: How do errors contained in news distributed by news agencies affect the reporting of the daily press? Her work showed that approximately 90 percent of the news provided by news agencies is correct. However, those news stories containing errors are not corrected by the

newspapers; instead, they multiply and thus grow out of proportion.

Accuracy at Swiss and Italian Regional Newspapers

To address the gap between the US and Europe in accuracy research we conducted an accuracy audit of two hundred newspaper articles from each of five daily newspapers published in Switzerland and five more dailies in Italy. We wanted to find out how often errors occur in the analyzed regional newspapers in Switzerland and Italy, what kinds of errors occur most often and how serious they are. In a second step to our research, we tried to assess how these errors affect the credibility of newspapers. We did so by assessing how sources relate news accuracy to media credibility. Building upon Maier's (2005) findings about the American situation, our investigation for the first time provides a European perspective on the topic.

Based on Hallin and Mancini's (2004) differentiation of media systems, we expected different error rates in Switzerland and in Italy compared to the US. We assumed that we would find the highest rate in Italy due to fewer resources in the average newsroom and the polarized pluralist journalism culture. We also supposed that the number and severity of the errors would have a negative impact on the credibility of the analyzed newspapers as seen by the sources and would have a negative effect on their willingness to act as sources again.

To generate comparable data, our study closely followed the methodology pioneered by Charnley (1936) and adapted by Maier (2005). We investigated five mid-sized regional newspapers in Switzerland: Aargauer Zeitung, Basler Zeitung, Berner Zeitung, Südostschweiz and Tages-Anzeiger (Zurich) and five papers of similar size and function in Italy: *L'Eco di Bergamo, Il* Giornale di Brescia, Il Resto del Carlino (Bologna), Il Giornale di Sicilia (Palermo) and Il Secolo XIX (Genoa). For each newspaper, a sample of two hundred articles was collected from the front page, the local news, business and culture/lifestyle sections of the paper. For each article, a primary source was identified who received a copy of the story together with a six-page questionnaire. The

surveys were conducted from May to December 2008. Each news source was asked to identify errors and to classify them according to type and perceived severity of error.

Although the response rate in the 2005 US case was 68 percent, the European rates in our study were considerably lower. The response to the Swiss newspaper sample was 50 percent and in Italy it was far lower. After a surprisingly low response rate from news sources in Sicily, we decided to change the sample of Italian newspapers, adding a newspaper from the highly developed North instead of a second paper from the lower developed South. Even thereafter, the final response rate was a disappointing 15 percent. Thus, the Italian results can at best be regarded as explorative and will be presented separately later in the chapter.

Not surprisingly, the results present evidence that newspaper inaccuracy – and its corrosive effect on media credibility – transcend national borders and journalism cultures, though there are cultural differences which need to be investigated further. Politicians, government spokespersons and business representatives turned out to be the prevalent sources in all three countries. We noticed that in Switzerland so called "experts" are consulted very often (24.5 percent). In the other countries "experts" are not consulted as frequently – in the US they account for 11.6 percent, in Italy only for 7.8 percent. The consulted news sources found factual inaccuracy in 60 percent of Swiss newspaper stories they reviewed – one or more objective "hard" errors such as incorrect names or dates – compared to 48 percent of the US newspaper articles examined. A higher percentage of perceived factual errors were identified in the Swiss newspapers compared to the US newspapers in every error category except "wrong numbers" (see table 1).

Table 1: Error Types Ranked by Percent of Stories

	Swiss		US	
Factual Errors	%	Severity	%	Severity
Headline wrong	26.6	2.4	14.7	3.1
Misquoted	26.5	2.5	21.0	3.0
Misspelling	12.9	1.7	10.0	1.9
Numbers wrong	12.4	2.6	12.9	2.8
Job title wrong	11.6	2.7	8.5	2.6
Name wrong	8.0	3.6	3.4	3.1

Time wrong	4.3	2.7	2.2	2.6
Location wrong	3.1	3.3	2.7	2.9
Date wrong	3.1	3.0	2.2	3.1
Address wrong	2.7	3.1	1.7	3.3
Age wrong	2.6	2.2	1.4	2.6

Despite differences in overall error rates, the rank order of error types was generally similar. The two most common factual errors cited for both countries were misquotations and inaccurate headlines; the least common was an incorrect age and an incorrect address. The most significant difference in factual accuracy concerned headlines: more than 25 percent of them were found inaccurate by sources among the Swiss newspapers studied, compared to only 15 percent of US news stories. While more factual errors were found in the Swiss press, these inaccuracies were considered somewhat less severe than those identified in US newspapers. On a Likert-like scale in which 1 is a minor and 7 a major error, the mean rating was 2.5 by Swiss sources, compared to 2.8 by US sources. An adage in American public relations only half-jokingly proclaims: Say anything you want about me as long as you spell my name right. The credo apparently extends to Switzerland: the factual error held most grave among Swiss news sources was having their name wrong (earning a 3.6 severity rating). Reporting a wrong location for an event was also ranked among the most severely rated errors, earning a 3.3 rating by Swiss news sources. (See table 1 for complete rankings).

News sources were also asked to identify supposed reasons why the inaccuracies occurred. The top response from both Swiss and US news sources was that the reporter didn't understand what she or he was writing about, a complaint made for more than one in four stories in which errors were found. Swiss sources attributed inaccuracies to deadline pressure in greater proportion than US sources. They were less likely than US sources to blame errors on reporter laziness or poor questioning. Other attributed causes were fairly similar, with sources from both nations mentioning – as to be expected – source misinformation as the least likely cause of error (see table 2), a phenomenon which psychologists have named "self serving bias" (Miller and Ross, 1975).

Table 2: Causes Attributed to errors ranked by percent of stories

	Swiss	US
	%	%
Lack of understanding	27.0	25.9
Deadline pressure	23.2	18.9
Insufficient research	17.1	17.3
Events were confusing	13.3	12.6
Didn't ask enough questions	7.5	12.7
Pressure to scoop others	7.0	6.7
Didn't ask right questions	5.8	12.1
Laziness	4.6	9.9
Source provided misinformation	1.7	0.9

Percentage total exceeds 100% because multiple reasons were given for errors in some stories.

Despite the frequency of errors, news sources remained trusting in their newspapers and willing to serve as informants again. Swiss sources gave their newspapers a 5.5 rating on a 7-point credibility scale, even higher than the 5.1 trust score attributed by US sources to their newspapers. The majority of Swiss sources also characterized themselves as "eager" to cooperate with the newspaper again, compared to slightly more than a third of US sources. Only 1 percent of Swiss sources said they would be "reluctant" to serve as a source again, compared to 3 percent of US sources. While sources from both nations seemed strikingly forbearing when finding newspaper errors, inaccuracy nonetheless has a significant negative effect on media credibility and source willingness to cooperate on future stories.

To evaluate the relationship between error and credibility, Pearson product-moment correlation coefficients were computed for story and newspaper credibility and four measures of newspaper accuracy. This measure considers the degree of linear dependence between two variables, in this case instances of inaccuracy and perceived credibility. A negative value implies that as the number and severity of factual errors increases, credibility decreases. By every measure in our study, Swiss and US media credibility among the sources significantly declined in relation to the number and severity of errors (see table 3). The severity of errors had a stronger negative effect on the overall credibility of Swiss newspapers than the overall credibility of US newspapers. However, the relationship between story credibility and the number of errors in a story was not as

strong with Swiss newspapers as with US newspapers, perhaps because many of the factual errors identified by Swiss sources were considered relatively insignificant.

Table 3: Pearson Correlation Coefficients for Accuracy Measures with Credibility

		Story	Newspaper	News Source
		Credibility	Credibility	Willingness
Number of factual errors	U.S.	449	236	201
	Swiss	230	167	105
Total number of factual	U.S.	581	326	246
and subjective errors	Swiss	310	237	146
Mean severity rating	U.S.	463	305	242
of factual errors	Swiss	393	349	148

Each correlation is significant at the .001 level.

While the Italian results were not conclusive because of the low response rate, it is still valuable to consider the initial results. Sources reported factual errors in 51.9 percent of Italian newspaper stories (compared to 60 percent in Swiss newspapers and 48.2 percent of US newspapers). A larger percentage of factual errors were identified in Italian newspapers than in US newspapers in every category studied, with misquotations and inaccurate headlines leading the list for both nations. Italian sources rated the severity of factual errors somewhat higher (a mean score of 2.7 on a 7-point Likert scale) than the 2.5 rating by Swiss and slightly lower than the 2.8 rating by US sources. Italian sources gave their newspapers a 5.2 score on a 7-point credibility scale, slightly higher than the 5.1 US sources' gave but lower than the 5.5 Swiss sources rating.

Inaccuracy Without Borders

Overall, this study underscores that accuracy is a serious quality problem. Newspaper inaccuracy transcends national borders and journalism cultures. Whether in Switzerland, in the United States or, with less validity, in Italy, the findings indicate that perceived errors are to be found in at least half of the articles printed. While overall error rates vary, the most frequent kinds of errors identified – and their perceived causes – are almost identical in the three countries examined. Inaccuracy has a corrosive effect on media credibility. News sources, while surprisingly tolerant of

errors, maintain high expectations that the news media will get the story right. If in each of the analyzed countries every second article contains at least one mistake, this is definitely at least one mistake too many.

In Switzerland, where regional newspapers are considered the premier source of news and newsrooms are well equipped, we did not expect error rates to exceed those found in Italy or the United States. The findings did suggest that inaccuracy is pervasive even among newspapers with a well trained staff and serious purpose. But it would be over-reaching to conclude from this study that Swiss or Italian media are less accurate than the US press. The accuracy judgments of sources may also reflect differences in expectations of news sources and their willingness to attribute error. Swiss sources may be less likely to overlook errors than their Italian counterparts. This proposition is supported by the high level of trust Swiss sources attributed to the press while also holding the newspapers accountable for factual errors they considered minor. Conversely, Italian sources may have lower expectations of newspaper accuracy.

An intriguing aspect to the discussion has been contributed recently by an accuracy study of 14 Irish newspapers. Surprisingly, only 3.4 percent of the 134 responding news sources rated the errors they found as serious or very serious. The authors summarized: 'At a time when, worldwide, journalist's reputations for honesty and integrity are falling, that may be seen – by the industry particularly – as welcome news' (Fox, Knowlton, Maguire, and Trench 2009: 5). However, in a separate fact-check of 54 newspaper items, the researchers found that only 25 contained no error, thus ending up with a 46 percent accuracy rate perfectly in line with our research and with previous American studies.

Accuracy rates may also reflect different editing procedures in Europe, where journalists tend to review each other's work, if at all, versus the United States, where stories traditionally are edited prior to publication by editors. However, the difference in the perceived accuracy could also be explained differently. As Blankenburg (1970) observed, the relationship between the source and the journalist has an impact on the perception of accuracy: news sources tend to be less critical with

a reporter whom they know personally than with an anonymous reporter. In a country like Italy, where communication is generally much more based on personal acquaintance, this factor may also partially explain why sources "discover" fewer errors.

Errors in a Digital Age

Taking into account our findings from the old "dinosaur" media in the three countries, even multimedia newsrooms in the age of Web 2.0 and media convergence need to devote more attention to the problem of errors and corrections management. If between 48 percent and 60 percent of regional newspapers' original articles contain errors, what does this mean for journalism online with its 24/7 news dynamic and a shortage of human resources? Do online journalists have a different mentality when it comes to accuracy, as news is an evolving story, as facts are only "temporary truths", and as online one truth may be simply exchanged for another when there is new information available? As media organizations are increasingly using social networks such as Twitter and Facebook to pinpoint their users and to reach their audiences even faster, how should newsrooms react to errors distributed within such channels?

Of course, the best solution would be to avoid mistakes during the journalistic production process. To care seriously for avoidance may be the best "unique selling proposition" for professional journalism in a news environment influenced strongly by PR experts and spin doctors, and increasingly also by bloggers and citizen journalists. But even journalists who work meticulously are fallible human beings. Thus inevitably errors will occur. Until recently journalists were in the comfortable position to explain the world to their recipients based on one-way communication. Errors were rarely corrected, because it was easy and convenient to hide them. With the emerging Web 2.0, this is fundamentally changing. Competition has become more intense, and thus has mutual observation.

With its 24/7-cycle, the web seduces journalists to publish as fast as possible unchecked

news that would need further professional care (Jarvis, 2009). Traditional filters often do not work online. Breaking news items are no longer processed daily as it was and still is the case in newspapers. Dissemination has become a matter of minutes or even seconds. Timeliness nowadays has priority, as Meckel (2010: 227; see also Meckel, 2011) asserts. It outplays other quality criteria such as accuracy and relevance. Due to an online-first policy, contributions get frequently checked only after publication. The effect is aggravated as errors, once published, diffuse everywhere within minutes due to viral distribution in social networks and to crossmedia production techniques of larger publishing houses.

If newsrooms want to be taken seriously in the fast, error-prone digital world, they will have to learn how to deal adequately with mistakes. There are several obvious options for remedy. Particularly Anglo Saxon media have been practicing some of them for quite a while: Correction Corners, in which errors should be corrected continuously, reliably and voluntarily; *Editor's Notes* in which the heavier errors can be analyzed and explained ex post; and Ombudsmen serving as institutions of complaints management and as mediators who investigate systematically errors. However, a daily correction corner may be not enough to deal with the flood of mistakes, and it may not be the best adequate way to handle errors online. In newspapers, a page would be needed to ensure that mistakes are not only corrected accidentally and that corrections do not remain mere cosmetics (Maier, 2007: 40; Nemeth and Sanders, 2009: 99). Nevertheless, the sheer existence of correction corners has helped to increase accuracy. No journalist likes to be exposed in front of his colleagues and to be subject to ridicule.

Digitization offers, however, new ways of implementing correction policies: If online articles published on the webpages of news outlets need to be corrected after publication, newsrooms should document these changes explicitly. Corrections can also be added directly to the original article to make readers aware of them, a policy that many bloggers have been using for a long time. Besides that, independent "third parties" observing the media help them to become aware of errors as well. Blogs like Regret the Error or the German BildBlog keep track of mistakes, while

others like Media Bugs serve as intermediaries supporting newsrooms to correct their errors faster and more reliably.⁸

One of the challenges in the digital era remains how media organizations should react to the diffusion of errors in breaking news if they are active in social networks like Twitter or Facebook. On the Web it is virtually impossible to simply erase mistakes. The editorial production process no longer ends with the publication of an article. Moreover, when a story goes online, it is often a starting point for more journalistic work. 'Online errors don't disappear like yesterday's print edition. News organizations need to recognize what the new permanence means for errors and corrections, and act accordingly' (Silverman, 2008). The discussion was reopened after the shooting on January 8, 2011, in Tucson (Arizona) when US congresswoman Gabrielle Giffords was heavily injured. Several major media organizations wrongly reported and tweeted that she had died. 9 National Public Radio (NPR)'s newscast broke the story, soon after also CNN, Fox News and the New York Times followed fast-moving with the same false news while Ms. Gifford survived. The media organizations started to retract the information – but in different ways. While NPR left the erroneous tweets on their account, CNN, Fox News and the New York Times deleted them altogether. Considering how fast errors can spread online, particularly in social networks, how should media organizations handle similar cases in the future? For private users of social networks it is easier to just delete a wrong message because the consequences are not that severe. For professional journalists using these channels to distribute breaking news, the situation is more complex. Most media organizations have more followers than individuals, hence their errors spread more rapidly. Given their important role within democracy, they also need to act more transparently.

Two valid lines of argumentation have emerged: the first is committed to transparency and wants to preserve the narrative of the story, the second one wants to prevent retweeting of wrong information. Proponents of the latter argue that if a flawed message is left on a channel, it continues to spread, even if a correction is posted in the meantime. According to Steve Safran, editor of the social TV site Lost Remote, for hours after it was reported that the congresswoman was alive,

'people kept discovering the original tweet that she was dead, retweeting it to their friends without seeing the update. In several cases, the retweet of the incorrect report came three or more hours after the report first spread' (quoted in Silverman, 2011). On the other hand, deleting factually incorrect tweets without telling your audience that you have done so is not the most transparent way to handle such cases. As Rosenberg (2011) affirms, it 'always leaves open the possibility that you are trying to hide the error or pretend it never happened'. This is also risky for a media organization. Today it is quite easy to discover journalistic errors disseminated on the net, and this may severely harm the reputation of a media brand.

A more transparent way to handle such cases is to simply leave the mistakes on the Facebook or Twitter account. Andrew Phelps of WBUR, a radio station in Boston, argues that:

We have decided not to delete the erroneous tweet, because it serves as part of the narrative of this story. Facts can change fast when news is breaking, and that leads to errors. We need to own the error, not hide from it. But we also need to rectify the error and explain ourselves to people who trust us. Deleting the tweet would do more to harm trust than preserving it would do to harm truth.

The question of trust and credibility is central to the discourse. Admitting that one was wrong can help to establish a more trustful relationship with audiences. Mensing and Oliver asked more than one hundred editors of smaller US dailies about the damage that errors cause to their newspaper's credibility. Three-quarters of them thought that errors were a very serious problem for their newspapers: 'Given the fact that 58 percent of the respondents said they saw errors of fact either daily or more than once a week in their own papers, accuracy is clearly a significant issue for many editors at small newspapers' (Mensing and Oliver, 2005: 16). There is no reason why these insights should not apply equally to websites.

According to Maier (2009), 'setting the record straight is essential to restoring trust that is eroded by errors'. And Rosenberg (2011) affirms: 'Public tweets play an increasingly important role in our news ecosystem. They tell us stories and are part of the story, too. We should minimize tampering with them. We need better tools that might let us correct them responsibly, whether this takes the form of fixes auto-propagating to re-tweeters or correction notices or revision tracking or

all of the above.' Media organizations must accept that on social network sites errors can and should be corrected near-to-real-time. Moreover, they know who follows them in social networks. Hence, they should at least make an effort 'to reach out to people who re-tweeted the incorrect information in order to make sure they pass along the new, correct information. We have a responsibility to follow up on our correction tweets and help give them the push and distribution they require' (Silverman, 2011).

The Toll of Inaccuracy

Due to the emergence of new media tools, managing corrections, at least theoretically, has become a lot easier. However, newsrooms need to overhaul their structures and news processing. They should both correct errors and develop new forms of interactive two-way communication, including the handling of feedback provided by audiences concerning mistakes. New roles should be added in the newsrooms: editors dealing with commentaries, journalists publishing, controlling and correcting continuously feeds on Twitter and Facebook, and mediators who serve as an interface between the public and the media outlet. Overall, media organizations have to set up and implement a social media strategy — an issue that goes well beyond increasing their responsiveness, implementing correction policies and improving their quality management.

Yet, these kinds of initiatives need resources newsrooms may be unable to make available in times of shrinking income from advertising and decreasing willingness of publics to pay for news. Thus, changes in the media landscape also need to be made transparent in order to help people to understand why the error rates are so high and even increasing. As stated by Maier (2005: 546):

Today's newspaper reporters, though more highly educated and professional, are perhaps stretched thin by staff reductions and other pressures brought on by media consolidation and Wall Street profit demands. Copy editors, the last line of defense against newspaper errors, could be missing mistakes as production demands impede careful review of articles before they go to press.

A difficult, uncertain economic environment is, however, no strong argument against improved corrections management. Neither corrections nor editor's notes are really costly; they should be simply seen as part of a strategy to regain credibility and trust. Moreover, the publics themselves should be invited to report errors directly to the newsroom, by using innovative forms of collaborative action similar to crowdsourcing techniques which, for example, the Guardian applied successfully in the case of the expenses-scandal of members of the UK Parliament. The insight that loyal readers are also cooperative readers could facilitate more systematic readers' involvement. The Washington Post has just started to implement this form of outsourcing. It may be helpful in grim economic times, however, when readers mail the newsroom, a specialized editor will still be needed to check these mails before correcting the indicated errors.

More research dealing with errors and corrections management would be highly desirable—both in old and new media. One track of future research should deal with the different expectations of the publics in different journalism cultures. More important, however, may be to ensure that existing research which has been compiled over so many years will finally arrive in newsrooms and inspire changes which might help journalists to regain credibility and trust. Is there hope that newsrooms will show more initiative in reducing the number of errors and/or improve their correction policies? More studies won't change the behaviour in the newsrooms unless incentives are created making it more "attractive" to admit that the news business is and will remain errorprone. Across cultural boundaries, accuracy matters. Credibility and trust are at stake. As Kovach and Rosenstiel (2007: 43) observe, the accuracy of news is the 'foundation upon which everything else builds: context, interpretation, debate, and all of public communication. If the foundation is faulty, everything else is flawed.'

References

Baerns, B. (1999). Kommunikationsrisiken und Risikokommunikation: Das nationale Risikoverfahren (Stufenplanverfahren) zur "Pille der dritten Generation". In L. Rolke, and V.

- Wolff (Eds.), Wie Medien die Wirklichkeit steuern und selber gesteuert werden. (pp. 93-125). Opladen/Wiesbaden: Westdeutscher Verlag.
- Bentele, G. (1988). Der Faktor Glaubwürdigkeit. Forschungsergebnisse und Fragen für die Sozialisationsperspektive. Publizistik, 2(3), 406-426.
- Bentele, G. (1994). Objektivitätsanspruch und Glaubwürdigkeit. In O. Jarren (Ed.), Medien und Journalismus 1. Eine Einführung. (pp. 295-312). Opladen: Westdeutscher Verlag.
- Bentele, G. (1998). Vertrauen/Glaubwürdigkeit. In O. Jarren, U. Sarcinelli and U. Saxer (Eds.), Politische Kommunikation in der demokratischen Gesellschaft. (pp. 305-311). Opladen/Wiesbaden: Westdeutscher Verlag.
- Berry, F. (1967). A study of accuracy in local news stories of three dailies. Journalism Quarterly, 44(Autumn), 482-490.
- Breiden, A. (2002). Die Rolle der Nachrichtenagenturen im Zusammenspiel von Öffentlichkeitsarbeit und Journalismus. (Unpublished Master). Freie Universität Berlin, Berlin.
- Briggs, M. (2008). The End of Journalism as Usual. Online. Available HTTP:

 http://www.nieman.harvard.edu/reports/article/100689/The-End-of-Journalism-as-Usual.aspx (accessed 22 August 2010).
- Brown, C. H. (1965, February). Majority of readers give papers an A for accuracy. Editor & Publisher, 63.
- Charnley, M. (1936). Preliminary notes on a study of newspaper accuracy. Journalism Quarterly, 13(4), 394-401.
- Dovifat, E. (1931). Zeitungswissenschaft. Band 1. Allgemeine Zeitungslehre. Berlin/Leipzig.
- Fox, C., Knowlton, S., Maguire, Á., and Trench, B. (2009). Accuracy in Irish newspapers. report for the press council of Ireland and the office of the press ombudsman. Dublin: Centre for Society Information and Media, Dublin City University.
- Gaziano, C., and McGrath, K. (1986). Measuring the concept of credibility. Journalism Quarterly, 63(3), 451-462.

- Hallin, D. C., and Mancini, P. (2004). Comparing media systems. three models of media and politics. Cambridge: Cambridge University Press.
- Hovland, C., Janis, I., and Kelley, H. H. (1953). Communication and persuasion. New Haven: Yale University Press.
- Hovland, C., and Weiss, W. (1951). The influence of source credibility on communication effectiveness. Public Opinion Quarterly, 15(4), 635-650.
- Jarvis, J. (2009). What would Google do? New York: HarperCollins.
- Kocher, D. J. (1981). Measuring mass media accuracy. International Communication Gazette, 28(3), 171-176.
- Kocher, D. J., and Shaw, E. F. (1979). Newspaper errors and perceived bias: A new direction for accuracy research. (Unpublished Discussion Paper). University of Tennessee, Knoxville.
- Kovach, B., and Rosenstiel, T. (2007). The elements of journalism. What newspeople should know and the public should expect. New York: Three Rivers Press.
- Lawrence, G. C., and Grey, D. L. (1969). Subjective inaccuracies in local news reporting. Journalism Quarterly, 46(Winter), 753-757.
- Luhmann, N. (2000). Vertrauen: Ein Mechanismus der Reduktion sozialer Komplexität (4. ed.). Stuttgart: UTB.
- Maier, S. R. (2003). How sources, reporters view math errors in news. Newspaper Research Journal, 24(4), 48-63.
- Maier, S. R. (2005). Accuracy matters: A cross-market assessment of newspaper error and credibility. Journalism & Mass Communication Quarterly, 82(3), 533-551.
- Maier, S. R. (2007). Setting the record straight, when the press errs, do corrections follow? Journalism Practice, 1(1), 33-43.
- Maier, S. R. (2009). Confessing errors in a digital age. Online. Available HTTP: http://www.nieman.harvard.edu/reports/article/101903/Confessing-Errors-in-a-Digital-Age.aspx (accessed 2 February 2011).

- Matthes, J., and Kohring, M. (2007). Trust in news media: Development and validation of a multidimensional scale. Communication Research, 34(2), 231-252.
- Meckel, M. (2010). Proudly content free. Publizistik, 55(3), 223-229.
- Meckel, M. (2011). Journalisten an der Crowdsourcing-Front. Online. Available HTTP: http://www.focus.de/digital/internet/dld-2011/debate/tid-20968/medienwandel-journalisten-an-der-crowdsourcing-front_aid_589439.html (accessed 14 January 2011).
- Mensing, D., and Oliver, M. (2005). Editors at small newspapers say error problems serious. Newspaper Research Journal, 26(4), 6-21.
- Meyer, P. (1988). Defining and measuring credibility of newspapers: Developing an index. Journalism Quarterly, 65(3), 567-574.
- Miller, Dale T./Ross, Michael (1975). Self-serving biases in the attribution of causality: Fact or fiction?. Psychological Bulletin 82(2): 213–225.
- Mulder, R. (1980). Media credibility: A use-gratifications approach. Journalism Quarterly, 57(3), 474-477.
- Nemeth, N., and Sanders, C. (2009). Number of corrections increase at two national newspapers. Newspaper Research Journal, 30(3), 90-104.
- Ordine dei Giornalisti (1993). Charter of Duties of the Journalists. Online. Available HTTP: http://www.odg.it/content/carta-dei-doveri-del-giornalista> (accessed 20 January 2011).
- Pew Research Center for the People and the Press. (2009). Press accuracy rating hits two decade low. Online. Available HTTP: http://people-press.org/report/543/#prc-jump (accessed 28 October 2010).
- Phelps, A. (2011). Why we didn't delete the tweet. Online. Available HTTP: http://hubbub.wbur.org/2011/01/10/giffords-coverage-twitter (accessed 24 January 2011).
- Roper, B. W. (1985). Public attitudes toward television and other media in a time of change. New York: Television Information Office.

- Rosenberg, S. (2011). Correct, don't delete, that errouneous tweet. Online. Available HTTP:

 http://www.wordyard.com/2011/01/10/correct-dont-delete-that-erroneous-tweet/> (accessed 24 January 2011)
- Russial, J. (2009). Copy editing not great priority for online stories. Newspaper Research Journal, 30(2), 6-15.
- Silverman, C. (2007). Regret the error. how media mistakes pollute the press and imperil free speech. New York: Sterling Publishing Co.
- Silverman, C. (2008). *Scrubbing Away Their Sins. You can't disappear your errors online*. Online. Available HTTP: http://www.cjr.org/regret_the_error/scrubbing_away_their_sins.php (accessed 22 August 2011).
- Silverman, C. (2011). To delete or not to delete. Online. Available HTTP:

 http://www.cjr.org/behind the news/to delete or not to delete.php?page=all (accessed 24 January 2011).
- Swiss Press Council (2008). Erklärung der Rechte und Pflichten der Journalistinnen und Journalisten. Online. Available HTTP: http://www.presserat.ch/24350.htm (accessed 22 August 2011).
- Tenore, M. J. (2011). Conflicting reports of Gifford's death were understandable, but not excusable. Online. Available HTTP: http://www.poynter.org/latest-news/top-stories/113876/conflicting-reports-of-giffords-death-were-understandable-but-not-excusable/ (accessed 24 January 2011).
- Tillinghast, W. A. (1982). Newspaper errors: Reporters dispute most source claims. Newspaper Research Journal, 3(Fall), 14-23.
- Urban, C. (1999). Why credibility has been dropping. A study for the american society of news editors. Online. Available HTTP:

 http://asne.org/kiosk/reports/99reports/1999examiningourcredibility/index.html (accessed 2 August 2011).
- Wetzenbacher, B. (1998). *So stimmt's. Die Korrekturspalte* Teil eines innerredaktionellen Qualitätsmanagementsystems? (Unpublished Thesis in the journalism education program). Freie Universität Berlin, Berlin.

http://www.npr.org/blogs/ombudsman/2011/01/11/132812196/nprs-giffords-mistake-re-learning-the-less on-of-checking-sources.

¹ We are deeply indebted to Scott Maier who supported generously our empirical research during his sabbatical at the European Journalism Observatory in 2008. We would like to thank Marta Zanichelli for the gathering of data in Italy as well as our student assistants Rahel Aschwanden and David Oehler for their contributions to the data gathering and analysis. We also owe thanks to Kate Nacy for editing the English version of the manuscript and to Marcel Broersma, Mark Eisenegger, Kurt Imhof and Chris Peters for their inspiring comments.

² In their article, they focus on the term trust instead of credibility because they wanted to directly link research in the field of communication with sociological theories of trust.

³ The part of this sub-chapter dealing with the American research record closely follows Maier's (2005) overview.

⁴ This somehow astonishing self-critique by journalists is unique in the history of accuracy research.

⁵ To exclude material from news agencies, only articles signed by name or by the initials of the author were included. To broaden the sample, no news source was surveyed more than once. Our researchers used web-based databases and telephone directories to locate sources. Questionnaires were delivered by electronic mail when possible, otherwise by ordinary mail. When the questionnaire was not returned within two weeks, another questionnaire was delivered.

⁶ The difference in error rates is statistically significant (Pearson chi sq (1) = 23.8, p < .001).

⁷ In an independent-samples t test, the difference in means is statistically significant (t(499.7) = 2.99, p = .003).

⁸ http://www.regrettheerror.com; http://www.bildblog.de; http://mediabugs.org.

⁹ A complete history of the erroneous tweets can be seen at http://www.regrettheerror.com/2011/01/08/npr-reuters-cnn-and-other-major-news-orgs-incorrectly-declare-death-of-rep-giffords/.It is interesting how NPR handled the fact of its inaccurate tweets, calling it "re-learning the lesson of checking sources":

¹⁰ See for instance the advice on how to do the right thing by Media Bugs: http://mediabugs.org/pages/best-practices-in-error-reporting-and-corrections.

¹¹ See http://www.washingtonpost.com/wp-srv/interactivity/corrections/