Accuracy in journalism – a measure of performance? a determinant of trust?

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Accuracy as a professional value

Accuracy of information is the standard by which journalists perform. Accuracy continues to be a prominently stated value in many professional codes. The University of Tampere maintains a directory of current journalism ethics codes, in English, for the nations of the Council of Europe. The Media Accountability project, at the University of Missouri in the US, has more than 400 such codes covering nations and individual news outlets. Overwhelmingly, the codes collected at both sites commit journalists to ensure the accuracy of the information they disseminate.

Professional organisations, regulatory bodies, trade unions, publishers' organisations and individual publishers repeatedly state the high value attached to accuracy in the work of their members and employees. Some examples will serve to illlustrate this point, but also some of the inconsistencies in distinguishing accuracy and its cognate, truth.

The Code of Conduct of the National Union of Journalists (Britain and Ireland) commits the union's members to (point 3) "strive to ensure that the information he/she disseminates is fair and accurate, avoid the expression of comment and conjecture as established fact and falsification by distortion, selection or misrepresentation" and (point 4) to "rectify promptly any harmful inaccuracies".

The Code of Ethics of the Society of Professional Journalists (USA) enjoins journalists to "seek truth and report it" and then states that "journalists should test the accuracy of information from all sources and exercise care to avoid inadvertent error".

The press code adopted by the Association of Professional Journalists of Kosovo mandates journalists and editors to "ensure in all their work a respect for factual truth and the right of the public to know the truth".

The Code of Professional Conduct of the Russian Journalist adopted in 1994 states (point 3) that "a journalist only disseminates, and comments upon, information whose reliability he has ascertained and whose source is well known to him. He will strive as hard as he can to avoid any damage, to whoever it may be, caused by the incompleteness or inaccuracy of a story".

Item A.1 in the Code of Conduct for the Danish press, adopted by that country's parliament and supported by the journalists' union states, "It is the duty of the press to convey correct and prompt information".

The preamble to the Norms of Journalistic Conduct for Indian journalists refers in the first sentence to journalism's objective as being "to serve the people with news, views, comments and information on matters of public interest in a fair, accurate, unbiased, sober and decent manner", and the first of the 65 itemised norms is headed Accuracy and Fairness.

The Code of Practice of the British Press Complaints Commission requires, in a double negative, that "newspapers and periodicals should take care not to publish inaccurate, misleading or distorted material" and to correct "significant inaccuracy" promptly.

The first substantive item (following the preamble) in the German Press Council's code reads, "Respect for the truth, preservation of human dignity and accurate informing of the public are the overriding principles of the press".

Principle 1 of the Code of Practice of the Press Council of Ireland states that "in reporting news and information, newspapers and periodicals shall strive at all times for truth and accuracy". It then refers to prompt correction, retraction or apology when inaccurate information is published.

The Netherlands Press Council's code declares in clause 1.1, "A journalist reports truthfully. Based on his information, readers, viewers and listeners must be able to form the most complete and verifiable picture of the news item reported on".

The BBC's Editorial Guidelines open with a statement on truth and accuracy, which starts, "We strive to be accurate and establish the truth of what has happened. Accuracy is more important than speed and it is often more than a question of getting the facts right. We will weigh all relevant facts and information to get at the truth". In the later section on accuracy, it is stated, "The BBC's commitment to accuracy is a core editorial value and fundamental to our reputation".

The Irish Times Trust, publisher of Ireland's 'paper of record', states that the first principle governing the publication of The Irish Times is "that news shall be as accurate and as comprehensive as is practicable and be presented fairly".

In the International Federation of Journalists' principles on the conduct of journalists where principle no.1 reads, "Respect for truth and for the right of the public to truth is the first duty of the journalist" and no. 5 reads, "The journalist shall do the utmost to rectify any published information which is found to be harmfully inaccurate".

Undoubtedly traceable to the same origin were some key phrases in an International Declaration of the Rights and Obligations of Journalists adopted in 1971 by representatives of the journalists' unions of the six EC member states. This declaration identified as the first obligation of a "journalist engaged in gathering, editing and commenting news" to be "to respect truth, whatever be the consequences to himself, because of the right of the public to know the truth" and point 6 was "to rectify any published information which is found to be inaccurate".

In this quick review of codes from various sources, we note that accuracy is a frequently and prominently stated norm of journalism, though sometimes qualified as to practicability

or by being expressed as a double negative, e.g. avoid errors, but commonly linked to a commitment to correct errors. Accuracy and truth are frequently invoked in linked clauses and occasionally interchangeable. Where the commitment to either is mentioned in connection with the media's standing with the public or the public's rights, truth is more often the chosen reference.

Despite this recurrence of exhortations and injunctions to journalists to perform to standards of accuracy, the formal study of accuracy in journalism products has been in decline for some years. This appears to be in part due to (justified) critique of the methods and underlying assumptions of such studies, or at least of their methodologies, that information sources are best-placed to judge the accuracy of news reports. The declining interest in accuracy may paradoxically be linked with a greater concern with issues of truth and trust and a social-theoretical emphasis in journalism studies.

As long as accuracy is such a commonly and prominently standard and norm of journalism practice it appears essential that it be investigated. Undoubtedly, some renewal of the field of accuracy studies is needed and we shall return to this on the basis of our own experience.

Accuracy, Credibility and Trust

In commentaries on journalism and in contributions to professional development, it is a commonplace that factual accuracy is central to the journalism vocation and the standing of media. However, Fuller (1996) was concerned that the spirit of Joseph Pulitzer's motto, Accuracy! Accuracy! Accuracy!, had been lost and "the whole culture of journalism must change before simple accuracy becomes once again one of its signal virtues ... Newspapers should overcome their reluctance to use quantified performance measures and begin rigorously counting up their accuracy score". Kovach and Rosentiel (2007) state that news accuracy 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".

The assumption behind such propositions is that accuracy is integrally tied to the public's confidence and trust in journalism. Indeed, readers and viewers repeatedly cite factual error as a reason for not trusting news outlets.

The related terms of accuracy and truth, and of credibility and trust, need to be defined for operational purposes. We propose to do this in the following way:

- **Accuracy** may be seen from both media and source perspectives, as in the statements, "We journalists stand by the accuracy of our reports. We aim to ensure that any statement of fact is verified by at least two sources", or "As someone who gave information to the media on that story I can vouch for the accuracy of the report as far as I am concerned".
- **Truth** may be seen from the media or the public's perspective, as in the statements, "The media are not telling us the whole story. They have left out important bits. They are not giving us the truth", or "Our commitment is to truth. We aim to put new information we receive into the right context". Thus, in some sense, truth (often referred to as "the whole truth") is larger than accuracy.

- **Credibility** may be best seen from the media perspective, as in the statement, "Our journalists have little credibility as observers and commentators on the social world if they are all male, or all below 25, or all untrained in journalism".
- **Trust** may be best seen from the public's perspective, as in the statement, "We tend to trust those media more that have an established record of reliable reporting and independent observation. We distrust those media that we perceive as compromised by commercial dealings, for example, with advertisers".

In the US from 2001, the Associated Press Managing Editors (APME) has run National Credibility Roundtables involving journalists and readers of 63 newspapers in city- and town-level conversations about the credibility of newspapers. Bias, unfairness and incompleteness were frequently cited by readers as reasons for declining credibility, but participant newspapers also noted the concerns about accuracy, including the particular concerns of "readers who are knowledgeable in a specialty area". The response of the Asheville Citizen-Times (North Carolina) to the APME initiative was to establish a new accuracy/credibility committee and to revise employee reviews "so that employees' accuracy performance is tied to their annual salary increase".

Coleman et al (2009) in their recent study for the Reuters Institute for the Study of Journalism take a different starting point: trust in news media has been too often and too simplistically reduced to the "appreciably straightforward issue of accuracy". Deploying a constructivist approach, and using focus group methodology, they insist that "trust in the media amounts to rather more than confidence in journalistic accuracy", though they do acknowledge that "journalistic inaccuracy or lack of commitment to the establishment of truth undermine trust". They conclude that trust is not open to quantitatively accurate study.

Scott Maier, a standard-bearer for the tradition of accuracy studies that stretches back to the earliest days of formal journalism studies, has attempted to correlate findings on accuracy and credibility. He cited a study for the American Society of News Editors that found that perceived accuracy was one of the best predictors of newspaper credibility (ASNE 1984, cited in Maier 2005). In that same study (2005) Maier surveyed sources for newspaper stories both on errors and on the credibility of the stories and of the newspapers. He found that "by every measure, story and newspaper credibility significantly declined in relation to the frequency and severity of errors ... The correlation between total errors (the number of factual and subjective errors) and story credibility was strong ... The effect of error frequency on newspaper credibility was less pronounced though still consequential" (p544). But Maier also observed that, while factual errors are more likely to be corrected by newspapers, "subjective errors might be the greater threat to credibility".

In a ten-country survey for BBC, Reuters and The Media Center, Globescan (2006) asked citizens to rate their trust in the media of their own country and to rate their media's accuracy. They also asked whether respondents had switched media in the previous 12 months due to concerns over trust. Reviewing responses to these three questions, it appears levels of trust in the media correlate strongly with high accuracy ratings in some countries (e.g. Indonesia, Nigeria, India and Egypt) but not in others (e.g. USA, UK and Germany), where the disparities between trust and accuracy ratings were different in each case: trust ratings were lower in UK and Germany and accuracy ratings, but higher in USA. However, the propensity to switch media due to loss of trust was over twice as high in USA

as in Germany. Thus, other factors of political culture and consumer culture need to be taken into account to interpret these findings.

Nonetheless, the assumption of this srvey and many more studies has been that levels of trust or credibility and perceptions of in/accuracy are somehow related with one another. Given the increasingly active concern with issues of public trust in the media it might be expected that studies of accuracy would be on the increase. This is not the case, however, as we explore in the next section of this paper.

Accuracy studies

Formal studies of accuracy of news stories have a long history, and represent one of the oldest strands of formal journalism studies. They also demonstrate remarkable continuity; contemporary research in this field frequently hark back to Charnley (1936), who is still a reference for research procedures in this field. Accuracy studies have diminished in number and weight in recent years but they have long been culturally specific, being disproportionately represented in US (mainly) and other Anglophone journalism studies. Scott Maier of the University of Oregon's School of Journalism has made this area of study almost his own in recent years (Maier 2002a, 2002b, 2003, 2005, 2007), accounting for a significant proportion of the relevant research published in the major English-language journalism studies journals in the past decade and now having a presence in European journalism studies through his visiting lectureship at the European Journalism Observatory in Switzerland.

Figuring why accuracy studies are much more common in the US than in the UK or Ireland must be somewhat conjectural. In part, it may have to do the scale and scope of journalism and mass communication as a university discipline. University-level journalism and mass communication education – where the researchers are most apt to come from – has been fairly common on the US for nearly a century and is now on offer at more than 900 US colleges and universities.

It may also be true that accuracy is simply more highly regarded as a journalistic norm in the US than elsewhere. Data to support this supposition is, at best, anecdotal and largely comes from journalists who have worked on both sides of the Atlantic. British-born but US-based Christopher Hitchens, for example, has mocked the fact-checking of the US media: "Fact-checking sounds innocuous, even scrupulous, but it is a snare and a delusion. It usurps the idea of authorship, with its concomitant responsibilities, and instates a vague, mediocre neutrality" (O'Connor 1988).

Trevor Butterworth (2001), highly regarded media critic and journalist, found British journalists, particularly foreign correspondents, to be sloppier with facts than their American counterparts and observed, "Though the American media is not without its own complement of boobs and miscreants, the contrast to British journalism has only grown in the past decade."

Jonathan Foreman wrote (2008), "British newspaper writing is famously more vigorous and readable than its American equivalent. But this comes at a price: there's a good chance that anything you read in a British newspaper isn't true. When I worked as a leader writer for an

American paper I was embarrassed when I was told that it was official policy not to trust any item in any British paper except the *FT* (*Financial Times*)."

Although Charnley (1936) is still frequently cited in formal accuracy studies there have also been several efforts to overcome limitations of the methods he proposed. The procedure of asking sources named in news reports to assess those reports has some obvious pitfalls. Any two parties to the same set of events, or 'story', may have different views of what represents an accurate account of that story. A journalist writing a report may be fully and justifiably satisfied as to its accuracy (everything reported is documented to have been said, or to have taken place), while a protagonist in the story insists that the report is inaccurate (e.g. not everything that could or should have been reported is included). Tillinghast (1982) highlighted this issue, studying the rejection by journalists of sources' error claims. Maier (2005) explicitly acknowledged this factor but did not take account of it in his study.

Among earlier studies, Berry (1965) considered that where accuracy was the point of concern, the difference between breaking news and developed stories was his most important finding. He attributed the correlations of objective and subjective errors to time available, arguing that objective errors decrease as journalists have more time to write their stories but subjective errors actually increase with time devoted to reporting and writing the story. The overall accuracy rate found was 46.3%, and it is notable that many more such studies have reported in/accuracy in the 40%-60% range.

Berry also noted that claims of over- and under-emphasis were equally likely at 10.2% each, suggesting that often the judgement of an involved source is the real issue rather than an actual error. Omissions were the most commonly reported error at 16%, followed by misquotations (13.1%) and typographical errors and inaccurate headlines (12.9%). Perhaps surprisingly, Berry found that inaccuracy increased as more people handled the story.

Also in the 1960s, Lawrence and Grey (1969) developed further the concept of subjective errors, those differences between a reporter's perception of reality and that of a news source. Subjective errors, for the purpose of their study, were listed as: errors of meaning, omission, over- and under-emphasis. Their method was to conduct in-depth interviews with both news sources and reporters for stories where errors were claimed. The researchers strove to ask both parties identical questions.

Interestingly, sources linked sensationalism to a lack of personal contact between reporter and source, suggesting that, from the news source perspective, face-to-face interviews were more likely to produce satisfactory results than telephone interviews. Reporters did not think this was a factor, but, at the same time, said having more time to work on stories would lead to greater accuracy.

Blankenburg (1970) reviewed some of the previously mentioned studies and added his own analysis of source responses to accuracy questionnaires relating to stories in two local US newspapers. His finding of 40% of stories rated as accurate falls in the prevailing range. The largest categories of (non-typographical) errors were omission, misquotation, headlines and emphasis.

Scanlon (1972) proposed "a new approach" to the study of newspaper accuracy. He found that specialist reporting and specialist reporters were likely to be more accurate than

stories produced by general assignment reporters. City hall stories, for example, were found to be more accurate than general news.

Scanlon stressed what he perceived to be a new dichotomy in reporters, between what he called active and passive reporting. Passive reporting involves the reporter either working off a press release or from first-hand coverage of an event. Active reporting involves asking questions and writing down answers. Scanlon found that "passive" reporting tended to be more accurate. His conclusion, that "the fastest route to an error is to allow a reporter to get involved – by an interview or dialogue of any sort" appears to suggest that journalism needs less reporting, not more.

Philip Meyer identified (1989) a potential problem with having reporters analyse questionnaires returned by sources: significant data may be lost if sources are aware that their responses will be given to newspapers and reporters with whom they may have to deal again. Meyer raised an important point in arguing that employing check-sheet surveys may really be measuring source satisfaction rather than accuracy. He also made a case for the primacy of a journalist definition of error over a source definition as the latter may consider themselves, rather than the general public, to be the clients of the reporter.

Meyer devised a mechanism for determining whether the reporter or the source was correct after the reporter was given a "reporter reply" questionnaire. This is a complex and time-consuming procedure and difficult to implement.

It will be noted that the findings of the study we report in the following section contain several that are close – in some cases, remarkably close – to several of those presented briefly here from earlier studies. For example, the proportion of subjective errors represented by omission in one of Maier's studies (Maier 2002b) is within a few percentage points of that found in our own survey.

In a rare example of an accuracy study undertaken outside the Anglophone world but also, it has to be said, outside the frame of formal research, Dutch journalism students in Leiden and Tilburg fact-checked stories in Dutch media during 2008 and they have maintained their fact-watch on web sites dedicated to this purpose. Among the types and causes of error they found were failure to contact the source or read the source material, inadequate context, failure to notice inadequate research methods in supplied material, failure to account for bias or self-interest of sources, sensationalism and exaggerated statistics. When the students interviewed journalists on such lapses, they reportedly were often told: "I didn't set out to write scientific analysis; it was lightweight news, something nice to read at breakfast". This initiative, driven more by motives of journalism education than on journalism studies, demonstrates an important additional plank to accuracy studies.

The media coverage of science has long been a special case in accuracy studies because of the particular complexity of the source material and the presumed authority of scientists to determine what is accurate and what is not in the reporting of that information. In journalism studies and later in the emerging field of science communication accuracy studies of science news have been pursued from the 1970s onwards. Despite frequent observations of the differences between scientists (sources) and journalists in their views of accuracy (Nelkin 1995; Peters 1995; Dunwoody 2008) and critique of the hierarchical relationship between scientist sources and media (Dornan 1990 and Hilgartner 1992) accuracy studies have continued to have stronger currency in relation to science reporting than to general

news reporting. It is notable that many of the more recent studies are written by authors in, for example, health sciences and climate sciences and appear in the journals of those disciplines rather than in those focused on communication, even science communication. From their professional perspective and in that professional context, it is to be expected that such researchers will always find media reporting lacking in some significant respect.

In the early 1970s Tichenor (1970) and Tankard and Ryan (1974) published accuracy studes of science news that presented classifications of errors and surveyed scientist-sources on their rating of published news stories. Tankard and Ryan distinguished 42 types of error and, although acknowledging that this large number may have promoted the finding of many errors, reported that scientists identified on average 6.2 errors per story, with only 9% of the stories held to be free of errors, a much lower rating than for general news.

Singer (1990) used a different technique to study the reporting of scientific hazard. She compared the content of research documents with that of news stories based on these documents. She found that 40% of the stories contained statements 'substantially different' from the source document. Singer's categories of errors have been subsequently used by others; they include several that are specific to the reporting of science.

Bell (1994) studied six months' coverage of climate change in the New Zealand media and found that scientist sources rated these media stories as overwhelmingly accurate, but one story in six contained significant inaccuracy. Although some categories of error were specific to the reporting of science, basic inaccuracies such as mis-spelled names, misnamed organizations and wrong dates were found to occur with roughly the same frequency.

In an observation that bears on the discussion of our own local accuracy study, Bell notes "inaccuracies are at base caused by the news values which journalists are trained and socialized to work by. It is no accident that our survey found many examples of exaggeration of units of measurement (e.g. centimetres instead of millimetres) and none of reduction". The science-related errors reported here and in other such studies include those of significant omission and absence of qualifying statements, in other words, weak contextualisation. It is in these 'subjective' areas that the definitions of accuracy most obviously diverge between journalists and various types of source.

Corbett and Durfee (2004) also looked at reporting of climate change, but with a focus on the public's reception of reports that refer to the uncertainty of the science. Their concern is that journalists' attention to dissensus among scientists causes confusion in the public. They summarise the research to date as follows: "Research thus far on news reporting of climate change has reached similar conclusions: media attention ebbs and flows, many journalists lack accurate climate change knowledge, reporting contains inaccuracies and distortions, and journalists tend to underplay the scientific consensus".

In the communication of health information through mass media errors have frequently been identified. The stronger emphasis on error is found in studies written by health researchers, as distinct from communication researchers. Moyer et al (1995) tracked back from media references to studies on breast cancer and found that over two thirds of the citations contained inaccuracies, including shift in emphasis, reporting speculation as fact and overgeneralising.

In the same field of cancer, communication scholars Brechman et al (2009) more recently reported on "slippages and inconsistences in causal language" between press releases on cancer research and newspaper coverage, noting that "errors commonly attributed to science journalism, such as lack of qualifying details and use of oversimplified language (e.g. 'fat gene') were observed in press releases" but also that "news accounts provided little direct contextual information, instead emphasising how study results apply to the 'real world'".

Health researchers Basu and Hogard (2008) examined reports on nutrition research in British tabloid newspapers and found that they were "sensationalised to the point where the information given is rarely balanced or sufficiently contextualised" and "the majority of research results were reported inaccurately". Roche and Muskavich (2003) found that major US newspapers were "generally ineffective in reporting with a useful level of contextual precision on the risk associated with West Nile Virus".

Several of these cases from the fields of science and health communication illustrate how the increasing availability of journalists' source material in public spaces of the web adds to the armoury of accuracy researchers. It now becomes possible to go beyond the limitations of source surveys as a means of measuring accuracy. In our own study we combined a source survey with independent fact-checking. But this availability also has implications for public trust in the work of journalists. The ease with which journalists' raw material can often be found should serve as a caution to journalists to take greater care with the use of such material. Readers, especially those with a particular interest or expertise in an area, can access the source material and perhaps assess it more completely than journalists can.

A pilot study of news reporting accuracy

Despite the limitations of accuracy studies as undertaken and published over several decades, it must be considered that accuracy in journalism is still capable and worthy of formal study and its study is an important measure of journalist performance. The authors conducted a study of accuracy in Irish newspapers' news reporting, on the basis of a commission from the Press Council of Ireland. The approach adopted for this study was similar to those of accuracy studies published over many years. The results are also similar to those found in other studies that have found errors in 40-60 per cent of sampled stories. The study raises methodological and theoretical issues about definitions of accuracy, in particular differences in this regard between journalists and readers / sources, and classification of errors as 'objective' and 'subjective'. We do not claim to have resolved the inconsistences and ambiguities of such research.

Our study of accuracy in Irish newspapers' news reporting was based on a sample of over 500 news reports from 62 editions of 14 different newspaper titles published during the period 10–31 October 2008. Nearly 700 individuals and organisations named in these reports as sources were sent a questionnaire, posing a series of questions in respect of an article in which they were named. These questions referred both to errors of fact and errors of emphasis or context.

The first eight questions asked sources to say if they found errors of fact in the headline, titles given to people, spelling of names, age given to the respondent, addresses, date or time, location, and numbers. The following nine questions concerned missing information,

misquoting, quoting out of context, misrepresentation of the respondent, quoting of something said off-the record, inappropriate illustration or presentation, bias on the newspaper's part, sensationalist treatment of the story, failure to distinguish fact and opinion. In relation to each of these questions, respondents were asked to indicate: No error or not applicable; Not a serious error; Serious error; Very serious error.

Of the 143 questionnaires returned, 65 (46%) reported no error. Of the remaining 78 questionnaires 32 (22%) identified one error and 46 (32%) reported more than one error. Of these 78 questionnaires, 36 (46%) reported no error of fact but subjective errors only, while 17 (22%) recorded no subjective error but objective errors only. Thus, the majority of questionnaires presenting claims of error included both objective and subjective errors.

Just over half of all articles contained at least one error, as identified by one of the sources. The completed questionnaires reported a total of 189 errors. Of these, 136 (72%) were categorised by the respondents as not serious, 40 (21%) as serious and 13 (7%) as very serious.

The response rate of sources was diappointing at 21%. The researchers followed up with phone calls and emails with the aim of achieving the highest possible response in the available time. Many respondents expressed concern that their responses might be shown to journalists or editors or that they might be otherwise identified. To boost the response rate, it was decided to drop the plan to refer completed questionnaires to journalists or editors for comment.

More than half of the returned questionnaires (54%) found errors, and nearly a third of those (32%) found more than one. It seems more likely that the responses would over-represent than under-represent those who did have something to complain about. There may be many reasons that people chose not to respond to the survey or to play down errors they found. The stories were certainly not error-free, even if subjects in the stories were not generally outraged at the severity of the mistakes.

We followed long-established precedent in such studies by surveying for different types of error, that have been broadly classified as objective (fact) or subjective (emphasis or context). Readers in this survey mentioned "subjective" errors far more often than they complained about errors in hard data. Nearly three-quarters (72%) of the respondents who found error found this sort of subjective error. Barely a quarter (28%) found factual (or "objective") error.

Where exactly the line is drawn between categories of subjective and objective errors is a matter of judgement. For example, misquoting might be regarded as error of fact but in this study, where sources were asked if they found that they were misquoted, this was classified as subjective error. In some previous studies, headline errors were classified as subjective. But in our questionnaire respondents were specifically asked if they could identify errors of fact in the relevant headline and we classified headline errors, therefore, as objective.

Some of the subjective errors would not be "corrected" even if the reporter had time because they might be seen as representing appropriate journalist judgement. Especially problematic is the category of "essential information missing," which is often another term for "poor context". Several respondents indicated they had spoken about several things, and the reporter highlighted, or even mentioned at all, only one.

Missing information accounted for 15% of reported errors, just one percentage point less than the largest single category of error (16%), "sensationalism". Since a large part of news is bad news, it is hardly suprising that some people would prefer not to be in the story at all or would be inclined to dismiss the story as sensationalist. Add two other common subjective errors, bias (9%), and fact and opinion not clearly separated (7%), and nearly half of all the reported errors (47% of the total) are accounted for. All of these involve shadings and interpretations that the reporter involved – and, indeed, others at the newspaper – might stand over.

Some examples of various categories and types of error, as reported by sources surveyed, will serve to illustrate what concerned those sources, but also how they rated the severity of errors:

- **Essential information missing – Not serious error**
  The source said that there were many other important issues mentioned by him during the interview and raised at a conference that the article had not mentioned.
- **Misquoted– Not serious**
  A spokesperson for a community group campaigning to retain hospital services said that a strong word attributed to him was not a word he uses.
- **Various errors – Not serious**
  A source who identified seven subjective errors as 'not serious' had not had any contact with the journalist and suggested that the journalist had "either heard him on the radio or picked up the story from another article"
- **Essential information missing – Serious error**
  The source spoke directly to the journalist who included only a small part of what he had been told. The journalist's selective use of information portrayed the organisation as having a view on the matter which was the complete opposite of their true position, which had been conveyed to the journalist.
- **Sensationalist – Serious**
  A percentage increase figure quoted in the article was very much out of context and the source of the increase was not explained. This sensationalised the issue and the potential threat posed by it.
- **Title – Serious**
  A source who was interviewed in one capacity was identified in the article as the holder of another role which he had not disclosed; the capacity in which he had been speaking to the journalist was not clarified.
- **Misquoted and Quoted out of context – Very serious error**
  The journalist did not contact the source in the year of publication of the story and a statement attributed to the source was taken from an article written two years earlier.

Overall, our findings support those of other studies in what appears, at least at first sight, to be counter-intuitive: the more the reporter tries to add to a story, the more likely quoted sources will be unhappy with the results; the less the reporter tries to analyze and contextualize, the more likely the sources will approve of the printed story. In the age of the 24-hour news cycle, newspaper journalists tend to see their role as increasingly one of analysis and less one of recording and conveying raw data. The results of this study and of

others indicate that sources (who are also readers) perceive that errors arise exactly in the aspect of journalists'work that is supposedly adding value to information.

As a control on the survey rsponses, 69 randomly selected newspaper items for which no source surveys were returned were independently fact-checked by team members who had not taken part in the administration of the source questionnaires. This independent check was undertaken for purposes of comparison with the patterns of error-reporting by sources. In examining each item the fact-checkers tested for internal consistency of names, numbers and similar detail, checked organisation names, personal names and place-names against reliable sources, and searched online for media statements and other supplied material from the named organisations or individuals relevant to the item.

In the largest category of error found in this phase of the study, Essential information missing, the omissions were deemed by the researchers to be of significant contextual information. Examples included:

- a news item on a study of Dublin city noise levels failed to note that the exposure levels reported were 'hypothesised' on the basis of computer models, rather than measured directly in all instances, as the article implied;
- a report on an individual businessperson's complaint about a planning issue failed to report that the issue had been discussed at minuted meetings in recent days between the developer and other business interests;
- a news item highlighting that no cost price was given with a published plan for a new tramway line failed to note that the responsible agency had explained that, at this stage in the process, they never gave an estimated cost for commercial and other reasons.

This separate fact-check found that 25 items (46%) contained no error, coincidentally the same percentage of source-responses that rated the articles reviewed as containing no error. This left 29 items (54%) in which the researchers found some error. While the precise matching of proportions can be taken as coincidence, the fact-check does serve as some validation of the source survey results. The intended triangulation with selected journalist interviews – dropped for pragmatic reasons – would undoubtedly have qualified the findings of the other two phases of the study.

Discussion

In the context of this workshop's stated concerns we offer the following observations for discussion:

1. Accuracy remains a prominent norm of professional journalism practice but journalists' performance to that standard may be declining. There are no longitudinal studies we are aware of that track numbers of errors of fact, which appear in a given publication. But there is anecdotal evidence both from practitioners and from media observers that reporters in 2009 are being asked to produce more usable copy in a given period of time than they were twenty or even ten years ago. That suggests that journalists were under-utilized then, are overworked today or are being asked to stop doing some parts of their jobs in order to increase output. There are many reports from the field that reporters are being asked to increase their output, which, almost inevitably, means that there is less time for checking and double-checking the

accuracy of their stories. Martin Moore, director of the Media Standards Trust in Britain, chronicled cutbacks in newsrooms (2006). "With fewer journalists and fewer editorial resources, it is not surprising that news organisations have less time and manpower to search for stories, to follow new leads, or to check sources. … it is leading to less accurate reporting. With more reports to produce, in a shorter time frame, adapted for a greater number of platforms, with fewer sub-editors checking copy, this is inevitable."

2. There is mounting evidence, also mostly anecdotal, that the massive migration to the web has had and will continue to have serious negative implications for the accuracy of news reports. Deadlines, which used to be once or twice a day, are now continuous. Competitive pressures may be pushing stories onto the web before they have been sufficiently checked for accuracy. On the other hand, it is much easier than ever to correct errors. Just go into the website and make the needed changes – no embarrassing correction in the paper or in the broadcast, no ritualistic rending of garments.

3. Truth and accuracy are certainly related terms but they are far from synonymous, particularly when it comes to source-reported errors. "That's out of context," "That's not what I meant" and "That's blown way out of proportion" are the sorts of "errors" that sources regularly report when asked, but which reporters would and do deny are errors at all. Sources are implicitly concentrating on the truth dimensions of the reports in which they are cited, while journalists appear more focused on the accuracy of the various elements of those reports. The discussion about and research on trust in the media needs to deepen the understanding of these different perspectives.

4. The standard American model of researching accuracy in journalism products by asking sources to provide evidence and ratings of errors has serious limitations. The most serious flaw in the "ask-the-source" model of accuracy-checking is closely related to the differences between truth and accuracy. Sources in news stories routinely describe as error those very elements of a story that the reporter is most likely to stand over – or certainly not agree is an error. These are the presumed "errors" of interpretation, of exclusion, of over- or under-emphasis of one point or another. Despite these limitations, accuracy can be meaningfully measured by empirical research, whereas truth cannot.

5. One means of renewing accuracy studies is to incorporate fact-checking into such studies. We did this at a modest level in our own pilot study. Fact-checkers at major American newspapers and magazines find errors for a living. At magazines such as the New Yorker and Esquire, there are separate jobs for fact-checkers. At newspapers such as the New York Times and others, the fact-checking falls to copy editors. The responsibility of fact-checkers includes verifying quotations with the sources as well as confirming details of names, places, dates, etc. Fact-checkers also have recourse to the writers before the relevant reports are published. Fact-checking after publication, as a part of accuracy studies, may be most fruitfully concentrated on assessing published reports against available source material. Here, organisations' widespread use of the web for parallel dissemination of information that is also sent to the media presents an opportunity for post-publication fact-

checking. More, the accessibility of this material also means that journalists' performance to standards of accuracy and truth is open to wider public scrutiny. In the early flush of enthusiasm about the potential of web journalism, it was posited that readers would "keep journalists honest" by virtue of presumed higher levels of interactivity and accountability. It is clear that this has not happened to any significant degree.

Bibliography

ASNE (American Society of News Editors), 1984, Newspaper credibility: building reader trust (Washington, ASNE)

Basu A and Hogard E., 2008, Fit for public consumption? An exploratory study of the reporting of nutrition research in UK tabloids with regard to its accurancy, and a preliminary investigation of public attitudes towards it, *Public Health Nutrition*, 11, 11, 1124-1131

Bell, A., 1994, Media (mis)communication on the science of climate change, *Public Understanding of Science*, 3 (4): 259–75.

Berry, Fred C., 1965, A study of accuracy in local news stories of three dailies, *Journalism Quarterly*, vol. 46, pp 482-490

Blankenburg, William B., 1970. News Accuracy: some findings on the meaning of errors, *The Journal of Communication*, vol. 20, pp 375-386

Brechman, J., Lee, C., Cappella, J., 2009, Lost in translation? A comparison of cancer-genetics reporting in the press release and its subsequent coverage in the press, *Science Communication*, 30, 4, 453-474

Butterworth, Trevor, 2001, No facts, please - we're British, *Salon*, November 9, 2001

Charnley, Mitchell, 1936, Preliminary notes on a study of newspaper accuracy, *Journalism Quarterly*, vol. 13, pp 394-401

Coleman, S., Anthony, S., Morrison, D., 2009, Public Trust in the News – a constructivist study of the social life of news (Reuters Institute for the Study of Journalism, Oxford University)

Corbett, J., Durfee, J.L.., 2004, Testing Public (Un)Certainty of Science - media representations of global warming, *Science Communication*, 26, 2, 129-151

Dornan, Christopher, 1990, Some problems in conceptualizing the issue of "science and the media", Critical Studies in Mass Communication, 7, 1, 48-71

Dunwoody, S., 2008, Science Journalism, in M. Bucchi and B. Trench (eds.) Handbook of Public Communication of Science and Technology (Routledge) 15-26

Foreman, Jonathan, 2008, When Facts Get In The Way, Standpoint, June 2008

Fuller, Jack, 1996, News Values – ideas for an information age (University of Chicago Press)

Globescan, 2006, Trust in the media – poll for BBC, Reuters, Media Center, posted at http://www.globescan.com/news_archives/bbcreut.html, accessed 20 November 2009

Hilgartner, Stephen, 1990, The Dominant View of Popularisation – conceptual problems, political uses, Social Studies of Science, 20, 3, 519-539

Kovach, Bill, and Rosenstiel, Tom, 2007, The Elements of Journalism – what newspeople should know and the public should expect, 2nd edition (Three Rivers Press)

Maier, Scott R, 2002a, Numbers in the news: a mathematics audit of a daily newspaper, *Journalism Studies*, vol. 3, no. 4, pp 507-519

Maier, Scott R, 2002b, Getting it right? Not in 59 per cent of stories, *Newspaper Research Journal*, vol. 23, no. 1, pp 10-24

Maier, Scott R, 2003, How sources, reporters view math errors in news, *Newspaper Research Journal*, vol. 24., no. 4, pp 48-63

Maier, Scott R, 2005, Accuracy matters: a cross-market assessment of newspaper error and credibility, *Journalism Quarterly*, vol. 82, no. 3, pp 533-551

Maier, Scott R, 2007, Setting the record straight: when the press errs, do corrections follow? *Journalism Practice*, vol. 1, no. 1, pp 33-43

Meyer, Philip, 1989, A workable measure of auditing accuracy in newspapers, *Newspaper Research Journal*, vol. 10, pp39-51

Moore, Martin, 2006, In News We Trust, *British Journalism Review,* 17, 4, 47-50

Moyer, A., Greener, S., Beauvais , J., & Salovey, P., 1995, Accuracy of reported health research in the popular press: Breast cancer and mammography. *Health Communication, 7,* 147-161
Nelkin, D., 1995, Selling Science: how the press covers science and technology, 2nd edition (Freeman)
O'Connor, Robert, 1988, Gimme the facts - but check 'em first, *The Guardian*, 3 October
Peter, H. P., 1995, The interaction of journalists and scientific experts: co-operation and conflict between two professional cultures, Media, Culture and Society, 17, 31-48
Roche, John P., and Muskavitch, Mark A. T., 2003, Limited Precision in Print Media Communication of West Nile Virus Risks, Science Communication, 24, 3, 343-365
Scanlon, Joseph T., 1971, A new approach to study of newspaper accuracy, *Journalism Quarterly*, vol. 49, pp 587-590
Singer, E., 1990, How scientists and journalists report research on hazards*, Journal of Communication*, 40, 4, 102-117
Tankard, J. and Ryan, M., 1974, News source perceptions of accuracy in science coverage, *Journalism Quarterly*, 51, 2, 219-225
Tichenor, P., Olien, C., Harrison, A., Donohue, G. (1970) Mass communication systems and communication accuracy in science news reporting, *Journalism Quarterly*, 47, 673-683
Tillinghast, William A, 1982, Newspaper errors: reporters dispute most source claims, *Newspaper Research Journal*, vol. 3, pp 14-23