



REUTERS
INSTITUTE for the
STUDY of
JOURNALISM

**Reuters Institute Fellowship Paper
University of Oxford**

News Embargoes - Under threat, but not extinct

How an ancient press tool survives in the modern
media world

By Sonja Gruber

Michaelmas Term 2014

Sponsor: Austria Presse Agentur (APA), Alfred Geiringer Fellowship

Abstract

This paper explores the status quo and future prospects of the news embargo in our speeded-up, digital and fragmented media world.

The embargo is a press tool that was invented a century ago, primarily for practical reasons. Sources provide journalists with news which ought not to be published until a certain date. In theory, both sides benefit from such an agreement. The ever-pressurised journalist has time to prepare his or her story properly and thus the source is more likely to get accurate coverage of the given topic.

Whilst in the “old world” embargoes used to be timed particularly to print deadlines of newspapers, digitalisation has tremendously accelerated the news cycles and also entailed an unprecedented upheaval of media markets. Given these changes, the question arises as to whether the news embargo is an ancient relic that will soon disappear or somehow survive.

The paper addresses three main research questions:

- What types of embargoes have there been in the past and what is their current status?
- Does the news embargo still make sense in our speeded-up 24/7 media world?
- Whom is it actually useful for?

Due to the lack of academic research on the topic, interviews with both representatives of potential sources and media were conducted. As the use of news embargoes varies significantly from field to field, different types of embargoes were identified and explored separately:

In science journalism, the embargo has been most disputed and is at the same time most likely to continue. For leading science journals, news embargoes have been a core part of their media policy since the 1920s and are still defended tooth and nail by the editors. They want to maintain their exclusivity and hence control the science agenda in the mass media. Yet the news embargo only takes full effect in combination with the so-called Ingelfinger rule: Scientists who aim for publication in one of the elite journals must not disclose their findings beforehand — in practice, they don't talk to media. This is why

journalists, first and foremost Ivan Oransky who runs the blog *Embargo Watch*, question the Ingelfinger rule rather than the embargo. According to him, the Ingelfinger “stranglehold” keeps journalists from reporting on science as it actually happens.

Remarkably, breaking embargoes is not a major cause for concern as far as journalists are concerned. They do happen, but mostly due to human error.

Another embargo type is the political embargo. Since it is only used scarcely, its usefulness has to be explored case by case. Yet it is very likely that political proponents put on a news embargo for propaganda reasons, especially in times of war. Not for nothing is the history of PR closely related to the emergence of “media wars”.

Very different are institutional embargoes and embargoes set up by private corporations. Both deal with sensitive data that can potentially move financial markets. The computerization and acceleration of trading and also the newly-gained possibility to put out news right away on the internet, notably via Twitter, have put pressure on these embargoes.

Yet that does not mean that they will become extinct in the near future. Instead, the development goes in very different directions: Government agencies tend to tighten their security measures to prevent early leakage of data rather than abolish their embargo systems. Journalists see themselves benefiting from embargoes as they reduce some time pressure and ensure high-quality coverage.

Listed companies take the stock market disclosure rules much more seriously and therefore no longer embargo market-sensitive information that has to be released immediately. When it comes to softer topics like the launch of a new business, PR people still consider the embargo as a practical tool.

Generally, selling stories in advance has become difficult for PR companies because journalists are increasingly urged to put out news immediately. Moreover, the fragmentation of news consumption that is driven by the growth of mobile devices has complicated the question when to release which news on which media to which audiences. Nevertheless, timing still matters because sources want to maximize the impact of their message.

Journalists are by and large aware that the embargo on “hard news” has come under pressure — for that very reason they call for sanctions when rivals don’t abide by the agreement.

Table of Contents

1. Introduction	6
2. The origins of the embargo	10
3. Embargoes in science	12
<i>Embargo or Ingelfinger's "stranglehold"?</i>	14
<i>No sanctions (for empty toners)</i>	17
<i>Key findings</i>	20
4. Political embargoes	22
<i>Key findings</i>	25
5. Institutional embargoes	28
<i>Key findings</i>	33
6. Delicate private financial data	35
<i>Key findings</i>	40
7. The fragmentation of news consumption	41
8. A special case: News agencies' embargoes	466
9. Who benefits (the most)?	48
10. Conclusion: Under threat, but not extinct	511
Bibliography	566
<i>Interviewees</i>	62
Acknowledgements	63

1. Introduction

Have you ever wondered how the media can work so fast? When international institutions or governments publish economic data, news wires send out their alerts and stories on the dot of the release time. Do journalists sometimes get such delicate information ahead of time? Yes, they do. In fact, quite often in several countries.

Behind all this is the news embargo, an agreement between the source and the media organisation: The latter is provided with news that ought not to be published until a certain date. In theory, both sides benefit from an embargo: The ever-pressurised journalists get time to prepare their stories, and sources can ensure that the media is well-informed and thus less likely to report inaccurately.

In the “old world”, embargoes used to be timed particularly to print deadlines of morning or evening newspapers. But these days are long gone. Not only do digital technologies permit a much faster distribution of news, but also the World Wide Web has put an end to deadlines. Just like established media outlets, every corporation, institution and every private Web 2.0 user can publish information 24/7. Today, a press release can immediately get coverage and spread on the internet within minutes. If a newspaper printed the same story the next day, it would be already outdated.

The speeding-up of the news cycle is not an isolated phenomenon, but strongly tied to profound transformation processes which have been taking place in postmodern societies of the 21st century.

The emergence of the internet has only been the last stage of a “social acceleration” (Rosa 2005; 2013) that started with industrialisation. Benjamin Franklin, one of the founding fathers of the United States, famously taught a young tradesman that „time is money“ as early as 1748. Since speed is now the “absolute and unassailable imperative” (Adam 2003, p. 50), businesses of all kinds have to run the race of being the first — at the cost of employees, as Karl Marx (1976) already saw as a problem in *Capital*, arguing that the commodification of time inevitably increases the density of work. In fact, acceleration affects all aspects of life. We can do things faster (travelling, eating, dating) and therefore save time. Simultaneously we are urged to use this newly-gained time more efficiently, thus we seemingly do more things at the same time. In the media world, the speeding-up

is reflected in several ways. Just as with the early gazettes, today's journalists depend on providing their audience with an information advantage and yet oscillate in the tension field between time and accuracy. This hasn't changed in principle. But besides the acceleration of production cycles, electronic media seem to have reversed the separation of production and consumption, as Marshall McLuhan (1964) claimed decades ago. Indeed, it's no longer newsmakers versus audiences, but newsmakers versus readers/viewers who can generate content and distribute it all over the world by themselves (Logan 2011, p. 67). Consumers have become "prosumers", and the gatekeepers have turned into gate watchers. Thanks to Facebook and Twitter the "prosumer" is not dependent on a few newspapers or TV channels any more, but is able to actively choose what he or she wants to know from an endless variety of sources and consequently can avoid mass media completely (Schulten-Jaspers 2013, p. 48).

Apart from news, the internet offers countless distractions, so the battle for attention has become harder than ever before. The new active audience is pressed for time as well and yet wants to know what is happening in the world — at any time and without waiting for tomorrow's newspaper. Smartphones and tablets perfectly meet this desire. Due to mobile devices the news consumption habits have become much more fragmented; on the content side again the convergence is developing towards multiplatform (Newman 2014; Newman/Levy 2014).

Given those developments, the "journalistic field" (Bourdieu 1998) has undergone tremendous changes. Legacy media, especially newspapers, are struggling hard. With the decline of subscribers they have lost advertising as their main source of revenue (Picard 2013; Pew Research Center 2014a) and now have to find new ways of funding. Thousands of newspapers have had to declare bankruptcy (BVDZ 2012); countless journalists have been laid off or forced into precarious work (Pew Research Center 2014b). Existing media organisations, major TV broadcasters included, are not spared from this trend: Cost-cutting measures (Steel 2014), movements away from the core business (Merced 2014, p. 19) and mergers within the media markets (Wolde 2014) are daily fare.

The upheaval of media markets and the digitalisation have entailed a significant enlargement of the journalists' scope of duties. Today they not only contribute to the news flow but also have to manage it (Czarniawska 2011, p. 196). Both managing and

technological skills are increasingly required, just as more interaction with the (digital) audience. Moreover, journalists are faced with a skyrocketing number of sources — from classical PR to the social web.

Simultaneously, the PR industry has been growing fast and also hugely benefits from Web 2.0 (EACD/EUPRERA 2014, p. 83f; Lloyd 2014). This again involves the danger that PR bypasses journalists to an even greater extent (Russ-Mohl 2013, p. 153; Rottwilm 2014, p. 16) which eventually gives rise to a democratically problematic homogenisation and banalisation of news (Philips 2010, p. 96; Bourdieu 1998).

Given these dramatic changes in the media environment, the question arises as to whether the news embargo still fits into the speeded-up, digital and fragmented media world. At first glance it may seem old-fashioned to withhold information that could be put out right away. But to date it's still in use. All over the globe, governments, public institutions, science magazines and even private corporations regularly supply journalists with embargoed content. Will they keep to that practice and have there actually been some changes? In what way has real-time media like Twitter put the embargo under pressure? Do journalists question the embargo? And last but not least: *Cui bono* — have the benefits on either side shifted?

This paper aims to trace the use of news embargoes in today's new media environment. Three main questions are to be resolved in detail:

- *What types of embargoes have there been in the past and what is their current status?*
- *Does the news embargo still make sense in our speeded-up 24/7 media world?*
- *Whom is it actually useful for?*

Due to the lack of academic research on the topic, interviews with both representatives of potential sources and media were conducted. It quickly unfolded that the use of the news embargo varies significantly from field to field: An embargo imposed by a scientific magazine is hard to compare with an embargo set up in times of war purely for propaganda reasons. Taking this into account, different scopes of its applications shall be explored separately: After a brief historical view (chapter 2) science journalism (3) is

examined in chapter 3. Amongst other topics, the interrelation of the news embargo used by major magazines and the Ingelfinger rule which scientists are subjected to is discussed, as well as breaking embargoes. This is followed by chapter 4 about political embargoes that will examine some famous examples in different historical periods. Next in chapter 5 comes a discussion of how differently public institutions in Washington and Brussels react to digitalisation and then in chapter 6 of the challenges private corporations face when dealing with delicate financial data.

Subsequently, a wider view is taken in chapters 7 and 8: How did the above mentioned fragmentation of news consumption and the increasing pressure on journalists influence the issue of timing (7). Finally in chapter 8, we ask what is happening to embargoes used by news agencies. A summarizing chapter 9 about the news embargoes' status quo and its benefits is followed by a recapitulation chapter (10) that answers the research questions and depicts key trends. For those readers who do not want to read the whole text, each main chapter ends with key findings that summarise the research in each chapter.

2. The origins of the embargo

The origins of the press embargo have not yet been explored by the social sciences. Neither experts in PR or press history, based in the UK, in Germany and in the USA, nor historians who specialise in propaganda interviewed for this paper could respond to the question when the press embargo appeared for the first time. Apparently no-one seems to have recorded the embargo's history so far — yet a new field of research has grown, a field though that is too extensive to be explored in the framework of this paper.

The majority of experts trace the embargo back to World War I or a little earlier. This was the period when great powers in Europe began to professionalise their propaganda and thus tightened the rules for the publication of news.

Even earlier, before the Revolutions of 1848 in the German States, also known as the March Revolution, potentates had implemented measures which restricted the freedom of press severely, notably the Carlsbad Decree (Karlsbader Beschlüsse) that entailed a very strict press censorship. These reactionary movements were a result of the Congress of Vienna in 1814/15 that was chaired by Austria's foreign minister Fürst Klemens Wenzel von Metternich in order to realign Europe politically and territorially on the occasion of Napoleon Bonaparte's defeat. Metternich himself is infamous for his strict regulations of the press. He regarded public opinion as one of the most important instruments of power and therefore knew about the political role of the press (Schremmer 1990, p. 134). Equally questionable was the press policy pursued by the Prussian statesman Otto von Bismarck, later chancellor of the powerful German Empire. Although Bismarck had centralized the legislation regarding the press, he decreed a law which massively restricted the freedom of press in 1863. So opposition journalists could be prosecuted, whereas friendly media were subsidised (Ullrich 1998).

The political dimension of the press, however, intensified as the administrations' instruments of propaganda improved. During World War I all combatants, the Central Powers (Germany, Austria-Hungary, Ottoman Empire and Bulgaria) as well as their enemies, the Triple Entente (United Kingdom, French Third Republic and Russian Empire), harnessed the increased distribution of mass media to an extent never seen before. It was the time when the propaganda film was established, and when the combatants made ample use of leaflets, posters and newspapers. Hence World War I is

often called the first war of media or pictures (Paul 2014), whereby the British developed the most sophisticated propaganda techniques, especially abroad through the Foreign Office (Taylor 1980). Later, in World War II, those mechanisms served as a basis for other regimes such as the Nazis (Taylor 1986, p. 924).

Against this background most experts think it is highly likely that the press embargo was applied in the beginning of the 20th century. Another expert, Ron Smith, a professor of public communication at Buffalo State University, US, considers it possible that the embargo might already have emerged in the 19th century in the US. “Embargoes are probably an American contribution to the field of journalism, in that they seem to have originated from the days when mail (and thus news stories) travelled by coach and train, sometimes arriving several days after they were sent.” (Smith 2014) Therefore journalists might have been provided with information ahead, as “this also was the time when newspapers would publish lengthy excerpts, sometimes entire texts, of speeches by public and religious officials.” (Smith 2014) Moreover, the production of newspaper articles was a lengthy process. For these reasons embargoes could have been proposed so that the journalists had enough time to prepare their story and that the speech was published on the desired day in all parts of the large country.

Early PR practitioners are not thought to have used the embargo as one of their main techniques — but it cannot be excluded. Neither Edward Bernays, nephew of Sigmund Freud and, amongst others, consultant for the Wilson administration in order to gain the public’s approval for entering the war, nor Ivy Lee, co-founder of the US’s third public relations firm *Parker & Lee*, nor Arthur Page, long-term leader of *AT&T*’s communication department which was already founded in 1908, nor UK pioneer Tom Fife Clarke are known for having used an instrument like a press embargo. (Watson 2012; Smith 2009)

3. Embargoes in science

As opposed to the press embargo in general, the embargo in science and especially in medical journalism can be traced clearly. It was already in the 1920s when major scientific journals began to establish the embargo system that is still familiar to today's science and health journalists. According to Vincent Kiernan (2006), the embargo was born with the founding of the not-for-profit news agency *Science Service* (later: *Society for Science & the Public*) in the US. Its purpose was to establish a broader public understanding for science, and so the agency aimed to provide subscribing newspapers with science stories in advance. *Science Service's* founding editor Edward E. Slosson "made it clear from the very beginning that Science Service planned to arrange for extensive embargoed access to scientific reports." (Kiernan 2006, p. 45) In his requests, Slosson repeatedly stated that it was in the scientists' interest to inform him about upcoming publications and make them accessible ahead of time. "The only way to prevent the misinterpretation of the announcements of a scientific discovery is to have prepared in advance for simultaneous release a popularly written explanation of its meaning and significance," Slosson wrote in a letter to John C. Merriam, president of the *Carnegie Institution of Washington* in 1921 (Kiernan 2006, p. 46). Moreover, *Science Service* managed it to get material of the annual conference of the *American Association for the Advancement of Science* (AAAS) in Toronto in 1921 ahead. A year later, that paid off well: A reporter of the *New York Times*, Alva Johnson, even won a Pulitzer Prize for his coverage of the AAAS meeting. Soon other scientific societies jumped in, such as the *American Chemical Society* and the *American Medical Association*, which publishes the widely-respected *Journal of the American Medical Association* (JAMA).

JAMA's long-term editor Morris Fishbein was instrumental in intensifying the association's relationship to the press and also in monitoring reporters very closely: During the conferences, semi-daily meetings with journalists would be held, "so that questions may be asked and answered and any material developed by the reporters may be suitably appraised before release to the public," he said in a speech in 1936 (Kiernan 2006, p. 47). Although scientists were urged to deliver copies of their publications in advance, only a few did so in the beginning. Thus in the 1930s and 1940s journalists began to lobby to receive material that was going to be presented at conferences, notably the *National Association of Science Writers* (NASW) which was founded in 1934. Scientific associations obliged only in the 1950s on a large scale though, and in the 1960s US government

agencies such as the *NASA* began to embrace the embargo system as well. This was also the period when first disputes over exact release dates and leaked information occurred; already in the 1960s, scientific findings that were passed on to the press before having been peer-reviewed became a major issue. (Kiernan 2006, p. 49ff)

These tensions between journalists and science journals resulted in the so-called Ingelfinger rule which has been discussed controversially ever since, but is still applied by the majority of science journals, although sometimes in a moderated way. In 1969, in reaction to a scientist who had filed a paper to the *New England Journal of Medicine* (NEJM) that had already been covered by a medicine newspaper, the journal's editor Franz J. Ingelfinger specified the guidelines: *NEJM* would reject any manuscript that had appeared elsewhere — newspapers included. Thereby Ingelfinger left no more room for misinterpretation: "Papers are submitted to the *Journal* with the understanding that they, or their essential substance, have been neither published nor submitted elsewhere (including news media and controlled-circulation publications). This restriction does not apply to (a) abstracts published in connection with meetings, or (b) reports resulting from formal and public oral presentation," Ingelfinger (1969, p. 676) clarified rather furiously. "If an author willingly and actively has contributed the same material to any other publication — whether as text to a standard medical journal, or as a 'letter to the editor' or as a feature in a lay magazine — that understanding has been disregarded." (Ingelfinger 1969, p. 676)

Soon other major medical and science journals began to implement similar regimes. As a consequence, scientists became extremely cautious about talking to journalists at all — in the end they could be expelled from their desired journal which in turn guaranteed them publicity through the embargo system.

Over the years, the Ingelfinger rule was often adapted, substantiated and loosened. Due to constant complaints of journalists and also due to criticism of some scientists, major journals felt urged to justify that they still abide by the rule. In 1981 for example, Ingelfinger's successor at *NEJM* stated that "Dr. Ingelfinger has never hesitated to admit, it protects our newsworthiness." (Relman 1981, p. 824) Moreover, medical research shall be first peer-reviewed and published in scientific literature prior to the public. Information regarding public health "that needs to be brought to the public's or profession's attention without delay" was exempted (Relman 1981, p. 824).

This was not the last time that *NEJM* editors responded to the discussion about the Ingelfinger rule (Relman 1988; Angell/Kassirer 1991; Johnson 1998; Podolsky/Greene/Jones 2012). Never have the editors beaten around the bush that their aim was not only to ensure accurate coverage of medical topics — already in 1977 Ingelfinger himself stated that “medicine has become the stuff of headlines” (Podolsky/Greene/Jones 2012, p. 1461) — but also to “maintain their substantial influence on both the medical profession and society” (Podolsky/Greene/Jones 2012, p. 1461) and the journal’s circulation. Other influential science and particularly medicine journals have pursued a similar media policy, even though they often made clear that the Ingelfinger rule does not issue a gagging order on scientists. *Nature* e. g. explains to (potential) authors: “[C]ommunicate with other researchers as much as you wish, but do not encourage premature publication by discussion with the press (beyond a formal presentation, if at a conference).” (Campbell 2014)

Nevertheless the uncertainty amongst scientists has remained. In practice, the Ingelfinger rule is interpreted very strictly, so that science journalists often don’t attend conferences anymore because the scientists wouldn’t give them any information. Ivan Oransky (2014a), a well-experienced and well-known US science journalist who runs the blog *Embargo Watch*, knows: “Every science journalist has had the experience: If you go to a conference and try to report on something, the researchers say: ‘I don’t want to talk to you because you are a journalist.’” Indeed, several science journalists asked for this paper — not representative though — confirmed this. Researchers would either just repeat what they presented anyway, but not give further explanations or background information. But it’s not always handled that strictly, as Hendrik Spiering (2014), chief science editor of the Dutch newspaper *NRC Handelsblad*, relates: “There is always some leakage at congresses and symposia.” However, he finds it “irritating” when a scientist does not want to talk about his or her research because he or she fears “a journal’s revenge. But mostly you can find a way around it.” (Spiering 2014).

Embargo or Ingelfinger’s “stranglehold”?

Former *Reuters Health* journalist Oransky, who is now global editorial director of *MedPage Today* and also teaches medical journalism, is one of the most popular critics of the Ingelfinger rule. To him, the embargo is just an instrument to enforce the Ingelfinger rule, as he stated in an interview conducted for this paper and also in blog posts, which

provided several sources for this study. “The Ingelfinger rule is what keeps journalists from reporting science as it really happens. If it didn’t exist, you would have the ability to report as things happen and show how science actually works.” But scientific journals have, according to Oransky (2014a) “put a stranglehold on all that.”

New York Times medical journalist Lawrence K. Altman had produced a similar argument in 1996. In his view, the rule “restricts the free flow of information” (Altman 1996a, p. 1382) and cannot be justified as there are “many economic interests behind” it (Altman 1996b, p. 1460). Apart from the journals’ obvious interests Altman also brings up the issue of grant funding: Since publication is crucial for gaining funding, scientists often refuse to talk to reporters because they fear that this could “jeopardise their chance of publication” (Altman 1996b, p. 1461). Furthermore, he expounds the problems of the peer reviewing process itself — a reason, proponents of the Ingelfinger rule often give for defence: if research findings were published before scrutinized by other scientists, they might be inaccurate. As Richard Horton of the *Lancet* put it ironically: “Once gathered and analysed, new data would be released to the press by status-seeking researchers and media-hungry institutions.” (Horton 1996, p. 1423)

Those who demand the drop of the Ingelfinger rule do not believe that this fear would come true. Instead, argues Oransky (2014a), the embargo itself would lose its importance in science journalism because then reporters could talk with researchers whenever they wanted. Also, he indicates that “many of these studies are not actually that important. The embargo gives them an outside sense of importance.” (Oransky 2014a) *New York Times* journalist Claudia Dreifus, who is also an author, educator and lecturer, agrees: “Not all that much happens in the scientific world that really deserves to be embargoed,” she says, drawing a comparison with “the way the government classifies security documents — everything and anything. This is a practice that mostly exists for the Public Information Officers (PIOs) to give them more control over how the news is released. But a lot of it isn’t actually real news or even time sensitive.” (Dreifus 2014) This point has been made for decades. “[M]ost research will be of little immediate interest to journalists and the public,” stated Horton in 1996 (p. 1424); and Altman (1996b, p. 1463) argues, “all but 5% of the published material, even in the leading journal, is said to be ‘rubbish’.”

However, the prophecies of doom made by medical journals couldn’t be more different: “Given the enormous and growing competitive pressures on the media ..., I fear the

elimination of the embargo policy would quickly result in barbarians at the gate of public disclosure, with scientists and journalists hounding one another mercilessly in an effort to be the first to gain public attention. Indeed, I could imagine scenarios in which prominent scientist are staked out by the press at the homes of offices.” (Johnson 1998, p. 91)

Although the media landscape has been dramatically changing since then, major scientific journals still hold on their embargo policy in principle. For obvious reasons, as Oransky thinks: “They can control what gets to the public and that benefits them because then they get press coverage.” (Oransky 2014a)

Strikingly, the digitalisation and the speeding-up of journalism, i.e. the fact that news can be published 24/7 by anyone, neither bothers opponents of the embargo (and the Ingelfinger rule) nor its supporters. This is on account of the simple fact that almost every journalist gets access to embargoed information, no matter whether he or she is writing for a small online media outlet or for an established printed newspaper. In the view of science journalist Spiering (2014) therefore the embargo “still makes sense because one can plan the news stream better”; he sees “no real differences” between daily newspapers and websites.

The arguments for maintaining the embargo system haven’t changed. One main reason given by scientific publicists is that reporters should have enough time to process what are usually complex subjects and, if necessary, get the chance to prepare background stories or to talk with other experts. According to the *International Committee of Medical Journal Editors* (ICMJE), the embargo ensures a level playing field within the media and prevents “inaccurate or premature conclusions” from spreading publicly. Furthermore, doctors shall be fully informed about new medical findings in advance, so that they can provide their patients with appropriate information. Last but not least the *ICMJE* openly refers to the economic aspect as well: “Consistency in the timing of public release of biomedical information is also important in minimizing economic chaos, since some articles contain information that has potential to influence financial markets.” (ICMJE 2014)

Still, Oransky (2014a) has observed “some changes in the Ingelfinger armour”, especially in public health cases. *Science* magazine for example used, according to Oransky, to never lift embargoes, even if they had been broken. “They would be very stubborn about

that. That has actually changed.” Beforehand Oransky had criticized *Science* for its practice on his blog, where he documents the incidents in detail.

No sanctions (for empty toners)

Browsing in Oransky’s blog *Embargo Watch*, one gets the impression embargoes in science journalism are broken all the time. This happens not only in cases of high public interest like the announcement of the first Ebola case in the US in September 2014 (Oransky 2014b), but also on studies that are not “breaking”. A quite amusing example is the break of the embargo on a HPV vaccine study in 2011: The reporter blamed his empty toner: As he printed out the press release, the embargo date was fuzzy (Oransky 2011).

Whether this is believable or not, is to be questioned. Yet most embargo breaks are due to miscommunication or “human error. Someone is putting GMT instead of Eastern Time or someone clicks the wrong button. Sometimes the editor of the material doesn't usually work with embargoes.” (Oransky 2014a) In most of the cases there is “no harmful intent”. And occasionally, if information does get leaked too early, it’s technically not an embargo break, but tabloids — often from the UK — that scoop the science journals. “They have never agreed to embargoed content. They got hold of it from somewhere else.” (Oransky 2014a)

Oransky (2014a) puts the several breaks he lists on his blog into perspective though, because in general, there are “very, very few breaks”.

Another obvious question that rises is: What have media outlets to fear if they break an embargo? To put it in a nutshell: not much. “I would estimate that no more than 20 percent of embargo breaks are followed by sanctions,” says Oransky (2014a). Media outlets which do not abide by the agreement they signed are usually threatened with losing access to pre-releases in the future. But in practice, journalists don’t really get crossed off the embargo list. The main publicists officially pursue a case by case strategy. The *Journal of the American Medical Association* (JAMA) Network for instance only indicates vaguely what could happen in case of an embargo violation: The media outlet “may be suspended from receiving embargoed materials.” (JAMA 2014) Yet, that does not happen very often. “Journals have no incentive to punish a journalist. If they do so, the journalist is going to be annoyed, and journals try to get press coverage”, says Oransky (2014a).

If journalists are unlikely to face any consequences when they break an embargo, why do they still stick to it? This question doesn't seem to bother the science journalists consulted for this paper. Their opinion on embargoes in general is divided. Some of them don't care too much about it, as they don't come against it very often. For Dreifus' (2014) way of working for example the embargo "isn't a huge issue. And if an embargo is there, I will obey it." Oransky (2014a), on the contrary, knows "plenty of journalists who like the embargo. It helps them plan. They use the time when they get the material until the embargo lifts to add context." Jens Degett (2014), Chair of the *Danish Journalists Association*, agrees: "It is a good idea to send a story in advance and give journalists some time to check the sources and the story itself." Spiering (2014) from the Netherlands also appreciates that the embargo "creates some time to prepare, it is practical." On the other hand, according to Oransky (2014a), a lot of journalists begin to write their article about the embargoed magazine story only one hour before it is published anyway.

Another frequently discussed issue regarding the embargo in science journalism is whether it actually makes journalists lazy because they would, in fear of missing the week's big news, only refer to embargoed magazine stories instead of going out by themselves and investigate own stories. This criticism does nothing for Dreifus ("I don't even know where that idea comes from"), Spiering, Degett and Oransky: "What choice do they have? If you try to report on what's actually happening in the labs, people won't speak to you." (Oransky 2014a)

In contrast, Kiernan problematises the high dependency on embargoed stories in US science journalism. In his view, the embargo system encourages "pack journalism" (Kiernan 2006, p. 35), i.e. that media outlets rather cover those stories their competitors will probably write about than pick up new stories. In fact, it is a very small number of stories that have dominated the science and medical sections of US newspapers for a long time, as Kiernan shows. Furthermore, these stories largely derive from "the small pool of elite journals" (Kiernan 2006, p. 109), and so their editors have the power to determine the science agenda in America. Indeed, *NEJM* is markedly proud of having constructed a "carefully choreographed production in which medical journals and the popular press work cooperatively and competitively to influence the news cycle." (Podolsky/Greene/Jones 2012, p. 1461) The problem, according to Kiernan (2006), is that the mass media deprives the public of what science actually is — much more heterogeneous and lively. As he traces the homogeneity of medical news back to the embargo system, he calls for its

abolishment. Journalists would then have more time for investigative stories instead of “chasing after the latest embargoed journal article” (Kiernan 2006, p. 128).

While some science journalists and also scientists may find Kiernan’s criticism of the embargo justifiable, others feel it falls short. Mark Erickson (2007, p. 510) for instance points out that not nearly all journals which use embargoes “manage to get their journal articles reported in the press” and the other way round. The huge coverage of medical topics is, according to Erickson, not to be solely reduced to embargoes, but also to the high public interest in health topics.

When it comes to public interest, official institutions set up embargoes as well. In this context, Oransky (2014a) reports misuse. Both the US *Food and Drug Administration* (FDA) and the US *Chemical Safety Board* (CSB) attempted to “turn reporters into stenographers”, as Oransky (2014a) puts it. “They tried to embargo material and say that reporters could not speak to anyone about it until the embargo lifted.” In both cases the government agencies “have changed their policies after I criticised them on the blog.” (Oransky 2014a) The *FDA* incident in 2011 was about a medical device approval process that had been found faulty in the industry, whereas the *CBS* case in 2014 was about a crushing report on an explosion in a refinery four years ago.

European journalists were exposed to a similar ban in 2012: The *European Food Safety Authority* (EFSA) would only provide them with a copy of a crucial study on genetically modified organisms if they agreed not to contact experts before the embargo lifted. This brought the *European Union of Science Journalists’ Associations* (EUSJA) to publish a statement that still appears on the front page of their web platform: *EUSJA* (2012) “condemns the outrageous abuse of the embargo system that was perpetrated a few days ago to manipulate the press in order to get a favourable, acritical coverage.”

A slightly different kind of misuse of the embargo with respect to the Ingelfinger rule happened in Denmark, as Degett (2014) remembers. “We have seen examples of universities making exclusive stories for specific media. This means that the scientists were not allowed to talk to other media about their discovery.” To Degett “this type of embargo is totally unacceptable. I think in that case the journalists should ignore the manipulation of the story and bring their own version.”

Key findings

Even though “embargoes are an issue of continuing interest” to science journalists in the US and in Europe, as the *Association of British Science Writers* (ABSW) puts it, there is no end in sight. On the contrary, major science and particularly medical journals hold on to their long-term media policy. Their arguments for doing so haven’t changed very much over the last decades. The embargo not only ensures accurate coverage of science topics, but also creates a level playing field amongst media outlets. The so-called elite journals don’t hide the fact that they also seek to safeguard their role as agenda setters, and thus to control which scientific topics reach the public. Moreover, they frankly reveal their economic interests.

Remarkably, the radical change in the media landscape like digitalisation and acceleration of journalism seems to bother neither proponents nor opponents of the embargo.

Breaks of embargoes have been vividly discussed by journalists and journal editors since embargoes were invented in the 1920s. On a large scale though, journalists abide by the embargo agreements; and if they scoop a story, then it is more likely to occur in cases of high public interest. But mostly it is due to human error that information is leaked too early. The threatened sanctions — losing the access to embargoed material — are rarely implemented because journals don’t want to ruffle journalists’ feathers.

Misuses of embargoes by governmental institutions seem to have remained solitary cases in science journalism. In the incidents mentioned above, authorities in the US and in Europe attempted to keep reporters away from talking to experts before the embargo on crucial stories would be lifted.

The embargo system in general is scarcely put into question — for different reasons: For some journalists’ working routine it’s simply not that important, and some journalists find it practical. For others like Oransky who runs the blog *Embargo Watch* the embargo is inextricably linked with the Ingelfinger rule. Although the Ingelfinger rule has been loosened and clarified several times, in practice science journalists don’t get any additional information out of researchers. Major journals have been defending the Ingelfinger regime against its abuse, using similar arguments as those in favour of the embargo.

Oransky's (2014a) main point of criticism is that the Ingelfinger rule stops journalists from covering science as it actually happens, because science journals maintain their "stranglehold" on the publication. The embargo, according to him, plays a minor part, and in fact only enforces the Ingelfinger rule. Oransky therefore would like it to be abolished, as many other science journalists do.

Nevertheless there are experts who have questioned the embargo itself, notably Kiernan (2006). In his eyes the embargo makes journalists lazy by preventing them from picking up their own investigative stories. Since in the US only a very small number of elite journal editors are in charge of deciding what is newsworthy, the public gets an inaccurate picture of what science is actually about, argues Kiernan, a medical and science journalist himself. All in all though, the Ingelfinger rule seems to have preoccupied journal editors and science journalists more than the embargo. The latter is likely to be maintained. *BBC Online's* science and health journalist Helen Briggs (2014) introduces a new aspect: "My view is that this will not change in the future, as scientists are becoming increasingly aware of the need to engage the public through the media."

The crucial question *cui bono* thus can surprisingly be answered clearly: The major science and medical journals benefit definitely most from the news embargo. But to maintain their monopoly on the science news agenda, their practice of muzzling scientists through the Ingelfinger rule seems to be more important. Science journalists, on the other hand, don't have a very strong opinion about the embargo. Some find it convenient in principle, some do question it and some simply don't come into contact with it very often.

The dependency of science journalists on elite journals, particularly in the US, reveals the political dimension of the embargo. Even in science and medical journalism which isn't described as "political" ostensibly, the news embargo is not only set up for practical reasons, but also serves as an instrument of power. Still the news embargo is only one part of major science journals' media policy, and so its benefits can only be garnered in combination with other measures like the Ingelfinger rule.

4. Political embargoes

The same is true for news about politics. Throughout the centuries statesmen and stateswomen have been trying to control the media, sometimes with openly oppressive methods like censorship, sometimes in a less unfair and more transparent way. Again, the news embargo is only one method out of many to control coverage of certain topics and hence to influence public opinion. In times of war the propaganda frontline was and is crucial, because politicians seek approval of their warfare by their peoples which they can only get through mass media. It's not only the autocrats in the so-called 'rogue states' who use the media for their purposes, but also politicians in Western democracies. Their disinformation strategies have been widely processed by scientists and others; in the US for instance the NGO *PRWatch* reports on spin in politics.

Yet in this context no-one seems to have kept track of the use or misuse of the news embargo, according to experts specialising in political communication consulted for this paper. But they agree that governmental institutions or politicians tend to benefit more from the embargo than journalists. In democratic states, the media is likely to accept embargo agreements, especially if the stories are "breaking".

Due to the limited framework of this paper it was not possible to systematically scan the existing research on propaganda, political communication and its history. However, two examples of embargoes used in a war context shall be mentioned briefly:

In 1945, *Associated Press* reporter Edward Kennedy, then head of *AP's* bureau in Paris, got fired because he had broken the news embargo on the German surrender in World War II. On May 7, Kennedy and 16 other correspondents were swiftly taken on an aircraft to witness the official surrender ceremony. The documents were signed at 2:41 a.m. local time in the French town Reims. After the ceremony, still aboard the C-47, a US general pledged the reporters to withhold the news for 36 hours more — instead of just a few hours, as they had been told initially. British Prime Minister Winston Churchill and US President Harry S. Truman had agreed to keep the German surrender secret in order to grant Joseph Stalin time to officially announce the end of the war in Berlin, already occupied by the Soviets, the next day, May 8. Yet, a radio station in the Allied-controlled German city of Flensburg broadcast Germany's surrender on May 7, 2:30 pm. Kennedy therefore knew that the Allied militaries must have rubber-stamped the announcement and

so he phoned *AP*'s London bureau, using a military phone. Before that he had talked to the chief American censor who had declined his request to publish.

AP immediately published the story and had an exclusive for more than one day. Kennedy hadn't informed his London-based editors about the embargo. Eventually, the biggest scoop *AP* has probably ever had cost its creator his job. Kennedy was expelled from France by the military, and on May 10 *AP*'s president at the time, Robert McLean, put out a public statement saying that *Associated Press* regretted the distribution and not having abided by the embargo agreement. Reporter Kennedy argued that the embargo was solely imposed for political reasons, not to protect military secrets. His competitors though who observed the embargo condemned Kennedy's actions, although other journalists defended him later. Kennedy, who died in 1963 in a car accident, won an apology from his employer only posthumously, 67 years later in 2012. (AP 2012; Blair 2012)

While this example is well-known, another embargo case during the Gulf War in 1990/91 is probably less well-known, yet not so spectacular. In his definitive book about the history of propaganda, *Munitions of the Mind*, Philip Taylor (2003) describes how the US successfully sold its excessive military actions in the Middle East after Iraq's invasion of Kuwait as justifiable and harmless to the public through a "tight control on the media coverage" (Taylor 2003, p. 287). The Gulf War, in which up to 80,000 Iraqis died, is also known as a video game war, because both parties, Saddam Hussein as well as the US-led coalition, allowed the western journalists stationed in the area to eyewitness strikes. *CNN* famously broadcast the opening night of the war live, so that the western public could satisfy themselves that allegedly only "smart weapons" would be deployed and therefore the civilians would be largely spared.

After the disastrous Vietnam War and its public condemnation, the US president at the time, George H. W. Bush, was convinced that television was crucial to win the Americans' approval of the war. Actually the politicians' fear of TV's influence on the public opinion, the so-called CNN Effect, is bigger than the actual power of media (Taylor 2003, p. 290). During the Gulf War only a small minority of the 1,500 western reporters served as embedded journalists who reported from tanks in the field. Most journalists scarcely left their hotels in Riyadh and Dhahran and hence had to rely on the information various spokespersons gave them. But over time frustration spread amongst the journalists, as there was more and more evidence that the coalition's version of being victorious with little

so-called collateral damage and civilians killed was not true. Subsequently, wrong information about Hussein's cruel actions and potential chemical weapons was disseminated, but in fact the coalition used "the media as part of the deception plan about the coalition's real intentions." (Taylor 2003, p. 293)

On February 24 (1991), when the western troops actually started their ground warfare in Iraq and Kuwait, the coalition imposed a news embargo. "But coalition forces advanced so rapidly as Iraqi forces crumbled before them that the embargo was soon lifted — in other words because the news was better than expected." (Taylor 2003, p. 295) Because the troops pushed forward so far, journalists attached to the troops even had difficulties to transmit their reports back to Riyadh, so "that there were few pictures of the ground war until it was virtually all over after 100 hours." (Taylor 2003, p. 295) And still the whole action was only staged to distract from the airstrikes on streets between Kuwait and Basra, which got later known as the "Highway of Death", in order to bomb Iraqi troops which pulled out of Kuwait.

These two very different news embargoes leave no doubt that they were only imposed for political reasons and therefore solely were in favour of them who set them up.

More benefits came to the journalists who accompanied US president George W. Bush in 2003 when he secretly visited US troops in Iraq on Thanksgiving Day in 2003. Bush's father George H. W. had done the same thing earlier, in 1990: He visited his troops in Saudi Arabia on Thanksgiving Day as well. In 2003, the selected reporters were only invited a few hours before the trip started and had to agree on an embargo until Bush left Iraq safely. For security reasons, they also had to remove their batteries from their cell phones (Moniz 2003). Undoubtedly, the trip was staged to regain public support for the Iraq War, but in this case the reporters also had a good story. *Cui bono* thus cannot be ascertained.

At this point the political origins of public relations shall be briefly recalled. Although big US companies began to install PR bureaus in the early 20th century (Watson 2012), it was during World War I that PR became a profession. In 1917 the United States entered the war, thus president Woodrow Wilson "had to convince the public that this was a good war" and "developed the craft of propaganda", as *Reuters Institute* senior research fellow John Lloyd (2014) put it in a seminar. From the 1930s on PR hugely spread in politics as well as

in corporations, and the industry has been growing ever since. A further landmark regarding political PR in the West was the emerging of so-called spin doctors during the Ronald Regan administration in the US in the 1980s. Their goal was to diminish the power of the media which had revealed the Watergate scandal and also put the government's foreign policy in Vietnam into question (Foa 2013, p. 112). In fact, Regan blamed US media for the broad condemnation of the Vietnam War by the American people. Therefore he made not only massive use of spin doctors, but also revived the military psychological operations (PSYOPS) such as broadcasting to hostile troops (Taylor 2003, p. 296f).

Spin doctors, however, operate “in the shades of grey” (Russ-Mohl/Nienstedt/Wilczek 2013, p. 12) of public relations. Whilst, according to Marcello Foa, “institutional communication” is supposed to be neutral, reliable and veracious, “political communication” is partisan and biased. According to Foa, spin doctors act unethically. “Their news management turns into news manipulation, ‘transparency’ becomes deception, ‘accuracy’ distortion, and influencing the news agenda results in hidden propaganda.” (Foa 2013, p. 112)

Moreover, he detects an imbalance between journalists and PR protagonists that has been increasing in the digital age: Journalists underestimate the influence of spin doctors because they don't know their methods, but spin doctors on the other side know journalists pretty well. The digitalisation has even facilitated their work, as they make ample use of internet technologies such as manipulating social media profiles or spreading fake videos (Foa 2013, p. 113-115).

Key findings

News embargoes imposed by political protagonists cannot be lumped together because it very much depends on the circumstances whether they can make sense for journalists. Yet, political embargoes are rarely set up purely for security reasons, as the examples mentioned above show. It's likely that journalists who abide by an embargo agreement — or are forced to do so — are instrumentalised for propaganda purposes. Regimes of all kinds know that the media plays a crucial role in politics, especially in times of war. It's not for nothing that World War I entailed the professionalisation of public relations. Although not all political PR is “bad” but legitimate and sometimes necessary in terms of democratic

comprehension (i.e. making decision processes transparent), political messages often contain a spin that does not conform to the rules of open and fair communication.

In fact, spin doctors operating in Western democracies hugely benefit from the digitalisation of media — the origin of a cruel war video on YouTube is difficult to obtain, and the same is true for comments on Twitter or Facebook. Moreover, PR, be it political or corporate, nowadays doesn't need traditional media as urgently as it did in the past. Social media has given politics a new field to operate in; via Twitter or Facebook and other platforms spin doctors can directly address their potential constituents and, as Lloyd (2014) put it, “construct their own narratives”.

Whenever a journalist gets the offer to accompany a statesman or stateswomen on a secret flying visit he or she has to bear in mind that PR plays a more “pivotal” role than ever before (Currah 2009, p. 61ff). Then reporters can deliberate about whether they should enter into an embargo commitment, i.e. if they can benefit from the story as well or if they would only play into the hands of the politicians.

Just as is the case with science journalism, potential misgivings about the embargo need to be put in greater context, as Lisa Graves (2014), executive director of *PRWatch*, which is run by the Madison-based *Center for Media and Democracy* (CMD), flags up: “I think the primary concern may be about the broader issue of how government officials can use embargoes to reward a reporter who reports less critically about government power.” But that is, according to her, “in many senses ... much more about access to those in power and how access is cultivated by government officials and how that access, particularly the use of anonymous sources in the government, affect coverage.”

Graves gives a famous example of that practice: Pulitzer Prize winner Judith Miller who did a series of exclusives about Iraq's weapons of mass destruction for the *New York Times* prior and during the Iraq War in 2003. The stories later turned out to be inaccurate (Foer 2005). Miller's source of information had mainly been Ahmed Chalabi who was favoured as potential Prime Minister of Iraq after the overthrow of Saddam Hussein by the Bush administration at the time, and later became a persona non grata for the US but now is back in play again (Seymor 2014). In Graves's (2014) view, Miller is now “(rightfully) discredited” as she “used her post at that paper (NYT) to advance the spin and lies and deception of the George W. Bush administration about war and national security in ways that continue to reverberate and cause harm to our real national security and national

interests in the region.” Judith Miller is now a *Fox News* contributor where she still reports on the Middle East (Duelfer/Miller 2014).

5. Institutional embargoes

News embargoes are not only deployed by belligerents but also by governmental institutions, especially in the economic sector. The governments of Canada, Australia and other countries for example hold journalists in a so-called lockup before they release their budgets. Registered reporters, sometimes only newswire journalists, are literally locked in a room where they can browse the material and prepare stories in advance. The time frame and conditions vary from topic to topic. In Canada for instance, the annual budget release is quite a huge event that takes one full working day. “About 550 journalists will be at the Ottawa conference centre, where they will have access to 40 government experts who can explain parts of the budget.” (Hill 2014)

Central banks such as the US *Federal Reserve System* (Fed) or the *Reserve Bank of Australia* (RBA) use similar procedures when they make statements on monetary policy, or for example, announce changes in the interest rates.

In Australia, the central bank holds media lockups “for the Minutes of the monthly Board meeting, the *Statement on Monetary Policy* and the *Financial Stability Review*. The Bank requires that media organisations and journalists sign ‘deed polls’ setting out the terms and conditions under which they attend media lock-ups and receive embargoed material,” informs RBA’s public relations officer Sharon van Etten (2014).

The main aim of the lockups is to ensure an accurate coverage of these often comprehensive topics and to prevent insider trading; the economic data produced by governmental institutions are crucial for participants in the global financial markets, and could theoretically be worth billions for individual traders, if leaked too early. The institutions are therefore eager to put out their news at the very same time for every citizen. The same is true for embargoed press releases, used for instance by the *International Monetary Fund* (IMF). IMF’s biweekly press briefings are embargoed until 10:30 a.m. Washington Time respectively 3:30 p.m. GMT in order to attain an even spread on both American and European stock markets (IMF 2014).

Due to the rapid growth of algorithmic or computerized trading — one well-known subcategory is high frequency trading — on the one hand and due to the digitalisation and thus acceleration of news publishing on the other hand, the question arises as to whether

these lockups and embargoes still make sense. Today many big funds, pensions funds included, rely on algorithmic trading firms; their aim is to gain computerized data as fast as possible. In the wake of the financial crisis and also some incidents where algorithmic traders accidentally caused severe deterioration of listed companies' stocks, high frequency trading has come under criticism. Yet, today the majority of orders are placed by computers. If these get information earlier than their competitors, they will be able to quickly realise huge profits and as a result move the markets significantly.

For these reasons it has become more crucial for governmental institutions to ensure that for example labour market or budget data is not put out too early. They have obviously two possibilities: They can either tighten the lockup/embargo rules for media — especially for the international newswires, since they do not only produce news, but also sell financial data to their clients — or desist from these measures at all.

We shall now examine two famous examples from the *U.S. Department of Labor* (DOL) and *Eurostat*, the statistical office of the European Union. Because of the rise in high-speed trading, the *US Labor Department* decided to overhaul its security procedures to prevent premature releases of market-sensitive data in 2011. Eventually the *DOL* even increased the precautions in the so-called lockup room instead of discarding them altogether.

The *DOL* lockups were invented in the middle of the 1980s. “Credentialed journalists ... are given data in advance of their release to the public, allowing time to prepare stories, headlines and tables. Communication by phone or computer is cut off for the half hour in advance of the release time that reporters typically have to write their stories. A Department of Labor employee then flips a switch that opens telephone and data lines, allowing journalists to transmit their information.” (Torres 2014)

The *DOL* lockups cover the release of market-sensitive information such as the *Producer Price Index* (PPI), inflation, job market and economic growth data as well as releases on home sales and gas prices. Media outlets that participate in the lockups include *Thomson Reuters*, *Bloomberg News*, *Associated Press* and *Dow Jones*. Smaller news agencies that mainly serve financial customers rather than the public had been excluded in 2012 (Cushman 2012; Chadbourn 2014).

But more than once data was accidentally transmitted too early. The security protocols were also violated on purpose several times. In his statement to the US Congress in 2012, Carl Filichio, the Department's senior advisor for public affairs, gave a few quite amusing examples:

- *A news organization installed a fiber optic line through one of the department's fiber optic hook ups, located in a DOL phone closet, despite having been told repeatedly that use of fiber optic cable was not allowed.*
- *A news organization asked to disconnect and replace the "black box" supplied by DOL to disable Internet activity during the embargo period. While we explicitly denied this request, it was later discovered that the news organization had ignored this directive and replaced the "black box" without permission.*
- *Numerous media organizations failed to comply with DOL's requirement that they inventory and label their data lines located in the lock-up facility.*
- *On two separate occasions, a wire service inadvertently transmitted sensitive employment and productivity data to its subscribers during the embargo period. The problem was related to a computer cable connection.*
- *A lock-up participant was sanctioned for retrieving his BlackBerry from a storage container and using it during the embargo period. Following that incident, the containers used to hold electronics were replaced with lockboxes.*
- *A reporter had his credentials temporarily revoked for using a mobile device to take a photograph during the lock-up.*
- *Participating media organizations have contacted the department frequently to voice concerns that competitors may have gained unfair advantage in speed of transmission or have surreptitiously broken embargoes. (Filichio 2012)*

As a result, the DOL launched an examination aided by the *FBI* and the *Securities and Exchange Commission (SEC)*. The *Red Team* from *Sandia Labs*, a federally funded research group operated by a subsidiary of US military group *Lockheed Martin*, inspected the lockup (Cushman 2012). The main fear was that trading could be made from inside the room. The news organisations however, considered that threat as imagined and criticised the subsequently implemented measures as exaggerated: "The new lockup procedures also include a metal detector for reporters who are not allowed to bring even a cup of coffee, doughnut or pen into the lockup room." (Gulino 2014) Furthermore, the technical equipment was replaced. If reporters want to use their own computers, they have to

purchase them “directly from the manufacturer or an authorized reseller of the manufacturer, and the equipment must be shipped directly from the manufacturer to the Department.” (US DOL 2012)

The *DOL* announcement that reporters could only use government-owned equipment caused massive protest amongst media organisations, to such an extent that the *Sunshine in Government Initiative*, a coalition of media outlets such as the *Associated Press* and the *National Newspaper Association*, set up a petition, claiming that “the new policy threatens to undermine the accurate, complete and timely dissemination of independently produced news.” (Fernandez 2012)

Yet, neither the objection nor the eventually implemented tighter security procedures were of use: on 16th of September 2014 there was a technical malfunction and the *Producer Price Index* was inadvertently published two minutes too early by one wire (Gulino 2014; Torres 2014).

In Brussels meanwhile, the statistical bureau *Eurostat* didn't want to worry about such issues any more. Recently *Eurostat* announced it would stop the embargo system, but due to massive protests by the news agencies the plan has been called off. Now the embargo system is going to be revised — as this paper was being finished (December 2014), the work was still ongoing.

The details are that only two days after the excitement about the incident in the *DOL* lockup in the US, the European Commission announced the end of *Eurostat's* pre-releases to the news agencies by 30th of September 2014. “Given that the media landscape has changed in recent years with the advent of 24 hour news services and rolling news blogs, it has become common for *Eurostat* to receive requests from radio, TV or online media to be included on the embargo list, and the limitation of the list to agencies alone is seen as not being a level playing field,” *Eurostat's* head of communication, Bettina Knauth (2014a), stated in an email to the wires. *Eurostat* had reviewed its compliance with the *European Statistics Code of Practice* which requires that “all users have equal access to statistical releases at the same time. Any privileged pre-release access to any outside user is limited and controlled.” (Knauth 2014a)

But because European news agencies had heavily complained about the short timescale, *Eurostat* back-pedaled and postponed the implementation of the end of the embargo system until 1st of January 2015. “This will allow time for you to make the changes needed ...,” Knauth (2014b) told the wires on 25th of September. On request for this paper though, Knauth (2014c) wrote on 22th of October, that the postponement was “for purely technical reasons. As the Eurostat website is changing, we would like to ensure that the new website is stable by the time the embargo system will stop.”

But a few weeks later *Eurostat* seemed to have dumped its plan: “Work on the future of the embargo system is ongoing and I would not like to comment on work in progress,” spokeswoman Knauth (2014d) wrote on 18th of November in an email. According to journalists who were involved in the negotiations with *Eurostat*, the statistical bureau now only wants to revise the embargo system and is considering defining more clearly who should get access to embargoed content.

Unsurprisingly, an end to the *Eurostat* embargo system would displease the — currently 31 — agencies which would lose their 60 minutes pre-access to the data. “In my view news agencies are the main receivers of *Eurostat* releases. No radio or TV station would cover them, for newspapers the embargo is irrelevant. Thus the disadvantage affects all,” says Thomas Schmidt (2014), head of *Austrian Press Agency’s* (APA) Brussels bureau. Financial market participants demand the information quickly, so without a news embargo they could get it directly from *Eurostat’s* homepage. “The newswires would lose their part as agents if they lagged behind”, says Schmidt (2014).

The Brussels-based *International Press Association* (API) also strongly opposed the planned abolishment of *Eurostat’s* embargo system, the more so as *Eurostat* had not named any complaints regarding an “equal access” to its data. Also, there were no embargo breaks on Twitter, says *APA’s* Schmidt. In the eyes of *API*, *Eurostat* was creating a solution for a problem that did not exist. Furthermore, *API* argued, news agencies have a different business model than other media outlets: It’s the wires’ job to pass on statistical data to the financial markets on the dot. Without an embargo, it would be more likely to make mistakes, and journalists who don’t write in English, French or German would be disadvantaged because they would need more time to translate the *Eurostat* releases.

Yet other EU institutions such as the European Commission maintain their media policy which includes plenty of press briefings off the record and also embargoes. It's for example common to broadly distribute Commissioners' speeches amongst journalists ahead of time.

Generally, embargoes still play a role in reporting from Brussels, says *APA's* chief EU correspondent Schmidt (2014). But due to social media they are getting more and more under pressure. "Twitter etc. create a new situation. Here embargoes have been getting much more fragile, because one can't prohibit journalists from using Twitter as a source." For Schmidt thus there are only two possibilities: Either abandon the embargo system or sanction breaking the embargo, including breaking them on social media. "The more porous embargoes get, the less willing will others be to stick by them."

Key findings

In summary, there are no clear answers to the questions whether embargoes on official data that is relevant for financial markets still make sense and whom they are useful for. On the one hand there are movements towards implementing even stricter rules for lockup procedures. The new policy of the *US Labor Department*, which has been harshly criticised by journalists, derived from the fear of insider trading. On the other hand we see tendencies to desist from embargoed releases at all: Due to the changes in the media world, the EU's statistical bureau *Eurostat* recently started an attempt not to permit news agencies pre-access to its press releases any more. But the media's protests came hard on the heels of this announcement, so *Eurostat* has backed down and is currently revising its embargo system towards tightening the access to pre-releases. So for the moment public institutions which produce market-sensitive data are maintaining their lockup or embargo procedures.

For that very reason it can undoubtedly be asserted that the social 'acceleration' has put institutional embargoes under pressure. The speeding-up of trading as well as the quickening of journalistic production, for instance on Twitter, has made sources rethink how they handled the release of delicate data up until now.

Journalists who have been provided with embargoed information do not seem to put the embargo in question — unless the measures taken threaten the freedom of press. On the

contrary, they see it as very practical because given the soaring time pressure it helps them to prepare their stories properly. Nevertheless, media representatives are well-aware that Web 2.0 does pose a threat to embargoes because breaks on Twitter and so forth are difficult to track. “A working embargo system can be advantageous for all sides. But it can only work, if all abide by it.” (Schmidt 2014)

6. Delicate private financial data

Governmental institutions are not the only ones who have to handle delicate data; private corporations do too. Especially listed companies are obliged by law to release market-sensitive news or data immediately. No shareholder should have an information advantage, thus relevant events like a new order, an adapted outlook and of course financial results must be put out to everyone at the very same time. Here the aspect of speed comes into play again — fragments of seconds matter a lot (of money). Not for nothing analysts and traders are on tenterhooks while they are waiting for certain quarterly results. It's not only the numbers themselves that matter, but also the deviation from the estimated; the journalistic coverage of results is more and more targeted to the so-called shareholder value, that means to future events rather than to reviews of the expired business period or to dividends rather than to the number of employees. In Europe's business reporting there has been a shift to the Anglo-American model in the last decades which came along with the change of accounting standards. Listed and other big companies successively switched from national trade law standards to the *International Financial Reporting Standards* (IFRS) that are similar to the US-American *Generally Accepted Accounting Principles* (GAAP) — both focus more on providing investors with relevant information about the company.

Whatever the method, investors need to be informed properly and fast in order to be able to decide whether they should keep or sell their stocks — and they aim for getting the information first. As traders are now more often computers than humans and due to unusual market movements that algorithmic traders caused (accidentally) and that are being blamed for having aggravated the financial crisis, financial authorities monitor the information policy of listed companies much more closely. In all global finance centres the rules for corporate disclosures have been tightened, and insider trading is being pursued more closely.

As a consequence, corporations have to be more careful about what they announce. Producing the annual report nowadays means engaging a bunch of lawyers — to the regret of communication departments which also have to act with much more caution when they interact with media. Accidentally giving out the next quarter's approximate net profit could not only cost a spokesperson his or her job, but also result in a lawsuit.

Marco Niada, partner with *Finsbury*, a City of London financial PR firm, describes the recent developments: “In the last few years, the rules have become much stricter everywhere, following the Anglo-Saxon model and the globalisation of the markets that bring convergence of behaviours. Besides, lawyers are much more involved in the preparation of results. Sometimes there are conflicts between the people in a company responsible for the media and the lawyers on the phrasing of the announcements.” In case of an *IPO* (initial public offering) for example “the managers involved cannot say a word different from the market prospect. Otherwise the authorities kick in and the prospect has to be changed immediately.” (Niada 2014)

On account of that, imposing a news embargo in the financial sector has obviously become more delicate. It's often the financial sector that puts out quite complicated announcements which call for explanation and background information on the reporters' side, all the more as accuracy should come before speed in serious journalism. An embargo could thus be advantageous for journalists, especially for wires specialised in finance news, since they not only compete for the favour of their media clients, but also for financial customers. The latter are in many cases the real cash cows for wires; bankers immediately see on their trading platforms (typically provided by *Thomson Reuters* or its rival *Bloomberg*) which agency was first with its alert on the latest results of a company.

In order to create a level-playing field amongst the wires, at least in some European countries, it has been common practice that listed companies provide agencies with their results a few minutes in advance. Those agreements are matter of trust, yet in legal limbo, because the journalists could theoretically use their 10 or 15 minutes time advance to trade on their own behalf. In effect though it's not doable to both write a story within such a short period of time *and* to take care of one's own portfolio. “Besides, that would be illegal and would be a form of insider trading, punished by the criminal law,” notes Niada, formerly London bureau chief of the Italian financial daily *Il Sole 24 Ore*.

The emergence of more and more online media raises the question if they should get such information in advance as well. To Niada, this is a “thin red line”. Theoretically online outlets of newspapers could act like the wires, but newspapers' journalists “have many other things to follow and cannot focus timely on the same piece of information with the same amount of staff and time of dedicated newswire journalists.” Thus, Niada doesn't see a point in providing online media with embargoed financial news: “As things stand now,

they cannot compete against the newswires with the same market reach and timing on all news.”

But these prior announcements are getting rarer anyway. For UK-based companies this practice is unthinkable, but in other European countries a few known enterprises still pass on their results to selected wire journalists before they announce it to their shareholders.

Another form of “malpractice”, as Niada calls it, is diminishing as well: In some European countries it has not been uncommon that board members of a company talk to journalists after they have discussed the results with the board, but before the official announcement. “In that case the longer the time between a board meeting and the official announcement to the markets the higher the risk,” says Niada (2014).

Since the outbreak of the financial crisis in 2008, companies tend to adhere to the regulations much more, observe spokespersons as well as journalists. Thus, corporations are more sensitive to the disclosure of information — although the rules of insider trading actually haven’t changed: Listed companies are not allowed to release information that could influence the market selectively. “I wouldn’t use the embargo on information that has to be released in a stock market announcement. You would get in real trouble,” says Tim Burt (2014), managing partner and one of the founders of the London-based financial PR company *StockWell* in 2010. For the very same reason Niada (2014) thinks that embargoes on financial news “should be reduced to the minimum.” He has “not experienced that financial PR agencies are keen on embargoes as there is the risk of leaks and in financial matters there are a lot of legal implications.”

But that does not mean that corporations will not care about the timing of their announcements in the future. According to Richard Sambrook (2014), professor of journalism and director of the *Centre for Journalism at Cardiff University*, “the issue about timing to the stock market and the reaction of the market to any announcement is going to continue.” Although in our globalised markets shares of major companies are being traded somewhere at any time of the day, there will still be some markets that are more important than others. Whenever a company or an institution like *Eurostat* or the *US Labor Department* releases information, “the market is going to react. Any company, any organisation is going to want to try to manage that when they can.” Sambrook, who spent most of his career as an editor, producer and manager at the *BBC*, believes that the

control over market-sensitive information will become even tighter. To him it is not surprising that governmental lockup procedures like the *DOL*'s in the US have become stricter, given that algorithmic trading has been fastened. Private corporations also “need to maintain some control,” as they are — in the interest of their shareholders — legally obliged to manage information that has an impact on the share price.

Putting out market-sensitive news in an undemocratic way can really go awry. In this context, Philip Gawith, co-founder and managing partner of the PR firm *StockWell*, recalls an “ironic example” of how selectively disclosed information caused huge movement in shares of UK insurance companies. In March 2014 a watchdog of the City of London, Clive Adamson from the *Financial Conduct Authority* (FCA), told a newspaper in an interview that the regulator was planning an inquiry into 30 million policies sold by insurance companies between the 1970s and 2000. Investors got very nervous on that day, and insurers lost £2.4 billion of their market capitalisation. The chairman of the *Treasury Committee* later accused Adamson of making an “extraordinary blunder” in releasing market-sensitive information. (Armstrong 2014; Hyde 2014)

Apart from statutory statements, listed companies still apply the news embargo. It “makes a lot of sense when you have sensitive or even regulated issues to deal with, or potentially around the release of a speech, or a new business or launch of an initiative,” says Richard Stephenson, (2014), currently group strategic communications advisor at *Centrica plc*, the parent company of *British Gas*. The reason on the company's side is a practical one: “If a Richard Branson figure launches a new type of business, you simply can't do everything on one day.”

Financial PR expert and former *FT* journalist Burt (2014) gives another practical reason: “You might want to have a meeting with employees or customers first — you don't want them to read the information you are going to give them in the newspaper.” In his point of view though, it's “more likely to give an embargoed story to just one or two titles.”

Moreover, PR persons still apply the embargo when they inform journalists that a major event or announcement is going to take place that shouldn't be written about beforehand. But regarding the timing of the embargo a lot has changed — and become more complex, as all experts interviewed for this paper agree.

First of all, journalists are increasingly pressed for time and primarily work for the same day. “If you are talking to journalists about something that is going to happen in one month, they are not likely to be very interested given the many pressures they face that day,” says Stephenson, who was formerly director of corporate affairs for the insurance company AXA and before that group director of public relations at *Royal Mail Group*. Prior to the internet period, the so-called selling-in period of a story played a major role. “If you were selling them a story a week before, the embargo was really important.”

When it comes to the impact of digital media, in business journalism it has not really created new outlets, as Gawith (2014), a former *FT* journalist, points out. “Rather it has given new tools and ways of working to the same group of journalists. This is contrast to some other areas of journalism — sport, politics, fashion — where digital media has brought lots of new players into the market.”

The pressures journalists face becomes for instance noticeable when they had gotten an exclusive interview with a manager. Nowadays the journalist is likely to write an additional news story as well. One example of the influence of digital media is, according to Gawith, how journalists use Twitter when reporting financial results. Many finance journalists will start to tweet immediately when results come out. “This is a major challenge for PR persons, since some tweets are quite opinionated and start to shape the climate of opinion before there has been any contact with the company,” so Gawith. “This is a big change from ten years ago when everything happened more slowly and you might not have known what a journalist felt until you read the paper the following day.” This change means that PR people “are anxious to engage earlier, even ahead of time, to minimise the risk of damaging publication, even via Twitter.”

Gawith also points out that embargoes can be hard to implement when papers have different international editions and websites. “It is hard to get them to embargo something only for the UK printed edition — normally it will have to go on the web sooner in order to ensure it gets into Asian editions.” Gawith’s business partner Burt (2014) also perceives the increasing pressure especially on online media “to get more and more stories more quickly”. Embargoes therefore are “always a matter of negotiation with the journalist.” Eventually, says Burt, “it comes down to trust. It’s more likely to give embargoed information to a journalist you already know.”

Key findings

The convergence of global financial markets that came along with the rise of computer-based trading and particularly the financial crisis of 2008 have led financial authorities to observe listed companies much more closely. So the issuing of market-sensitive information has become more delicate, as corporations are obliged by law to inform all of their shareholders about results or any other event that could influence the stock price at the very same time.

Whilst in some European countries companies, sometimes even board members, used to take these rules less seriously and regularly divulged results to journalists before they made a stock market announcement, they act with much more caution nowadays. Financial PR agencies and communication departments of corporations are very aware that leaking information selectively could result in a law suit. Therefore they are not keen on setting up embargoes on market-sensitive information any more. One exception is, in some countries, very short embargoes for financial newswires.

But apart from such market-sensitive releases the news embargo still makes sense from the PR's point of view. The reasons given by the interviewed experts are very practical, yet not surprising: In the case of a major event like the launch of a new business or a CEO's speech, the communicators want to ensure that they have finished all the necessary material in the first place. Secondly, they want to give journalists time to prepare potential background stories or to do additional research.

Concurrently, PR people do notice some major changes in the last few years that are intrinsically tied to both the acceleration of news cycles and to the rising pressure journalists face every day. Thus, communicators find it more difficult to sell stories that are not for the same day, but for next week.

Moreover, the negotiations about the exact embargo time have become more complicated, since major financial newspapers not only publish different editions in different time zones, but also have online outlets that are geared towards putting out as much information as quickly as possible.

7. The Fragmentation of news consumption

Considerations like when to set the embargo time do not only preoccupy communicators working for listed companies. For all PR persons their job has become “much more complicated”, as Sambrook (2014) sums it up. PR persons have to consider a lot at the same time: „Whom am I trying to reach, what is the best channel for reaching them and what is the right time of the day in order to maximize who gets to see it?“

These questions are obviously not as easy to answer as they were in the pre-internet era, since news consumption patterns have changed dramatically with the rise of digital media. In the old days it was clear that newspapers were primarily read in the morning; radio also had its prime time in the morning, and then abating throughout the day. TV in turn was the media for the evening, and in terms of absolute use, the one with the biggest reach.

Today’s news consumption is much more fragmented, yet the absolute amount of time spent with media has increased in almost every country of the world. This is primarily attributed to the growth of mobile devices (laptops, smartphones, and tablets) that allow us to connect with the World Wide Web 24 hours a day, no matter where we are.

The latest *Reuters Institute Digital News Report* (Newman/Levy 2014) shows the path we are going to take. The survey conducted among 18,859 internet users in 10 countries confirms already known trends: News is increasingly accessed from smartphones and tablets, and news apps are gaining more popularity. 37 percent of all respondents used their smartphone for news each week, whereby 47 percent (+6 points, compared to the previous year) mainly use apps and only 38 percent (-4 points) the browser. The portion of tablet news users is already 20 percent, they still prefer the browser (48 percent, -5 points), but apps are growing (37 percent, +9 points).

Not only the devices through which “onliners” get their news from are changing, but also the consumption times. “Smartphones in particular are encouraging people to access news more frequently – we see that every year in our data. And the more devices you have the more addicted to news you are likely to be,” explained Nic Newman (2014), one of the editors of the *Digital News Report*, in a *RISJ* seminar. These changes impact

established media outlets in many ways. According to Newman, the *Financial Times* for example has its “new digital prime time” in the early morning, whilst previously there had been a peak in the middle of the day. The very first thing many managers do in the early morning is to browse financial news on their tablets and smartphones, as *FT* log files presented by Newman show.

FT readers are undoubtedly more tech-savvy and better educated than the average citizen. Thus it has to be borne in mind that not everyone is a news junkie from the moment he or she wakes up. In fact, most Europeans still get most of their news on political issues primarily from television, followed by the written press, radio and the internet. According to the European Commission’s *Eurobarometer 2013* the internet (33 percent) has gained 2 points since 2011, whereas the others have lost: TV holds 82 percent (-2 points), the press 43 percent (-4 points) and radio 36 percent (-1 point). Overall TV is by far the most popular medium in the EU: 87 percent of respondents (n = 32,411) said they watched TV every or almost every day, mainly on a television set. Still internet television is slightly growing, as 18 percent (+ 1 point since 2012) watched TV online at least once a week (on a TV set: 95 percent, - 2 points). Internet TV is extremely widespread in Scandinavia (43 percent) and decreases with age, but increases with education. The same is true for internet usage. Here it has to be mentioned that still one fifth of European citizens “never” use the web. Online social networks are growing fast: In 2013 44 percent of Europeans were on Facebook etc. at least once a week; in 2011 it had been only 35 percent. On the other hand 41 percent still said they never used social networks (-2 points). (European Commission 2013)

Other surveys draw a more “connected” picture. The Washington-based *Pew Research Center* claimed in 2008 that internet for the first time overtook newspapers as the main news outlet that year. According to its survey 40 percent of the respondents (n = 1,000) got most of their national and international news online, whereas only 35 percent relied on newspapers. The main news source was television (70 percent), too. (Pew Research Center 2008)

According to the internet statistics company *Statista* (2014), since 2010 Americans have spent more time with their mobile phone than reading newspapers and magazines. Within four years the daily usage of smartphones grew from 40 minutes to 134 minutes in 2014, as opposed to newspaper and magazine usage which dropped from 32 to 29 minutes, and

43 minutes to 28 minutes a day, respectively. The use of tablets has gone up tremendously, namely from 21 to 163 minutes a day, whereas desktop and laptop internet use fell from 184 to 159 minutes. However, TV seems to be the most important media in the US: In 2014 Americans spent an estimated 279 minutes of their day in front of the telly, 10 minutes more than four years ago. (Statista 2014)

There are many surveys on people's media consumption, and the outcome in part depends on the questions. But it's a fact that the convergence of media has been proceeding rapidly since more and more people are glued to the World Wide Web — telecasts as well as radio programmes are provided online, and newspapers and magazines can be read on screen, just to mention two examples. Digital media are growing at the expense of printed media and the conventional TV screen. In all parts of the world it has been screen media that is on the upswing, and in the following years news will become even more mobile, social and visual, as Newman (2014) predicts: "The future is digital and multiplatform."

Unsurprisingly, the younger generation is more likely to get its news primarily through digital channels. According to the *RISJ Digital News Report* UK respondents older than 45 years for example still prefer a newspaper edition or scheduled TV broadcast, whilst the 18-24 year olds access online news throughout the day. (Newman 2014; Newman/Levy 2014)

Whether the internet will eventually make print media such as books and newspapers obsolete, is subject of heated debates in communication sciences and cannot be answered yet. So far "Riepl's Law" from 1913, as it's known in German-speaking media studies, has been mainly proven true. According to Wolfgang Riepl, chief editor of Nuremberg's biggest newspaper at the time, established forms of communications will never be fully replaced by new communication modes, even when they are further and perfectly developed. More than a century ago, Riepl had published his dissertation about news transmission in the ancient world, arguing that old forms of communications will coexist, but will be forced into different fields of action and also be used differently (Riepl 2013, p. 5). Indeed, radio has not killed newspapers – rather, they have focused more on background stories and local news. With the invention of TV in turn radio has become a medium that focuses on breaking news and what is happening now; also cinemas haven't died out as a result in the boom in DVDs.

What definitely affects all sorts of media is the speeding-up of news cycles that goes hand in hand with social acceleration. Journalists have to fight harder for people's attention, as they are spending more time with media, but in a more fragmented, multi-tasking way. To make matters worse the World Wide Web offers endless other distractions which keep users from reading hard news.

All the more newsmakers must be aware of their audiences' habits and preferences, and for example, make use of the cookie-collected data every reader leaves online. As advertisers have known for a long time, technology enables targeting: Internet users can be offered what they are looking for or might like. Amongst media scientists and publishers the customisation of news is disputed; the debate revolves around the questions as to what extent readers should participate in the agenda setting and how active and powerful the audience really is and should be (see Kropsch 2014; Laufer 2013; Neuberger 2013; Quiring 2013).

However, it's a matter of fact that due to digitalisation journalism has become a dialogue rather than a monologue (Schulten-Jaspers 2013, p. 27). This has resulted in an enhanced customisation of news which includes the matter of timing as well: When shall which audiences see which stories online?

PR agencies have to ask themselves the same question when they consider imposing an embargo. Sambrook (2014) notes "a shift from production to consumption". Therefore embargoes still make sense "in terms of consumption peaks". Both journalists and professional communicators should be aware "that there are peaks during the day in different forms of media". As PR agencies are trying to "manage the message" they should put a timing to it rather than leave journalists stranded by saying: "We are just going to announce it and the journalists have to respond in real time," argues Sambrook.

To sum up, the new-gained possibility to respond to the digital audience in a more customised way and the concurrent fragmentation of news consumption habits challenge both PR and journalists at the same time. The fact that "news and information are no longer supply-driven, but demand-driven markets" (Picard 2013, p 22) is also reflected in the issue of timing: In the pre-internet era embargoes used to be timed precisely to deadlines of newspapers or sometimes to the morning news on the radio. Nowadays it's

more likely that the digital audience sets the tone. And because their news consumption habits are more disrupted and not geared to the old editorial deadlines, the job of PR people has become a lot more complicated, for instance, when they want to sell an embargoed story. But this new complexity does not supercede the embargo. On the contrary, according to Sambrook, the managing of the message remains key from the point of view of a PR company. “Even in a 24/7 environment I see the argument for embargoes. If I was a CEO of a company, I’d want to control the message: I’d want to make sure that it’s released at a time when we are ready to respond.” (Sambrook 2014)

8. A special case: the news agencies' embargoes

As the discussion about *Eurostat's* plans to stop the embargo system has shown, news agencies have a special position in several respects. Since they do not address consumers but business clients like other media outlets (newspapers, broadcasters) or political parties, public institutions and private corporations, they can release articles with a so-called blocking notice. In this case the customers can see the article, but must not use it until a certain time. If they do publish it (social networks included), they are often threatened with a fine. The advantage of this practice is obvious: The wire's clients get more planning certainty because they know exactly which material they are going to be provided with. Thus they can prepare their article in advance to be ready for publishing at the given time. If the blocking period ends at 5 o'clock in the evening, newspapers will be able to put it in next day's paper. Online media can also process it ahead and press the sending button at exactly 5 pm.

Blocking notices are common practice with articles that originate from science magazines (see chapter 3) and also with the coverage of elections: On election day, agencies often publish first projections before the polling stations close.

At the Austrian parliamentary election in September 2013 for instance, the last polling stations in the country closed at 5 pm on a Sunday. But the *Austria Presse Agentur* (APA) published first projections of a certain poll institute more than two hours before — with a blocking notice for 5 pm. If media clients had broken this embargo, it could have influenced the outcome of the election. Therefore *APA's* clients are legally bound to abide by the embargo agreement — publishing any outcomes or parts of it on Twitter or Facebook is explicitly considered as a break.

However, *APA* discovers embargo breaks at almost every election, says the agencies' editor in chief, Michael Lang (2014). "On one occasion a private radio station took the risk of publishing before an embargoes, some other time an intern with a news magazine was responsible for the online coverage as he didn't know about the embargo system." In these cases *APA* admonished the clients, telling them that *APA* would have to stop publishing further election news. "These threats are usually sufficiently serious to reverse any jump

starts.” How can an agency find embargo breaks quickly? “We have established a dense net in order to be able to detect embargo breaks. On election days we observe all relevant online media electronically. Social networks are included.” (Lang 2014)

In social networks though, it has becoming more difficult to verify where leaked information about poll outcomes comes from. On Twitter, the source could easily have been someone at a party’s headquarters. If *APA* can’t prove clearly that the leaked data is based on one of its articles, “our hands are tied”. (Lang 2014)

In summary, news agencies’ embargoes are increasingly put under pressure by digital media. But instead of desisting from embargoes at all, the measures to detect breaks, especially on Twitter or Facebook, are tightened — as is the case with some embargoes set up by institutions. At least for *APA*’s editor in chief embargoes are generally well-justified. “The digitalisation of media accelerates and facilitates the distribution of information, but does not question the embargo’s right to exist.” (Lang 2014)

9. Who benefits (the most)?

So far it doesn't seem as if the news embargo's days are numbered. On the contrary, sources as well as journalists do see benefits for themselves. On the media side, the quality argument remains the strongest. According to *APA's* editor in chief, embargoes simply facilitate the journalists' working routine. "On the other hand originators of information such as authors or publishing houses are clearly entitled to determine the time of publication by themselves," whereby there are exceptions like market-sensitive information. For Lang, it's "utterly understandable" that science magazines provide media with embargoed content, the more so as these articles mostly take time to prepare. "If these agreements weren't abided by, it would be a further step towards superficiality and thus a further rejection of quality journalism," summarises Lang (2014).

Another proponent of the embargo — for the same reason — is Helen Nugent (2014), a UK-based freelance journalist and media trainer who worked for the *Times* for ten years and also has written for many British newspapers (*Guardian*, *Observer*, *Mail on Sunday*), and is currently a business presenter for *BBC Radio*. In her opinion, the embargo "does make sense", for both journalists and PR agencies. Especially in broadcast journalism, the embargo is "crucial for a lot of stories because it takes time to set up interviews, the camera crew has to be there and so on," argues Nugent.

Surprisingly, the breaking of embargoes is not a major issue, as it only happens very occasionally and is usually attributed to mistakes or miscommunication, say journalists as well as sources. *PRWatch* for instance was lucky so far: "We have never broken one or had one broken," says executive director Graves (2014). However, not only sources worry about breaks: None of the interviewed journalists would see the point of breaking an embargo. Quite the opposite: Nugent (2014) warns of "significant consequences. For example, in court cases, embargoed information is sometimes released to journalists ahead of the verdict. If journalists publicise that information too early, it threatens the whole case."

Media representatives also point out the risk of damaging one's reputation. "Journalism is all about maintaining contacts, and breaking an embargo will only harm you," says Nugent (2014).

Most sources like the embargo as well — because it is meant to ensure accurate reporting on complicated topics. “It can be useful for an organisation to give select reporters advance word of new news to help give a reporter more time to write a more thorough story than might be possible if the reporter is racing against other reporters to file a story quickly,” argues Graves, who has used embargoes for “major investigations”. The very same reasons are given by major science magazines. Even in the financial sector, where releasing information selectively is becoming more and more delicate, the quality argument is still valid: “To those who see the embargo dying: I would much rather use an embargo to make sure that the journalist has enough time to research the story than to present something now and expect him or her to write it in an hour,” says *Centrica’s* Stephenson.

What about PR agencies that put out press releases with an embargo request on the off chance, that is without having asked journalists if they agree to withhold the information until a certain time? Whereas the interviewed communication experts consider this as a rather unprofessional attempt to increase the chances to get coverage, the journalists are relaxed about it. *APA’s* editor in chief confirms that agencies often add an embargo date to trivial releases. But “that has always been the case. That’s why professional quality journalism is in demand. It’s the journalists’ job to nip such impositions in the bud”. (Lang 2014) *New York Times’* Dreifus, the only interviewed journalist who thinks that the embargo is “of little use” to the media generally, is pragmatic, too: “If it’s too onerous, one can opt not to do the story.” Though, “if a source has a rule on release, one obeys it.” (Dreifus 2014)

When it comes to the question if either sources or media benefit more from the embargo, the interviewees were divided, but not very strongly. It turns out that journalists are not very concerned about the growing disparity in economic size between journalism and PR. They do not agree with the assumption that increasing time pressure in newsrooms might lead to the effect that journalists more or less just copying and pasting embargoed press releases (the more so as PR has been becoming more professional and releases come in as seemingly ready-made news items). However, communication scientists have often proven the opposite and presented many content analyses that clearly show PR’s diffusion of news. Journalism professor Sambrook (2014) paints a rather bleak picture: “My view is that quite a lot of news organisations are either unaware of the scale of PR or are insufficiently resourced to really be able to deal with it. In the end they have fewer

reporters who have more to do in less time.” To him, this imbalance is “really cause for concern, but we must be careful to not overgeneralise it. Not all PR is bad. Most PR is perfectly legitimate and a good thing.”

On the journalists’ side, only Dreifus (2014) expressed a strong opinion about PR: “PR people attempt to manipulate journalists from sunrise to sunset.” In her point of view, “an embargo is something that more serves the source than the journalist, generally. It’s about their PR campaign and how they feed the news out.” Dreifus also thinks that an embargo is only useful for journalists, “if you have been given an exclusive. It is useful in keeping the others away from your story.”

Sambrook spots a shift of the embargo’s benefits towards PR as well: “An embargo was an agreement to give both sides time to prepare. In a 24/7 world there is still an argument for doing it on the PR side — they need to get all their messages ready.” For journalists in turn “the argument is breaking down, not to the advantage of journalism”, he says. “In a world which isn’t governed by daily deadlines, the news cycle is very different. For the journalists the premium now is on speed and getting out the information as swiftly as possible.” (Sambrook 2014)

In a nutshell, neither PR experts nor the majority of journalists think that the “other side” profits more from the embargo than they do themselves. The acceleration of the news circle is equally associated with the embargo as the growth of PR industry on the one hand and the increasing economic pressure media outlets face on the other. Only one expert, journalism professor Sambrook, sees a slight imbalance towards the media that comes with the increasing time pressure in newsrooms. However, the main argument for holding on to news embargoes hasn’t changed — on either side: The more preparation time, the higher the quality of the story.

10. Conclusion: Under threat, but not extinct

To come full circle, the news embargo still makes sense. Originally invented to give both newspapers and sources time to prepare and thus to ensure an accurate coverage of a given topic, the death of daily print deadlines has undermined the embargo's *raison d'être* only to a limited extent. In principal, journalists and PR largely agree that the embargo is still justifiable in our speeded-up 24/7 news world. But the acceleration of news cycles and the tremendous upheaval of media markets in the last decade have left their marks.

The question whether one side profits more from embargoes than the other cannot be clearly answered. Broadly speaking, sources as well as journalists see arguments for adhering to the idea of withholding information until a certain time. It simply facilitates their working routines.

Taking a closer look though, the picture is many-faceted. The use of embargoes in science journalism has little in common with embargoed data that could potentially influence financial markets. Therefore the areas where embargoes are common practice are to be explored separately. In the course of the research for this paper different types of embargoes have emerged.

Science journalism is probably the field in which the embargo system has been most disputed and at the same time is most likely to continue. For leading science journals, especially US-based ones, news embargoes have been a core part of their media policy since the 1920s. Ever since then journals' editors have defended their media policy tooth and nails — basically with the same arguments: First of all they claim they are aiming for accurate news articles and broadcasts about science topics. That is why journalists shall have enough time to prepare their stories properly and, if necessary, do some additional research. No less importantly, elite journals quite frankly pursue their economic interests: If they can maintain their control over the science agenda in mass media, their reputation and hence circulation will be protected.

Nevertheless most science journalists like the embargo as it facilitates their work. By and large, they neither worry about the acceleration of news cycles nor about the criticism that they were just pawns when they rely solely on a handful of journals instead of doing investigative research of their own.

The main cause of concern on the journalists' side is not the embargo system, but the Ingelfinger rule which was invented in 1969 and has been applied by most major science journals. The rule bans scientists who want their research published in these reputable journals from disclosing anything about their findings beforehand. In practice, that includes talking to journalists. For that very reason science journalist Ivan Oransky who runs the blog *Embargo Watch* fiercely criticises the Ingelfinger rule — to him it's a “stranglehold” that keeps journalists from reporting on science as it actually happens. The embargo, argues Oransky, is only an additional instrument to enforce the Ingelfinger rule which he — and many other science journalists — want to get rid of. But for the moment that is not likely to happen, since major journals are very eager to maintain their media policy.

As opposed to science journalism, political actors use the embargo very scarcely, so it has to be analysed case by case whether it's still useful and for whom. What can be ascertained though is that the embargo is just one tool out of many to influence media coverage on political topics. That is especially true in times of war, since regimes of all kinds are reliant on benevolent media coverage in order to keep their people in line. Hence governments spend huge sums on public relations and spin doctors. It's no coincidence that World War I which is also referred to as the first big propaganda battle, helped PR to professionalise.

Another type of embargo occurs mainly in finance and business journalism: The embargo set up by government agencies or international institutions when they release market-sensitive data such as budget figures, labour market data or inflation rates. In countries like Canada, Australia or the US, institutions regularly hold journalists in so-called lockup rooms where they can browse the delicate press material and prepare their stories in advance. Other institutions like the *International Monetary Fund* (IMF) or *Eurostat* make ample use of embargoed press releases.

Institutional embargoes are very much put under pressure by social acceleration, first and foremost by the speeding-up of financial markets that has been driven by the increase of algorithmic (high frequency) trading. If market-relevant data was leaked just a fraction of a second too early, individual traders could make huge profits.

Financial newswires are in a special position because they do not only serve media clients with news stories, but also sell economic data to financial customers. Thus being first or at least as fast as the rivals is and will remain crucial for them.

Due to several instances of embargo breaks which often happened accidentally and also due to the fear of insider trading, sources have been questioning their embargo systems. But instead of abandoning them, they are rather tightening their security procedures. One example is the *U.S. Department of Labor*. Journalists participating in *DOL* lockups can't even bring a ballpoint pen into the room, let alone something to eat. EU's statistical bureau *Eurostat* tried to go its own way and announced it would abolish its embargo system only a few months ago, in September 2014. But the plan failed, as the affected journalists protested massively. Now *Eurostat's* embargo system has been revised, and likely as not the access to pre-releases is going to be tightened.

Thus, institutional embargoes are still useful for journalists because they create a level-playing field and prevent mistakes. For the sources they are just as beneficial, as the efforts to prevent breaks indicate.

Private corporations that put out financial data also face new challenges. In the wake of the financial crisis market authorities have had closer look at the information policy of listed companies. Now corporations observe the disclosure rules much more carefully. Information or data that could influence the stock price must be put out immediately. For this reason news embargoes on market-sensitive data are diminishing — PR agencies and communications departments don't want to risk a lawsuit.

But that does not mean that the embargo in business journalism becomes extinct. When it comes to “softer” topics like the launch of a new business, PR is still interested in selling their stories in advance.

Yet that has become difficult, as PR experts observe. Since journalists not only have to do more things at a given time but are also increasingly forced to put out any piece of news right away, they are likely to sigh when they hear about something that is going on only in one week — it's simply too far away. This trend is very likely to continue.

From PR's point of view, the issue of timing hasn't become obsolete at all. For sources it's still about managing and controlling the message, as journalism professor Sambrook (2014) puts it.

The question when to release a message has become more crucial and at the same time more difficult to answer. Whilst in the "old world" embargoes were timed to newspaper deadlines, often one minute after midnight, nowadays a bunch of new aspects has to be taken into consideration: Which audiences are consuming which news on which media at which time? And also: For which outlets (different print editions of newspapers, online) does the journalist given the embargoed content to have to produce news?

One main factor that has complicated the issue of timing is the fragmentation of news consumption habits which has been boosted by the rapid growth of mobile devices: The digital audience follows breaking news in real time rather than waits for the next day's newspaper. Therefore the old, well-known consumption peaks (newspapers are strong in the morning, TV has its prime time in the evening) are ceasing to exist.

Another pivotal factor is the economic pressure that almost all legacy media face and that eventually widens the scope of each journalist's duties. At the same time the PR industry is growing and increasingly infiltrating media, especially the Web 2.0 — a development that journalists don't think is playing a role regarding embargoes. To them, adding an embargo date to trivial releases for instance is an old trick that just has to be ignored.

All in all, the changes in the media world, particularly the speeding-up of news cycles which accompanies the acceleration in all parts of society, have meant that the argument from journalists that embargoes are practical has lost traction. "In a much accelerated news environment embargoes feel less relevant than they used to do," says Sambrook.

But the conclusion that embargoes will soon vanish in thin air would be too hasty. "It will be very different in the future to how it has been in the past," says Sambrook. He predicts that embargoes will become "more fragmented, but not disappear", particularly beyond business news.

So in the future it will probably depend more on the topic of the press release than on whether an embargo makes sense for journalists. Sambrook believes that "embargoes will

break down on the softer things because they matter less.” Whereas in business and finance journalism, he sees a “stronger justification for embargoes”. Still PR “will try to put embargoes on other things because it suits them and helps them to do their work”, says Sambrook.

Journalists consulted for this paper give the very same reason for their lasting support of the news embargo: It suits them as well, primarily because it reduces some (time) pressure and therefore enables them to maintain high-quality journalism.

Moreover, journalists surprisingly call for sanctions when embargoes are broken by rivals, all the more so as new media like Twitter facilitates the leaking of news. For news agencies which use blocking notices for time-sensitive topics like election results, which provide their customers with articles that must not be published before a certain date, broken embargoes on social media are increasingly becoming an issue.

At the moment sources in all fields threaten journalists who put out information too early with the possibility of denying them future access to embargoed content. Yet in practice, journalists usually don't have to fear any consequences. Generally, embargoes get broken very rarely; in most cases it's due to human error and with no ill intent. As the coverage of breaking news gets more and more real-time and as audiences are increasingly sharing news online and hence contribute to the accelerating news flow, broken embargoes are probably going to be much harder to track in the future.

Bibliography

Adam, B. (2003): Comment on “Social Acceleration” by Hartmut Rosa. In: *Constellations* 10/1, pp. 49-52.

Altman, L. K. (1996a): The Ingelfinger rule, embargoes, and journal peer review — part 1. In: *The Lancet* 347, May 18, pp. 1382-1386.

Altman, L. K. (1996b): The Ingelfinger rule, embargoes, and journal peer review — part 2. In: *The Lancet* 347, May 25, pp. 1459-1463.

Angell, M.; Kassirer, J. P. (1991): The Ingelfinger Rule Revisited. In: *New England Journal of Medicine* 325, pp. 1371-1373.

Armstrong, A. (2014): Tyrie says FCA statement on insurance industry was an 'extraordinary blunder'. In: *The Telegraph*, March 29.
<http://www.telegraph.co.uk/finance/personalfinance/insurance/10731731/Tyrie-says-FCA-statement-on-insurance-industry-was-an-extraordinary-blunder.htm>.

Associated Press (AP) (2012): Reporter receives apology after being fired for World War Two scoop, May 4.

Blair, D. (2012): AP journalist sacked for announcing end of Second World War wins apology. In: *The Telegraph*, May 4. <http://www.telegraph.co.uk/history/world-war-two/9246380/AP-journalist-sacked-for-announcing-end-of-Second-World-War-wins-apology.html>.

Bourdieu, P. (1998): *Über das Fernsehen*. Frankfurt am Main, Suhrkamp.

Bundesverband Deutscher Zeitungsverleger (BVDZ) (2012): *Zeitungen 2012/2013*. Berlin, Zeitungsverlag.

Campbell, P. (2014): Nature embargo policy.
<http://www.nature.com/nature/authors/policy/embargo.html>.

Chadbourn, M. (2014): Labour Department needs to improve how it releases data: panel. In: *Reuters*, January 2. <http://www.reuters.com/article/2014/01/03/usa-jobs-media-idUSL2N0KC1B820140103>.

Currah, A. (2009): *What's Happening to Our News. An investigation into the likely impact of the digital revolution on the economics of news publishing in the UK. RISJ Challenges*. Reuters Institute for the Study of Journalism, University of Oxford.

Cushman, J. H. Jr. (2012): U.S. Tightens Security for Economic Data. In: *New York Times*, July 16. http://www.nytimes.com/2012/07/17/business/labor-dept-tightens-security-for-market-sensitive-data.html?_r=0.

Czarniawska, B. (2011): *Cyberfactories. How News Agencies Produce News*. Cheltenham, Edward Elgar Publishing.

Duelfer, C., Miller, J. (2014): ISIS threat: America ignores growing anarchy in Iraq at its peril. In: *Fox News*, October 15. <http://www.foxnews.com/opinion/2014/10/15/isis-threat-america-ignores-growing-anarchy-in-iraq-at-its-peril/>.

Erickson, M. (2007): Review: Vincent Kiernan, *Embargoed Science*. Urbana, IL: University of Illinois Press, 2006. In: *European Journal of Communication* 22, pp. 509-511.

European Association of Communication Directors (EACD), European Public Relations Education and Research Associations (EUPRERA) (2014): *European Communication Monitor 2014*. <http://www.zerfass.de/ecm/ECM-2014-Results-ChartVersion.pdf>.

European Commission (2013): *Media Use in the European Union. Standard Eurobarometer 80*, Autumn. http://ec.europa.eu/public_opinion/archives/eb/eb80/eb80_media_en.pdf.

European Union of Science Journalists' Associations (EUSJA) (2012): EUSJA Statement on embargoes and manipulation, October 5. <http://www.eusja.org/eusja-statement-on-embargoes-and-manipulation/>.

Fernandez, L. (2012): DOL's Press Lock-ups Policy Could Restrict Press Freedom. Petition, May 8. <http://petitions.moveon.org/sign/dols-press-lock-ups-policy>.

Filichio, C. (2012): Statement before the Committee on Oversight and Government Reform United States House of Representatives, June 6. http://www.dol.gov/sec/media/congress/20120606_Filichio.htm.

Foa, M. (2013): Journalists know little about spin doctors: This is the problem! In: Aufenanger, S., Dörr, D., Füssel, S., Quiring, O. & Renner, K. (eds.): *Media Convergence / Medienkonvergenz. Edited on behalf of the Research Unit Media Convergence of Johannes Gutenberg-University Mainz (JGU)*. Volume 5. Berlin/Boston, De Gruyter, pp. 111-116.

Foer, F. (2005): The Source of the Trouble. In: *New York Times Magazine*, May 21. <http://nymag.com/nymetro/news/media/features/9226/>.

Gulino, D. (2014): Tech Glitch Raises Question Re US Labour Dept. Security. In: *MNI*, September 17. <https://mninews.marketnews.com/index.php/tech-glitch-raises-question-re-us-labor-dept-security?q=content/tech-glitch-raises-question-re-us-labor-dept-security>.

Hill, A. (2014): From new shoes to lockups: What you need to know about Tuesday's budget, February 10. <http://o.canada.com/news/from-new-shoes-to-lockups-what-you-need-to-know-about-tuesdays-budget>.

Horton, R. (1996): Ruling out Ingelfinger? In: *The Lancet* 347, May 25, pp. 1423-1424.

Hyde, D. (2014): Savers locked into 'rip-off' pensions and investments may be free to exit, regulators will say. In: *The Telegraph*, March 27.

<http://www.telegraph.co.uk/finance/personalfinance/pensions/10728440/Savers-locked-into-rip-off-pensions-and-investments-may-be-free-to-exit-regulators-will-say.html>.

Ingelfinger, F. J. (1969): Definition of Sole Contribution. In: *New England Journal of Medicine* 281, pp. 676-677.

International Monetary Fund (IMF) (2014): News. <https://www.imf.org/external/news/>.

Johnson, T. (1998): Shattuck Lecture — Medicine and the Media. In: *New England Journal of Medicine* 339, pp. 87-92.

Journal of the Medical American Association (JAMA) (2014): Embargo Policies. <http://media.jamanetwork.com/embargo-policy/>.

Kiernan, V. (2006): *Embargoed Science*. Urbana/Chicago, University of Illinois Press.

Knauth, B. (2014a): End of embargo system for Eurostat news releases. E-mailed statement to news agencies, September 18.

Knauth, B. (2014b): End of embargo system for Eurostat postponed. E-mailed statement to news agencies, September 25.

Kropsch, P. (2014): ‚Weird News‘: Wenn YTitty und Gronkh die Nachrichten liefern. Speech at *Medientage 2014* in Vienna, September 16. <http://derstandard.at/2000005645052/Weird-News-Wenn-YTitty-und-Gronkh-die-Nachrichten-liefern>.

Laufer, P. (2013): Crowdsourcing is nothing new. Professional journalists are still needed to determine what is news. In: Aufenanger, S., Dörr, D., Füssel, S., Quiring, O. & Renner, K. (eds.): *Media Convergence / Medienkonvergenz. Edited on behalf of the Research Unit Media Convergence of Johannes Gutenberg-University Mainz (JGU)*. Volume 5. Berlin/Boston, De Gruyter, pp. 131-136.

Logan, R. K. (2010): *Understanding New Media. Extending Marshall McLuhan*. New York, Peter Lang.

Lloyd, J. (2014): Gatekeepers no more. Public Relations gets the better of journalism in the digital age. In: *Business and Practice of Journalism seminar*. Green Templeton College (GTC), University of Oxford, October 22.

Marx, K. (1976): *Capital. A Critique of Political Economy*. Volume One. Hamondsworth, Penguin Books.

McLuhan, M. (1964): *Understanding Media. The extensions of man*. New York, McGraw-Hill.

Merced, de la, M. J. (2014): News Corp. broadens reach into real estate. In: *International New York Times*. October 1, p. 20.

Moniz, D. (2003): Secrecy, precautions minimized risk. In: *USA Today*, November 27. http://usatoday30.usatoday.com/news/washington/2003-11-27-bush-secrecy_x.htm.

Neuberger, C. (2013): Competition or complementarity? Journalism, social network sites, and news search engines. In: Aufenanger, S., Dörr, D., Füssel, S., Quiring, O. & Renner, K. (eds.): *Media Convergence / Medienkonvergenz. Edited on behalf of the Research Unit Media Convergence of Johannes Gutenberg-University Mainz (JGU)*. Volume 5. Berlin/Boston, De Gruyter, pp. 119-129.

Newman, N. (2014): Second Wave of Disruption for News. *Business and Practice of Journalism seminar at Green Templeton College (GTC)*, University of Oxford, October 29.

Newman, N., Levy, D. A. L. (eds.) (2014): Reuters Institute Digital News Report 2014. Tracking the Future of News.

Oransky, I. (2011): Scripps Howard blames empty toner cartridge for JNCI embargo break. In: *Embargo Watch*, September 8.
<http://embargowatch.wordpress.com/2011/09/08/scripps-howard-blames-empty-toner-cartridge-for-jnci-embargo-break/#more-3124>.

Oransky, I. (2014b): Who'd have thunk it? Embargo broken on announcement of first U.S. case of Ebola. In: *Embargo Watch*, September 30.
<http://embargowatch.wordpress.com/2014/09/30/whod-have-thunk-it-embargo-broken-on-announcement-of-first-u-s-case-of-ebola/>.

Paul, G. (2014): Erster Weltkrieg. Bilder als Waffe. In: *Zeit Geschichte* 1/2014.
<http://www.zeit.de/zeit-geschichte/2014/01/erster-weltkrieg-propaganda>.

Pew Research Center (2008): Internet Overtakes Newspapers as News Outlet, December 23. <http://www.people-press.org/2008/12/23/internet-overtakes-newspapers-as-news-outlet/>.

Pew Research Center (2014a): The Revenue Picture for American Journalism, and How It Is Changing, March 26. <http://www.journalism.org/files/2014/03/Revenue-Picture-for-American-Journalism.pdf>.

Pew Research Center (2014b): State of the News Media 2014, March 26.
<http://www.journalism.org/2014/03/26/state-of-the-news-media-2014-overview/>.

Philips, A. (2010): Old Sources, News Bottles. In: Fengon, N. (ed.): *New Media, Old News. Journalism & Democracy in the Digital Age*. London, Sage Publications, pp. 87-101.

Picard, R. G. (2013): Killing journalism? The economics of media convergence. In: Aufenanger, S., Dörr, D., Füssel, S., Quiring, O. & Renner, K. (eds.): *Media Convergence / Medienkonvergenz. Edited on behalf of the Research Unit Media Convergence of Johannes Gutenberg-University Mainz (JGU)*. Volume 5. Berlin/Boston, De Gruyter, pp. 19-27.

Podolsky, S., Greene, J. A. & Jones, D. S. (2012): The Evolving Role of the Medical Journal. 200th Anniversary Article. In: *New England Journal of Medicine* 366, pp. 1457-1461.

- Quiring, O. (2013): Journalists must rethink their roles. Social media - an opportunity for newsroom comes with obligation. In: Aufenanger, S., Dörr, D., Füssel, S., Quiring, O. & Renner, K. (eds.): *Media Convergence / Medienkonvergenz. Edited on behalf of the Research Unit Media Convergence of Johannes Gutenberg-University Mainz (JGU)*. Volume 5. Berlin/Boston, De Gruyter, pp. 137-147.
- Relman, A. S. (1981): The Ingelfinger Rule. In: *New England Journal of Medicine* 281, pp. 824-826.
- Relman, A. S. (1989): More on the Ingelfinger Rule. In: *New England Journal of Medicine* 318, pp. 1125-1126.
- Riepl, W. (1913). Das Nachrichtenwesen des Altertums mit besonderer Rücksicht auf die Römer. Leipzig/Berlin, Teubner. http://www.digitalis.uni-koeln.de/Riepl/riepl_index.html.
- Rosa, H. (2005): The Speed of Global Flows and the Pace of Democratic Politics. In: *New Political Science* 27/4, pp. 445-459.
- Rosa, H. (2013): *Social Acceleration. A New Theory of Modernity*. New York, Columbia University Press.
- Rottwilm, P. (2014): *The Future of Journalistic Work: Its Changing Nature and Implications*. Reuters Institute for the Study of Journalism, University of Oxford.
- Russ-Mohl, S. (2013): Journalism's neglected self-inspection. In: Aufenanger, S., Dörr, D., Füssel, S., Quiring, O. & Renner, K. (eds.): *Media Convergence / Medienkonvergenz. Edited on behalf of the Research Unit Media Convergence of Johannes Gutenberg-University Mainz (JGU)*. Volume 5. Berlin/Boston, De Gruyter, pp. 151-155.
- Russ-Mohl, S., Nienstedt, W. & Wilczek, B. (2013): Journalism and media convergence. An introduction. In: Aufenanger, S., Dörr, D., Füssel, S., Quiring, O. & Renner, K. (eds.): *Media Convergence / Medienkonvergenz. Edited on behalf of the Research Unit Media Convergence of Johannes Gutenberg-University Mainz (JGU)*. Volume 5. Berlin/Boston, De Gruyter, pp. 3-17.
- Schremmer, B. (1990): *Metternich: Kavalier & Kanzler*. Leipzig, Mitteldeutscher Verlag.
- Schulten-Jaspers, Y. (2013): *Zukunft der Nachrichtenagenturen. Situation, Entwicklung, Prognose*. Baden-Baden, Nomos.
- Seymour, R. (2014): Ahmad Chalabi: the pariah who could become Iraq's next prime minister. In: *The Guardian*, July 8. <http://www.theguardian.com/commentisfree/2014/jul/08/ahmad-chalabi-pariah-iraq-prime-minister-bush-us-despair>.
- Smith, R. D. (2009): *Strategic Planning for Public Relations*. Third Edition. New York, Routledge.
- Statista (2014): Average daily media use in the United States from 2010 to 2014. <http://www.statista.com/statistics/270781/average-daily-media-use-in-the-us/>.

- Steel, E. (2014): Turner Broadcasting, Home of CNN, TBS and TNT, Will Cut 1,475 jobs. In: *New York Times*, October 6. http://www.nytimes.com/2014/10/07/business/media/turner-broadcasting-home-of-cnn-tbs-and-tnt-will-cut-1475-jobs.html?_r=0.
- Taylor, P. M. (1980): The Foreign Office and British Propaganda during the First World War. In: *The Historical Journal* 23, pp. 875-898.
- Taylor, P. M. (1986): Propaganda and Empire. The Manipulation of British Public Opinion 1880-1960 by John M. MacKenzie; Blue Pencil Warriors: Censorship and Propaganda in World War II by John Hilvert. Review. In: *The Journal of Modern History* 58/4, pp. 923-926.
- Taylor, P. M. (2003): *Munitions of the Mind. A history of propaganda from the ancient world to the present era*. Third Edition. Manchester/New York, Manchester University Press.
- Torres, C. (2014): Labour Investigating Early Release of U.S. Producer-Price Index. In: *Bloomberg News*. September 16. <http://www.bloomberg.com/news/2014-09-16/labor-investigating-early-release-of-u-s-producer-price-index.html>.
- Ullrich, V. (1998): *Otto von Bismarck. Reinbek bei Hamburg*, Rowohlt.
- Watson, T. (2012): A (very brief) history of public relations. In: *Communication Director* 01, pp. 42-45. <http://microsites.bournemouth.ac.uk/historyofpr/files/2010/03/Tom-Watson-2012-Very-brief-history-of-PR-CommDir.pdf>.
- Wolde, ten H. (2014): Bertelsmann to take full ownership of Gruner + Jahr. In: *Reuters*, October 6. <http://www.reuters.com/article/2014/10/06/us-gruner-jahr-bertelsmann-idUSKCN0HV0J420141006>.

Interviewees

- Association of British Science Writers (ABSW) (2014): E-mailed statement, October 22.
- Helen **Briggs**, *BBC* (2014): E-mailed statement, October 22.
- Tim **Burt**, *StockWell* (2014): Telephone interview, November 4.
- Jens **Degett**, *Danish Journalists Association* (2014): E-mailed statement, October 28.
- Claudia **Dreifus**, *New York Times* (2014): E-mailed statement, October 21.
- Philip **Gawith**, *StockWell* (2014): Telephone interview, October 27.
- Lisa **Graves**, *PRWatch* (2014): E-mailed statement, November 12.
- Bettina **Knauth**, *Eurostat* (2014c; 2014d): E-mailed statements, October 22; November 18.
- Marco **Niada**, *Finsbury* (2014): Telephone interview, October 22.
- Michael **Lang**, *Austria Presse Agentur* (2014): E-mailed statement, November 1.
- Helen **Nugent**, *freelance journalist* (2014): Telephone interview, November 5.
- Ivan **Oransky**, *MedPage Today* (2014a): Telephone interview, October 20.
- Richard **Sambrook**, *Cardiff School of Journalism* (2014): Telephone interview, October 16.
- Thomas **Schmidt**, *Austria Presse Agentur* (2014): E-mailed statement, October 21.
- Ron D. **Smith**, *Buffalo State University* (2014): E-mailed statement, October 14.
- Hendrik **Spiering**, *NRC Handelsblad* (2014): E-mailed statement, October 28.
- Richard **Stephenson**, *Centrica plc* (2014): Telephone interview, October 28.
- Sharon **van Etten**, *Reserve Bank of Australia* (2014): E-mailed statement, October 22.

Acknowledgements

First and foremost, I would like to thank the Reuters Institute for the Study of Journalism, my employer, the Austria Presse Agentur (APA), and the Alfred Geiringer Fellowship Programme for giving me the opportunity to spend two and a half invaluable months in Oxford. Not only have I got the chance to step back from the daily news business in order to focus on my research project, but also the academic environment of the University of Oxford has deeply inspired me. Through the Reuters Programme I have met journalists from all over the globe who gave me insights into their countries' media landscapes and market challenges. I am incredibly grateful for the time we have spent together; each and every one of my fellows has been a personal enrichment for me.

Moreover, the Institute exposed us to an extraordinarily wide variety of the world's most experienced journalists and experts who thankfully shared their thoughts on the upheaval of media and future developments and thus immensely broadened our horizons.

I am deeply indebted to James Painter who was extremely encouraging through my entire research project and always lent a sympathetic ear. I also want to thank my supervisor Robert Picard for his thought-provoking comments. Furthermore, I am grateful for the support the Institute's staff members gave me in every sense.

My sincerest thanks go to the experts and journalists who generously granted me interviews and took their precious time to support me, and made my research possible.

Last but not least I am very much obliged to my family and friends back at home. Without their manifold encouragement I would not be where I am standing now.