Paying Attention to Weak Signals – The Key Concept for Innovation Journalism

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1 Introduction

1.1 Journalism in trouble – need for rescue operations

"Journalism is in trouble", claims Philip Meyer in the very beginning of his newest book *The Vanishing Newspaper*. William A. Hachten states in *The Troubles of Journalism* that "as the new century began, deeper and more disturbing concerns about a perceived crisis in practice of journalism have surfaced". ²

So, in the light of recent American research on mass communications systems, journalism is in trouble, if not already in crisis. The author of this paper considers innovation journalism as one ambitious attempt to seek a better future for journalism. It started with the paper of David Nordfors. His definition for innovation journalism was, in short, "journalism covering innovation". Later on, Niclas Lilja has defined innovation journalism studies as covering technical, business, legal and political aspects of innovations and innovation systems". Innovation journalism has links also to science and to futures research.

1.2 Ansoff's weak-signals

In this paper I will introduce the concept of "weak signals" for innovation journalism.

"Weak signals" has become a popular concept among scholars in recent times. As Ilmola and Kotsalo-Mustonen have said "the weak signals approach is experiencing a renaissance in strategic planning"⁵. This is also seen in futures research, which considers "weak signals" as interesting phenomena. For example, Mannermaa has asserted in his new book, that "weak signals - - is one of the most fascinating questions in future research".⁶

² Hachten 2005, xi.

¹ Meyer 2004, 1.

³ Nordfors, David. 2004.

⁴ Lilja, Niclas. 2005.

⁵ Ilmola - Kotsalo-Mustonen. 2004.

⁶ Mannermaa 2004, 113.

There are many definitions of "weak signals". For example, Michelle Codet states that "a weak signal is a factor for change hardly perceptible at present, but which will constitute a strong trend in the future", whereas Pierre Masse describes a weak signal as "a sign which is slight in present dimensions but huge in terms of its virtual consequences".

But it was Igor Ansoff who first invented the concept and theory of weak signals, in the mid-1970s. His main purpose was to seek improvements to imperfect strategic planning methods. Ansoff argued that any firm that operates in a high change business environment will have to give increased attention to "weak-signals" in strategic management practices.⁸

There are many signals of change in the environment, but this information is often inexact, and difficult to observe or understand. In the words of Ansoff "when a threat/opportunity first appears on the horizon, we must be prepared for very vague information, which will progressively develop and improve with time".⁹

Ansoff refers to the level of information as having two extreme stages: strong signals and weak signals. According to Ansoff strong signals are "sufficiently visible" and "concrete", and weak signals are "imprecise early indications about impending impactful events". Ansoff claims that weak signals may mature over time and become strong signals. He also defines five different stages of signals: 1) the sense of threat/opportunity, 2) the source of threat/opportunity is known, 3) the shape of threat/opportunity is concrete, 4) the response strategies are understood and 5) the outcome of response is forecastable.¹⁰

Ansoff argue that weak signal mentalities are needed in corporations, but he understands that it is not easy for managers to change their attitudes, because their experience is based on strong signals. He writes that "conversion to weak signals means that individuals responsible for identifying issues must begin to listen with their ears close to the ground for early warning of threats and opportunities". It is also important to note that detection of weak signals requires sensitivity, as well as expertise, on the part of the observers. ¹¹

After all of this, Ansoff, in fact, presented no research results to support his theory. All the same, Nikander, for example, asserts in his dissertation that business economics has taken the existence of weak signals/early warnings on some level for granted. There are also other terms such as "early indicators", "symptoms" and "soft form of information" in use in business economics. The main problem of the weak signals has been that they are easily missed, because they are so uncertain and irrational. ¹³

But there are many other disciplines interested in weak signals than business strategists: futures research, communication research, research on international security and international politics and even military science.¹⁴

⁷ Gustafsson - Ahola - Ilmola - Kuusinen - Pesonen. 2003, 3.

⁸Ansoff - McDonnell. 1990, 383; Nikander 2002, 23-24.

⁹ Ansoff - McDonnell. 1990, 384.

¹⁰ Ansoff - McDonnell. 1990, 20-21.

¹¹ Ansoff - McDonnell. 1990, 386.

¹² Ansoff - McDonnell 1990, xviii.

¹³ Nikander 2002, 23-24.

¹⁴ Nikander 2002, 28-31.

In retrospect, some scholars especially in the field of international politics have been focused on building "early warning" systems already since the 1960s. Their aim has been to develop "early warning" techniques for political change, especially to predict crises. The main source material for finding weak signals has been the foreign news headlines from the international wire services. But when the researchers have concentrated on headlines in order to search for the "weak signals", they have already focused, in my opinion, on quite strong signals. It may be that the lack of knowledge of the mechanisms of journalism is one reason why many crises in the world, especially political ones (the collapse of communism etc.), have not been identified in advance by the "early warning systems". Another reason would be that the automatic and human coding systems of early warning were built on wrong assumptions and categorizations. Perhaps, the end of the cold war was too great change of paradigm for all old institutions.

To be fair, many studies of weak signals are often flavoured with the wisdom of hindsight. Indeed, it is easier to see things happen after than beforehand. So far, there have not been any attempts to observe the weak signals in journalism among researchers of journalism or media studies.

1.3 Business journalism and the danger of "bubbles"

Because there is not yet a long tradition of innovation journalism, at least in Finland, one good starting point for monitoring the weak signal in journalism, is to analyze financial news. Both business (or financial) journalism as well as innovation journalism are, in my opinion, inherently future-oriented.¹⁶

As Ansoff argues, companies in turbulent environments need to scan the business environment to capture weak signals of early opportunities¹⁷, and the business journalists need to find "scoops" in order to satisfy their paying customers. Philip Meyer asserts that "analysts and investors make their money by spotting trends and taking investment positions in them before their competitors do"¹⁸. And the same is in business journalism, which uses both analysts and investors as sources.¹⁹

When we analyze business journalism, there are several factors we need to take into account. First, the great boom in business journalism began in the early 1980s. Second, it is not perfect either. It is mainly concentrated on the performance of public companies. We can also argue that business journalism has helped inflate many bubbles in the economy, especially in stock markets (bourse crashes in 1929, 1987 and 2001). As has been shown later, future-oriented business media itself was each time too much involved in championing the "new economy". For example, *The Industry Standard* sold 7,558 advertising pages in 2000 – an industry record²⁰.

¹⁵ Schrodt, Philip. 1993; Gerner, Deborah J. – Schrodt, Philip A. 1998.; Gerner, Deborah J, Schrodt, Philip A., Abu-Jabr, Rajaa and Yilmaz, Ömür. 2002.

¹⁶ The most of the participants in the first Finnish innovation journalism research and educating course are working as business journalists.

¹⁷ Ilmola - Kotsalo-Mustonen. 2004, 2.

¹⁸ Meyer 2004, 46.

¹⁹ See more Lilja. 2005.

²⁰ Longman 2002, 19.

The executive editor at the Weekly Standard, Fred Barnes wrote in The International Economy in 1998:

Journalists are frequently surprised. They miss stories, big ones. The emergence of American companies as the world's most efficient? Missed. The incredible stock market surge? Missed. The economic revival in Europe? Missed. The arrival of a federal budget surplus? Missed. The point is simply this: as good as financial news coverage is, it frequently doesn't see the big picture. ²¹

Every reader of this paper could update this list of the missed big stories by business reporters after 2000, but only one name is mentioned: Enron. As *Nieman Reports* wrote in 2002: "This was a company that not too long before its demise had been the business media's poster child, praised for its 'innovative' practices and consistently listed among the top American corporations"²².

²¹ Barnes 1998, 17.

²² Nieman Reports. 2002, 4.

2 Weak Signals in Business News Case Study: Kauppalehti

2.1 Research questions, methods and material

The starting point of the study is the theory of weak signals by Igor Ansoff. As he once wrote: "The validity of such prescriptions (the concept of weak signal, t.u.) will ultimately be tested through practice²³". Or through empirical studies, the author of this paper would like to add.

The main research questions here are: Are there any weak signals in journalistic texts, and if so, what kind of weak signals are there and where? Weak signals are defined here as first written signs or hints of a coming change²⁴.

The empirical material of the case study is based on small sample of financial journalistic texts (N=87) published in the leading Finnish business daily *Kauppalehti*²⁵, on one random day, 12.02.2004. *Kauppalehti* was chosen because the Finnish and Scandinavian business and business news landscape is more familiar for the author than the Financial Times or the Wall Street Journals. The author has been working as a business journalist, though not in *Kauppalehti*.

Business journalism, as an already existing genre or tradition of journalism, provides a good starting point for paying attention to weak signals. My hypothesis is that if there are weak signals in financial journalism, they also exist or should exist in innovation journalism, because they are of the same kind.

There is not yet any valid methodology to monitor journalistic texts in order to discover weak signals. Therefore it is necessary to develop new methodological tools for future research. This is done with the

²³ Ansoff – McDonnell 1990, xviii.

²⁴ Of course weak signals could also be other than written signs, for instance pictures or other form of nonverbal communication like human gestures.

²⁵ The audited circulation of Kauppalehti (founded 1898) sells nowadays over 80 000 copies a day with more than 300 000 Finnish business readers. Kauppalehti belongs to Alma Media's Business Information Group (BIG). Alma Media comprised four divisions Alpress, Broadcasting, Business Information Group and Media Services. In January 2005 Alma Media decided to sell its Broadcasting unit to Swedish media company Bonnier and invest company Proventus. Finland is the leading country in the European Union in terms of aggregate newspaper circulation relative to the population. Finland has about 5.2 million inhabitants and aggregate newspaper circulation in 2002 was 3.2 million items. The aggregate circulation of dailies per thousand inhabitants is 525 items. There are 54 daily newspapers and 150 non-dailies. There are a total of 150 newspaper-publishing companies in Finland. http://www.sanomalehdet.fi/en/tietoa/index.shtml, 2.3.2005

assistance of the ideas of grounded theory. As Glaser and Strauss argue "the researcher does not approach reality as a *tabula rasa*. He must have a perspective that will help him see relevant data and abstract significant categories from his scrutiny of the data"²⁶.

In this case the main methodology was to read the data thorough several times and mark the possible weak signals in text with the big letters of "WS". This work of interpretation was based on authors over ten years of experience in Finnish journalism.

2.2 Main results: four categories of weak signals

In short, all together 32 weak signals were detected in 28 different news stories of total 87. It was possible to classify all the news consisting of different kind of signals of the future into four categories: 1) feeling (or hunch) (in 3 stories), 2) uncertain signals (5), 3) almost certain signals (21) and 4) certain, solid or exact signals (3).²⁷

To be more accurate:

Feeling signals The reporter's own feeling that there is something happening out there. Almost impossible to articulate in words. No named sources telling/sharing the same feeling. Not enough facts for a news story, but fits well in a personal column and may lead to later monitoring. Very often not reported at all, but maybe mentioned to others behind the news desk.

Uncertain signals A fact or two indicating a change in the news environment. It is possible to find the first but usually anonymous source about the matter. Information still very uncertain. Rumours. Could be used in a minor news story with question marks.

Almost certain signas! More certain than uncertain signals, but still many problems in measuring, calculating or defining the actual changes. When it is really happening and with what kind of consequences? Usually there is already more than one authorized source telling about the same subject and the sources are willing to present their names in public. Could lead to a big news story in front pages, but still with rather uncertain headlines.

Exact signals Easy to write the news story, because all the facts are there. Exact dates and numbers. Big headlines, if the story is new. Very authoritative sources: high officials, politicians, managers etc.

What requires more extended examination here are the examples of news texts (citations) of *Kauppalehti*. Although they were originally written in Finnish, the citations are translated here in English. Of course the nuances of languages alter when translated, and in the case of weak signals the nuances of language are of key importance.

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²⁶ Glaser - Strauss 1974, 3.

²⁷ These categories or names of the categories are not yet final. On the contrary, readers are asked to keep alternative descriptions in mind while reading the lines which follow.

The headlines are presented in bold, and possible weak signals (sentences, phrases or words) in italics. There are also number codes, which indicates the page where the story where published, and the exact place of weak signals inside the story.

2.2.1 Feeling-signals

More clear profile, page 2, last two sentences: "The deal clarifies the profile of Sampo as an insurance company and increases the reliability of If for the customers. *But there is something missing from this pattern.*"

Background and interpretations: The citation of the journalistic text is from the end of the editorial. It gives a hint to the reader that there are still some more changes maybe coming.

One step further, two..., page 5, third last sentence: "Sampo probably makes the If-package more attractive and then sells it further."

Background and interpretations: The subject of the journalists' column is the same as in the editorial. But here the reporter forecasts the future of the If-company more clearly. There is not a single source named in his column, nor strong arguments for selling the company. The assumption is totally based on the reporter's previous data about the history of insurance companies and his feelings. There were also three news stories about the insurance companies vs. banks in the newspaper.

The painful year of Orion, page 20, last sentence: - Money could, for instance, be spent to reinforce the portfolio of product development.

Interpretation: It is only reporter's own suggestion based on feelings more than knowledge.

2.2.2 Uncertain signals

The image of the electric companies is good, page 10, sentence 5: "Compared to the study made in Sweden in the end of last year, the image of Finnish electrical companies is much better."

Interpretation: It is possible to consider that the image of Finnish electrical companies tends to follow the image in Sweden, but this is not necessarily the case of course. Still, it could be a hint of a coming change (for worse) in attitudes in Finland, because many electricity companies as well as many other industrial companies are nowadays owned by only a few big Scandinavian companies.

Lehti, the head of the entrepreneurs associations, criticized communal politicians about energy, page 10, sentence 8: " – So far electricity has not been a big problem for business."

Interpretation: The question of electricity has been unproblematic (cheap) in Finland, and now, maybe, the price of electricity is going to be more expensive, because the entrepreneurs are concerned about it. But we still need more data, facts.

Labour notices were not seen in recruit exhibition, page 16, sentence 2: "The head of PR for the exhibition, Tommi Uitti, argued *that the big success of the event acts as a forecast of the economic change."*

Interpretation: This argument still needs some more data and sources.

Commercial television stations are coming back as profit makers, page 18, sentences 1-2: "A year ago, all the Finnish television channels were in the red. Now, there is some light at the end of the tunnel." Sentence 20-21: "Commercial television in Finland collects under 20 per cent of all the advertising money, which is a little comparing the numbers internationally. The contract prices of the advertisements in television are among the cheapest in Europe.

Interpretation: Is a change coming in the cost of television advertising in Finland, or is it possible that there are some differences in media markets between nations in Europe?

Senior television, page 19, the end of the text: "I would like to give a hint to media companies. In the next round of digital-tv-lisenses, you should forget all those young, dynamic urban citizens, and concentrate instead on seniors."

Interpretation: At the end of the journalists' columns there are often very subjective and daring suggestions, but the question is, if somebody in a position of power is taking any notice. However, it is interesting that the role of business journalist, allows also some kind of verbal risk taking.

2.2.3 <u>Almost certain signals</u>

In this section, only eight examples of the 21 found for this most common category of weak signals are presented. The basic type of almost certain signal was mainly found from the so-called results stories, where the company presented the numbers and interpretations of its previous years' performance and also estimated cautiously the economical near-future of the company. This prediction was presented almost every time in the last sentence of the news story. The headlines, as well as the beginning of the story, were usually dedicated to the outcome of last years' results.

Unprofitable SAS, page 7, last sentence: "The aim of the SAS is that the aviation company will be profitable this year - -."

Interpretation: It is important for public companies to inform the public correctly, but also vaguely, about their economic prospects.

Secretary of the Treasury Kalliomäki: No instant tax cuts, page 5

Interpretation: The weak signal is already in the headlines. When the secretary of the Treasury says something, it is almost always in the headlines. As is the case in the US with the Chairman of Federal Reserve Board, Alan Greenspan. Of course the politicians may change their views later and even lie, but the media usually trust their authoritative words.

KCI Konecranes will reduce production, page 6

Interpretation: Again, the weak signal is seen in the headlines. In the story the countries which will be affected were also mentioned, but without reference to any exact numbers or dates.

Service companies employ 74 000 this summer, page 6, sentence 2: "Compared to last year, the number of summer jobs *will increase* by 10 000'."

Interpretation: The number of summer jobs available for students usually indicates the changes in the national economy.

Helsinki Energy makes strong gains, page 10, the last sentence: "The most significant power station investment was the coal stock in Salmisaari - -".

Interpretation: "The most significant investment" is in itself a quite strong signal for the future. There are certainly some key words which could indicate the presence of different weak signals.

The planning of a new hardware store chain discontinued, page 12, sentence 2: "We are not planning chain of stores, even if there is room for competition in the hardware store business," says SOK's fieldmanager Kalle Lahdesmäki.

Interpretation: When changing plans, there are signals that something new has occurred. If a company will not to do something, it is also an interesting move, even an item of news perhaps.

The gains in car sales have not yet seen in company car markets, page 13, the first sentence:

"The strong sale of new cars *will continue* also in the beginning of this year". Sentence 20: "He *predicts* that this year more new cars *will be registered* than last year, perhaps nearly 155 000".

Interpretations: Of course all verbs with the future tense are potential sources of weak signals. If somebody or something will predict, foretell, forecast, prognosticate, tip, augur, be a sign of, forebode, herald or presage something, it is may be a weak signal or not.

2.2.4 Exact signals

Nokia Tyres has again troubles in Russia, p. 26, subtitle *Own Factory Starts in Russia* 2005.

Interpretation: This is an exact signal, because the source and the exact year have been mentioned. However, the Russian market situation usually causes some surprises and delays for timetables. Of course, it is possible that an exact signal could also give wrong information about the future.

Probably Sampo will sell its part of Skandia this year, p. 5, sentence 3-4:"The CEO of the Sampo Björn Wahlroos argued Wednesday in a telephone conference: "Our investment in Skandia is of a financial nature. It is unlikely that we will keep our Skandia shares until the end of year."

Interpretation: Already the headline of the news story is a weak signal. When the CEO of the Sampo bank argues something, it is usually a news item in Finland. (After two weeks of the story, the first of March, Sampo sold its shares in Skandia.)

Investor is maybe planning to buy Volvo's Scania shares, p.7, the first sentences: "The investment company of the Wallenbergs, Investor, is believed to be planning to buy all or some part of the Volvo's shares in Scania." Sentence 4: "Volvo must sell its shares in Scania before 23rd April."

Interpretation: The weak signal is, again, seen in the headlines. 'Maybe' is another potential key word when searching weak signals. Interestingly, there were no exact sources in the story, and seldom are timetables, especially in stock markets, as exact as they were in this case.

3 The Lessons of Weak Signals for Innovation Journalism

3.1 Conclusion and discussion of the results

I began the previous chapter of the paper by asking three questions: Are there any weak signals in journalistic texts, what kind of weak signals are there and where?

I will argue that there were indeed weak signals in the journalistic texts of the Finnish business daily *Kauppalehti*. This is, in my opinion, the most significant result of all. Weak signals were identified in almost every third (3,2) journalistic story, which was far more than expected. In conclusion it is noted that the financial journalism is indeed strongly future-oriented.

Weak signals were divided into four categories: 1) feeling (or hunch) signals, 2) uncertain signals, 3) almost certain signals and 4) exact signals based on the quality and exactness of the arguments, the sources of the data and focus on the future. It should be also noted that the weak signals, especially the feeling, uncertain and almost certain signals, were mainly found in the endings of the news stories, usually in the very last sentence, or in reporters' comments or columns. It was in the nature of exact signals that they were presented openly either in headlines or at least subtitles. In the light of my small study, I will argue that the previous scholars, who have concentrated only in news headlines in order to search the "early warning signals", have already been focused on quite strong signals.

However, these conclusions are too simple to be accepted without qualifications. It is an open question whether these categories were named and defined well enough. For instance, exact signals could be named as strong signals, and, of course, each person interprets the texts in his or her own fashion. What certainly also requires more extended examination here is the amount of empirical data that was collected. It is likely that there are weak signals in every business newspaper, but this still needs more research, and especially more empirical material to analyze. It would also be interesting to compare different business newspapers in various countries in order to analyze their weak signals.

It looks as if journalists are able to sense many weak signals in their societies (if they are professionals and have "a good nose for the news"), but they do have problems when they want to write about the weak signals. They seldom have enough courage to put their knowledge of weak signals into the headlines. Instead, they write "between the lines". There are usually only strong signals or facts in headlines. Maybe only those professionals who are aware of nuances in journalism (other journalists or – politicians, managers etc.) are able to find the real news (that is weak signals), because it is hidden inside the stories. What a brilliant secret mechanism! It has been called earlier "Prayda journalism"²⁸.

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²⁸ The author of this paper defined four different methods of "riting between the lines" in his dissertation about the history of Finnish correspondents in Moscow 1957–1975. They were 1) the use of periphrasis (especially through making the sources less clear), 2) the use of citation marks, 3) telling what has not been mentioned and 4) the use of harmless headlines and hiding the news inside the text. Also, by using Swedish instead of Finnish it was possible for a Finnish correspondent to say things more openly. (Uskali 2003.)

3.2 Theoretical and practical implications

The primary focus, in this paper, will be now on theoretical and practical implications of weak signals for innovation journalism.

The role of innovation journalism in the reality of weak signals could be illustrated in a figure below. This simple picture tries to demonstrate that there is always more than only one possibility for interpreting the meaning of a weak signal for the future. This is obvious in futures research, which operates with scenarios, usually at least three29. But this is not the case in contemporary journalism. This is demonstrated in the Figure with a) dying down, b) strengthening and c) booming scenarios. This difference between futures research and journalism is due to the space and time limitations of journalistic products. In a journalistic story there is often room for only one scenario of the future, at least in headlines. As in the case of the innovation journalism this could be different. In doing this, innovation journalism could prevent the well documented mistakes made by business journalists with "new economy bubbles". There is always a danger for an innovation journalist to exaggerate, for instance technological innovations with the side effect of "techno bubbles". At this point we may return to the arguments about the similarities of business and innovation journalism, and emphasize that innovation journalism always tries to be more critical, and obtain the big picture.

Innovation journalism works here in this figure as a filter. He or she could be a catalyst or decelerator in his social environment. What is important here is that the journalist knows what he is doing. This was not always the case with business journalists. As Phillip J. Longman argued in 2002 after "the dotcom bubble": "Many business reporters simply didn't know what they didn't know about business" and "there is little indication that the business press is ready to examine its own sins and failings"³⁰. There is competition between journalists, but also, and this is a paradox, a need to join the consensus, which provides a kind of professional cover for their reputation. Maybe, this has been one reason for "bubbles", and could be the case also in innovation journalism. Therefore, it is vital to educate innovation journalists, and their superiors, about weak signals and the need for more critical thinking.

²⁹ Mannermaa 2004, 175–181.

³⁰ Longman 2002, 18-19.

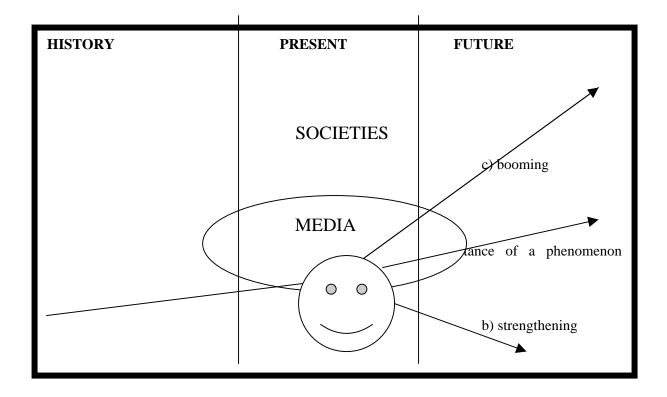


Figure 1. Weak signal and innovation journalism

It is possible to argue that it is of key importance for innovation journalist to understand the mechanisms of weak signals in his or her work. In practice this would mean that an innovation journalist is constantly:

- Paying attention to weak signals. Finding, monitoring and observing them. Environmental scanning.
- Trying to define all the possible meanings of the weak signal for the future. Considering different scenarios.
- Emphasizing the most relevant and interesting weak signals. Writing about them in news stories, putting them in headlines and not only writing "between the lines".
- Inventing new forms of journalistic story types suitable especially for feeling signal cases.
- Presenting also the less interesting weak signals, at least as curiosities, because it is usually not possible to predict precisely the meanings of the different weak signals in advance.

What, then, are the three main lessons of weak signals for innovation journalism?

The very existence of weak signals

- Need for sensitivity for unpredicted shifts in the environment
- Enough expertise to be critical enough to prevent any "bubbles"

3.3 The future of journalism and weak signals

It is a well-established conclusion of media history that journalistic products are the first draft of history writing, but what if journalism is also the first blueprint of the future?

In the words of Philip Meyer the author of *The Vanishing Newspapers* "new information technology is forcing us to experiment with new ways of working, and that necessarily means experimenting with new ways of defining and organizing our occupational specialties". He writes further that "the long drift towards more specialized media at the expense of mass media seems likely to continue" and says "the Internet is just the latest in a long series of advances that contribute to the demassification of the media" 31.

And, in the words of William A. Hachten the author of *The Troubles of Journalism* "the Internet and other communication innovations have already greatly impacted on journalism and will probably play a crucial role in redefining the future directions and format of news".

Scholars need to continue to investigate weak signals, and especially meet the intellectual challenge posed by feeling and uncertain signals in detecting them and planting them into journalistic products. I would argue that feeling signals are not common in quality journalism, but the ever accelerating competition between the traditional and new media, for example web logs³², might change some old principles of journalism. "Bloggers"(a word generally used to refer to those who blogs), especially, seem often to operate on the level of feeling signals. In journalism speed and trust have always been of the key importance, therefore, the competition between the "bloggers" and traditional journalists is just beginning. A recent item of news in The New York Times about a lawsuit filed in California by Apple Computer is drawing the courts into an interesting question: who should be considered as a journalist?³³ But, this is not the place to attempt to close such debate.

Finally, the author of the paper suggests some subjects for future research about weak signals in innovation journalism

- Defining the universal grammar of weak signals (especially key words)
- Developing effective monitoring/detecting practices for weak signals
- Writing the history of weak signals in innovation journalism (case studies)
- Creating innovative innovation news stories by using weak signals of previous journalistic products as source of ideas.

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³¹ Meyer 2004, 244, 245, 2.

³² See more: http://en.wikipedia.org/wiki/Blog.

³³ Glater 2005.

SUMMARY

The main questions of this paper are: What kinds of weak signals are there in journalism? And, how could they benefit innovation journalism? "Weak signals" are defined in the paper as the first written signs or hints of a coming change. "Weak signals" has become a popular concept among scholars in recent times. It was the professor of strategic management, Igor Ansoff, who first invented the concept, and the theory of weak signals, in the mid-1970s. In retrospect, some scholars in international politics have already been focused on building "early warning" systems already since the 1960s. So far, there have not been any attempts to observe the weak signals in journalism among researchers of journalism or media studies. The first empirical findings of weak signals in journalism are based on a small case study focused on the financial news (N=87) from the leading Finnish business daily Kauppalehti. Weak signals were identified in almost every third (3,2) journalistic story, which was far more than expected. The weak signals were classified into four categories: 1) feeling (or hunch) signals, 2) uncertain signals, 3) almost certain signals and 4) exact signals based on the quality and exactness of the arguments, sources of the data and focus on the future. The weak signals were mainly detected from the end of the news stories and from reporters' personal comments or columns. The case study on weak signals in business journalism indicates that when the scholars in near history have concentrated on news headlines in order to search for "weak signals", they have already been focused on quite strong signals. It has been said that financial (or business) journalism is future-oriented, and in the paper it is argued that the same situation applies also to innovation journalism. Therefore, the paper recommends that innovation journalism, focusing on innovation processes, should recognize and understand the key concept of "weak signals" better than journalism has before, and that it is important that innovation journalists pay greater attention to weak signals in their own work.

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