THE CONCEPT OF INNOVATION JOURNALISM AND A PROGRAMME FOR DEVELOPING IT

By David Nordfors

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The Concept of Innovation Journalism

and a Programme for Developing it

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PUBLICATION DATA

Titel/Title: The Concept of Innovation Journalism and a Programme for

Developing it

Författare/Author: David Nordfors, VINNOVA

Serie/Series: VINNOVA Information VI 2003:5

ISSN: 1650-3120

Utgiven/Published: October 2003. Revised November 2003

Utgivare/Publisher: VINNOVA - Verket för Innovatonssystem/Swedish

Agency for Innovation Systems

VINNOVA Diarienr/Case No: 2003-02439

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1 Innovation Journalism

"Innovation Journalism" is the intuitive name for journalism covering innovation. It is valid as a concept, but there is no such journalistic discipline or community today. Therefore, a programme has been designed to develop the concept and test the possibilities for Innovation Journalism as a journalistic discipline, a new reporting "beat".

A Google-search on "innovation journalism" generates zero relevant hits apart from the present program. In comparison, "business journalism" generates 18400 google-hits and "technology journalism" 5120 hits. However, when suggested in discussions, some editors are willing to refer to their publications as "innovation journalism", and I have found prominent journalists who are enthusiastic about calling themselves "innovation journalists". The purpose of the international program is to give some of these editors and journalists an opportunity to develop their innovation journalism skills, and to form a community. In a year we might know if "Innovation Journalism" may be a journalistic discipline – a new reporting beat.

VINNOVA is managing the program in co-operation with the Swedish Foundation for Strategic Researchⁱⁱ, the US Council on Competitivenessⁱⁱⁱ, and Profnet^{iv}.

1.1 The concept of Innovation Journalism

Many important companies develop and sell innovation-based products today. In order to discuss the future of such a company, it is very important to assess their innovation. How strong is their R&D? How strong is their innovation management? Will they be able to earn money on their innovations? These questions calls for investigation and analysis of the links between technology trends, R&D policies, immaterial property rights, investments, technical standards, industrial production processes, marketing of new technologies, business models, politics, and more

If reporters are to offer a well-founded opinion about whether or not a society or company is heading towards growth, they need a thorough understanding of both technology and business matters. A piece of good technology with bad business management is a guaranteed failure. A piece of bad technology with talented business management may create false expectations, where many investors inevitably will lose their money. Decisions by lawmakers can strengthen or weaken various crucial parts of the innovation system that transforms an idea into a revenue-generating

product. Thus, innovation journalists need to understand the markets and become well informed about the leading interests, their relations to each other, and their agendas.

This is the basis of the argument that innovation journalists may have a niche and an arena for a new professional community that could also become a new school of journalism. If the concept is viable, it might better equip reporters to contribute with dialogue and criticism that inspires companies and lawmakers towards sustainable growth, and scrutiny that inspires the public and investors to raise well founded questions.

1.2 The need for Journalism

Communities consist of people who interact around something they have in common. Community members share concepts that are parts of their identities, such as ideas, various aspects of professional and family life, forming a culture. A large part of the community awareness is the sharing of knowledge about the protagonists – who is who, who said what about who, and who is doing what.

In general, for most communities, if a statement is considered true or not by the community is not determined by how well the statement is formulated or by whom. It is determined by how often it is repeated and by how many sources. If many sources say the same thing often, people feel that is has to be true.

If a statement is well formulated, or stated by an authoritative protagonist, there can be an increased probability that it will be repeated by others, but usually active marketing is needed for a concept to reach "critical mass", when community members will start repeating the statement because everybody else is repeating it.

The free press is one of the dominant direct sources of shared knowledge in large populations today. While a teacher reaches hundreds of students, a journalist reaches at least thousands or millions of readers.

This is why it is essential for journalists to analyze trends and relations, call attention to key developments, kill rumours, blow the whistle on foul play, and call for the attention of the community. Furthermore, it is just as important that different journalists cover different viewpoints and perspectives, since objective truth does not exist and pluralism is the only constructive alternative. Most people repeat what is said in the news, so the journalists' level of understanding about the reported matters may often be

of fundamental importance for the level of insight in the public debate and the quality of the shared common knowledge.

Most people don't have the time to carry out research on their own about issues they feel are of importance or are interested in. They rely largely on information produced by journalists. Four out of five Swedes read a daily newspaper about half an hour per day. The average Swede devotes six hours a day to media consumption including newspapers, magazines, books, radio, TV, CD, video, and various Internet distributed content, according to statistics for 2002^v.

This makes the relation between the press and the community symbiotic, in some cases to the extent that they can define each other. The one helps the other to grow, and an open pluralistic community without its own press will be limited in important aspects that depend on the sharing of larger amounts of knowledge, such as economic growth.

Commercial publications depend on their ability to target communities successfully. Advertising brings in the money, and in order to sell ads, the publication needs to offer qualified target groups for sales ads or job ads. The price of ads depends on the access to readers and the amount and quality of the readers who are attractive for the purchasers of the ads.

Hypertext, multimedia and interactivity via the Internet offer publishers possibilities for deeper coverage than paper print can offer. Hopefully, once the Internet has become the leading distribution channel for news, we can expect intensified knowledge competition between news publishers. A high-quality news site with an archive and a search engine eventually becomes a great research library. Today it is more important than ever to invest in the development of journalistic education, research, and tools that promotes knowledge competition in the news media.

A few Swedish programs have already been created for promoting knowledge competition in the media, such as: basic training in Internet- and computer assisted research for professional journalists^{vi}, media training of academics heading collaboration projects between industry and academia^{vii}, and the development of advanced news delivery services and expert networks that enable reporters on deadline to find experts quickly^{viii}.

1.3 The need for Innovation Journalism

Innovation has a lot more to it than just technology. Innovation is also about management systems that drive growth. Peter Drucker^{ix} defines innovation as "the act that endows resources with a new capacity to create wealth". For

example, in the beginning of the nineteenth century there were dozens of harvesting machines on the market, but the farmers could not afford them. Eventually one of the many harvesting-machine inventors, Cyrus McCormick, invented instalment buying. This enabled the farmer to pay for a harvesting machine with future earnings rather than out of past savings. Suddenly the farmer could buy farm equipment.

Innovation is also about government management. An innovation-driven economy requires a country to improve its ability to compete and create a high living standard. According to Michael Porter^x, economic development is a process of successive upgrading, in which a nation's business environment evolves to support and encourage increasingly sophisticated and productive ways of competing for companies based there. A nation may upgrade itself from a factor-driven economy to an investment-driven economy to an innovation-driven economy, which is the most advanced stage of economical development. The national business environment in the highest stage is characterized by strengths in all relevant areas with a large degree of interaction in clusters. More sophisticated company strategies require, among other things, a highly skilled workforce, improved infrastructure, and more advanced research institutions. Sophisticated company strategies also require increased access to better information for the company's decision-making process.

Innovation is not only about technology and management; it is also about social systems and cultural trends. In 2002, in the sobering wake of the financial bubble often referred to as "the new economy", IBM chairman Lou Gerstner^{xi} wrote that "technology itself isn't some force of nature that we simply direct or use. It, too, is the product of human intentionality and choice. So yes, we apply technology to solve customer problems. And we also apply marketplace knowledge to help shape our research agenda — whether it's the direction of the economy, or growth opportunities, or emerging forms of governance and education, or demographic and social trends, or discoveries in other fields such as life sciences."

Accordingly, in advanced economies today, public policy, higher education, R&D, manufacturing, marketing, and financing are being intertwined in innovation systems^{xii}. The innovation-aimed interaction across industries, universities, and the rest of society is increasing together with the economic impact of innovation and the growing consciousness of innovation systems. "Innovation" is an increasingly popular expression, used in power contexts such as "innovation policy", which generates 33900 Google-hits. "Innovation policy" is thus gaining significance in comparison to the more established term "technology policy", which generates 399000 Google-hits^{Xiii}. This indicates a potential to establish innovation journalism.

Shared knowledge and increased interaction between different professions, such as engineers, business executives, academics, and politicians, strengthens the innovation systems. Many technologies are important for innovation, such as information technology, electronics, life sciences, materials, transportation technologies, etc. This is why we sense a growing need of news publications that can be shared across innovation systems, publications that offer a combination of what is offered today separately by trade journals, technology journals, business magazines, and newspapers. The potential readers are innovation professionals of various sorts, such as researchers, engineers, business executives, lawyers, public administrators, and politicians.

During the bubble of the new economy, those who handled the money took the technology for granted, and those who handled the technology took the money for granted. Everybody wanted to believe that the other actors were doing their jobs based on educated decisions and sound judgement. If the IT innovation systems had been investigated by qualified innovation journalists with a systematic approach, the chances would have been greater that the players within the new economy would have been forced to moderate their behaviour, perhaps decreasing the serious consequences.

Another significant factor that inflated the bubble of the new economy was the generally overenthusiastic estimation of the time needed for innovations to be accepted. Everett Rogers'xiv classical book "The Diffusion of Innovations" demonstrates that many innovations, even when they have obvious advantages, require lengthy periods – often many years – from when they become available to when they become widely adopted. Again, we would have gained from innovation journalism that could have blown the whistle. Ironically, skilled and consistent innovation journalism coverage might also have increased the speed of diffusion of innovations.

Innovators are exposed to social dangers because they create changes. The problem is not new, and Machiavelli^{xv} explains it well: "the innovator has for enemies all those who have done well under the old conditions, and lukewarm defenders in those who may do well under the new. This coolness arises partly from fear of the opponents, who have the laws on their side, and partly from the disbelief of men, who do not readily believe in new things until they have had a long experience of them. Thus it happens that whenever those who are hostile have the opportunity to attack they do it like partisans, whilst the others defend lukewarmly". Innovation journalism can increase the chances for innovators to survive and succeed.

For innovation journalism to succeed, it is not enough that society needs it. Neither is it enough that many individual readers need it. Revenue streams are needed for innovation journalism to succeed. There has to be purchasers

of ads, and innovation journalism offers a potential ad market, for example high quality job ads, ads for patenting services, ads for R&D tools, and services or ads for market research tools and services.

According to Porter, innovation is the top level of national competitiveness, so it seems reasonable that players on the innovation arena should be exposed to sufficient competition that can drive them to buy ads. It also seems reasonable that they should have sufficient financial resources to buy ads. Thus, one of the most important tasks ahead is to identify customers that are willing buy ads, and find the consumer statistics that will help the advertising departments to make a strong argument to sell ads.

As crass as it may sound to a journalist with a solid integrity, these are, nevertheless, the fundamental market mechanisms and rules by which their publications live and exist. However, it is not the journalists' task to make these considerations. Naturally, this task is to be independently performed by the commercial executives of the news operations as the reporting beat unfolds and develops.

The Internet increases the possibilities for niche marketing that ought to be particularly interesting for innovators. Consequently, there are enormously interesting possibilities for new services and drastically lowered marginal costs for production and distribution of news. However, the Internet also offers great challenges.

1.4 Testing if Innovation Journalism can become a discipline - a new reporting beat.

Sweden is the most knowledge-based economy in the world today, according to OECD^{xvi}. Sweden spends 6.1% of its GDP on R&D, software, and higher education. Sweden is the cradle of well-known innovative technology companies such as Ericsson, ABB, Volvo, Saab, AstraZeneca, Pharmacia, and many others. It is also the cradle of other innovative companies such as IKEA and H&M. Through VINNOVA, the concept of innovation systems has penetrated society. The potential market for innovation journalism should be promising. There are some well-known trade magazines performing coverage that can be referred to as innovation journalism already. These publications are, consequently, positive to the concept. Furthermore, there are other business magazines and daily newspapers that have shown interest in the concept, thus willing to look closer into it.

But even though conditions look promising for the development of innovation journalism, initial government support is needed to get the development started. The Swedish media market has small resources for R&D and competence development, and very few philanthropic funding sources to confer with. The market is characterized by small margins, strong competition, and a high sensitivity to economic fluctuations. Media therefore focuses its coverage on the immediate future with small possibilities to invest in pre-competitive research.

It is important to stress that Innovation journalism, if it should be developed at all, must be developed by journalists. Journalists who may be called "innovation journalists" exist already today, but the question is if and when they will actually choose to call themselves "innovation journalists" instead of "business journalists", "technology journalists" or something else. And – if they do – who will dedicate himself to develop a professional community with his peers? What the nation can do is to give interested journalists and editors a chance to develop themselves together, maintaining respect for journalistic integrity at all times.

This is the challenge of the program "Innovation Journalism" xvii. The program aims at developing Innovation Journalism by sponsoring the personal competence development of some selected innovation journalists, encouraging team-building within the selected group, and supporting networking activities around the selected innovation journalists and the group.

VINNOVA is funding a fellowship of at least five innovation journalists. Two of the most important criteria for qualification is that applying selected reporters and editors self-identify as potential "innovation journalists" with full support from their highest newsroom executives. The selected fellows will be given an opportunity to work for at least four months at leading news, business, or technology publications outside Sweden viii. The fellows will be given the opportunity to develop their skills within the beat of innovation journalism, and to extend their professional networks. The fellows will be encouraged to interact with each other during this time, perhaps forming the core of an innovation journalism community. A number of activities will be arranged to support the fellows, such as discussion groups, and visiting delegations with interested decision makers that may contribute in the creation of support networks around such a core community. This program model has been used earlier with great success. xix

The duration of the whole program is eighteen months. The program and is divided into three phases:

- 1. Preparations and selection processes (8 months)
- 2. International exchange for build-up of fellows' knowledge, skills, and international networks (4–6 months)

3. Workshops, possible pilot tests, and national networking (4 months).

One particularly important cornerstone of the program is journalistic integrity. The contacts between the selected fellows and the hosts are to be handled directly by each fellow. The program management will not determine how fellows and hosts pair up with each other. Neither will program management under any circumstance influence the choices of topics or the articles that are written by the fellows. A VINNOVA program committee, chaired by a formed editor-in-chief of a major Swedish newspaper, who will also be advising the program director throughout the process, performs the selection of fellows.

The preparations for the program started in January 2003. Expressions of interest from potential hosts were collected until June, and a call for applications from applicants, co-signed by their editorial chiefs, was launched in July. The program committee screened the applications in September, and the process of matching fellows and hosts is currently ongoing. The fellows will be abroad during Q1 and Q2 2004. Workshops and possible pilot test will be carried out in Q3 2004.

We will follow the project actively with the aim to evaluate the results with a scientific approach.

David Nordfors is Special Advisor to the Director General at VINNOVA. He is the founder and program director of the VINNOVA-program "Innovation Journalism". Nordfors was the director of research funding of the Knowledge Foundation, KK-stiftelsen, one of the largest Swedish research foundations, where he also designed the public relations and information dissemination strategies. He wrote several reports on technological incubators for the Swedish government, which were followed up by several bills to the parliament. Nordfors has a background as a journalist and a scientist. He served as Science Editor of Datateknik, the largest Swedish magazine for IT professionals, and Editor for the Internet Societal Task Force, affiliated with the Internet Society. He initiated and headed the first hearing about the Internet ever held by the Swedish Parliament. Nordfors was also the founder and editor of the bi-weekly newsletter "IT and Learning" (IT och Lärande), read by 75% of Swedish school professionals, and headed the initial stages of setting up "Sajber", the first public service television news series about IT, viewed by over 10% of the Swedish population.

David Nordfors has a Ph.D. in molecular quantum physics from the Uppsala University, where he was a part of the research group of Prof. Kai Siegbahn (Nobel Prize in Physics 1982). After completing his dissertation he committed himself to research in theoretical chemistry at the University of Heidelberg. Nordfors has published scientific papers in physics, chemistry, and knowledge communication.

ⁱ Google search made on ["innovation journalism"] 21 September 2003. Besides the VINNOVA Innovation Journalism programme, one single hit was made for the expression. This hit did, however, not refer to journalism nor to industrial innovation: Bilalova A.N: "The Novitas" as a New Form of Innovation Journalism. (The Novitas 2002, N8).

[&]quot;The Novitas" is a scientific journal published once a year by the Kazan University in Tatarstan. Hhttp://www.kcn.ru/tat_en/science/novitas/nv8.htmH

ⁱⁱThe VINNOVA program "Innovation Journalism" is supported by The Swedish Foundation for Strategic Research (SSF), represented by Henryk Wos and Staffan Normark. SSF supports research within natural sciences, engineering, and medicine, granting funds from the yields of their \$1 billion USD (2002): Hhttp://www.stratresearch.se/H

The Council on Competitiveness (CoC), represented by Chad Evans and Jennifer Sue Bond, is a U.S. partner of VINNOVA in the program "Innovation Journalism". The CoC is a forum for elevating national competitiveness to the forefront of national consciousness,. The membership is comprised exclusively of CEOs, university presidents, and labor leaders: Hhttp://www.compete.org/H

The Profnet, represented by its founder and CEO Dan Forbush, is a U.S. partner of VINNOVA in the program "Innovation Journalism". ProfNet (Professors Network) is dedicated to linking reporters quickly and conveniently with expert sources. ProfNet today links reporters to more than 1,000 colleges and universities in North America and Europe.: Hhttp://www.profnet.comH

^v Nordicom-Sveriges Mediebarometer 2002, Nordicom, Gothenburg University, Sweden, ISSN1101-4539. Hhttp://www.nordicom.gu.seH

vi In 1996 David Nordfors initiated the project "Internetpiloten" together with Michel Bajuk, Bo G Andersson and Mark Comerford, and the Swedish Association of Investigative Journalists (Föreningen Grävande Journalister). Nordfors was then a director at the KK Foundation (Hhttp://www.kks.seH), which had been created by the Swedish parliament with the initial task to spread the use of information technology in Sweden. In this pilot project a crew of highly skilled reporters brought a mobile Internet connected network of laptop computers to a number of newsrooms, training the journalists in using the Internet for journalistic research. Most of the participating journalists embraced the new tools immediately with great enthusiasm. The results were documented by A. Sahlstrand in "Internetpiloten – En utvärdering av en introduktionskurs i Internet för journalister", a report to the KK Foundation and Föreningen Grävande Journalister, Stockholm 1997. (Research performed at The Department of Media, Journalism and Communication at the Stockholm University). The experiences from the pilot training program influenced the evolvement of teaching methods of Internet training within the journalism program at the department. The pilot training program evolved into a permanent course that for several years was the most popular training offered by Föreningen Grävande Journalister. The training program has reached a significant portion of large and small Swedish newsrooms alike, and, consequently, a large number of journalists.

vii T.Tydén, D.Nordfors. "Infopac – Researchers learn Research Dissemination by Doing". Science Communication, Vol21 No.23, March 2000,296-308.

viii D. Nordfors, M. Bajuk, L. Norberg, J. Brinkmann and D. Forbush. "Introducing Internet-Enabled Expert Networks in a Country", to be published in the Nov 2003 issue of Communications of the ACM.

^{ix} Peter F. Drucker: "Innovation and Entrepreneurship: Practice and Principles", Harper & Row, New York, 1985.

^x Michael Porter: "Building the Microeconomic Foundations of Prosperity" from the Global Competitiveness Report 2002-2003

xi Louis V Gerstner. Chairman's letter. IBM Annual Report 2001.

xii A deeper analysis of the interactions between public policy, academia, industrial R&D, marketing, and financing is available in the book "Commercialization of Academic Research Results" D. Nordfors (ed.), J. Sandred (co-ed.), C. Wessner (co-ed). Publication series "Innovation policy in focus", VINNOVA Forum VFI 2003:1 (Stockholm 2003)

xiii Google, Sep 23 2003 Hhttp://www.google.comH

xiv Everett Rogers, "The Diffusion of Innovation" Free Press; 4th edition, February 1, 1995

^{xv} Niccolo Machiavelli, "The Prince". Chapter VI: Concerning New Principalities Which Are Acquired By One's Own Arms And Ability.

xvi OECD, Science Technology & Industry Scoreboard 2001

xvii "Innovation Journalism" VINNOVA program Dnr. 2003-01451, 1 Jul 2003. Hhttp://www.vinnova.se/innovjourn/innovjourn en.htmH

wiii We have invitations thus far from The Wall Street Journal, Fortune, Nature, San Francisco Chronicle, Business 2.0 and Wired.

xix An earlier Expert Network project used the same model of fellowships, international hosts, networking and concept building: D. Nordfors, M. Bajuk, L. Norberg, J. Brinkmann and D. Forbush. "Introducing Internet-Enabled Expert Networks in a Country", to be published in the Nov 2003 issue of Communications of the ACM.