

## Welcome and Opening Addresses

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# The role of information in science and society

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When the Akademische Verlagsgesellschaft was founded in Leipzig a hundred years ago today, on 4 April 1906, all was still right with the world as seen by publishers. The role of information for science and society was firmly established: the key medium was the book; the circle of buyers and users was clearly defined, and the market was undergoing continuous growth. Max Weber had interpreted knowledge as the capacity for social action. The production of knowledge was part of the routine of the educated classes, based on the humanist ideals of the universities and academic societies. Those, who were involved back then, could not have imagined, that a hundred years later, the dynamics of knowledge production would become the dominant control mechanism in society. Nor that public debate would no longer correspond to the production of knowledge.

Cultures have always changed and developed their media; they have produced their own technical possibilities. And conversely, new technical possibilities have reacted upon the structure of science and culture and their development. It was already true a hundred years ago, that the users of books could by no means take on board all the information produced in print. But given today's unprecedented supply of information and the ever widening gap between this supply, its value-adds and the search capabilities on one hand, and the human capacity for information retention on the other, "a technological drama is looming such as never experienced in this way before. When one day Google will have digitised the entire handed down stock of documents and writings held by libraries, users' time budget will not extend to any other use of this than being able in turn to place their own products on the Internet and making them the object of intelligent search operations", is the prediction from Henning Ritter in the *Frankfurter Zeitung* last week. Is this what scientific researchers and information processing publishers should be worried about?

When last week the German federal government's projected bill for the implementation of the EU Directive on Copyright in the Information Society clearly contradicted the Bern Convention and the EU directive by allowing libraries to offer digitised versions of books they do not even hold in a print format – to give one example – then a mood is sensed in society – Wulf D. von Lucius has described it as a fatal combination of the financial difficulties facing the German federal states, the open access movement and the attitude that science is paid for by the state anyway – and does not need to be financed for a second time through the sale of information. Christian Sprang will analyse it (pages 177–183). When leading legal experts in Germany, such as Reto M. Hilty last week, describe the title of the EU directive as "misleading to a high degree" because it is not "geared to the needs

of an information society worthy of the name, but first and foremost to the culture economy”, then what we see here is a confident separation and autonomous positioning of scientific creative work away from its cultural objective and its consequences for civilisation. “Further research”, writes Hilty, “often depends on indispensable information. Based on this dependence, many a commercial user succeeds in enforcing prohibitive conditions of access and use”. Thus with one bold twist, the value-add that publishers create with their work is transformed into an instrument of coercion. And Hilty goes on to say: “It is certainly possible to have some understanding for the challenges facing this sector (meaning publishing companies) as a result of modern technologies; if, however, their lobbying efforts go so far as to ensure that the European legislator overlooks the most fundamental national economic interests, then this is a highly disturbing diagnosis”. One is inclined to ask, does this mean that culture and its diversity should not also be counted among national economic interests?

A hundred years ago, when the Akademische Verlagsgesellschaft was founded, the telephone was one of the information innovations of its time. Paul Valery reports what happened to the painter Edgar Degas with the new telephone engineering. A friend arranged for a telephone to be fitted in his new house. Wanting to impress Edgar Degas, he invited him to lunch, having first arranged for someone to ring and ask for him on the phone during the meal. A few words were said, the friend returned expectantly. As cool as you please, Degas commented: “So, that’s the telephone, is it? . . . Someone rings for you, and off you run”. That anecdote from the beginning of the last century and the current events of this last week and demonstrate, that we are well advised not to simply consider the explosion in new technological functions as an achievement, but also to be aware of their lasting effect on us ourselves. As we see, this conference, at which I am very happy to greet and welcome you, will not be able to pursue peripheral questions on the change in scientific publishing, but rather must push forward to the crux of the qualitative alteration of the information market. In what way do the new information and value-add chains alter publishing and book culture? How can book culture utilise the cultural “technique” of digital information and promote it? Or will its autonomous character lead to the dissolution of traditional book culture? Do books take up too much time? Are they too expensive? Are there now only five publishing companies in Germany to mention, as our research minister seems to believe? (Incidentally, there are currently 758 publishing companies in Germany focusing on academic and scientific literature, of which 548 publishing companies have a sales turnover of up to 1 million euros, 158 publishers have sales of up to 10 million euros, and 52 publishing companies have sales of over 10 million euros.)

If the culture of scientific publishing is to be promoted through arrangements and programmes that are determined neither by euphoric belief in progress nor by cultural nostalgia, neither by ignorance of the market nor by profiteering at the expense of science, then there will have to be intensive use of the growing new technical possibilities, but these must then be aligned to the features that have made traditional book culture into a distinctive element in all contemporary cultures. Culture, let it be remembered, creates, like dialogue, understanding of analogous contents. It is only, when these contents are given permanent expression in the written artefact, that culture can evolve as a process that reaches across generations, that links tradition with change, that repeatedly brings new individuals to their second socio-cultural birth and that opens up to other cultures as a verifiable presence.

The freedom of expression and to exchange opinions, that is a part of successful human life, must manifest itself in cultural rights in a culture of written documentation. The human right or the fundamental right to freedom of speech is flanked by the cultural right that combines the authenticity of the cultural product – paradigmatically tangible in the case of the scientific text – with the free flow of information and open access for all. This process has found its definitive form for modern culture in the medium of the book which gives lasting protection to the intellectual property of the author, in the shape

of publishing, which makes this property available to everyone by means of its production and distribution through the market. It is no accident that essential parts of its characteristics enjoy the protection of cross-border rights as expressed in the EU directive, for example.

How are the new technical possibilities to be exploited without at the same time removing the objectives for which they have been developed – Edgar Degas seems to have realised this a hundred years ago. If it is true that culture is a part of human success, then it makes sense for the rules sought in answer to this question and to be discussed at this conference today and tomorrow, to be aligned to the worthiness of protection derived from human rights.

The programme for this conference marks out the areas in which regulatory arrangements appear to be urgently necessary. In the light of the worthiness of protection as already mentioned, this applies above all to three elements:

(1) Protection is required for what could be called the durability of the published item, its character as a work, or its authenticity. How can the electronically communicated structuring of a text be protected from its constant susceptibility to change and manipulation? How can the intellectual property be protected? How the unique and distinctive work involved in the publishing process? How can the recipient's right to the unaltered text structure be guaranteed?

(2) There are particular difficulties involved in seeking to establish the filter systems without which it is not possible to achieve the open public access that is an essential aspect of the modern cultural state. The observance of the bounds of "common decency and public order" is beyond dispute. But how can digital filtering be achieved without at the same time limiting individual freedom of speech? What has evolved in the publishing world in the course of a long process of experience and learning has yet to be acquired by digital publishing.

(3) And finally: if the link between printing, publisher and market is to be upheld, then the general open accessibility must not be paid for with an even only partial destruction of the market and thus the economic basis of publishing. This is not because the interests of publishers are to be protected. They are to be protected no more and no less than the interests of other market players. It is far more a matter of preserving the one distribution tool that all experience has shown to be the most efficient in managing to ensure the combination of the characteristics of successful information: permanence, selectivity and public access. Our questions will therefore be directed to what could take the place of these characteristics when it comes to digital information: freedom of choice for authors, freedom of choice for publishers, cross-border freedom of distribution and the right to intellectual property.