PROTECTING WORKS OF FACT

Copyright,

Freedom of Expression and Information Law

Egbert J. Dommering (ed.)

P. Bernt Hugenholtz (ed.)

INFORMATION LAW SERIES - 1 Protecting Works of Fact

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Protecting Works of Fact Copyright, Freedom of Expression and Information Law

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Preface

With the year 2000 in sight, the information age is rapidly becoming reality. New information services are introduced each day, using telecommunications networks or newly developed carrier media. Factual information, such as stock market data, telephone service listings, weather reports, topographical data and business news, have become a very valuable commodity. And wherever business is booming, piracy is looming.

Can copyright law provide adequate protection? Can works of fact constitute original works of authorship? Is there a conflict between protecting works of fact and the freedom of expression? Are information monopolies compatible with the EEC Treaty?

'Protecting Works of Fact' is about these and other dilemmas of information law. The book is a collection of articles originally presented at the *Copyright in Information* conference, which was organized by the Institute for Information Law of the University of Amsterdam. The conference, which took place in Amsterdam on December 1, 1989, attracted some 120 participants.

Of course, since then important developments have taken place. Recent Supreme Court Decisions in the Netherlands and in the United States have put the protection of works of fact on top of the agenda of the copyright community. Both decisions, which are included in this volume, prove the same point: traditional author's rights doctrine is not suitable for protecting works of fact. New ideas on copyright and related rights are needed. This book offers a few.

As an added feature, the book contains an elabourate general introduction to information law by Egbert Dommering, in which he sketches an outline of the emerging field of information law. Not surprisingly, Dommering's approach to information law reflects the research programme of the Institute for Information Law. The Institute, which was founded nearly five years ago, presently employs over twenty researchers.

Protecting Works of Fact is the first volume of the Information Law Series. The series will cover a wide range of topics within the domain of information law: copyright law, right of publicity, broadcasting law, press law, telecommunications law, freedom of expression, freedom of information, privacy, etc. The series is supervised by an International Board of Editors.

The editors wish to thank the authors – Prof. Jane Ginsburg, Prof. Gunnar Karnell, Dr. Thijmen Koopmans and Prof. Michel Vivant – for their excellent contributions, Ms Carien van Boxtel for brilliantly organizing the *Copyright in Information* conference, Ms Lou Punt-Heyning, Ms M.D. Clegg and Ms Liena van Oijen for translating, and Ms Herien Tjabbes for typing and correcting.

Last, not least, special thanks are due to the Netherlands Organization for Libraries and Information Services NBBI, the Hague, which acted as principle sponsor of the Conference.

Amsterdam, May 1991

Egbert J. Dommering P. Bernt Hugenholtz

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Chapter I

An Introduction to Information Law Works of Fact at the Crossroads of Freedom and Protection

Egbert J. Dommering*

I. Information Law

1. THE INFORMATION SOCIETY

What exactly is an information society? Those with a pessimistic view of our culture's future define it as a society in which (to quote Neil Postman) 'we amuse ourselves to death' through the stultifying consumption of the media; a society in which Orwell's Big Brother is watching the citizens by collecting information about them and storing it in systematically accessible data bases, thus violating their privacy; a society in which pirates use increasingly sophisticated reproduction techniques to pirate copyright works or in which computer hackers force their way into computerized information files; a society in which citizens are inundated with a plethora of information in increasingly dazzling disguises. And so on, and so on.

This is not meant to be a preamble to a pessimistic discussion of our culture's future. The case has been exaggerated merely to provide a starting-point. Our society has reached a phase at which information has become a 'commodity', which is replacing material goods to a considerable degree. As a product, information has become an indispensable element in our everyday thoughts and acts which is worth a lot of money. It may take many forms, ranging from the news of far-flung calamities via satellites or the rapid exchange of financial data over immense distances essential for the functioning of world markets, to systematically-accessible information in medical data bases.

The response of the law to this trend is: specialisation. Such specialisation does not take the same form everywhere. That is why the present essay will start with a survey of information law. Subsequently, the discussion will concentrate on what are called works of fact.

^{*} Egbert J. Dommering is Professor of Information Law and Director of the Institute for Information Law, University of Amsterdam, and admitted to the Bar of the Supreme Court (Hoge Raad) at the Hague.

2. SPECIALISATIONS IN THE LAW

Information law is a specialised branch of the law. This means that it is wrestling with all the difficulties which arise when legal specialisms develop. Therefore, I shall discuss these general problems first. The problems may be classified as follows:

a) The technological factor

The development of new technologies is an important driving force behind the development of new legal specialisations. Mechanical technology led to specialisations like building law and physical planning law. The combustion engine encouraged the development of traffic law (and related specialisations within the field of tort law, for instance the law of injury). The development of environmental technology set in motion the development of environment law, just as medical science caused the emergence of health law. To this list the mass media and informatics are now adding media law and computer law, respectively.

All modern specialised branches of the law are trying to find the answer to the specific technology that is the subject of their studies. Health law attempts to apply our moral and legal rules concerning death and life to in vitro fertilisation and euthanasia, computer law is trying to do the same to computer aided design and computer viruses.

b) The government

Technological development goes hand in hand with the increasingly prominent role played by the government in those sections of society which are concerned with the technology in question. The technical factor is not the only reason for this, however, for government intervention is also determined by political and social developments. The concept of the 'welfare state' was created by political welfarism. When the welfare state was being created, the government was assigned the role of making regulations to guide and control social developments. Now that welfarism is being critically reviewed and the old welfare state concept is finding less support, the notion is emerging that we should make regulations to reduce or control the regulations themselves.

In terms of law the social welfare policy of the build-up phase was translated into what the Germans call a 'Normenfluss'. This stimulated the juridical debate on the vagueness of many basic standards which were indeed still laid down by parliament, but left wide discretionary powers to the executive, which in its turn started to make more and more detailed regulations. Indeed, the objective was to create a mixed public/private economy with highly regulated markets. Society was 'makable', wasn't it?

With the welfare state in retreat, we face deregulation or even metaregulation. Now, the question is whether the state can in fact play the guiding role assigned to it at the time of welfarism. Is it necessary to adjust the market by means of financial and legal instruments? What is the task of the government in imperfect markets? The effectiveness of regulation is increasingly becoming a subject of discussion as well.

It is a characteristic of the specialised branches of the law that they are intensively concerned with the issues of regulation and deregulation in 'their' sectors. Health law is going through a process of deregulation and liberalisation. The same is currently happening in the broadcasting and telecommunication sectors.

c) The social sector

The social sector, which is facing the developments outlined in paragraphs a) and b), needs advisers with sufficient 'inside knowledge' of the branch to solve any problems which occur without the functioning of the branch and the applicable rules and common practices and techniques having to be explained first. Time is money and this calls for specialised experts who (sometimes with the aid of expert systems) can solve the problems submitted to them better and more quickly than non-experts. Hence the fact that specialised branches of the law usually focus on the special characteristics of all the rights and obligations occurring in their branch. The law of informatics is concerned with the terms and conditions of computer agreements, media law studies the terms of employment of mass media employees.

Technology, the role of the government and the legal characteristics of the branch: these are the ingredients we find in many legal specialisations. I would call this form of specialisation: pragmatic or functional specialisation. It selects the problems of public and private law belonging to a specific sector of society in order to study them in cross-section. So one might call functional specialisation a form of a posteriori specialisation. It works from the concrete towards the abstract, for instance from the computer to copyright law, from the mass media to freedom of expression, or from medical technology to the right to life.

The opposite approach is the conceptual approach, which takes the theory of law as its starting-point. Its nature is rather a priori. It takes the general legal doctrines embedded in public law and private law (sometimes held to be the most general law) for its point of departure. It goes from the abstract to the concrete. This abstract legal thinking (which has its origins in the 'ius imperium' and 'ius dominium' of Roman law) is deeply rooted in continental tradition. One still finds it in the structure of law studies, whose hard core is formed by the study of the principles of private law and public law. Special branches of private law (e.g. commercial law or intellectual property law) and of public law (e.g. administrative law) are derived from these general principles.

In the conceptual approach, technological developments are phenomena which have to be fitted into existing general doctrines. Any issues pertaining to the law of evidence and the law of procedure to which computer output or telefaxes give rise, must be tackled on the basis of the general principles of the law of evidence and the law of procedure applying in private and public law. The problem of software protection is seen as a special case to be covered by intellectual property law. Issues of privacy and the free circulation of information must be approached from the general theory of fundamental rights, such as those of privacy and freedom of expression.

The conceptual approach sees legal specialisations as passing ripples on the surface of new social and technological developments. Once they have been grasped and their legal value tested, they can be classed under the general law categories distinguished in the main traditions, either by interpreting or by adapting existing

rules. What remains of the specialism is at best a specialised expert: an idea which has been fixed into a specialized tool, a giraffe among the vertebrates.

Of course, the contrast between the functional and the conceptual specialisations, between the *a posteriori* approach and the *a priori* approach, is not absolute. In many of the functional approaches one finds elements of legal theory as well. Often, a specialisation displays a particular fascination with a specific general tenet from one of the main traditions. For media law this is the freedom of expression; for informatics law the dogma of privacy. And the conceptual approach, too, adapts to empirical reality. Within the main tradition of private law, for instance, disciplines develop whose subject is all the problems attendant upon a specific *role* of the holder of a title in a market economy and which cover a cross-section of the law. Consumer law and the law of product liability are well-known examples. Similar developments can be pointed out in public law as well, for instance aliens law.

Moreover, the main conceptual traditions are interlocking, in two ways.

The role of the authorities has so deeply penetrated social life that virtually every legal problem has both a private law aspect and a public law aspect. The occupant of a house who is inconvenienced by construction work in his neighbour's garden, will take action against his neighbour on the grounds of principles of neighbour law going all the way back to Roman law, but he will also allege that his neighbour failed to obtain a valid building permit from the authorities.

The second development is the interweaving of the national legal systems with international law. In Europe this phenomenon occurs in particular in the member states of the Council of Europe and the European Economic Community. Both these international legal communities produce rules of law regarding the basic rights and fundamental economic freedoms which member states are required to apply with priority over their national laws. Within the European Community, moreover, whole segments of both public and private law are gradually being harmonized by means of EC legislation.

So the effects of legislation of supranational origin on national law entail that the latter is always applied in conjunction with the former. We find this mixture in virtually all legal specialisms, the outcome being that they often play a pioneer role. Transborder broadcasting challenges national legal systems that want barriers to the reception of foreign broadcasting stations contrary to the principle of the 'free flow of information' as defined in article 10 of the European Convention of Human Rights and Fundamental Freedoms, or that of the free movement of services as embodied in article 59 of the EEC Treaty. In such cases, media law serves as a channel for a new development. Computer technology is giving the first impetus to a European harmonization of the part of copyright law which relates to the protection of software. Computer law will then be confronted for the first time with the problems involved in the harmonization of the copyright laws of countries

European Court of Human Rights 28 March 1990, Case 14/1988/158/124 (Groppera); European Court of Human Rights 22 May 1990, Case 15/1989/175/231 (Autronic); European Court of Justice 26 April 1988, Case 352/85 (Bond van Adventeerders), ECR 1988, p. 2085.

^{2.} Draft Directive on the legal protection of computer programs, Comm (90) 509 def Syn 183.

which are both parties to the Bern Convention and members of the European Community.³

3. LEGAL SPECIALISATION AND INFORMATION

3.1 Computers and data storage

When applying the above perceptions to the legal specialisations which have developed around information and communication, one sometimes sees the *a priori* and the *a posteriori* approaches used separately, sometimes in combination. I will try and classify these.

The first group of specialisms takes the automatic data-processing machine: the computer, as its subject of study and labels itself 'computer law'. Collin Tapper's classic 'Computer Law' groups legal problems of ownership, liability and procedure around the computer. The philosophy is simple. Tapper: '5 'In the introduction to the first edition I justified devoting a book denominated by its non-legal subject matter upon the basis that computers operate in so different a way that they justify separate treatment. That view is now widely accepted'. Yet he is aware of the drawback of this technological approach because it does not integrate the computer problems sufficiently 'into that of surrounding and interlocking areas of the law'. He calls this 'tunnel vision'. But his answer to the problem hardly offers much light at the end of the tunnel:

'From a commentator's point of view the need to explain the interaction of ordinary rules and special rules relating to computers imposes a need to indicate in a very short space the basic of almost the whole range of legal subjects. The commentator must range from intellectual property to evidence, from competition law to privacy, and from contract to crime. No one can be a master of all [...]. A possible answer to this is to have a team of authors. The disadvantage may then lie in coordination and coherence of approach.'

A more branch-oriented approach is found in books like 'Computer Contracts' by Hilary E. Pearson. Unlike Tapper's book (but similar to many authors in this field) this book starts with an exposition on computers. Yet Pearson admits to being an adherent of the conceptual view. According to her, computer law is a 'misnomer':

'There is no special branch of law devoted to computers, merely the adaptation of existing legal principles to new facts.'

See Egbert J. Dommering, 'Reverse Engineering: a Software Puzzle', in: Amongst Friends in Computers and Law (H.W. Kaspersen and A. Oskamp, eds.), Kluwer, Deventer/Boston 1990, p. 33 ff., in particular p. 41.

^{4.} Collin Tapper, Computer Law, 4th ed., Longman, London and New York 1989.

^{5.} Op.cit. supra note 4, p. xliv.

Hilary E. Pearson, Computer Contracts, An International Guide to Agreements on Software Protection, Kluwer, Deventer/Boston 1984, p. 4.

The approach to the computer can also come from the opposite direction. In this case the question is what role the computer can play in the interpretation and application of the law. Initially, the application of informatics on behalf of the law focused on legal data bases; currently the interest is directed more at the development of legal expert systems. I shall not be discussing this discipline here, but I would point out that it is coming up against the same antithesis of functional versus conceptual. Is it the information scientist with an understanding of the law or the jurist with a 'knack' for computers, who should be building the data bases or expert systems?

The second group looks slightly beyond the computer itself and concentrates on information traffic patterns in which the computer plays a role. The emphasis in this group is on privacy. In this category a predominantly conceptual approach is found in Germany. The discipline is usually derived from the main public law tradition and it focuses on the privacy issues raised by the (automated) storage and (automated) linkage of data by government bodies. It is known as Datenschutz and Datenverarbeitung. In his lecture 'Die Grundprobleme des Informationsrecht', H.P. Bull tried to give it a theoretical basis. His starting-point in doing so is not information technology but information itself. He states, rightly so, that information nearly always involves two conflicting interests:

'entweder das Interesse an Ihrer Kenntnis, Verwertung und/oder Verbreitung oder dasjenige an Abschirmung, Geheimhaltung, Monopolisierung'.

Bull defines information law as the law of the rights and obligations pertaining to information which reflects these interests and harmonizes them in an appropriate way. Its objective is to promote socially adequate communication. Although the expression 'rights and obligations pertaining to information' may easily be given a wider interpretation, upon further elaboration the emphasis comes nevertheless to lie on the individual's right of self-determination in respect of any information about himself which has been collected and stored and on the individual's rights and obligations vis-à-vis the information-processing (public) agencies.

In Germany and in the Scandinavian countries this approach has recently come to include the prospect of free access to information. This means that the study is also directed at the issue of the free accessibility of information controlled by the authorities. Herbert Burkert has done research in this direction.¹¹

The data protection and privacy approach is also found in the Anglo-Saxon countries, sometimes as case studies, ¹² sometimes as a theoretical cross-section of

See e.g. Richard Susskind, Expert Systems in Law, Clarendon Press, Oxford 1987; A. Oskamp, Het ontwikkelen van juridische expertsystemen, Kluwer, Deventer 1990.

^{8.} H.P. Bull, Die Grundprobleme des Informationsrecht, Tjeenk Willink, Zwolle 1985.

Op.cit. supra note 8, p. 29.

^{10.} Op.cit. supra note 8, p. 34.

Herbert Burkert, 'Data Protection and Access to Data', in P. Seipel (ed.), From Data Protection to Knowledge Machines, Kluwer, Deventer/Boston 1990, p. 49, and publications by the same author mentioned therein.

See e.g. David H. Flaherty, Protecting Privacy in Two Way Electronic Services, Mansell, London 1985.

the law. 13 Recently, Stephen Saxby bestowed the name of Information Law on this approach, although there is a strong emphasis on computer technology. It is concerned with the development 'of the highest standards of competence in information technology, development and exploitation'. 14

In the Netherlands, France and Belgium attempts are being made to combine computer law and data protection in one discipline which has been baptized *informatics law*. This does not only entail the risk pointed out by Tapper, of only a group of authors being able to write a book on the subject, but the danger, too, of the discipline degenerating into a collection of 'subjects' lacking proper coherence. Indeed, one Dutch textbook is entitled 'Chapters on Informatics Law' and contains a large variety of subjects, ranging from bodyshopping, turnkey projects, electronic data interchange to telecommunications, transborder data flow and local area networks.¹⁵

A striking feature in the list of subjects is, that it includes telecommunications. Ever since the computer has increasingly come to be used telematically in combination with telecommunications, this shift in emphasis can be observed in scientific studies. Recently, in France the discipline was indeed renamed 'Droit de l'informatique et des télécommunications' by Jerôme Huet and Herbert Maisl. The authors observe that informatics has by now been integrated sufficiently into the law: 'Le droit de l'informatique trouve donc son prolongement naturel dans un droit de l'information et de la communication'. Although one might conclude that the law of informatics could now be abolished, their book still has many of the characteristics of the 'chapters' found in the law of informatics.

When society was having to adjust to the new informatics technology, the discipline of informatics law served a useful purpose. Now that this has gradually been accomplished, there are no longer any valid reasons to define the law on the basis of a technology. There is indeed no other technology which has provided a precedent for such an approach.

3.2 Mass communication

Media law directs its attention to quite a different area. In this branch of law the technical component is far less dominant: in virtually all the interpretations of media law it is held to comprise both the traditional paper carriers (the press) and the electronic carriers (the broadcasting networks). But the direction the study takes is determined to a considerable degree by the other two components: the role of the State and the characteristics of the branch. Conceptually, the freedom of expression is the central focus of study. The German classic by Löffler¹⁸ defines the

See e.g. Raymond Wacks, Personal Information, Privacy and the Law, Clarendon Press, Oxford 1989.

Stephen Saxby, The Role of Law in the Development of the Information Society, op. cit. supra note 3, p. 213.

Frits de Graaf (ed.), Hoofdstukken informaticarecht, 1st ed., Samson H.D. Tjeenk Willink, Alphen aan den Rijn 1987.

^{16.} Jérôme Huet, Herbert Maisl, Droit de l'Informatique et des Télécommunications, Litec, 1989.

^{17.} Op.cit. supra note 16, p. 19.

^{18.} M. Löffler, R. Richer, Handbuch des Presserechts, 2nd ed., C.H. Beck, Munich 1986.

subject matter of *Presserecht* by reference to the branch: all rules of law applying to the press in its extended meaning, from labour law to copyright law and competition law, ¹⁹ but in his analysis, there is strong emphasis on freedom of expression as the central ordering principle. Public law regulations are strongly stressed, too.

So far, telecommunications has been considered as a separate field.²⁰ A similar approach is found in France.

In the English view of media law, telecommunications also falls outside the field of research. Moreover, disproportionate prominence is given to the contents of the message that is disseminated by a means of mass communication. Geoffrey Robertson and Andrew Nicol devote the major part of their book, which bears the title 'Media law' but is subtitled 'The rights of Journalists and Broadcasters', to defamation and reporting. In this connection they also discuss copyright law, but pay hardly any attention to privacy.²¹ The starting-point of this book is still the freedom of expression.

In Germany and initially in the Netherlands as well, there was a growing belief that issues of media law were interlocking with copyright law issues to such extent that journals started to call themselves 'journals for copyright law and media law'. 22

Traditionally, American literature has paid more attention to the combination of media and telecommunications. New information technologies invariably receive attention as well, as in 'Major Principles of Media Law'. The United States also have specialised branches known as 'entertainment law' and 'communication law' which are concerned with the commercial aspects of the information message. In addition to defamation and privacy, these disciplines are concerned with intellectual property rights and 'the right of publicity': the opportunity of celebrities to exploit commercially their personal audiovisual characteristics.

The term 'convergency' is cropping up with increasing frequency in more recent views of media law and telecommunications law. Although there is no precise definition of the term as yet, it roughly means that issues relating to the media, to telecommunications and to informatics are becoming increasingly interconnected.

A pioneering study in this respect is 'Technologies of Freedom' by Ithiel de Sola Pool,²⁴ in which the press, broadcasting, telecommunications, cable television and electronic publishing are discussed on the basis of the same set of principles. The study 'Critical Connections' by the Office of Technology Assessment of Congress (OTA) of 1990 also works from this angle.²⁵ The report states:

^{19.} Op.cit. supra note 18, p. 1.

See e.g. Joachim Scherer, Telekommunikationsrecht und Telekommunikationspolitik, Nomos, Baden-Baden 1986.

^{21.} Geoffrey Robertson and Andrew Nicol, Media Law, 1st ed., Oyez Longman, London 1984.

See e.g. Zeitschrift für Urheber- und Medienrecht (ZUM), Nomos, Baden-Baden; from 1982 to 1985 the journal of the Dutch Copyright Society was titled Auteurs- en Mediarecht [Copyright law and Media law].

Wayne Overbeek, Rick D. Pullen, Major Principles of Media Law, 2nd ed., Holt Rinchart and Winston, New York 1985.

Ithiel de Sola Pool, Technologies of Freedom. On Free Speech in an Electronic Age, The Belknap Press of Harvard University Press, Cambridge, Mass./London 1983.

Congress of the United States Office of Technology Assessment, Critical Connections. Communication for the Future, U.S. Govt. Printing Office, Washington 1990.

'Technological advances of the last decade have also led to the convergence of communication functions and communication media. For example, data-processing and telecommunication were once clearly distinct sets of operations, carried out by quite different economic actors. This is no longer the case. Digital switching and dataprocessing now serve as the centerpieces of modern communication networks, and the networking of computers into local area networks, metropolitan networks and wide area networks is fast becoming the norm. With the deployment of fast packetswitching and the integration of further intelligence into the telecommunication network, it will become increasingly difficult to distinguish between the functions of switching and transmission'. ²⁶

At the information level, it is digitalisation which leads to far-reaching integration. The report quotes Stewart Brand:²⁷

'With digitalisation all of the media become translatable into each other – computer bits migrate merrily – and they escape from their traditional means of transmission. A movie, phone call, letter or magazine article may be sent digitally via phone line, coaxial cable, fibre optic cable, microwave, satellite, the broadcast air, or a physical storage medium such as tape or disk. If that's not revolution enough, with digitalisation the content becomes totally plastic – any message, sound or image may be edited from anything into anything else'.

As early as in 1980 Martin Bullinger called this revolution a 'Strukturwandel der Telekommunikation'²⁸ which compels us to study processes of both mass communication and individual communication from one and the same legal perspective. The Dutch study 'Verbinding en Ontvlechting in de Communicatie' by J.C. Arnbak, J.J. van Cuilenburg and E.J. Dommering, also deals with these processes of 'convergency' and 'unbundling'.²⁹ The study developed a conceptual terminology and an analytical model for this purpose which will be discussed below.

4. SOME CONCLUSIONS

Computers have attracted jurists interested in technology, accountants and management consultants, people employed in the computer business. They notice only those information patterns which have come across in the world of business. They are business people.

Data banks have attracted jurists who are concerned about the governments growing powers. They are interested in the information patterns of data banks:

^{26.} Op.cit. supra note 25, p. 49.

^{27.} Stewart Brand, The Media Lab: Inventing the Future at MIT, Viking Penguin 1987, p. 18.

Martin Bullinger, Kommunikationsfreiheit im Strukturwandel der Telekommunikation, Nomos, Baden-Baden 1980; see also J. Scherer op.cit. supra note 20, p. 577 ff.

J.C. Ambak, J.J. van Cuilenburg, E.J. Dommering, Verbinding en Ontvlechting in de Communicatie, Otto Cramwinckel, Amsterdam 1990.

registration and the linkage of data. It were the critical constitutional jurists of the late sixties who opposed the censuses.

The telecommunications infrastructure has traditionally attracted telecommunications engineers. They notice only the technical standards and rules serving to protect Post Office monopolies. It is the technicians first of all who have been able to practise their invisible technology unhampered by any social criticism.

The media have attracted the champions of free speech and fashionably dressed entertainment lawyers. They are fascinated by public speech and the glitter of film and television screens. They have become first amendment and copyright lawyers with snob appeal for journalists and media stars.

But then the computer was tagged on to the telecommunications infrastructure; then the screen became a peripheral piece of equipment for broadcasting programmes, computer games and other alphanumeric messages; then the telephone line became a carrier for conversations and information services fed in directly by the computer through a modem. Soon, the telecommunications infrastructure will be offering a single digital ISDN-connection into which all digital peripherals will feed 'plastic information content': sound, moving images, graphic signs. The term 'network' no longer refers to the broadcasting networks but to any communications network linking people to people, people to computers and computers to computers.

All the specialisations discussed above and the jurists of varying social persuasions find themselves in a completely new telecommunications environment. They are confused. What are they to do? Should they abolish existing specialisations? Should they become telematics specialists?

5. INFORMATION LAW: A NEW PARADIGM?

5.1 Subject of study

Information law is certainly not a phoenix rising from its ashes. Nor can it escape the antithesis between the functional and the conceptual approach which has never been quite solved in the specialised legal disciplines. Nevertheless, it offers a new approach which may provide an answer to the blending of areas which used to be separate.

Information law is characterized by a predominantly conceptual approach, which can be described as follows:

a. It takes information and the communication process as its starting-point, regardless of the information technology. The law regulates social and economic functions, but not technological phenomena. Why does media law begin with the press and data protection law with the computer? Why does copyright law begin with the copyright on a spoken text and computer law with the copyright on software? No conclusive arguments can be found for this, except that an understanding of information technology serves as an instrument for posing the right juridical questions. b. It follows the lines of the main traditions of public and private law referred to above, in particular those parts which have information as the object of study: the principles of the law of free expression, the principles of free competition on the markets for information products and services, the principles of the right of privacy and the law of intellectual and industrial property.

As a result of this research is developing along two main lines:

aa. Study of the rules governing the access to and the organisation of the main markets for services which produce and carry information, both from the point of view of the party offering the service and from that of the party buying the service. The parties offering the services are the press (in the wide sense: including publishers of other information products), the traditional performing arts, the electronic media, (electronic) data banks (including government authorities), postal services, telecommunications services and telematics services.

One might call this the study of the institutional aspects.

bb. Study of the rights and obligations pertaining to information. This is something different, therefore, from the separate study of the (electronic) exchange of information which plays a role in the creation of rights and obligations pertaining to other things like for example the buying of share capital by means of electronic data interchange (EDI). In this way it avoids the dilemma of computer law and informatics law. For in proclaiming that the electronic exchange of information is the subject of its legal studies, computer law indeed declares the entire field of the law to be its specialised subject of study. One would have to recruit a host of specialists to deal with it, as Tapper pointed out.

This main line of study might be called the study of the aspects of the individual user.

Because information law studies the legal aspects of the entire communication process as such, it is necessary to obtain a clear picture of this process. So, just like computer law, information law starts with an analysis of the subject in non-legal terms. Such an analysis is made with the aid of knowledge gathered from communication science, informatics, media economics and telecommunications science. The emphasis is not, however, on the information technology, but on the communication process.

So we see that the restriction of information law to the two main disciplines and to information as a good in its own right excludes numerous phenomena which are included by computer law, informatics law or media law: contracts which are concluded concerning the use of information technology (electronic data interchange) or which relate to information technology (computer contracts), questions pertaining to the law of evidence, to labour law, to criminal law, etc. These questions are considered to be variations on existing specialisations, temporarily worth separate study, but eventually to be integrated into the existing main disciplines.

But information law also includes subjects which the technology-based specialisations study on too narrow a foundation. Telecommunications provides a clear example. Information law does not study this subject from the technical point of view in which it is seen as an 'extended' computer, but on the basis of perceptions

regarding the organisation of the markets for broadcasting, postal services and telecommunications and perceptions of the constitutional aspects playing a role in the case of (electronic) information carriers.

Information law therefore incorporates elements of media law, informatics law and intellectual property law in one discipline.

5.2 Analysis of the subject of study in non-legal terms

One can distinguish the following elements in the communication process which affect the rules of law and the rights and obligations which are the proper subject of study:

- information
- information traffic patterns
- information services and transportation services
- economic and cultural aspects of information goods and services

Each of these elements will now be briefly discussed, while at the same time their relevance to legal studies will be indicated.

5.2.1 Information theory

In empirical science the concept 'information' is analysed in various different ways. In C.L. Shannon's mathematical information theory (also known in English as 'communication theory'), ³⁰ information is defined as the decrease of uncertainty. A message contains information for the receiver if it 'provides an answer to a question'. 'What is the time?' 'Three o'clock'. If the person asking the question did not know the time the answer is a piece of information. The mathematical theory of communication abstracts from the contents of the message. Information is expressed in degrees of statistic probability that something will happen, also known as the 'entropy' of a communication system. This is affected by factors like the capacity of the channel connecting sender and receiver, the noise level in the channel (factors which interfere with the transmission of the message, e.g. interference with another message or an atmospheric disturbance) and the degree of redundancy of the information sent (redundant information adding nothing to the message, e.g. a repetition, but intended to ensure that the receiver will understand the message).

In telecommunications sciences communication theory serves as an instrument for the accurate measurement of the 'output' of a telecommunication connection. The relevance of this knowledge for legal studies is that it makes it clear why 'facts' and 'news' and the systematic free access thereto may represent a value. The advance knowledge of information and the possibility of letting others benefit from it are increasingly becoming a commodity which is economically negotiable and

^{30.} C.L. Shannon and W. Weaver, The Mathematical Theory of Communication, Illinois 1949.

which can therefore be protected. We shall see, however, that such a good is difficult to protect.

Semiology (as the study of signs and symbols is called nowadays) analyses information into various aspects while making a distinction between what copyright lawyers traditionally call the 'expression' and the 'idea' of the message: the form and content. This analysis is made at three levels.³¹

a. Syntax

This is the formal branch of semiology, the rules dictating how the signs must be put together and used. Vocabulary and grammar constitute the rules in linguistics, symbols and operational rules in logic and the different computer languages in informatics.

b. Semantics

Semantics deals with the meaning of signs, both the interrelationship between them ('connotation') and their reference to an existing or fictive reality ('denotation').³² A word may have a literal meaning or a figurative meaning, depending on the context. A message may, for instance, describe the weather or a myth. Words may go to form literary works or scientific theories, etc.

c. Pragmatics

This is the effect which information has in society on the acts and judgments of the receivers of the message. In linguistics and the visual arts, for instance, it is the aesthetics of the message, and in jurisprudence, for example, the justice of a rule of law. The pragmatics of a message may represent a cultural value, but an economic value just as well.

These concepts can be used to gain a better understanding of intellectual property rights in connection with information and to systematize these. Recently, Bernt Hugenholtz carried out a fundamental analysis of copyright law on the basis of these concepts, ³³ in which he paid special attention to the traditional distinction between 'idea' and 'expression'.

These intellectual property rights have in common that they all attribute some value to information interpreted as the subject of rights and obligations, but each in its own way. Copyright law, for instance, is mainly concerned with the pragmatics of the 'expression' of the information. It is concerned with the free and 'original' arrangement of the signs.

Trademark law, too, is concerned with signs, but here the sign as such and the use made of the sign in economic transactions play a different role than in the case of copyright law. Since in trademark law the sign serves to distinguish a good or service, a large number of semantic questions are raised: is the sign distinctive, is there a risk of confusion with other signs, etc.

C.A. van Peursen, Kees Bertels, D. Nauta, Informatie, 2nd. ed., Spectrum, Utrecht/Antwerpen, 1984

There are in fact many other distinctions. See the classic work by C.K. Ogden and I.A. Richards, The meaning of meaning, Trubner, London 1923, and subsequent analyses in analytical philosophy.

^{33.} P.B. Hugenholtz, Auteursrecht op informatie, Kluwer, Deventer 1989.

Patent law, on the other hand, is concerned mainly with semantics. The pragmatics (the value) depends here on the degree of novelty and the inventive idea, a combination therefore of the statistical probability and a value judgment about the invention itself.

These perceptions also have significance for the analysis of the rights of freedom of expression and privacy, although their usefulness needs examining. Take for instance the distinction made in both American and European law between 'political' and 'commercial speech'. As a rule this distinction is meant to express the view that commercial information messages may be subject to more stringent regulation than non-commercial messages and that the rules in respect of the burden of proving the truth of the communications are different as well. The case law of the European Court of Human Rights shows that there is by no means a consensus about the manner in which this distinction should be made and how it should be worked out.³⁴

In assessing the lawfulness of a communication a great number of semantic questions and value judgments will play a role, for example the difficult question whether a communication is defamatory because of its form (expression). This question often involves the connotative negative value of words like 'fascist', 'racist' and the like (known in American jurisdiction as hate speech and in communication science as a negative form of 'associative engineering').³⁵

With respect to privacy, semantic questions arise in establishing which information is to be considered 'privacy-sensitive'. And the theoretical foundation of the right to privacy raises fundamental questions of pragmatics as well: is it a moral right embedded in our Western culture or a property right relating to one's own person? The publication of biographic data can be looked upon as an infringement of a moral right, but also as the use of a commodity without paying for it. 'My home is my castle', or 'My castle is only open to the yellow press at a certain fee'.

5.2.2 Data; digitalisation of information

Finally, we must devote some thought to the component parts of information: the data and the information technology of data processing and data transfer. The generally accepted definition of data given by the International Standards Organization (ISO) is:

'A representation of facts, concepts or instructions in a formalized manner suitable for communication, interpretation or processing by human beings or by automatic means'.

At the level of the human mind these are therefore the signs which can be combined by the receiver to form an informative message if he is using the same syntactic rules as the sender, e.g. the English language. At the level of the information carrier

Cf. European Court of Human Rights 25 March 1985, Series A, no. 90 (Barthold); European Court of Human Rights 20 November 1989, Case 3/1988/147/201 (markt intern Verlag).

G. Leech, quoted by J.J. van Cuilenburg, G.W. Nomen, Communicatiewetenschap, 2nd ed., Coutinho, Muiderberg 1988, p. 111.

these data are the physical inscriptions which can be converted into signs: the dots on paper, the analogue electric current, the bits on a CD-ROM or a digital connection. In legal literature, though, the term 'data' is frequently used where 'information' is meant. Think for instance of expressions like 'data bases' and 'personal data'.

The digitalisation of the data in particular has considerable legal consequences. It has caused a boom in the construction of data processing machines (computers). These 'soft machines' have challenged the traditional distinction between patent law ('hard technology') and copyright ('soft mind'). But the term 'work' in copyright law itself is also becoming increasingly problematic because of this 'plastic information'. On the one hand because it has become easier to take bits of information out of a work and re-use them (as with sound sampling); on the other hand because the mathematical representations in which an increasing number of works manifest themselves (e.g. computer programmes) make the freedom of choice used as a yardstick of originality increasingly useless as a criterion. To copyright lawyers 'expression' means paint brushes and 'ideas' mean mathematical formulas. In fact, the copyright criterion of 'expression' belongs to the era of analogue information.

Digitalisation further exacerbates the privacy problems connected with the registration of data concerning people and with the endless possibilities, created by the new information technologies, of linking data files which can be used to construct personal profiles.

Digitalisation also has important consequences in the field of public law rules regulating access to the telecommunications and broadcasting market. For where all information is carried in the form of digitalised data over one and the same telecommunications infrastructure, the existing legal rules and distinctions become questionable indeed. The existing networks and services are gradually being joined together into Integrated Service Digital Networks.

So, convergence occurs at the level of both private and public law.

5.2.3 Information traffic patterns

In the Netherlands, Bordewijk and Van Kaam³⁸ have developed a model for classifying all forms of communication under four traffic patterns, enabling a description of the entire communication process. This classification was made on the basis of two criteria:

1. Who controls the choice of subject, timetable, the pace if need be, at which information is presented: is this a central institution or an individual? This is called the *schedule*.

^{36.} Saxby, op. cit. supra note 3, p. 221.

See Dommering, op. cit. supra note 3, p. 43; Alfred P. Meijboom, The Question of Software Patentability in Europe, op. cit. supra note 3, p. 47.

^{38.} J.L. Bordewijk and B. van Kaam, Allocutie, Bosch en Keuning, Baam 1982.

Individual Central

2. What is the source of the information: is this a central institution or an individual? This is called the *information file*.

The classification yields the following matrix:

Schedule
 Information file

Individual Central
Conversation Consultation
Registration Allocution

The terms used in the matrix are defined as follows:

Conversation: A conversation by letter, telephone, electronic mail, at home or in

the street etc.

Registration: Collecting information about individuals: Register of Births, Mar-

riages and Deaths, surveys, telemetry etc.

Consultation: Consulting a data bank, a library, reading a newspaper etc.

Allocution: Broadcasting a radio or television programme.

The use of this matrix may clarify the analysis and systematization of rules of law relating to information. This analytical function deserves particular emphasis, because it enables us to view areas as a whole which so far have been kept separate (the media, telecommunications, informatics). We find, for instance, a high concentration of public law rules in the allocution pattern (broadcasting), while until recently the other traffic patterns were left undisturbed by public law. However, the increasing importance of the other traffic patterns has led to the emergence of new rules of public law in the areas of registration and consultation, and recently also in the area of conversation (for example with respect to 'chat-lines'). This development is the major cause of the privacy debate carried on in computer law, although the privacy problem has a long history in the media. Actually, it was the yellow press which induced the American jurist Brandeis to formulate the well-known definition of the privacy right as a 'right to be let alone'.

5.2.4 Services

An accurate examination of the services involved in the subject of study is essential for the further analysis of this subject. A faulty understanding of the exact service in question has traditionally been a source of confusion for the legislator when drawing up rules in the field of information.

Roughly speaking there are three 'levels' (with three different services).³⁹ Every piece of information offered to the user by a supplier of information consists of a collaboration between these three levels. These are:

(a) The information service

The service may compromise several services, each of which is provided by a different enterprise. An example that springs to mind is a film production - cum - broadcasting company or the supplier of applications software combinated with the supplier of computers.

(b) The transportation service

The transportation service takes care of all functions required for the transportation. The exact delimitation of this service level is the subject of much discussion in the field of telecommunications and postal services, because it is one of the factors deciding the scope of the monopoly on telecommunications and postal services.

(c) The infrastructure

This is the system of connections and support functions constituting the actual road transport network. In its most simple form: the copper wires in the ground or the network of letter boxes and post offices. At this level, too, there is much confusion in the telecommunications sector, because the different technical networks all have different histories and often different management systems as well. Defining the scope of postal services also raises a large number of questions.

The strict distinction between information service, transportation service and infrastructure is one of the most vital points of discussion in the area of convergency and unbundling.

5.2.5 Information as an economic and cultural commodity

As a 'commodity', information has special characteristics, with the result that the markets for information and telecommunications services differ from the markets for other goods and services. The former have been thoroughly studied especially in American-Canadian legal literature. The studies of Mackaay (in which the economics of law are applied in this field) may be cited as an example. ⁴⁰ The special characteristics of information markets are examined on the assumption of a market in which ownership operates in a context of free supply and demand. At present, the market for telecommunications and information goods and services is in a number of respects an imperfect market, ⁴¹ the most striking features being:

The levels discussed here represent a simplification of the Open System Interconnection (OSI) model.

Ejan Mackaay, Economics of information and law, Kluwer, Deventer/Boston 1982; Jean Pierre Chamoux (ed.), L'appropriation de l'information, Litec, Paris 1986.

^{41.} Mackaay, op.cit. supra note 40, p. 36.

a) Collective commodity

Information has the characteristics of a collective commodity (to be understood here in the wide sense of goods and services taken together). By this term economists mean goods which are present in nature or which have been produced by man and whose use by one person does not exclude the possibility of their use by another person. The exclusive individual use of a good can be achieved by payment of a price and transfer of a right. In the case of collective goods this is (virtually) impossible. An example is a radio or television broadcast which is available to anyone who finds himself within receiving range at the time of the broadcast; or to take a more traditional means of expression from our Christian culture: the ringing of the bells heard by people living in the neighbourhood and by passers-by. 42

When tangible carriers (e.g. paper) are used, this does not apply so stringently, because re-use is limited to a small circle and because the user obtains control of the carrier on the basis of an individual transaction (e.g. the purchase of a book). But the distinction is already becoming blurred where the possibilities of multiplication increase because of the availability of photocopiers or because information is provided on a carrier which, though still tangible, is electronic (e.g. CD-Rom) so that the information can be easily copied. On the other hand the development of new telecommunications techniques for electronic distribution by air or cable has made it possible to offer information in a scrambled form which can be individually addressed (e.g. pay-TV).

The 'inexhaustibleness' of information in its various distributive manifestations constitutes an important part of the study of copyright law. It provides a partial explanation for the financing and operation of the broadcasting system, which is funded either by a collective charge (the licence fee), or by advertising revenue or both, but which is not paid for on the basis of individual use.

b) Market imperfections

Collective goods may have positive effects which are considered to benefit society as a whole. That is why human society regulates the use of collective goods or encourages their production. They may also have supposedly negative effects which society as a whole takes measures to prevent or limit. We arm ourselves against the spring tide by building dikes.

aa. External effects of goods or services

There is a correspondence between a collective good and the external effect of individual goods or services. In a positive sense the 'external effect' of an individual good could be, that wearing a conspicuous garment enhances the vividness of the townscape; in a negative sense, it could be that throwing away the wrappings of sweets one has just bought in the street makes the town look seedy. The authorities may decide on political grounds either to encourage or to discourage the occurrence of external effects. In the above example this may mean that subsidies are granted to artistic dressmaking establishments for making colourful garments or that by-laws are laid down imposing penalties for littering the streets.

The example is taken from Hans Abbing, Een economie van de kunsten, Historische Uitgeverij, Groningen 1989, p. 13.

When the authorities decide to stimulate the production or use of certain goods and services, this is usually done on the grounds that the market does not function properly because consumers undervalue the value of the good or service. Such goods are called 'merit goods'. In the case of negative external effects the formulation of rules is justified by psychological arguments to the effect that consumers will not sufficiently prevent the harmful effects of their behaviour of their own free will. The disadvantage of the penalty must be set against the immediate advantage of their own behaviour (getting rid of litter).

Information is preeminently a good or service whose external effects are the subject of public policy intervention. For both as a good and as a service, information is essential to the creation and dissemination of culture. Hence the never-ending discussions about the encouragement by the authorities (financially or by other means) of cultural information services (museums, operas, orchestras, theatres) and about the cultural significance of broadcasting as a public service. In the case of broadcasting and the press we also come across the merit good discussion in a slightly different form. There, the discussion is whether it is the task of the government to take (financial) measures to maintain a pluralist press or broadcasting system if market forces threaten to reduce the number of information suppliers.

In the law of intellectual property we also recognise some arguments derived from the doctrine of external effects. Take, for example, the cultural significance of copyright and the progress of knowledge and technology which patent law aims at.

In connection with telecommunications and electronic information services the discussion centres around questions relating to 'universal service'.

bb. Dual product market

Information products or services are often offered in combination with other information products or services. A publisher will cross-subsidize an intellectual book with a limited readership from the proceeds of a popular book that runs to a large edition. The broadcasting system and the newspapers are partly financed by advertising. In broadcasting circles a market (the market of readers and viewers) that is partly financed by another market (the advertising market) is sometimes called a 'dual product market'. Robert Picard⁴³ formulates it thus: 'The media create one product but participate in two separate good and service markets. Performance in each market affects performance in the other.'

In the advertising market they sell an audience to the advertisers, in the market of the audience they sell information to readers and viewers. It is not only that the performance in one market has an economic effect on the performance in the other market, but the contents of the information supply is also affected by this cross-subsidization. A great deal of the legislation applying to the media is intended to prevent or regulate effects of this kind (for example rules against surreptitious advertising).

cc. Ruinous competition

In the case of broadcasting and telecommunications, the market imperfection is further underlined by the phenomenon of market failure. This means that the ad-

^{43.} Robert G. Picard, Media economic concepts and issues, Sage, Newburg Park 1989, p. 17.

mission of more suppliers will lead to 'ruinous competition', with the result that none of the suppliers will be able to survive. The market is thought to favour a natural monopoly with optimal results for both supplier and consumer. This theory of a natural monopoly has been predominant in Europe particularly in the case of telecommunications. It is usually based on the enormous investments involved in setting up, operating and maintaining the infrastructure required for a high-quality service. In telecommunications circles the theory is coming under increasing pressure. As telecommunications becomes less dependent on earth excavations and cable laying, and increasingly takes advantage of radio distribution 'over the air' (entailing no extra connection charges for individual users within the receiving area), 'the natural environment' within which the monopoly was able to exist is changing.

One will always have to consider the economic laws when drawing up and analysing rules of law relating to information.

5.3 Analysis of the subject of study in legal terms

5.3.1 Definition

In the above we have discussed some points taken from information theory, an information traffic pattern matrix, the distinction between information services, transportation services and infrastructure which is usually made in telecommunications circles, and some aspects of economics (and law). These views, which are known from other disciplines, may serve as tools of analysis in information law. Now, we must define the subject of study in its entirety.

The subject of study of information law can be defined as the study and the formulation of rules of law in respect of:

- a. the production and processing of information;
- b. the storage of information;
- c. the conversion, transfer and reproduction of information;
- d. the use, consultation and storage of information.

In this overview we find all the traffic patterns described in section 5.2.2. Under c., moreover, the distinction between information and transportation is expressed.

As was explained above (5.1), a distinction can be made between individual rights and obligations pertaining to information and the rules applying to institutions. The former will fall predominantly under private law, the latter predominantly under public law. Like so many legal classifications, this classification cannot be kept up consistently. This is due to the fact that individual rights and obligations pertaining to information partly derive their substance from rules of public law, especially where rights of freedom and secrecy obligations are concerned.

Individual rights and obligations are characterized by a balancing of ownership, secrecy and privacy on the one hand, and the freedom to seek, receive and pass on information on the other hand. The conflict between these interests may take place between two or more holders of title. When a work that is protected by copyright is reproduced by a news medium, the freedom of reporting and the copyright may conflict with each other. There may also be more than two holders of a title involved, for example when one and the same object is the subject of a copyright, a privacy right and a right of freedom. Data banks provide a good example. They are at the centre of a continuous play of forces consisting of the (copy) rights of the owner of the data bank entitling him to protection of the efforts involved in its compilation, the right to privacy of the data subjects information on whom is stored in the data bank and the right of the data bank users to have free access to the sources of information.

This phenomenon is typical of the special nature of the rights and obligations pertaining to information: there are conflicting rights in respect of one and the same object to a far greater extent than in the case of the ownership of material goods. Information has a dual nature: it is an intellectual commodity and at the same time an economic commodity. This intrinsic external effect is the cause of the conflict between protection and freedom which has been pointed out here.

The rules with respect to institutions regulate the access to and the competition in specific information and telecommunications markets, the individual's access to the information and telecommunications services and the ownership relations within the information services.

5.3.2 The rights and obligations pertaining to information

The rights and obligations pertaining to information can be classified under four parameters: ownership, secrecy, privacy and freedom.

As a result of the dual cultural/economic nature of information, freedom always occurs in opposition to each of the other three parameters. But it can also be analysed as an independent right.

a) Ownership and freedom

At the abstract level this is a question of analysing and comparing the relative values of the intellectual property rights and the economic aspects of privacy (the right to publicity) in relation to the information technology and in relation to conflicting freedom rights. In the case of copyright law the issue is then the scope of the protection, and exhaustion of the right, freedom to derive and to quote, compulsory licencing, etc.

At a more concrete level it is a question of studying the intellectual and industrial property rights, competition law and publicity rights.

b) Secrecy and freedom

The rules of secrecy relate partly to individuals, partly to institutions, but they are always very diverse. Since they are often linked to rules of professional conduct, labour relations or finding the truth in litigation, they could form a very wide field of study far exceeding the subject of study of information law. Accordingly, (without of course precluding a comparative analysis) the study is confined to the specific questions of ownership and access which play a role in connection with the rights and obligations pertaining to information, such as:

DOMMERING

- the journalist's privilege (secrecy of sources);
- access to information controlled by the authorities (freedom of information);
- carrier's secrecy in the case of postal services and telecommunications;
- industrial secrets and know-how.

c) Privacy and freedom

The rules applying to individuals go back to the classic (relational) right of privacy: the right to be let alone. The study thereof focuses on classic privacy violations involving the infringement of one's private area by private persons, by the authorities or by the media. In the past few years, however, interest has grown in the increasing number of files on individuals due to the rising number of electronic consultations and transactions in which they are involved: consultation of tele-information services, payment by cheque guarantee card, etc. This is the problem of Big Brother (the State or commerce) collecting, storing and comparing the 'electronic trails' of individuals.

In this field, many rules applying to institutions have been developed which regulate the organisation and the use of personal data files and data banks. From the perspective of the traffic patterns outlined above, a shift in interest can be observed from allocution to consultation and registration. Legislation on personal data files grants a large number of rights to the data subjects, giving them access to their own personal data and the right to make modifications if these data are incorrect or superfluous or if they are not in keeping with the purpose of the registration. This *informational* privacy has some features in common with the individual's right of rectification vis-à-vis the media. It is a right of self-determination with respect to the information in circulation about one's own person.

d) Freedom: right to information?

Freedom rights have traditionally been defensive rights exercised as civil rights by citizens vis à vis the authorities. Among them, the right to freedom of expression has been a central right with a long and rich political history.

The study of information law concentrates to a considerable degree on the analysis of this civil right. What is the relationship between 'commercial speech' and 'political speech', what is its relation to other civil rights (both 'secrecy rights', privacy in the broad sense and intellectual property rights)?

How far does the right to freedom of expression go and where does unlawful harm to others begin?

May laws regulating intellectual property rights be examined for compatibility with the conventions regulating the freedom rights? The European Court of Justice in Luxembourg defines the scope of intellectual property rights on the basis of the EEC Treaty. Is the Court of Human Rights in Strasbourg going to do the same on the basis of the European Convention on Human Rights?

Another object of study is the relation between the right to freedom of expression and the freedom of competition. The dual cultural/economic nature raises questions about the extent to which State interventions in competition are justifiable.

In all these cases, however, the emphasis is on the fact that one must be able to freely express and pass on any information one possesses. But what about the information one does *not* possess? The question arises, therefore, whether any ac-

tual *right* to information can be derived from the right to freedom of expression. In this connection we can distinguish the following situations.

aa. Access to raw data

This may be called access to the 'facts' and to information that is 'free' of copyright. In principle, therefore, this comprises all of reality, or to quote Wittgenstein, 'Alles was der Fall ist'. Both the producers and the users of information products and services wish to have free access to data sources. To start with reality at its rawest: taking cognizance of raw reality may conflict with rights of state sovereignty, with internal constitutional competences and with titles to material goods.

At the international level we are then talking about remote sensing satellites which can record all sorts of topographic and meteorological data about a country and thereby make these data exploitable. Traditionally, the air column above a state and the earth beneath it with its natural resources were considered to be the property of that state, but data concerning topography are a new development. Strategic and political considerations may also play a role. 44 Is there a sovereign 'data column' just as there is a sovereign 'air column'?

At the national and local level the same problem occurs. May national and local authorities, being the owners of such areas, monopolize the processing of topographic data?

At a somewhat less remote level of perception we have to do with access to news facts. Public law rules about the freedom of information about deliberation and decision-making may create access rights to these data. Ownership of the area, however, may form a barrier to access to sources of news. The actual exercise of power by the authorities may also be such a barrier, as we know from the military 'sealing off' of the battle theatre in the war against Iraq.

An intermediate category between the 'raw' data of reality and the 'news' about this reality is formed by sports and organised events. In these cases the problem of information as a collective commodity is sometimes overcome by enforcing the exclusiveness of the area by means of private rights (e.g. admission to the football stadium) or by means of public power (e.g. the French police only admits reporters possessing special admission tickets to the Tour de France which is run on the public highways). Some authors (including the present one) are advocates of granting the sporting event as such the protection of a pseudo intellectual property right, provided that adequate rights of free access to news will be guaranteed as well. Except in those fields where it has found recognition in public law rules on the freedom of information, the right to seek information is in general still a problematic issue.

It is also possible, however, to realize the freedom rights through the freedom of competition, which restricts or imposes conditions on any positions of power and cartels in respect of access to sources of raw and semi-processed data. The European Court of Justice and the European Commission have passed a number of

^{44.} See J.E.S. Fawcett, Outer Space, Clarendon Press, Oxford 1984, p. 84.

decisions on the strength of articles 85 and 86 of the EEC Treaty, which had the useful effect of ensuring access to information sources. 45

bb. Access to processed data

News items and collections of facts in systematically ordered data bases are a form of processed data which are still nearest to unprocessed reality. In general, free access to processed information sources may conflict with intellectual property rights and/or privacy rights. The government may take regulatory action, for instance by enacting a Freedom of Information Act which mandatorily stipulates the public nature of certain information.

As this study shows, it is extremely important to establish the scope and the nature of the copyright on data banks and other collections of facts such as news items. In all these cases the key question is whether it is possible to protect the effort put into the processing of reality, and thus accessing facts which would otherwise not have been accessible. These questions will, however have to be weighed against conflicting rights of free access. This will be discussed in greater detail in part II.

5.3.3 Rules applying to institutions

The study of the rules that apply to institutions examines the criteria applied for granting services which are important for the communication process (press, publishers, broadcasting organisations etc.) access to the natural resources required for the communication, to the telecommunications infrastructure, to the information services market and to public areas. Questions also arise here relating to public law regulations for the use, organisation and financing of such services. Another question which comes up for discussion is to what extent the government should have an active, stimulating role.

At the level of the infrastructure for postal and telecommunications services, the study focuses on the criteria applied to facilitate the provision of these services.

From the other side, the study directs its attention to the position of the user of information and telecommunications services and the user of public areas as a means of expressing opinions. What are his rights of access?

But besides this freedom-oriented study, the importance of the ownership relations within the information services is steadily increasing.

a) Access to the market of information-producing services

Such access is regulated by rules applying to institutions. Sometimes specific acts lay down very detailed rules of public law. There are widely varying regulations with respect to access, organisation of use and financing. The study examines and compares these kinds of rules with respect to the performing arts, the establishment of publishing companies for books and newspapers, bookshops, libraries, the

European Court of Justice 3 October 1985, Case 311/84 (Télémarché), ECR 1985, p. 3262; Decision of the European Commission 19 February 1991, Screensport/EBU, O.J. 1991, L 63, p. 32.

screening of films in cinemas or hiring them out in videotheques, broadcasting and the establishment of data bases that are open to the public.

All these rules have a common historical origin going back to the freedom wrenched from the authorities in the 18th and 19th centuries, which resulted in the abolition of censorship. The access criteria, however, differ widely: from free access to the market (the press, cinemas, videotheques and currently: data banks) to strictly regulated access combined with public funding (broadcasting system).

The user regulations vary widely, too. The visual media have been subjected to regulations of use longer than the printed media. In the case of new telematic services such regulations are virtually absent. Organisational regulations are a traditional feature of the broadcasting system, but in the past few years growing regulation can be perceived in respect of data bases. As far as the broadcasting system is concerned, the regulations were aimed primarily at the creation of favourable conditions for a pluriform supply of information (a similar aim is being pursued where the government intervenes in the free market for the press). In the case of data banks the regulations are mainly intended to protect property rights and privacy.

Access to the market for telecommunications services and to the telecommunications infrastructure

The study concentrates on the rules relating to the installation, exploitation and management of telecommunications modes, i.e. the radio spectrum, cable, telephony, and new means of transmission such as glass fibre. Which considerations were decisive in installating, exploitating and managing these transmission modes? Are there natural monopolies or are we increasingly concerned with a free market? Which access criteria must be applied to which telecommunication services? What open standards are to be applied?

These and numerous related questions are being asked at a more concrete level of analysis in the (comparative law) study of telecommunications legislation.

c) Access of individuals to public areas and information-producing services It is not only the supply and transportation of information that is important, its accessibility for the individual is also decisive for the communication process.

Where public areas are concerned the issues are whether the individual (in a group or otherwise) may propagate his opinion, individually or in a demonstration in the streets, whether he may use public areas to put up posters, whether he may put up a stand for the purpose of handing out pamphlets. In this case the study concentrates on what in German law is called the 'freie Strassekommunikation'. 46

Traditionally, quite a lot of interest taken in the information-supplying services went to the free access of individuals to the media. This may, for instance, take the form of creating individual access rights which enable one to oppose one's own opinion to the opinion of others (fairness doctrine, droit de réponse), or special facilities for minorities (speakers' corner, letters to the editor). The issue of free access to data bases concerns questions like the right to have geographically accessible public libraries, but also questions like the informational balance between data bases and users, or what in German is called 'Datenverkehrsrecht' and 'Infor-

^{46.} F.H. Kistenkas, Vrije straatcommunicatie, Kluwer, Deventer & Gouda Quint, Arnhem 1989.

mationsgleichgewicht'.⁴⁷ In terms of mass communication this might be called the 'multiformity' of data bases.

Usually the individual is free to purchase an information product or service (with all the restrictions arising out of the rights and obligations pertaining to the information thus created, see 5.3.2). Hybrid forms are also possible, with the result that the admission fee is lower than the market price. This is the case with a government-subsidized theatre ticket or a with a press product that is cross-subsidized by advertizing.

The access to the information service may, however, also be subject to restrictive government intervention. In the case of the broadcasting system this has to do with the fact that a broadcast is a collective good. The government may make individual access to such service subject to an obligation to pay under public law (TV/radio licence fee). But one can also think of levies on audiovisual copying equipment to secure copyright claims which can no longer be secured by means of exclusiveness. Other considerations may be involved too, for instance the protection of public morality. Access to cinemas and videotheques may be tied to an age limit for this reason. Traditionally, the users of means of telecommunication are not subjected to any regulations. The advent of junk fax and chat-lines, however, has made this questionable.

d) Access of individuals to telecommunications services

Often, an individual can only take note of information if he has access to the telecommunications service involved. In telecommunications law this has given rise to the development of the concept of 'universal service'. Within a defined territory the users must have access, on equal conditions, to a telecommunications service of adequate quality.

The government may subsidize the exercise of this right of access, for instance by compelling the Post Office to offer low local telephone rates. Removing or lowering barriers is also an issue in connection with the access to and the possible uses of lease lines and licensed telecommunications installations. The questions raised by the interpretation of the concept of 'universal service' are being studied with increasing intensity.

Questions concerning access to telecommunications services may also arise, however, in connection with the free reception of broadcasting signals. To what extent is there a right to have an individual aerial (a 'droit de l'antenne' as it is called by the French)?

e) Ownership relations between information producers and information services. The preceding paragraphs a. to d. all dealt with access rights. That is, freedom rights. Traditionally, intellectual property rights have been defined individually with reference to, for instance, authors and inventors. Yet we find that in the field of intellectual property rights more and more institutional aspects are creeping in. With increasing frequency intellectual property right products are the result of collective efforts by commercial organisations. Examples are movies, computer

B.R. Ziegler-Jung, Datenverkehrsrecht und Gesundheidsdatenschutz, Enschede 1985, quoted by F. Kuitenbrouwer, Rechten van mensen in een kwetsbare informatiesamenleving, Kluwer, Deventer 1988, p. 11.

software or patents on drugs. At the level of the assertion of these rights we also come across a growing number of collective solutions.

Consequently, the study focuses on such questions as who is entitled to the copyright or neighbouring rights on collective intellectual information products and on aspects of the collective assertion of intellectual property rights.

6. CONCLUSION

Summarizing, the programme of information law can be outlined as follows.

- (a) Analysis of the special non-legal characteristics of information as an object of rights and obligations; these can be classified as follows:
 - the concept of information according to information theory;
 - aspects of information technology: digitalisation of information;
 - information traffic patterns;
 - the relevant information and transportation services;
 - the cultural and economic aspects of information.
- (b) Definition of the subject of legal study as the study of the branch of law which studies information as an object of rights and obligations in its following phases:
 - production and processing;
 - storage;
 - conversion, transportation and reproduction;
 - use and storage.
- (c) Analysis of the rights and obligations which play a role in b), viz.:
 - aa. The rights and obligations of individuals pertaining to information between two or more holders of titles to information which are characterized by the following contrasting parameters:

Exclusiveness	Non-exclusiveness
Intellectual property	Restrictions on intellectual property
Secrecy	Public nature
Privacy	Restriction of privacy
Restrictions on	Freedom of expression
freedom of expression	
Ownership of raw or	Right of access to public
semi-processed data	data

bb. The rights and obligations of institutions which play a role in b). Freedom and restriction of the access to the services market and to the services themselves. Services User

Free or restricted access to the information market, such as the press, broadcasting system, performing arts, telematic services Aceess rights to information services: droit de réponse, subsidized access

Free or restricted access to the information market, of telecommunications services, such as telephone, radio stations, cable, etc. Access rights to telecommunications services: universal service, 'droit de l'antenne'

Free or restricted access to the public area, freedom of demonstration, posters

cc. Ownership relations within the information services. Collectivization of the product (e.g. movies). Collectivization of assertion of rights (e.g. musical copyright organisations)

II. Works of Fact

7. THE IMPORTANCE OF WORKS OF FACT

7.1 It is virtually impossible for individual man to know reality as such. He only knows fragments of which he takes cognizance in a 'processed' or 'semi-processed' form by way of selections made either by himself or by others. As the world goes on producing more and more knowledge, the total available reservoir becomes a reality that is no longer perceivable. Selective intermediaries are required to access this knowledge.

Where Baudelaire could still see a walk through the forest as a walk through a 'forêt de symboles', for us the 'symboles' have superseded the forest.

Works of fact cover a wide field. Often, works of fact are also data banks. In the following I shall confine myself to this latter type.

Works of fact are an essential product for the proper functioning of our society. In 1982, the chairman of Elsevier's board of directors, Pierre Vinken, quoted the following figures for the scientific market:

'Approximately one million scientific articles are published each year throughout the world. The cost of writing them amounts to about \$ 1,000 \$ 1,500 million. The publishers editorial costs account for at least another \$ 1,000 million'. 48

Pierre J. Vinken, Information Economy, Government and Society, European Information Providers Association, London 1982, p. 16.

These articles must be made accessible by systematic data banks. There is virtually no sector of society which has not known a similar development. Every day, for instance, millions of stock exchange quotations and exchange rates are exchanged worldwide and offered to the business public on paper or in electronic form. This would be impossible without the mediation of data vendors who use complicated software to order the data and make them accessible.

The work of the news services would also be inconceivable if there were no press agencies to collect and order the facts and to distribute them over immense areas.

7.2 So, on the one hand works of fact are to a large extent the instrument which makes markets function, but on the other hand they can also serve as instruments for government policy and for the commercial marketing of products and services. Then the individual is not the user of a data bank, but its subject as consumer, citizen, insured person, or source of information on which the government or a commercial organization bases its decisions. The introduction in Napoleon's time of a rationally arranged registry of births, marriages and deaths has turned us into data subjects with privacy rights. This means that data banks have become a potential threat to the individual, the more so now that there are increasing possibilities of connecting data from different collections of data.

8. THE VALUE OF WORKS OF FACT

8.1 The positive value of these works lies in their news value and in the fact that they make knowledge accessible. In the case of stock exchange quotations and news reports the main advantage lies in the gain in time. The owners of data banks containing such facts also have a great interest in gaining access to sources of raw and semi-processed data.

It is often said that the negative value of these data banks lies primarily in the field of personal data. But this depends on the view one takes. The commercial value of a personal data file lies precisely in having the most complete collection of personal data possible. A credit worthiness information service will want to give the most exhaustive possible picture of a person's financial conduct. The tax authorities would like to know everything about the money supply in a private household and would like to compile a survey on the basis of different data files to combat tax evasion.

Works of fact have yet another, constitutional value. Information in the hands of the authorities has a value for the forming of political opinion or for important factual decisions. This is far less true of commercial data banks selling marketing profiles to commercial users. In the case of data banks in general and works of fact in particular a similar distinction can be made to that with the press. There are data banks that primarily serve 'political speech' and data banks that primarily serve 'commercial speech'. In connection with this distinction the sources of raw and semi-processed data can also be divided into sources which either do or do not serve these ends.

Data banks may represent a cultural value. Therefore, the compilation and opening up of cultural collections (e.g. libraries and their catalogues) may be subjects of public policy.

8.2 In the following the legal relations connected with data banks in general and works of fact in particular will be analysed by the method described above. The order will not be exactly the same and some aspects will merely be referred to, more in illustration of the method than by way of analysis. The main emphasis will be on the copyright on 'works of fact', since that is the main theme of this book.

9. THE COMPILATION OF A DATA BANK

The question whether the compilation of a data bank will give rise to conflicts about access to raw and processed data or about intellectual property rights depends on the nature of the data bank. Press agencies, credit rating services and data vendors will chiefly face difficulties of the former kind: these are typical works-of-fact problems. The problems of libraries and scientific data banks will be mainly of the latter kind. I will briefly discuss both aspects.

9.1 Access to raw and processed data

Often, a source-access problem will go together with difficulties in gaining access to a (public) service which generates data or makes them accessible in a semi-processed form. Let me illustrate this with some examples.

A journalist who wants to report on a political debate in parliament or on a court trial must be able to gain entrance to the parliamentary debating floor or the court rooms. At an earlier stage of democracy and constitutional government, journalists were often refused such access. Nowadays the public nature of political deliberations and court sessions is guaranteed by legislation on the freedom of information. The freedom of expression subsequently ensures that the data processed by the journalist into information can be passed on and distributed.

Although we now take this for granted for political or legal reporting, it is by no means so in the case of present-day sports journalism. In the Netherlands the freedom of reporting was invoked without success when radio reporters claimed free admission to national football competition matches in order to be able to report thereon without paying within the limits of the free provision of news. ⁴⁹ This example demonstrates that the debate on rules regulating access to services generating information is still a topical one.

Similar problems are encountered by a person seeking information for commercial purposes. Credit rating services will be able to gather data from commercial registers open to the public by law and from public judicial decisions. Stock exchanges can also be seen as public services where the collector of information may gather data on movements in rates. Nowadays, many countries have enacted

^{49.} Supreme Court (Hoge Raad) 23 October 1987, NJ 1988, 310 (KNVB/NOS).

Freedom of Information Acts which not only enable us to obtain politically important information from the authorities, but which also grant access to numerous information files of commercial interest controlled by the authorities.

Even though in theory the problem of access to the raw and processed data seems to be a question of enacting (public law) regulations guaranteeing access to public services and private services involving public interests, in practice the problem is far more complicated. For once a collector of information has gained access to a source of raw data, this still does not mean that the data he now possesses are complete and sufficiently ordered to enable him to compose a coherent message. This job will often be too time-consuming and too expensive for the collector of information. A journalist will want a further explanation from a civil servant about a statement made in parliament by a minister; a lexicographic search procedure in a commercial register for a specific enterprise whose name one does not know may take days; a Freedom of Information Act only provides access if one has a search request; it will be impossible for one single reporter to keep full track of the price movements on a stock exchange; court judgments may only be available in printed form days after they have been pronounced.

Therefore, the data need to be processed by the person controlling the data source. The journalist wants a press communiqué. The credit rating service wants a systematically ordered, up-to-date collection of the enterprises registered in the commercial register or of the judgments of the bankruptcy division of the court on the morning of their pronouncement. Publishers want all the policy circulars and decisions of a specific ministry as soon as they become available so that they can provide the relevant sector of society with adequate and up-to-date information. A financial information service will want to store worldwide stock exchange prices in its data bank on-line to be able to compile the most up-to-date global overviews possible. This means that the same parties who actually control the data (both public and private services) start setting up services themselves for processing the data collected within their domain and offering them to producers of information. And now we are approaching the crux of the problem. For a (public) body setting up such a service will eventually want to be paid for it. The value of factual information lies in having a lead timewise: the first person who can end the uncertainty about share price trends can earn money. So can the suppliers of semi-processed data. The next step is that the persons possessing the data do not only set up services for offering these products to producers of information, but themselves use these information products to set up services which will compete with private information services for the custom of the end-users.

We are now touching upon a field that has been hardly analysed so far, viz. the commercialisation of public data sources. Should not special rules of conduct be developed for authorities or services which control information of public interest? For instance rules regulating access to and the price for services offering semi-processed public data? Should not rules of competition be developed for authorities and data monopolists which setting up rival information services which are not only partly financed from public funds but also exploit from the information lead held by the authorities or the monopolist?

In brief: our rules regarding the public nature of decision-making and the public nature of sources will have to be made more concrete if we want to be able to continue to guarantee effective access to such information on equal terms.

The questions we have discussed here are beginning to crop up in legal practice. In the Netherlands, there is the case of Den Ouden versus the State of the Netherlands. The dispute was about a publication of a statute text. The Staatsuitgeverij (Government Printing Office) objected to the fact that the texts of the statutes were reprinted from the Bulletin of Acts, Orders and Decrees in a commercial publication without payment. The Staatsuitgeverij argued that the free copying of its printing effort constituted unfair competition. Although this case is often cited as a ruling on whether or not the reproduction of the printing effort was unlawful, it involved another issue which is equally interesting: to what extent could the Staatsuitgeverij take advantage of the fact that it could use the printing effort consisting of printing the statute texts in the Bulletin on behalf of its own commercial publications of the statute texts. This gave the Staatsuitgeverij a lead timewise and on the cost price, since the Bulletins containing statute texts are paid for from public funds.

Another judgment is that of the German Bundesgerichtshof on the commercial exploitation of information from the commercial register. Actually, things were the other way round in this case, but it concerned the very problem I pointed out above: gathering information from public sources for commercial purposes. The case was about a request from an enterprise to be allowed to copy the entire file of the Chamber of Commerce. But in this case the discussion focused on the privacy aspects.⁵¹

An impediment to access to sources containing semi-processed data may also restrict competition, thus violating articles 85 and 86 of the EEC Treaty. Reference here can be made to a dispute about access to data on programmes of the Irish broadcasting service.⁵²

9.2 Access to works of intellectual property

Works of fact are compiled out of 'facts'. Scientific data banks in libraries will consist mainly of works protected by intellectual property rights. Consequently, the owners of these data banks will want to have access to works protected by intellectual property rights. We are talking about the annual production of millions of articles (see 7.1).

The input and storage of copyright texts (or excerpts from texts) in data banks raises numerous questions pertaining to copyright law which I shall not discuss any further here because they exceed the scope of a discussion of works of fact.⁵³ Of course these questions may also arise in connection with 'works of fact', insofar

Supreme Court (Hoge Raad) 20 November 1987, NJ 1988, 311 (Staat/Den Ouden); see Dick van Engelen, 'The Misappropriation Doctrine in the Netherlands', IIC 1/1991, p. 11.

Heribert Hirte, 'Kommerzielle Nützung des Handelsregisters, Computer und Recht 10/1990, p. 631 ff.

Decision of the European Commission 21 December 1988, O.J. 21 March 1989, L 78, p. 43, appeal pending with the European Court of Justice; see also note 45.

^{53.} See P.B. Hugenholtz, Auteursrecht en information retrieval, Kluwer, Deventer 1982.

as these are compiled from collections of processed data which themselves constitute a copyright work. But since these questions coincide with the issue of the 'protectability' of the data bank, I shall discuss them under that heading.

10. THE ACCESS OF INSTITUTIONS TO THE DATA BANK MARKET AND THE INDIVIDUAL ACCESS TO THE BANK SERVICE

10.1 In general there are no legal barriers to setting up a data bank and offering the services to the public. In the Netherlands, the constitutional freedom of the press protects libraries, booksellers and bookpublishers. The Supreme Court has held that a licencing system for the establishment of these data banks is incompatible with the ban on censorship.⁵⁴

We have seen that the growing concern about the privacy aspects of data banks has resulted in public law rules affecting the organisation and supervision of a specific category of data banks, viz. personal data files. Where data banks are consulted by electronic means, this gives rise to privacy issues in connection with the electronic trails which can be traced back to individuals.⁵⁵

In this field we do not find the preoccupation with the multiformity of the information supply which looms so large in thoughts about the institutional aspects of the press. Yet such questions might very well be asked. I refer to the issue of 'Informationsgleichgewicht'. ⁵⁶ In the mass media the multiformity of the information supply does not only depend on opinion newspapers and magazines, but also on the number of press agencies which see to the distribution of the news items. They are invariably disregarded when support schemes and merger codes for the press are discussed.

10.2 The above section discussed individual access to public services and sources of raw and semi-processed data. In the specific context of data banks this means access to public registers, public libraries and the rights of data subjects, pursuant to privacy legislation, to inspect and correct.

11. THE ACCESS TO THE TELECOMMUNICATIONS SERVICES OF DATA BANKS AND THEIR USERS, BOTH AS INSTITUTIONS AND AS INDIVIDUALS

Data banks are increasingly turning into electronic services which are fed or which can be consulted by telecommunication links. This development confronts the owner of a data bank with obscure legislation in the field of telecommunications. It turns out that certain parts of the infrastructure cannot be used for consultative traffic patterns (which are essential for the electronic consultation of a data bank), either because they are technically unsuited due to decisions taken in the past, or

Supreme Court (Hoge Raad) 28 November 1950, NJ 1951, 137 (Tilburg); Supreme Court (Hoge Raad) 23 May 1961, NJ 1961, 427 (Vestigingsbesluit grafische bedrijven).

^{55.} See i.a. Flaherty, op. cit. supra note 12.

^{56.} See supra note 47.

because for reasons of competition it is legally forbidden to use them for such a purpose. Cable systems are one example. Besides, there is no standardisation in the field of protocols which complicates the linking of and the exchange between network and infrastructure.

Whenever data bank services are offered in combination with new telecommunications techniques (telematic services using lease lines and terrestial or spatial networks), border conflicts arise immediately in connection with statutory monopolies of the national postal services.

Consequently, in the case of data banks a major part of the issues of access of institutions and individuals are found in the field of telecommunications.

12. RIGHTS AND OBLIGATIONS PERTAINING TO INFORMATION IN RELATION TO DATA BANKS

12.1 Protection of 'works of fact'

In the above we have already come across some aspects of the rights and obligations pertaining to information in relation to data banks: access to sources of raw and processed information, and privacy. I shall now discuss the protectional aspects of data banks at some greater length. These aspects concern the copyright issues which are raised by data banks and which form the central theme of the articles in this book.

In the case of scientific data banks it is still possible to opt for an approach in terms of classic copyright law. Making a selection of articles yields an anthology which in its turn is protected by copyright. The same is true for excerpts or abstracts of articles if these have sufficient originality of their own: they may be adaptations in a different form. It is at the works of fact that copyright reaches its limits. But before discussing these works, we must first pause to look at the development of copyright.

12.2 The vanishing work of copyright

At a academic conference on industrial property I once had the pleasure of having lunch with a trademarks consultant of an American firm in Brussels. We got to talk about copyright. 'I like copyright', he said appreciatively, and in explanation of this preference he added: 'No formalities'. This was a very concise way of expressing the attitude adopted towards copyright by those concerned with industrial property and competition law. If there is nothing left, one can always try copyright. The article by Jane Ginsburg which is included in this volume, shows that Anglo-American law sometimes also protects the effort involved in making a work, e.g. a work of fact. These two points of view: no formalities and a collection of information (data) that has a money value being covered by copyright, are indications of the unlimited expansion of copyright.

Let me first say something about the former aspect. Historically, copyright law has always had the restriction that there must be a work of authorship in, as it is formulated in article 2 of the Bern Convention, the domain of literature, art or science. In an economy that is based on technology, literature, art and science may be used in any technical application. Literature may take the shape of a travel agent's brochure, art becomes a handsomely designed hair dryer, science becomes a digital clock. So in principle any mass-produced product is copyrightable. No formal act is required therefore in the continental system and such an act is often only required in the Anglo-American system prior to litigation. And that, of course, is what my consultant was referring to. If a product cannot be protected or can no longer be protected at patent level (at the level of knowledge and technology), then there is always the copyright which may help retain a (small) lead over one's rivals. And that is easier than a trademark, although a trademark often has the same additional or subsequent protective function.

Now it will be retorted that I am concentrating very much indeed on the industrial application of copyright. For, it will be said, does not copyright protect primarily the intellectual creations of authors, who retain a moral tie with their creation after it has passed out of their control? To refute this objection, we must reverse the technological perspective. A copyright work used to be a unique piece of work (and as such it still survives in the art of painting or the silver or goldsmith's trade for instance). Earlier, I placed the classic copyright in the era of analogue information.

But even as a work of literature, art or science, copyright has sold itself to technology. In our information society it is the reproduction technology which threatens to eclipse all previous technological revolutions. The copyright work has become the end product of (digital) reproduction technology and consequently the subject of the industrial competition of a reproduction industry.

12.3 Originality

If copyright law encompasses the entire printed and audiovisual landscape of Man, does this mean that there are no limits? This question brings me to another aspect: if information is apparently worth such a lot, then it is also worth protecting it in its own right.

What is its worth? In classical copyright theory, worth was determined by making the right conditional on the originality of the work. A copyright work only existed if the design of the product carried the mysterious message of originality. In an attempt to strip the concept of originality of all value judgment, originality in copyright law was then reduced to the author's freedom of choice. This had fatal consequences.

Originality which is coupled to an aesthetic expression relates to an original arrangement of signs which lends the work its intended value. When we listen to a certain piece of music the essential point is the original order in which the notes are presented. This is not the case when we listen to the signals of a foghorn. Then we are concerned with the meaning of the signal. Yet a fog signal could be composed in many different ways. There is freedom of choice. The fact that this does not happen is due to navigation agreements. The classic copyright scholar will imme-

diately seize upon this to explain to me that I have entirely missed the point. The fog signals and the navigation agreements are 'facts' and 'rules' and these fall outside the scope of copyright law. Yet the application of the expression/idea rule only seemingly solves the problem. I shall try to explain this by comparing a literary utterance and a computer command.

Computer software is classified under the heading *literary work*. Yet it has nothing in common with this as a comparison with literature will show.

The first sentence of Joyce's Ulysses reads:

'Stately plump Buck Malligan came from the stairhead, bearing a bowl of lather on which a mirror and a razor lay crossed'.

The words in the sentence have been so chosen for their sound and so arranged as to emphasize the meaning of the words 'Stately plump'. Semantic elements have been added which make shaving in the early morning (as the text goes on to reveal) a parody of an act of Christian worship. Idea and expression in this sentence are one. Together they achieve a multiple effect in the reader, calling upon his imagination, his sense of language rhythm and his cultural knowledge. Not every literary expression is so rich, of course. Usually only one of such effects will be present.

The computer is a multifunctional machine. Acts which used to be linked to the mechanical shape of instruments can now be expressed in computer commands. The gearbox of a car consists of gear wheels which must be shifted by a gear lever. The same process can be accomplished by a small computer in which data and commands are input in such a way that the command to change into fourth gear is given at eighty kilometres an hour.

The software required to have these actions carried out is simple, but different choices are possible. But the choice is made with a quite different purpose than in the case of the literary work. It must take up the smallest possible number of bits and the informative message must carry out the intended function perfectly: the first sentence of Ulysses would become: 'BM from above'. Again, however, idea and expression are one. Only, they are simpler and they have a different purpose: functionality. That is why they look more like a 'rule' and a 'fact'.

So the concept of 'originality', detached from the value judgment to which it was linked, has become an empty criterion which lumps together very dissimilar phenomena. Therefore, it no longer provides an answer to the question what is the legitimation of copyright. This is expressed rather dramatically in the ruling of the Supreme Court of the United States in Feist v. Rural Telephone, 57 which is discussed by Jane Ginsburg in her postscript, and in the ruling of the Supreme Court of the Netherlands, 58 mentioned by Bernt Hugenholtz, on the question whether the lexicographically arranged collection of words in the most authoritative dictionary of the Dutch language (Van Dale) can be protected by copyright.

The Dutch Supreme Court held that a collection of words which form part of the Dutch language does not by itself meet the requirement of 'originality'. Such

Supreme Court of the United States 27 March 1991 (Feist Publications, Inc. v. Rural Telephone Service Company, Inc.), included in this volume.

Supreme Court of the Netherlands (Hoge Raad) 4 January 1991 (Van Dale v. Romme), included in this volume.

a collection is a collection of 'facts'. It is only when the selection expresses the personal view of its compiler that the latter can claim copyright protection. How does one achieve a personal vision in a dictionary? By making personal choices. But: the more subjective the choice, the more useless the dictionary. The compilation of a dictionary requires an objective weighing of options. Is the objective choice not protected by copyright while the subjective choice is? Is the functional arrangement not protected by copyright while the aesthetic arrangement is? Would Ulysses be protected, but not a list of words used in Ulysses alphabetically arranged according to frequency? There are no valid reasons to justify this view. We may even go back as far as the Bern Convention which grants the same protection to such 'functional' works as the scientific work as it does to a work of art. It is precisely because copyright has become detached from a material value judgment, that it has lost sight of the fact that even the classic works of literature and science were associated with completely different concepts of originality.

12.4 Redefinition of the work of copyright

Various attempts have been made to recover the lost work of copyright. The first attempt was to define the subject matter of copyright again in terms of value categories like art and science.⁵⁹ In my opinion this attempt is doomed to failure, because developments have gone too far and because it has become very difficult to define the terms art, culture and science. Moreover, it means that courts will have to become art and science critics. This has more drawbacks than advantages.

The second attempt consists of trying to formulate higher standards of originality. Success has not been forthcoming here either, since copyright would then be in danger of becoming a sort of patent with the degree of inventiveness and novelty as the decisive factor. Such an excercise cannot be achieved without the objective criteria used in the procedure for granting patents. Stated differently: a 'low' concept of originality is in the interest of legal certainty.

A third attempt takes the form of accentuating the idea/expression criterion. This attempt must likewise fail, because in practice the distinction between idea and expression means that protection will be given to highly redundant and subjective information. In her contribution Jane Ginsburg points out the paradox that the American courts will be less inclined to grant protection to ideas in fictional works than those in works of fact.

12.5 Differentiation of the work of copyright. A specific system of protection for data banks

12.5.1 The interesting thing about the contributions included in this volume is, that in the different legal systems (particularly in the American, German and Dutch systems) we can observe the emergence of a differentiation between 'creative

^{59.} F.W. Grosheide, Auteursrecht op maat, Kluwer, Deventer 1986, p. 317.

works' and 'works of fact'. This implies the recognition that originality in an aesthetic work is not the same thing as originality in a functional work.⁶⁰

The development of technology and of the 'soft machines' mentioned above compels us to define a separate category of functional works in which information processing plays a role. Jane Ginsburg demonstrates that in American jurisdiction this development runs parallel to an ongoing debate on the legitimation of copyright. This debate takes place between the personalistic school which continues to base itself on the creative author and the utilitarian school which takes the 'sweat of the brow' as its point of departure; it would seem that with the Feist v. Rural Telephone decision the first school has won the first round. This contrast between creativeness and effort is artificial: a person pursuing functionality has a different objective from a person pursuing an aesthetic effect. Both works may, however, require equal amounts of effort and originality.

In my opinion 'originality' is a suitable criterion for establishing infringement in the case of imitation of a complicated work, but it does not constitute an independent legitimation of the existence of a copyright certainly not with the present state of copyright law in which originality has been stripped of all value judgment. A copyright covers all information in a tangible form.⁶¹

In my opinion the foundation of copyright law as a sophisticated form of competition law is not different from the foundation used elsewhere in competition law: protection against theft and the parasitic profiting from another person's effort.

12.5.2 The question is whether a copyright on functional works is a different kind of copyright than a copyright on creative works. In the various contributions we successively see 'low copyright' (U.S.), 'kleine Müntze' (Germany) and 'all writings' (the Netherlands).

I believe that this is not the case and this brings us to the question of how infringement of a functional work can be established. In the case of a work of fact the value lies in the novelty of the facts: it goes back to the mathematic concept of information which defines information as the reduction of uncertainty. So the infringer will be after the facts. If one were only to protect the subjective choice of the compilation in the case of a collection, one would not be protecting the value that is at stake. Various methods can be used to protect this value:

(a) copying facts from a data bank does not only constitute an indirect infringement of the selection protected by copyright, but also of the search strategies used to connect and arrange facts in the data base;⁶²

^{60.} Paul Goldstein, Copyright Principles, Law and Practice, Little Brown, Boston 1989-1990, Vol. I, p. 173, distinguishes fact works (maps, guides, catalogues and news) and functional works (forms, rules of games and computer programmes). I believe that this distinction is far-fetched: fact works are a species of functional works.

^{61.} Hugenholtz, op. cit. supra. note 33, speaks of 'qualified information'.

Pamela Samuelson, 'Digital media and the changing face of intellectual property law', Rutgers
 Computer and Technology Law Journal, Vol. 16 (1990), p. 323 ff., suggests the possibility of granting copyright to 'search trails' and 'creating links' in information files. Cf. Hugenholtz, op. cit.
 supra note 33, p. 135-136.

(b) since at the level of works of fact the distinction between 'ideas' and 'expression is hardly more than the difference between a functional arrangement and a random collection, copying a large number of the same facts in a similar arrangement will create a presumption that advantage is being taken of the arrangement. So the point is to prove *derivation*.

The advantage of approach a) is that it also provides an argument for considering the copying of information which is subsequently 'rearranged' by digital means as an infringement of the original collection. Whatever reasoning is chosen, infringement can only be proved in cases where considerable quantities of facts have been copied and are being re-exploited in new collections.

12.5.3 An alternative is found in the Scandinavian catalogue rule, which is described in by Gunnar Karnell's contribution to this volume. Under this rule the compiler of a work of fact acquires a 'neighbouring right' protecting the effort expended in the compilation of the collection. This approach has the advantage that it makes it possible to weigh the specific interests and also to design a specific protection scheme, for instance by limiting the period of protection to ten years.

12.6 Freedom of information

A frequently expressed concern in connection with copyright protection of functional works in general and works of fact in particular is the obstruction of the 'free flow of information' which it implies. I believe that the interests involved in the freedom of information do indeed call for serious consideration.

As I have explained in sections 8 and 9.1, there are sources of raw and semiprocessed data which, to a considerable extent, serve 'political speech'. Special rules regarding their public nature and their exploitation will have to apply to these data. Where monopolists in a certain field are concerned, controlling large quantities of exploitable data which are of public interest (stock exchange quotations, program data on broadcasts, telephone numbers) it is worth considering a compulsory licence system, as suggested by Jane Ginsburg.

As regards the protection of the commercial data banks containing processed data (press agencies, credit rating services and data vendors in general), a balance will be achieved because in practice only the re-exploitation of parts which can be proved to have been taken from these files will constitute provable infringement. Besides, the ordinary copyright rules relating to the freedom of quotation and rearrangement into a new form may provide a way out of the difficulties. And finally, as appears from Koopmans' contribution, Articles 85 and 86 of the EEC Treaty provide a possible remedy where abuse is made of a position of power in respect of the access to information and the contractual conditions imposed on such access.

13. OWNERSHIP RELATIONS

In respect of ownership relations the data bank also proves to be a child of its age: the ordered and manipulated information is the product of the efforts of many people. No individual author can be identified. The person who controls and operates the data bank is the rightful owner of the copyright (or the neighbouring right if this solution is chosen).

Chapter II

Creation and Commercial Value: Copyright Protection of Works of Information in the United States

Jane C. Ginsburg*

Introduction

In 1899 Augustine Birrell, a Victorian barrister, lamented: 'The question of copyright has, in these latter days, with so many other things, descended into the market-place, and joined the wrangle of contending interests and rival greedinesses.'1 This observation evokes nostalgia for supposed days when 'the question of copyright' concerned great works of art and literature tranquilly removed from the roiling commercial world. In fact, from copyright's inception, if some works have striven towards Arcadia, far more have occupied lowly dwellings in the market place.² The question of copyright has always been joined with that of commercial value; indeed, by affording authors limited monopoly protection for their writings, the U.S. Constitution relies on wrangling Greed to promote the advancement of both creativity and profit. Nonetheless, if the quotation's rather narrow conception of copyright as the repository of aesthetic, rather than commercial, interests points to a vision more Arcadian than accurate, much modern U.S. copyright doctrine has, consciously or not, substantially adopted this conception.4 The Arcadian conception has thus contributed to a problem in modern copyright law of pressing importance: How shall the subject matter and scope of copyright coverage accomodate works which reflect more investment than inspiration?

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A. BIRRELL, SEVEN LECTURES ON THE LAW AND HISTORY OF COPYRIGHT IN BOOKS 195 (1899).

See, e.g., J. GILREATH, FEDERAL COPYRIGHT RECORDS 1790-1800 (1987); Ginsburg, A Tale
of Two Copyrights: Literary Property in Revolutionary France and America, 64 Tul. L. Rev. 991,
1001-05 (1990).

See U.S. Const. art I, § 8, cl. 8 ('Congress shall have Power ... to promote the Progress of Science
and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their
respective Writings and Discoveries.').

^{4.} See, e.g., NIMMER ON COPYRIGHT § 3.04 (1986) (one who discovers and discloses facts or public domain documents is not an 'author'); Note, Copyright Protection for Compilations of Fact: Does the Originality Standard Allow Protection on the Basis of Industrious Collection?, 62 Notre Dame L. Rev. 763 (1987); Patry, Copyright in Collections of Facts: A Reply, 6 Comm. & the Law 11 (1984) (applying same standard of copyrightability to fact collections as to any other kind of compilation, and rejecting recognition of copyright based on labor invested in collecting facts).

In 1991, the United States Supreme Court will determine the scope of copyright protection accorded the paradigm of this kind of work - a compilation of information. The Court has agreed to hear an appeal from a decision upholding the copyright infringement claim of a telephone directory publisher against a rival directory publisher, who used the prior compilation as a source of information of name and address listings to include in its competing directory. The controversy before the Supreme Court will focus on whether the copyright law protects the information within a fact compilation; or instead merely protects the compilor's particular presentation of the information, but not the facts themselves. The case carries considerable economic importance for producers of informational works. such as data bases, as well as for users of these works. The case also calls upon the Supreme Court to resolve a key issue of copyright theory: Does copyright protect the fruits of an author's investment of labor and resources, as well as of her creativity; or does it merely cover those aspects of her work that bear the stamp of her personal, perhaps subjective, originality? The first theory envisions a two-pronged copyright system securing both creativity and commercial value; the second endeavors to impose a unitary, personality-based, concept of copyright on all literary works, be they factual or fanciful.

U.S. copyright law's designation of 'original works of authorship' as the subject matter of protection furnishes a starting-point for analysis. What should that term be understood to comprehend? Does the designation include works of little subjectivity yet considerable expenditure of labor and capital, as at least the early history of U.S. copyright coverage bears out? Or does 'original' 'authorship' describe only those works manifesting a subjective authorial presence, as many modern commentators contend?

In modern U.S. copyright law, moreover, the inquiry does not stop with determination of originality of authorship. The copyright law also exempts from protection ideas and facts contained within a work. This may mean that no matter how creative the work at issue, the facts and ideas it exposes are free for anyone's unlicensed use. The copyright may cover the facts and ideas as they are presented by the author, but the facts and ideas may be divorced from the context imposed by the author, and restated or reshuffled by second-comers, even if the author was the first to discover the facts or to propose the ideas at issue. Thus, even if the informational work qualifies for copyright protection because it displays 'original authorship,' the scope of that protection may be quite scanty. This is one question the Supreme Court should address in the case it is to decide this year.

These notions of originality and of copyright scope ill-accomodate works manifesting less creative individuality than 'sweat of the brow.' Personality-based characterizations of many informational works, such as databases, directories, and similar compilations of fact, are both contrived, and beside the point. For example, even if one might discern subjective 'arrangement' in works such as maps, direc-

Rural Tel. Serv. Co. v. Feist Pubs., 663 F.Supp. 214 (D. Kan. 1987), aff'd., No. 88-1679 (10th Cir. March 8, 1990), cert. granted, No. 89-1909 (Oct. 1, 1990). See the Postscript to this article, infra.

U.S. Copyright Act of 1976, 17 U.S.C. § 102(a).

See, e.g., Patry, Copyright in Collections of Facts: A Reply, 6 Comm. & the Law 11 (1984); Note, Copyright Protection for Compilations of Fact: Does the Originality Standard Allow Protection on the Basis of industrious Collection?, 62 Notre Dame L. Rev. 763 (1987).

¹⁷ U.S.C. § 102(b).

tories and compilations of judicial decisions, that arrangement may be unrelated to the work's importance as a source of information. Moreover, to the extent that the worth of the work lies in the information, rather than in the form imposed on the facts, the modern copyright emphasis on subjective characteristics fails to secure the commercial value of these kinds of endeavors. Yet the demand for productions such as directories and databases (works to which I shall occasionally refer as of 'low authorship') is ever-increasing. 10

If effective coverage of low authorship, information-intensive works disturbs the would-be coherence of copyright, the problem may not be one of 'fitting' these works to the current conception; 11 rather, the problem may be the unitary approach to copyright. Copyright would fare better with less coherence. 12 An unbundled copyright analysis, adapting the availability and scope of protection to different kinds of works, would not only be more faithful to U.S. copyright history, it would squarely confront the interests at issue in a rapidly-growing sector of publishing activity. The result should yield an allocation of rights and duties more promising than copyright in its current discomfort now affords compilors and users of collections of facts.

I first address the U.S. protection of informational works from a historical perspective. This inquiry first shows that the U.S. has a long tradition of copyright coverage of works characterized primarily by the investment of labor and money in their creation. However, it also shows that under the labor-rewarding view of copyright, the scope of protection did not extend to prohibiting the reuse of information in a different form, in a different, non competing work.

I next examine the contemporary posture of copyright protection for informational works in the U.S. The case law examination here reveals a rather inconsistent pattern of protection. U.S. courts reach contradictory results both respecting the originality requisite to inclusion of a work within copyright's subject matter, and regarding the kind of copying which constitutes infringement. On the one hand, some recent decisions, adhering to the personality concept of original authorship,

Cf., Blunt v. Patten, 3 F.Cas. 763 (No. 1580) (C.C.S.D.N.Y. 1828) (navigation charts); Banks v. McDivitt, 2 F.Cas. 759 (C.C.S.D.N.Y. 1875) (Compilation of New York state court rules of practice); Trow Directory, Printing & Bookbinding Co. v. Boyd, 97 F.586 (C.C.S.D.N.Y. 1899) (directory of business listings) (all protecting these works on grounds of labor expended by plaintiff and appropriated by defendant, rather than because of subjective characteristics – if any – of the works).

See, e.g., Technology, Intellectual Property, and the Operation of Information Markets in OFFICE OF TECHNOLOGY ASSESSMENT, U.S. CONGRESS, INTELLECTUAL PROPERTY RIGHTS IN AN AGE OF ELECTRONICS AND INFORMATION 157 (1986).

Cf., Miller v. Universal City Studios 650 F.2d 1356 (5th Cir. 1981), holding research uncopyrightable, and treating cases affording copyright protection to directories as sui generis. and exceptional.

^{12.} Indeed, the U.S. copyright regime already tolerates considerable disuniformity with respect to the extent of statutory protection. The 1976 Copyright Act provides an array of special limitations on the scope of copyright protection for certain classes or uses of works. See 17 U.S.C. §§111 (compulsory license for cable retransmissions), 114 (scope of protection for sound recordings), 115 (compulsory license for mechanical recording), 116A (compulsory license for jukebox performances of nondramatic musical compositions), 118 (compulsory license for certain public broadcasting performances), 119 (compulsory license for receipt of broadcast signals by home satellite dishes).

have held fact compilations insufficiently original to qualify for copyright. ¹³ On the other hand, some courts are willing not only to include fact compilations within copyright subject matter, but to accord the information contained in these works may receive a very broad scope of protection against copying, indeed, even against the remanipulation of data into a different, not directly competing work. ¹⁴ In effect, these courts have recognized an expansive right to control derivative works, that is, to authorize or to prohibit the varying ways in which information within a fact collection may be rearranged. Such a broad remedial reach, however, contradicts the concept that copyright protection should extend only as far as the copying of original elements; a remedy for reproduction of depersonalized information does not fit the personality paradigm. ¹⁵

I advocate that the Supreme Court recognize copyright protection for information (as well as for its arrangement) against subsequent compilors who copy in order to gain a competitive advantage over the first publisher of the information. However, I also believe that Congress must modify the U.S. federal copyright law to tailor protection for informational works in a manner affording maximum access to second authors to build on previously gathered information. Specifically, I recommend that Congress institute a compulsory license regime to compensate compilors of informational works for others' creation of derivative versions.

I. Copyright Protection of Informational Works: A Historical Perspective

I here explore notions of original authorship emerging from copyright case law in the United States in the eighteenth and nineteenth centuries. The kind of works at issue in early copyright disputes were most often highly useful, if artistically uninspiring, productions such as maps, arithmetic and grammar primers, calendars, and law books. ¹⁶ The overwhelming presence of informational works reflects the legi-

^{13.} See, e.g., Financial Info. Inc. v. Moody's Inv. Serv., 808 F.2d 204 (2d Cir. 1986), cert. denied, 108 S.Ct. 79 (1987) (index cards bearing bond call information). See also Eckes v. Card Prices Update, 736 F.2d 859 (2d Cir. 1984) (listing of baseball cards). See generally Jones, Copyright: Commentary - Factual Compilations and the Second Circuit, 52 Brooklyn L. Rev. 679 (1986) (criticizing Second Circuit imposition of a subjective creativity standard on compilors of fact works).

^{14.} See, e.g., National Business Lists v. Dun & Bradstreet. 552 F.Supp. 89 (N.D. Ill. 1982); Illinois Bell Telephone Co. v. Haines & Co., 905 F.2d 1081 (7th Cir. 1990). See also Rockford Map Pubs., Inc. v. Dir. Serv. Co., 768 F.2d 145 (7th Cir. 1985), cert. denied, 106 S.Ct. 806 (1986) (copyright in plaintiff's map does not protect the geographical facts, but does prohibit defendants from making a competing map using plaintiff's as a starting point).

See, e.g., Abramson, How Much Copying under Copyright? Contradictions, Paradoxes and Inconsistencies, 61 Temple L. Rev. 133 (1988); Raskind, The Continuing Process of Refining and Adapting Copyright Principles, 14 Colum.-VLA J. L. & the Arts 125 (1990) (suggesting that the scope of protection be commensurate with the work's level of originality).

^{16.} Of the five petitions to the first Congress seeking exclusive printing privileges, pending enactment of a copyright act, four concerned reference works; the fifth addressed family memoirs. See Proceedings in Congress During the Years 1789 and 1790, Relating to the First Patent and Copyright Laws, 22 J. Pat. Off. Soc. 243, 243-81 (1940) (hereafter 'Proceedings'). James Gilreath's study of the deposit records of all works registered for federal copyright protection during the first ten years of the first copyright statute, FEDERAL COPYRIGHT RECORDS, 1790-1800 (1987), also shows a great preponderance of informational and instructional works, such as English grammars and arithmetic books.

slative policies underlying American copyright: the 1787 U.S. Constitution, and the 1790 U.S. federal copyright statute characterize copyright as a device to promote the advancement of knowledge. 17 Perhaps because of the predominance of informational subject-matter, the concept of authorship and the basis for copyright protection underlying judicial decisions through the mid-nineteenth century seems to focus on the labor, rather than the inspiration, invested in the work. No matter how banal the subject-matter, if the author's work resulted from original efforts, rather than from copying preexisting sources, the author was entitled to a copyright. 18

By the mid to late nineteenth century, however, courts and commentators began to offer a different characterization of authorship, and a correspondingly different rationale for copyright coverage. These authorities viewed authorship as an emanation of the author's personality: by this light, a work is protectible because it incorporates something of its creator's unique individuality. The keystone of originality, then, would no longer be the independence of the author's labors, but the distinctiveness of the work's conception or execution. Subjective judgment, rather than diligent collection, would be the locus of the work's originality.

But, it would be misleading to suggest that this shift in copyright philosophy toward a more subjective view of authorship in fact spurred abandonment of the prior labor-oriented approach. The two views continued to coexist; indeed, sometimes they have been collapsed: if the author did not copy the work from a prior source, the work must be 'his own' and therefore original.²⁰ Today, if the term 'original work of authorship' usually means original authorship (creative individuality), it can still also mean original work (labor).

^{17.} See 8 Anne C. 19 (1710) (titled 'An Act for the Encouragement of Learning by vesting the Copies of Printed Books in the Authors or Purchasers of such Copies'; the preamble states that the act is to discourage piracy and is 'for the Encouragement of Learned Men to Compose and Write useful Books'); U.S. CONST. Art. I, § 9, cl.8 ('Congress shall have Power ... to promote the Progress of Science and useful Arts by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.'); U.S. Act of May 31, 1790, 1 Stat. 124 (titled 'An act for the encouragement of learning, by securing the copies of maps, charts and books, to the authors and proprietors of such copies, during the times therein mentioned').

For a discussion of some political and social reasons for the dominance of informational works in early U.S. copyright, see Ginsburg, A Tale of Two Copyrights: Literary Property in Revolutionary France and America, 64 Tul. L. Rev. 991 (1990).

^{18.} See, e.g., cases cited supra note 9.

See, e.g., Jeffreys v. Boosey 4 H.L.C. 815, 869, 10 Eng. Rep. 681, 703 (1854); Bleistein v. Donaldson Lithographing, 188 U.S. 239 (1903) (Holmes, J.).

^{20.} See, e.g., Alfred Bell & Co. v. Catalda Fine Arts, Inc., 191 F.2d 99, 102-03 (2d Cir. 1951): 'All that is needed ... is that the 'author' contributed something more than a 'merely trivial' variation, something recognizable 'his own'. Originality in this context 'means little more than a prohibition on actual copying.' No matter how poor artistically the 'author's' addition, it is enough if it be his own.'

See also L. Batlin & Son. v. Snyder, 536 F.2d 486 (2d Cir. 1976) (en banc); Kuddle Toy, Inc. v. Pussy-Cat Toy, Inc., 183 USPQ 642 (E.D.N.Y. 1974) (highly detailed art reproductions entitled to copyright protection on grounds of 'originality in copying': a copy of the requisite exactitude and faithfulness to the source cannot be made without great skill and effort.); Apple Barrell Prods. Inc. v. Beard, 730 F.2d 384, 388 (5th Cir. 1984) ('a collection of non-copyrightable material may qualify for protection if original skill and labor is expended in creating the work' – emphasis supplied).

Laborious Authorship: A Review

Many U.S. copyright decisions in the eighteenth and nineteenth centuries characterize copyrightable authorship in terms of the labor invested in the work. Thus, contemporary treatise writers equated original authorship with industriousness. George Ticknor Curtis, in his 1847 copyright treatise, devoted a chapter to 'the Originality Necessary to a Valid Copyright,' and prescribed as follows:

'Something he must show to have been produced by himself; whether it be a purely original thought or principle, unpublished before, or a new combination of old thoughts and ideas and sentiments, or a new application or use of known and common materials, or a collection, the result of his industry and skill. In whatever way he claims the exclusive privilege accorded by these laws, he must show something which the law can fix upon as the product of his and not another's labors.'²¹

The later nineteenth century American copyright treatise writer, Eaton S. Drone put it more succinctly: 'the true test of originality is whether the production is the result of independent labor or of copying.'22

Combined with the U.S. constitutional and legislative goals to 'promote the progress of Science [knowledge],'²³ the labor concept of copyrightability appears to furnish ample rationale for protecting all kinds of informational works, from narratives to catalogues. Inquiry into the personal or subjective character of the author's efforts would seem irrelevant to their copyrightability. The first U.S. copyright statute covered 'maps, charts, and books.'²⁴ The initial two categories are clearly informational and labor-intensive, especially in a country of ever-expanding western frontiers. Indeed, a map or navigational chart of new territory seems a most unlikely medium for display of subjective authorship. These works are valued, and their production is encouraged, for the information they impart, not for fanciful drafting or personal pictorial peculiarities. One might therefore conclude that protection of information is consistent with early principles of U.S. copyright.

However, this conclusion is somewhat misleading. It is correct insofar as it asserts the *existence* of early U.S. copyright protection for laboriously gathered factual material. It is incorrect to the extent that it may suggest substantial *scope* to the copyright coverage of fact-based works. It is most important to distinguish these two factors: the availability of copyright does not automatically entail a vigorous protective reach. The statement that informational works were copyrighted does not reveal what early U.S. courts would or would not deem an infringement.

G. T. CURTIS, TREATISE ON THE LAW OF COPYRIGHT IN BOOKS, DRAMATIC & MUSI-CAL COMPOSITIONS & OTHER MANUSCRIPTS, ENGRAVINGS & SCULPTURE AS ENAC-TED AND ADMINISTERED IN ENGLAND AND AMERICA 171 (Boston 1847) [hereafter, G.T. CURTIS].

E.S. DRONE, A TREATISE ON THE LAW OF PROPERTY IN INTELLECTUAL CREATIONS IN GREAT BRITAIN AND THE UNITED STATES 208 (1879) [hereafter DRONE ON COPY-RIGHT].

^{23.} U.S. Const., art. I, 8, cl. 8.

^{24.} Act of May 31, 1790, 1 Stat. 124.

In fact, the scope of copyright was rather modest. The first author might forbid the second comer's copying from the first production, but he could not prohibit a second comer from creating a competing work – so long as the competitor acquired the same information from primary sources. The copyright proprietor thus might prevent competitors from using the first work to save the time and money of original research. On the other hand, the same policies favoring the advancement of knowledge and the rewarding of labor that endowed informational works with copyright exculpated a second comer's reliance on the copyrighted work, when he added considerable personal effort to what he copied. Copyright would protect the first author against thieves, but not against second authors whose investment of their borrowings from the initial source produced a net higher yield. A Massachusetts federal district court decision of 1847 emphasizes the labor-valuing limitations on the scope of protection. In a case involving a dictionary of flowers, the court inquired if the second-comer's appropriations from the first author were 'characterized by enough new or improved, to indicate new toil and talent, and new property and rights in the last compiler.'26

In the Massachusetts federal court's formulation, 'new toil and talent' give rise to 'new property and rights', even when the toiler expends his labor on a predecessor's efforts. But if 'new toil' produces 'new property' in copyright, and thus restricts the reach of the underlying work's protection, it is not simply because the second-comer has labored. There may also be the concern that exclusion of all other laborers save the first author, by means of a copyright extending to new and improved versions of the basic text, will not necessarily prompt the first author to undertake the greater toils of producing new and improved versions. In that case, there will be only the basic text; the fields of related endeavor will lie fallow. This result disfavors both would-be laborers and the greater public thereby deprived of novelty and improvement.

The scope of early U.S. copyright protection of informational works thus extended to the precise contribution of the first author, but generally not to significant variations which others might make on the underlying information. In modern copyright terms, early copyright jurisprudence recognized the right of reproduction, but not the right to make derivative works, that is, the right to control

^{25.} See, e.g., G.T. CURTIS, supra. note 21, at 174: '[I]f a person collects an account of natural curio-sities, or of works of art, or of mere matters of statistical or geographical information, and employs the labor of his mind in giving a description of them, his own description may be the subject of copyright. It is equally competent to any other person to compile and publish a similar work. But it must be made substantially new and original, like the first work; by resort to the original sources, and must not copy or adopt from the other, upon the notion that the subject is common.' Citing, Hogg v. Kirby, 8 Ves. 215, 221, 32 Eng. Rep. 336, 339 (Ch. 1803); Longman v. Winchester, 16 Ves. Jun. 269, 271, 33 Eng. Rep. 987, 987-88 (Ch. 1809) (Lord Eldon) re a court calendar: 'Take the instance of a map, describing a particular county, and a map of the same county, afterwards published by another person, if the description is accurate in both, they must be pretty much the same, but it is clear, the latter publisher cannot on that account be justified in sparing himself the labor and expense of actual survey, and copying the map, previously published by another. ... [A] work, consisting of a selection from various authors, two men might perhaps make the same selection, but that must be by resorting to the original authors, not by taking advantage of the selection already made by another.'.

^{26.} Webb v. Powers, 29 Fed. Cas. (No. 17,323) 511, 517 (C.C.D. Mass. 1847).

'other form[s] in which the work may be recast, transformed or adapted.'²⁷ None-theless, in one respect, the scope of early copyright protection for fact works was more generous than courts generally allow today. If copyright did not prohibit unauthorized remanipulations of data, it could, at least in certain circumstances, be wielded against what one might call infringement by reference: the use of the first compilor's data to save the second-comer the research effort of consulting primary sources or of engaging in independent information-gathering.

Thus, throughout the nineteenth and into the twentieth century, indeed at the same time as the 'personality' concept of copyright began to take vigorous shape, U.S. courts regularly sustained copyright plaintiffs' claims against second compilors who failed to conduct independent canvasses of information. For example, in an 1876 decision regarding financial news bulletins, a New York court insisted:

'It would be an atrocious doctrine to hold that dispatches, the result of the diligence and expenditure of one man, could with impunity be pilfered and published by another. ... The mere fact that a certain class of information is open to all that seek it, is no answer to a claim to a right of property in such information made by a person who, at his own expense and by his own labor, has collected it.'²⁸

This kind of example indicates the longstanding practice of protecting information, qua information, when defendant engaged in little effort of its own. In effect, at the time there was little difference between copyright, and that branch of unfair competition today known as 'parasitic actions.' But this reach of the scope of copyright protection for fact works, if not amputated, has become controversial in more recent U.S. copyright law, to which I will now turn.

II. Informational Works in Contemporary U.S. Copyright Analysis

I here examine modern U.S. law regarding both the inclusion of informational works within the subject matter of copyright, and concerning the scope of protection afforded.

A. SUBJECT MATTER

The cases here addressed were decided under the 1976 Copyright Act.²⁹ Before reviewing the decisions one should therefore seek guidance from the statute the courts are supposed to be construing. In addition to its general specification of

^{27. 17} U.S.C. 101 (1976 copyright act's definition of derivative work). Cf. B. KAPLAN, AN UNHUR-RIED VIEW OF COPYRIGHT 17 (1967) (reviewing early English decisions, 'the infringement problem was being answered, seventy five years after the basic statute [of Anne], by looking not so much to what the defendant had taken as to what he had added or contributed.'). For more extensive treatment of the development of derivative rights, see Goldstein, Derivative Rights and Derivative Works in Copyright, 30 J. Copyr. Soc. 209 (1983).

^{28.} Banks v. McDivitt, 2 F.Cas. 759, 13 C.O. Bull 101 (C.C.S.D.N.Y. 1875).

^{29. 17} U.S.C. §§ 101 et seq.

'original works of authorship', the present copyright law protects compilations,30 defined as

'work[s] formed by the collection and assembling of preexisting materials or of data that are selected, coordinated, or arranged in such a way that the resulting work as a whole constitutes an original work of authorship.'31

The 1976 Act thus appears to accommodate a great range of informational works, from encyclopedias to databases. But there is a problem. The statutory provisions are circular: in effect they say 'original works of authorship include compilations, if the compilation as a whole constitutes an original work of authorship.' This leaves one inquiring: What is an original work of authorship? The statute supplies no definition; the legislative history instead claims to preserve the judicial standard evolved under the prior statute.³²

Turning to these judge-made criteria, they prove to be inconsistent, sometimes accentuating the labor invested in the compilation, 33 sometimes highlighting subjective factors, such as selection and organization of material.³⁴ One way or another, courts have generally managed to find sufficient authorship in informational works to qualify them for copyright.³⁵ But, a recent trend in the United States Court of Appeals for the Second Circuit (traditionally the most important federal appellate court in the elaboration of copyright law) appears to give primacy to a test of subjective authorship. Thus, that court has denied copyright protection to index cards reporting daily bond information when the gathering of information for the cards was a 'simple clerical task' requiring no exercise of judgment on the part of the compilers. The court rejected a grant of copyright protection 'based merely on the 'sweat of the author's brow' [because such a grant] would risk putting large areas of factual research off limits and threaten the public's unrestrained access to information.'36 Similarly, in earlier recognizing protection for a price listing of 18,000 baseball cards, the Second Circuit also struck out a 'sweat' basis for copyright; it held for plaintiff on the ground that a portion of the listing represented the compilors' subjective identification of the 'best' baseball players.³⁷

^{30. 17} U.S.C. § 103.

 ¹⁷ U.S.C. § 101. For a particularly close textual analysis of this provision, see Patry, Copyright in Collections of Facts: A Reply, 6 Comm. & the Law 11, 25-27 (1984).

^{32.} See H.R. Rep. No. 1476, 94th Cong., 2d Sess. 51 (1976) (original works of authorship 'purposely left undefined'). For a discussion of the legislative history, see Patry, supra note 31, at 18-25.

See, e.g., Jeweler's Circular Pub. Co. v. Keystone Pub. Co., 281 F.2d 83 (2d Cir.), cert. denied, 259
 U.S. 581 (1922); Triangle Pubs. v. New England Newspaper Pub. Co., 46 F.Supp. 198 (D. Mass. 1942).

See, e.g., College Entrance Book Co. v. Amsco Book Co., 119 F.2d 874 (2d Cir. 1941); Adventures in Good Eating v. Best Places to Eat, 131 F.2d 3 (7th Cir. 1977).

Cf., Miller v. Universal City Studios, 650 F.2d 1356, 1369-70 (5th Cir. 1981) (reviewing prior case law protecting telephone directories, and concluding that their protection may be justified on grounds of enduring practice, but should be treated as sui generis).

^{36.} See Financial Information, supra note 13, 808 F.2d at 207.

^{37.} See Eckes, supra note 13, 736 F.2d at 863 ('We have no doubt that appellants exercised selection, creativity and judgment in choosing among the 18,000 or so different baseball cards in order to determine which were the 5,000 premium cards.').

Is this rejection of the 'sweat' test of authorship appropriate? I would suggest, first, that the Second Circuit reached this result for the wrong reasons, and second, that the result itself is questionable. As the Second Circuit's expressed concern to avoid 'putting large areas of factual research off limits' demonstrates, the court has confused the question of copyright scope with its subsistence. Protecting plaintiff's index cards against verbatim copying (the barest scope of copyright) would prohibit others neither from acquiring the same information elsewhere, nor from incorporating plaintiff's bond call information in a different work. Indeed, the court itself has wavered with regard to the subsistence of copyright in nonsubjective compilations. In the bond card decision, the court indicated that had defendant copied the volume in which the daily bond cards were bound, rather than copying each daily card seriatim, infringement might have been found.³⁸ The court's disclaimer of 'sweat' protection in the baseball card decision manifested a similar inconsistency. The court stated, 'the sweat of a researcher's brow does not merit copyright protection absent, perhaps, wholesale appropriation.'39 In other words, the copyrightability of 'sweat' will depend on the extensiveness of defendant's copying: an immoderate appropriation will transform an otherwise uncopyrightable collocation of information into an original work of authorship. The court's error in conflating copyrightability and infringement should be clear: a work is either copyrightable or not; it does not become copyrightable simply because it has been copied 'wholesale'.

Does the concern expressed to preserve the public domain of information justify this incoherence? The Second Circuit approach appears to procede from the following premises. As a general principle, public access to information is privileged, but a copier who abuses this privilege in a particularly porcine manner should be reprimanded. He should be reprimanded either on general normative grounds, or out of instrumentalist concern that failure to protect in even these extreme circumstances will discourage the production of works of information. The court's desire to reach the baldest kind of copying shows that the court does not really mean completely to exclude nonsubjective compilations from copyright.⁴⁰

But should nonsubjective compilations be protected at all? Should copyright subsist only in those works in which some authorial personality may be discerned? Or can a 'sweat' work also be an 'original work of authorship'? Historically, as we have seen, sweat holds a strong claim to original authorship. Moreover, the rise of the personality approach would better be seen as supplementing, rather than sup-

 ⁷⁵¹ F.2d 501, 505 (2d Cir. 1984) (earlier stage of litigation, reversing lower court's fair use finding; remanding for evaluation of copyrightability).

^{39. 736} F.2d at 862.

^{40.} Arguably, the Second Circuit might have preferred a misappropriation claim against gross copiers, but the preemption section of the copyright act, 17 U.S.C. 301, and recent Supreme Court pronouncements, see *Bonito Boats v. Thundercraft Boats*, 109 S.Ct. 971 (1989), may well foreclose this route.

planting the prior concept of original authorship. Is there good reason now to adhere exclusively to a rule of subjective authorship?⁴¹

One argument in favor of abandonment of the sweat concept would contend that today's 'sweat' works in fact entail little strenuous endeavor. For example, the compilor of a name and address directory need no longer travel from door to door gathering information, 42 nor need she shift through and organize individual files into a handy index. Rather, the information may already be stored in a computer database, available for organization by a computer program. If computers have now cast us into the anti-perspirant era of information production, perhaps nonsubjective compilations no longer have a claim to original authorship. 43 On the other hand, this argument would seem to apply to only those 'sweat' works that required no one's perspiration; it does not challenge the claim to authorship of those nonsubjective informational works which in fact prove labor-intensive.

One consideration favoring the 'original authorship' of nonsubjective compilations, regardless of the perspiration quantum, focuses on the social benefits derived from their production. ⁴⁴ Address lists, law reporters, time tables, road atlases, etc. are all very useful works. Today they are no less useful than in the eighteenth and nineteenth centuries, when the policies underlying U.S. copyright clearly sought to encourage the production of these sorts of endeavors. I should emphasize that the social benefit justification applies to works not individually, but systematically. Inclusion of compilations within the subject matter of copyright will on the whole promote the progress of knowledge, even if individual examples appear less than instructive, or might have been produced regardless of the availability of copyright.

^{41.} See, e.g., Note, Copyright Protection for Compilations of Fact: Does the Originality Standard Allow Protection on the Basis of Industrious Collection?, 62 Notre Dame L. Rev. 763 (1987) (arguing that Constitution requires a personality-based standard of originality). Cf., Denicola, Copyright in Collections of Facts: A Theory for the Protection of Nonfiction Literary Works, 81 Colum. L. Rev. 516, 530 (1981) (contending that the 'collection' of data is an act of original authorship because 'the collection owes its origin to the author as much as does the manner in which the collection is arranged').

^{42.} Cf. Jewelers Circular, supra note 33.

^{43.} Moreover, if the computer-assisted nonsubjective compilation has an 'author,' is that person the person who instructed the computer to organize information within a given database? Is that person the creator of the computer program which organized the compilation? Is it the compilor of the database? Any combination of the above? See Samuelson, Allocating Ownership Rights in Computer-Generated Works, 47 U. Pitt. L. Rev. 1185 (1986) (advocating that the user of the program to generate a new work, and not the author of the program, should be the owner of the computer-generated work).

See, e.g., Gorman, Copyright Protection for the Collection and Representation of Facts, 76 Harv.
 L. Rev. 1569, 1603 (1963) ('With fact works, courts should find 'originality' in the social contribution made by the accurate gathering, verification, and tangible representation of useful information.').

B. SCOPE

Copyright protects against copying. 45 But what kind of copying? For informational works of skimpy subjectivity, one may posit three different kinds of copying: 1. close copying of all or substantial portions of the work; 2. use of the work as a 'starting point' to save a competitor time, money, and effort; 3. reproduction of discrete elements of information in the creation of a different, not directly competing work.

The 1976 Copyright Act provides:

'In no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied in such work.'46

This prohibition is generally construed to apply to facts as well.⁴⁷ If one takes the statute on those terms, then copying the work in all or large part would be infringement because copyright extends to the totality of the work. On the other hand, using the work as a starting point for reference, may involve consultation of the work as a whole, but exploitation only of unprotected facts. Similarly, remanipulation of data exploits the facts removed from the totality of the work. Thus, there would be a finding of infringement only in the first case. In fact, some U.S. courts have sustained plaintiffs' infringement claims in all three instances.⁴⁸

Different concepts of originality may yield different scopes of infringement. The entire work standard referenced above essentially rests on the personality principle. The authorial persona behind a barely subjective compilation may resist identification, but in the U.S. we are willing to assume it is somehow present in the

^{45. 17} U.S.C. 106(1) (exclusive right of reproduction). Copyright also includes exclusive rights to prepare derivative works, 106(2), to distribute copies, 106(3), to perform and display the work publicly, 106 (4, 5). The derivative works right is closely related to the reproduction right; adaptations generally involve some degree of copying from the adapted work.

^{46. 17} U.S.C. 102(b).

See, e.g., Harper & Row Pubs. v. Nation Ents., 471 U.S. 539, 537 (1985); Financial Info. Inc. v. Moody's Inv. Serv., 751 F.2d 501, 504-05 (2d Cir. 1984). See also H.R. Rep. No. 94-1476, 94th Cong., 2d Sess. at 56-57 (1976).

^{48.} See, e.g., (copying virtually all of work): Telerate v. Caro 689 F.Supp. 221 (S.D.N.Y. 1988) (contributory infringement by producers of program permitting users to 'download' from plaintiff's database); United Telephone Co. of Mo. v. Johnson Pub., 855 F.2d 604 (8th Cir. 1988) (copying white pages phone directory into computer held infringement); (using prior work as starting point): Rockford Map, supra note 14 (infringement by second map publisher who used first map as 'template' for rival map, thus sparing time and expense of own research); Rural Tel. Serv. Co. v. Feist Pubs., Inc., supra, note 5 (preparation of white pages phone book by initial reference to plaintiff's directory rather than by independent canvas held infringing); (remanipulating data): National Business Lists, supra note 14 (infringement of credit ratings information by unauthorized extraction of business listings to compile address lists); Illinois Bell Telephone Co. v. Haines & Co., supra note 14 (infringing rearrangement of name-organized telephone directory into address-organized directory). But see Worth v. Selchow & Righter, 827 F.2d 569 (9th Cir. 1987) (remanipulation: no infringement when producers of game Trivial Pursuit extracted material for trivia questions and answers from plaintiff's encyclopeida of trivia).

work as a whole, either as a result of the entirety of the assembling of information, ⁴⁹ or in the correlation of various elements of information. ⁵⁰ A labor view of originality might enlarge the protective reach. If a second-comer spares himself effort by using the first work as a starting point, has infringement occurred even though the resulting second work may not have copied all or most of the first? Arguably, under an original labor approach, infringement would be found only if the copied or referenced material had itself been laboriously produced. On the other hand, if labor carries a high copyright value, defendant's lack of it should be as or more pertinent than plaintiff's. This is the reverse of the copyright/labor coin. As the older decisions reveal, copyright can concern labor *qua* labor, both rewarding plaintiff's industry, and reprimanding defendant's sloth. ⁵¹ Indeed, an important recent decision, from 1985, concerning maps, condemned use of plaintiff's work as a 'starting point' and proclaimed the irrelevance of plaintiff's input of labor, while branding defendant's failure to undertake its own 'industrious collection.' ⁵²

The labor concept would not, however, extend the scope of infringement to reuse of information in a new and different work. Unlike her indolent counterpart in the infringement by reference example, here the second-comer is adding substantial amounts of her own labor to the appropriated information.⁵³ By the same token, a social benefit concept of originality would not aid against remanipulations of information, for the new work presumably also contributes to the progress of knowledge. As discussed earlier, even if the new work does not itself promote knowledge, the social benefit concept would still tolerate this kind of copying because, on the whole, remanipulations of information should yield a net gain in knowledge.

On what basis have courts stretched copyright protection to prohibit remanipulation of information, when the information has been stripped of any subjective trappings? In essence, those courts which condemn this kind of copying seek to secure the first compilor's investment. Recognizing that such broad protection 'does not fit nicely into the conceptual framework of copyright,' courts nonetheless observe that the real value both economic and social of many compilations lies in their 'collection of information, not its arrangement. If his [the compilor's] protec-

^{49.} See, e.g., Denicola, supra note 41.

See, e.g., New York Times Co. v. Roxbury Data Interface, 434 F.Supp. 217 (D.N.J. 1977) (copyrightable element of directories and indexes is their correlation of listings).

^{51.} Arguably, an infringement by reference may also be considered an infringement of the total copying variety. Although the final work may not closely mimic its source, the second-comer may have made an exact copy to start with. But while there may be traditionally actionable copying, under a total copying approach damages should be awarded only for the first copy, not for the subsequent versions, while an infringement by reference perspective would permit award of damages for all of defendant's production.

^{52.} Rockford Map, supra note 14, 768 F.2d at 149-50. See also Schroeder v. William Morrow & Co., 566 F.2d 3 (7th Cir. 1977). The case before the Supreme Court also concerns use of a predecessor's fact compilation as a starting point to save the second-comer the time and expense of conducting an independent canvass of information.

^{53.} But see, Rockford Map, supra. note 14, 768 F.2d at 149 ('Directory Service tells us that it did not infringe because its agent, too, was industrious. This is irrelevant. The infringement comes from the fact that Directory Service copied Rockford Map's output, not from the fact that it ended with a different plat map.'). The second map at issue, however, contained all the same information as plaintiff's (including planted errors), and did not add new information; moreover, defendant's work directly competed with plaintiff's.

tion is limited solely to the form of expression, the economic incentives underlying the copyright laws are largely swept away.'54

While I am sympathetic to the court's attention to the first compilor's investment, I believe the scope of protection accorded was excessive. In effect the court is holding that once one has compiled a dataset, one is entitled to complete control over all recombinations which may be made of the data. To me this exceeds reasonable incentives to create collections of data, and could deprive the public of new combinations of information. If the 'personality' approach to copyright sins by excluding low authorship informational works from protection, the court's solution here is equally fallacious. Information protection under copyright need not be an all-or-nothing proposition.

III. Recommendation: A Compulsory License for Derivative Information Compilations

As a compromise solution, I would recommend institution of a compulsory license regime. This is a device familiar to U.S. copyright law.⁵⁵ The compulsory license closest to the kind envisioned here is the 'mechanical rights' license to produce sound recordings of copyrighted nondramatic musical compositions. The terms of this license provide that once the composer has licensed the first sound recording of her composition, anyone wishing to make a recording of the same music may obtain a compulsory license to do so. The law permits the beneficiaries of the compulsory license to rearrange the music to conform to the contemplated performance.⁵⁶ This compulsory license thus enriches the corpus of musical works by making available to the public a potentially infinite number of arrangements of underlying compositions.

Applying the sound recordings license technique to informational works, one might recommend that a compilations remedy grant information gatherers rights over reproductions and derivative works, but modify the derivative works right by a compulsory license. Thus, for example, a database producer could obtain injunctive relief against a reproduction, such as 'downloading' substantial portions of the collected information (as is already the case in U.S. law), 57 but (absent a contract) could not prohibit others from extracting and rearranging discrete items of data. Rather, under my proposal, the second compilor would request a compulsory li-

^{54.} National Business Lists v. Dun & Bradstreet, 552 F.Supp. 89, 92 (N.D. III. 1982).

^{55. 17} U.S.C. 111, 115, 116, 118, 119 (compulsory licenses in the areas of cable retransmission, production of sound recordings, certain jukebox performances, public broadcasting uses, and transmissions to home satellite earth stations). The 1984 Semiconductor Chip Act, 913(d)(2) includes a variant on the compulsory license. This transitional provision covers semiconductor chips first commercially exploited between July 1, 1983 and the effective date of the Act. If these are timely registered, the Act affords them limited protection against infringing semiconductor chip products manufactured before the Act's effective date. The Act permits the manufacturer of the infringing chip to import or distribute in the United States if he offers to pay a 'reasonable royalty' to the mask work owner. Richard Stem, Esq. has suggested that a similar provision be included in a sui generis law covering noncode aspects of software. See Stem, The Bundle of Rights Suited to New Technology, 47 U. Pitt. L. Rev. 1229, 1254 (1986).

 ¹⁷ U.S.C. 115(a)(2).
 Cf. Telerate v. Caro, supra note 48 (contributory infringement by producer of computer program permitting users to download from plaintiff's database).

cense, pay the appropriate fee, and then exploit the extracted portions of the first work free of claims by the first producer.⁵⁸

Were a compulsory license regime imposed, who would administer the scheme? The U.S. Copyright Act provides for a Copyright Royalty Tribunal [CRT] which sets rates and administers distribution of royalties in each of our current compulsory license domains. An informational works compulsory license might also be administered by the CRT. Alternatively, or in addition, private negotiations among compilor and user organizations might govern. A new provision of the Copyright Act concerning jukebox performances affords an analogy. It authorizes negotiations between owners of jukeboxes and owners of nondramatic musical composition copyrights, and gives the resulting negotiated license precedence over CRT determinations pursuant to the jukebox compulsory license. Thus, for a negotiated license in the informational works context, owner and user groups could set forth the rates and guidelines of compensable derivations, and the user group could administer the collection and distribution of royalties.

Conclusion

I conclude that the personality paradigm sets limits both too narrow and unrealistic on the subject matter, and particularly the scope, of copyright. The inconsistency of modern U.S. copyright law's resolution of cases involving non narrative informational works illustrates the futility of forcing works of high and of low authorship into a unitary copyright mold. Copyright concerns both creation and commercial value. The error of our modern doctrine lies in its implicit, but unexamined, claim that the law has abandoned the sweat model of copyright in favor of a personality-based approach.

^{58.} If the second compilor is deriving material from more than one protected source, the rate paid should reflect the relative reliance on each source.

^{59. 17} U.S.C. 800 et seq.

^{60. 17} U.S.C. 116A, added to the 1976 Copyright Act as part of the Berne Convention Implementation Act of 1988, Pub. L. No. 100-568, 102 Stat. 2853 (1988). See also 17 U.S.C. 118 (e)(1) (public broadcasting compulsory license provides for setting of terms and rates of royalties through voluntary negotiation between owners of nondramatic literary works and public broadcasters).

^{61.} On collective administration of rights, see, e.g., Besen & Kirby, Compensating Owners of Intellectual Property: Collectives that Collect (RAND R-3751-MF) (1989) (discussing collective administration of performance and reproduction rights in the U.S. and in various European nations). Should the duration of protection for low authorship informational works be different from that accorded other copyrighted works? The U.S. term of protection is the life of the author plus fifty years, or 75 years from publication of a work made for hire. See 17 U.S.C. 302. Intellectual property laws addressing subject matter which at least some countries place on the fringe of copyright generally afford a protective period shorter than the copyright term. Thus, the Nordic catalogue statutes afford a ten-year period, see, e.g., Denmark, Copyright Law, art. 49; Finland, Copyright Law, art. 49; Norway, Copyright Law, art. 43; Sweden, Copyright Law, art. 49. See generally T. STENSAASEN, OPPHAVSRETTSLOVENS 43 ('KATALOGREGELEN') (Oslo 1985); Kamell, The Nordic Catalogue Rule, in this volume. The Berne Convention, art. 7.4, permits (but does not require) member countries to limit the duration of protection for works of applied art and photographs to twenty-five years; the French copyright law prescribes a twenty-five year term for computer programs, law of March 11, 1957, as amended July 3, 1985, art. 48. Such abbreviated periods of protection may in fact not very much matter. In many instances, the commercial value of the work may not endure beyond ten years. Moreover, if the work is updated, a new term will commence with each update (although the new term will aply only to the new matter in the compilation).

One might object that to accord broad copyright coverage to works of low authorship effaces the distinction between copyright and unfair competition, and thus makes investment of labor and capital the guiding value in the copyright scheme. As a result, the objection would continue, the concept of copyright as securing authorial individuality could become trivialized, even irrelevant. But the objection is ill-founded both with respect to its premise and its conclusion. First, the distinction between copyright and unfair competition has never been clear-cut, as both the early copyright rhetoric and even some modern-day U.S. court decisions indicate. Both copyright and unfair competition law impose sanctions against secondcomers' unlicensed appropriations of their predecessors' expended time, money and labor. Unfair competition is broader than copyright to the extent that entry of a remedy requires neither that the misappropriated investment have been concretized in a work of authorship, nor that the conduct labeled 'unfair' constitute some variety of publication. But it is at least plausible to assert that with respect to works of low authorship, there is little difference between the policies underlying unfair competition and those which do, or should, brace copyright law.

Moreover, my proposal would not replace one unitary copyright scheme with another. Rather, it would recognize the diversity of copyrightable works, and would accord a level of protection commensurate with the nature of the interest at stake. Where a work manifests authorial personality, that personality is entitled to exclusive exploitation rights, including rights to control derivative versions. This exclusivity is warranted because unauthorized derivative versions compromise both the work's economic potential, and the author's personal goodwill. Where a work of low authorship is concerned, however, no personal authorial integrity is at issue. The sole issues involve the balancing between compensation to the compilor adequate to promote continued production on the one hand, and competitive access to information on the other. The compulsory license regime here proposed should reward the initial producer's investment of labor and capital while enabling subsequent compilors to exploit the information without incurring the perhaps deterring costs associated with independent generation of the same data.

Postscript

As this volume was going to press, the United States Supreme Court rendered its decision in Feist v. Rural Telephone (No. 89-1909, March 27, 1991),⁶² a controversy concerning the scope of copyright protection in a white pages telephone directory. A unanimous Court determined not only that a competitor's reproduction of many, albeit not all, of plaintiff's telephone listings did not constitute copyright infringement, but that plaintiff enjoyed no copyright protection at all in its collected listings of telephone subscriber names, residences and telephone numbers. In reaching its holding, the Court ruled that a compilation of information will be protectible only if it is the product of an original selection and arrangement of data; copyright does not protect unoriginal compilations, no matter how much labour or resources expended in the gathering of the information.

^{62.} The full text of the Supreme Court decision is published elsewhere in this volume.

In rejecting a 'sweat of the brow' basis for copyright protection, the Court elected to impose a unitary standard of creative originality. The Court set forth its distinction between copyrightable creation and mere utility quite clearly: '[Plaintiff] expended sufficient effort to make the white pages directory useful, but insufficient creativity to make it original.' The compilation was insufficiently creative because its selection of facts about telephone subscribers 'could not be more obvious: it publishes the most basic information,' and because the 'age old practice' of alphabetical arrangement was 'commonplace' and not 'remotely creative.' Henceforth, whatever the effort devoted to compile a work of information, and however useful the work may be, to be 'original', and therefore copyrightable, the work must display 'more than a de minimis quantum of creativity.'

The Court cast its opinion in very broad terms, broader, in fact, than necessary to dispose of the case before it. While the Court could simply have ruled that the language of the present copyright statute does not permit protection of facts, the Court also repeatedly asserted that the U.S. Constitution mandates a standard of creative, rather than laborious, originality. The difference between a holding grounded in the statute and one couched in Constitutional terms is significant: had the Court resolved the case solely under the Copyright Act, Congress could have amended the statute to afford copyright protection; the Court's further articulation of a constitutional standard of creative originality precludes Congress from conferring copyright protection on insufficiently creative works of information. Thus, the Court's insistent reliance on the superfluous constitutional ground of decision suggests that the Court sought to resolve the general issue of copyright protection of works of fact in favour of wide public access to information.

Nonetheless, despite (or perhaps because of) its sweeping language, the Court's disposition may raise more questions than it resolves. Most importantly, if the Court has now told us what is not original in a compilation of information, it has failed to tell us what is. How far beyond the 'obvious' and 'commonplace' must a compilation's selection and arrangement stretch to be 'original'? For example, if a telephone directory publisher includes off-beat information, such as subscribers' eye colour, do the listings thereby become copyrightable? If, by contrast, a compiler seeking to make the work as comprehensive as possible eschews 'selection', is the compilation then by definition not original?

By the same token, it may still remain unclear what kind of copying of an original compilation of information would infringe. Consider the phone number plus eye colour directory. If the directory's eccentric selection renders the work copyrightable as a whole, the component facts remain unoriginal. Under the terms of the Supreme Court's decision, the copyright would not forbid a second-comer from extracting the 'obvious' information concerning names and telephone numbers. But would the copyright protect the unobvious information? Or, because the unusual facts are still 'facts', does it not follow that they too may be copied? Perhaps the copyright in the directory would at least cover the 'original' contribution – the conjunction of bizarre information with basic listings. Even here, however, the resolution is open to doubt: the conjunction of information also yields a 'fact', and thus might be as vulnerable to copying as are the component data.

Finally, the excision from copyright of unoriginal but commercially valuable compilations presents problems for both domestic and international intellectual property regulation. Within the United States, if copyright is not available, can

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other legal doctrines, such as unfair competition, afford meaningful protection? Abroad, what impact will the Supreme Court's ruling have on a variety of issues, including protection of databases under a emerging EC directive, and interpretation of the Berne Convention term 'literary works' to include compilations of information?

Chapter III

Protection of Compilations of Facts in Germany and the Netherlands

P. Bernt Hugenholtz*

Introduction

'Protecting works of fact' is by no means a novel issue. One hundred and ten years ago, in his now famous treatise on copyright law, I Joseph Kohler devoted several pages to the question under discussion. Can copyright law protect information qua information? According to Kohler the answer was clear. There is no copyright in the act of communicating facts as such. No authorship can result from making known something that already exists ('das blosses Bekanntmachen von etwas bereits Vorhandenem'2). Thirty years earlier Jolly had arrived at a similar conclusion:

'An den durch Telegraph berichteten Worten: 'Paris ist ruhig' oder '5% Rente=99¹/₄' kan [...] kein vernünftiger Mensch eine Autorschaft und in Folge derselben Autorrechte beanspruchen.'³

In Kohler's view, whether the communicated facts are for the taking or discovered at great pain and expense is of no relevance. In neither case the communicator can qualify as 'author'. Even if the facts presented are novel, no authorship is involved. According to Kohler, men of science do not create; they simply reveal the facts of nature. The scientist may lead us to a terra incognita; in doing so he does not become an 'author'. 'Es gibt eben in Autorsachen kein Finderrecht, kein Recht des primus occupans.' For precisely the same reasons, news reporters do not deserve copyright protection, even though, according to Kohler, news correspondents are dearly rewarded.⁵

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This article is based on Hugenholtz' doctoral thesis Auteursrecht op informatie ('Copyright in information'), Kluwer, Deventer 1989; an English language version is to be published in the Information Law Series.

J. Kohler, Das Autorrecht, eine zivilistische Abhandlung, Jena 1880.

Kohler, p. 160.

J. Jolly, Die Lehre vom Nachdruck, nach den Beschlüssen des deutschen Bundes dargestellt, 1852,
 p. 112. The translations reads: 'No intelligent man can claim authorship – and therefore author's rights – in the words communicated by telegraph: 'All quiet in Paris' or '5% interest = 99¹/₄'.'

Translation: 'A discoverer's right – a right of the primus occupans – simply does not exist in copyright matters.'

Kohler, p. 163-164.

In 1991, more than a century after Kohler, the prevailing doctrine is virtually unchanged. Year after year law school students are taught 'there is no copyright in ideas, theories and facts'. Copyright subsists only in the (original) expression, not in the ideas expressed. The recent decisions of the Supreme Court of the United States in Feist v. Rural Telephone⁶ – surprisingly continental in its approach – and of the Supreme Court of the Netherlands in Van Dale v. Romme,⁷ perfectly reflect this traditional doctrine.

So what's new? Four things are new.

I. The Growing Needs of the Information Industry

In the first place, traditional continental copyright doctrine is at odds with the growing needs of the so-called information industry. Due to the proliferation of information technology, the economic value of data compilations is, increasingly, in the information as such, rather than in the way the data are presented. The computer revolution has brought vast information processing powers to the information users. Eventually, all the end users will need are 'raw' data: unedited, unstructured, unorganized data relevant to a certain topic. Raw data are rapidly becoming the most valuable commodity in modern-day society.

Traditional doctrine has never been sympathetic to the needs of information producers. According to this doctrine, copyright does not – and should not – protect investment or commercial value. Only true works of authorship, not simple products of 'skill and labour' and other 'small change' – not to even mention (the unspeakable) 'sweat of the brow' – should be admitted to Copyright Heaven. Perhaps compilers of factual data may deserve some kind of protection against misappropriation; copyright, however, is not the appropriate instrument.

II. Facts are not 'Discovered'

In the second place, more and more copyright scholars are discovering traditional copyright doctrine with respect to works of fact is philosophically unsound. The generally accepted belief that factual information is 'discovered', not 'created' is basically Platonic⁸ and at odds with modern-day scientific methodology and philosophy.⁹ Scientific discoveries and theories are products of 'creative' labor; therefore they should, in principle, qualify as copyrightable subject matter.

Admittedly, copyright protection for scientific research is by no means a perfect solution. Especially in the exact sciences, much of the researcher's creativity is lost in the way his or her results are presented to the scientific community. Scientific papers rarely reflect the creative processes which gave birth to the re-

Supreme Court of the United States 27 March 1991 (Feist Publications, Inc. v. Rural Telephone Service Company, Inc.)., included in this volume.

Supreme Court of the Netherlands (Hoge Raad), 4 January 1991 (Van Dale v. Romme), included in this volume.

Jane C. Ginsburg, Sabotaging and Reconstructing History: a comment on the scope of protection in works of history after Hoehling v. Universal City Studios, Journal of the Copyright Society of the U.S.A., Vol. 29 (1982), p. 658.

Cf. H. Haberstumpf, Zur Individualität wissenschaftlicher Sprachwerke, Freiburg 1982; M. Altenpohl, Der urheberrechtliche Schutz von Forschungsresultaten, Bern 1987.

ported theories and data. Due to this lack of manifest originality, scientists' copyrights are difficult to enforce.

Moreover, there may be many good reasons *not* to grant (copyright) monopolies to scientists, journalists and other 'discoverers'. These reasons, however, are not 'built into' the copyright system. The idea/expression dichotomy does not provide for a 'natural' balance between protected and unprotected subject matter.

III. Originality is a Subjective Notion

When one attempts to look behind the clichés of traditional copyright doctrine, one is surprised to discover how unconvincing the underlying theories really are. Why is a factual report outside the scope of copyright? Because – one is told – such a report cannot pass the test of *originality*. He who communicates facts cannot, by definition, freely express himself. The communicator of facts has no choice but to tell the truth as he perceives it.

This line of reasoning reflects the *freedom of choice* doctrine, which has become popular among scholars struggling with the idea/expression dichotomy and attempting to define originality in a more or less objective manner. When an author has had enough freedom of choice in expressing himself, the resulting expression is considered a protected work. The author's freedom may be limited by various external factors: technical requirements, functional limitations, economical considerations, the laws of nature and logic, etc. The more external constraints are imposed upon the author, the smaller the margins of his creative freedom become.

Even though the freedom of choice doctrine appears attractive prima facie, at second glance it lacks objectivity and is basically flawed. It overlooks the fact that the margins of the author's freedom in a given situation can not be objectively defined a priori. The possibilities of producing original expression decrease as the margins of creativity are drawn more stringently. In other words: the more information is labeled 'idea', the less 'original expression' will be within the copyright domain.

As Strömholm has shown in a brilliant article in GRUR Int, ¹⁰ the freedom of choice doctrine is, in fact, a fallacy. Whether an intellectual production is 'freely created' or 'dictated by function' is ultimately, Strömholm concludes, a question of legal policy (one might also say: of information policy). The margins of the author's freedom of choice are not determined by the law of copyright or by the laws of nature, but by man's perception of what should and what should not be protected by copyright law.

For example, if economic considerations would lead us to the conclusion that producers of 'yellow pages' (business telephone directories) should not be granted a copyright monopoly, the yellow page format is declared not original and/or an unprotected idea. ¹¹ If, on the other hand, we would believe such a copyright is socially useful, the same format is considered original and/or protected expression.

S. Strömholm, Was bleibt vom Erbe übrig? Überlegungen zur Entwicklung des heutigen Urheberrechts, GRUR Int 1989, p. 15-23.

^{11.} Cf. Oberlandesgericht Hamburg 14 April 1988, ZUM 1989, 43 ('Gelbe Seiten').

The concept of originality and the idea/expression dichotomy tend to obscure the basic conflict of interests between information producers and information users. Other legal means will have to be found to establish the necessary equilibrium between the copyright monopoly and the freedom of expression and information. The present continental system of statutory limitations of copyright appears to be inadequate in this respect. Arguably, this system should be revised to reconcile in a more consistent manner the various opposing interests at stake. To achieve this, a very flexible legal instrument, such as the American fair use regime, is required.

IV. Doctrine and Case Law Diverge

Over the years, quite a gap between traditional copyright doctrine and copyright case law has become visible. Increasingly, copyright theory and copyright practice are going their own respective ways. This seems to be especially true in Germany and the Netherlands. Contrary to prevailing copyright doctrine, courts in each country are very generous in granting copyright protection to compilations of facts.

'SMALL CHANGE' PROTECTED IN GERMANY

In Germany, so-called *kleine Münze* (small change) have always enjoyed a rather 'cheap' copyright. In pre-war Germany the Reichsgericht (the highest court) regularly accepted copyright protection for all sorts of factual subject matter, such as cooking recipes, address books, telephone directories, price lists, catalogues, arithmetic tables, etc. In many cases the rationale for granting copyright protection was not the 'creativity' involved, but rather the author's time, 'sweat' and money. As long as the information product involved would show a sufficient amount of 'individuality' – making it distinguishable from competing products – copyright protection was awarded.

Even though the German 'kleine Münze' cases were (and still are) criticized by many legal scholars, post-war courts have generally followed in the footsteps of the Reichsgericht. The debate over the 'kleine Münze' was especially sharp during the revision of the German copyright law in the early 1960's. According to leading scholars, the 'kleine Münze' were to be expelled from the domain of copyright. Instead, they should be granted *limited* protection, either by applying the law of unfair competition or by establishing a regime of neighbouring rights in trivial productions of this kind. However, the federal government expressly stated its wish to keep the 'kleine Münze' protected as works of authorship under the German Copyright Act of 1965.

Accordingly, the German Bundesgerichtshof has accepted copyright protection for trivial songs, ¹² a scientific index, ¹³ a collection of test questions, ¹⁴ various

Bundesgerichtshof 3 November 1967, UFITA 1968, Bd. 51, 295 ('Haselnuss') and 315 ('Gaudeamus igitur').

^{13.} Bundesgerichtshof 7 December 1979, GRUR 1980, 227 ('Monumenta Germaniae Historica').

^{14.} Bundesgerichtshof 27 February 1981, GRUR 1981, 520 ('Fragensammlung').

maps, 15 trademark guides, 16 etc. In contrast to the 'easy' copyright granted to the 'kleine Münze', technical designs, 17 works of science 18 and computer programs 19 must show a higher quantum of creativity ('Gestaltungshöhe') to qualify as works of authorship.

'ALL WRITINGS' PROTECTED IN THE NETHERLANDS

An even 'easier' copyright can be obtained in the Netherlands. As in most other Berne Convention countries, originality is a prerequisite to protection under Dutch copyright law. The Dutch standard of originality is not very hard to meet; it is comparable to the French criterion of 'caractère personnel'. With respect to written materials, the standard is even lower, due to an interesting peculiarity of Dutch copyright law. The Dutch Copyright Act features a special regime for the protection of writings, which are not 'original' in copyright terms. This regime, the so-called geschriftenbescherming (protection of writings), is a remnant of an ancient 18th century printer's right, still present in article 10 (1) of the Act.

Article 10 contains a lengthy catalogue of protected works, starting with 'books, brochures, newspapers, magazines and all other writings...' Over the years, the words 'all other writings' have caused lively debates in Dutch copyright circles. Eventually, in a series of three decisions concerning the protection of radio and television programme listings, the Dutch Supreme Court (Hoge Raad) decided that these three words were to be taken literally. According to the Hoge Raad, even the most banal or trivial writings (so-called 'unpersonal writings') are protected by copyright law, provided they have been published or are intended for publication.²⁰

Thus, in the Netherlands the producers of telephone directories,²¹ top 40 lists,²² address books,²³ and all sorts of other written factual information²⁴ are sa-

Bundesgerichtshof 20 November 1986, ZUM 1987, 335 ('Werbepläne'); Bundesgerichtshof 2 July 1987, ZUM 1987, 634 ('Topografische Landeskarten').

^{16.} Bundesgerichtshof 12 March 1987, ZUM 1987, 525 ('Warenzeichenlexika').

^{17.} Bundesgerichtshof 15 December 1978, GRUR 1979, 464 ('Flughafenpläne').

Bundesgerichtshof 21 November 1980, GRUR 1981, 352 ('Staatsexamenarbeit'); Bundesgerichtshof 29 March 1984, GRUR 1984, 659 ('Ausschreibungsunterlagen'); Bundesgerichtshof 17 April 1986, GRUR 1986, 739, 741 ('Anwaltsschriftsatz'); Bundesgerichtshof 12 July 1990, GRUR 1991, 130 ('Themenkatalog').

^{19.} Bundesgerichtshof 9 May 1985, GRUR 1985, 1041 ('Inkasso-Programm').

Supreme Court (Hoge Raad) 17 April 1953, NJ 1954, 211 (Radioprogramma I); Supreme Court 27 January 1961, NJ 1962, 355 (Explicator), Supreme Court 25 June 1965 nr. 9843, NJ 1966, 116 (Televizier II). See Dick van Engelen, The Misappropriation Doctrine in the Netherlands, IIC 1/1991, p. 11 ff.

^{21.} Supreme Court 1 November 1937, NJ 1937, 1092 (Telefoongids Brummen).

President District Court Amsterdam 10 February 1977, Auteursrecht 1977, 66 (Nederlandse Top 40 I). Cf. Court of Appeal Arnhem 17 September 1979, BIE 1980, 53 (Nederlandse Top 40 II).

President District Court Arnhem 15 January 1947, NJ 1947, 474 (Adresboek Arnhem); President District Court Arnhem 19 January 1990, Computerrecht 1990, 136 (Blauwe Kommunikatiegids).

Cf. (concerning a compilation of dietary information:) District Court Amsterdam 17 May 1989, Computerrecht 1990, 132 (De Toorts/Oedip).

fely protected. On the other hand, non-original writings of a private nature (s.a. financial records, simple letters, etc.) are not protected.²⁵

Copyright protection for non-original writings is limited in scope. The Hoge Raad has decided such writings are protected only against copying from the written document. Thus, the owner of the copyright in a protected writing does not acquire a full monopoly in the information recorded in the document. It remains unclear to what extent the copyright owner is protected against various forms of non-literal copying, s.a. re-arranging the data taken from a protected writing. In all probability, the 'geschriftenbescherming' is a rather 'thin' copyright.

COPYRIGHT IN COMPILATIONS OF DATA

So where does this leave the compiler of factual data? In some cases the application of traditional (continental) copyright doctrine will lead to satisfactory results. From the traditional perspective, compilations of factual data are protected to the extent a certain amount of creativity is involved in the arrangement, the selection and/or the structure of the compilation.²⁶

According to the decision of the Dutch Supreme Court in Van Dale v. Romme, a compilation of facts – such as the collection of head words in a dictionary – may qualify as an original work of authorship by virtue of creative selection. However, the standard of originality set by the Court appears to be rather high. According to the Court, the compilation of data must be 'the result of a selection process expressing its maker's personal views'. ²⁷ It remains to be seen whether the party seeking copyright protection in this case, Van Dale – the publisher of the authoritative 'Grote Van Dale' dictionary of the Dutch language – can pass this test. ²⁸

In many cases, of course, the value of the compilation is not in its (creative) arrangement, selection, or structure. The omnipresent computer has rendered traditional expression-related copyright protection almost obsolete. Information users equipped with powerful computers and intelligent database software are able to do do their own editing, sorting and structuring to fit their individual information needs. What the information compiler needs is a property right which can secure protection against unauthorized reproduction of the data compiled, even if the compilation as such is not 'original' or 'creative'. In this respect, the German 'kleine Münze' doctrine and the Dutch copyright in 'writings' seem to be far more adequate than traditional (continental) copyright concepts.

As an alternative the Scandinavian 'catalogue rule', which grants a right of limited duration to compilers of information, merits serious attention. Solutions based on the application of general concepts of criminal law, such as the 'information theft' doctrine which has some supporters in the Netherlands and Belgium,

Cf. President District Court Haarlem 5 December 1989, Computerrecht 1990, 133 (VNU/Speets): no protection as 'writing' for unpublished personal data.

Cf. Bundesgerichtshof 7 December 1979, supra note 13; Bundesgerichtshof 12 March 1987, supra note 16.

^{27.} Emphasis added.

^{28.} The case was remanded to the The Hague Court of Appeals.

should be rejected. Equating information with 'goods' poses a threat to the very essence of intellectual property law.

In its 1988 Green Paper on Copyright and the Challenge of Technology, the Commission of the European Communities has suggested that copyright law may be inadequate for data base producers. According to the Commission, data base producers might be granted a so-called neighboring right. The ideas of the Commission deserve serious discussion. However, in one important aspect they are mistaken. If there are valid reasons for protecting non-original electronic data bases, the same is true for data compilations not contained in a computer system or fixed in a digitalized medium.

Creating neighboring rights for data base producers would necessarily imply property rights in information. Needless to say, if not equipped with all the necessary checks and balances, such a right would have serious repercussions for the free flow of information, which is otherwise so emphatically promoted by the Commission. Therefore, it would be unwise to rush into any European directive, without careful consideration of these and other consequences.²⁹

^{29.} According to the Commission's 'Follow-up to the Green Paper' of 5 December 1990, COM/584/90, the Commission now seems to favour a copyright approach. It is announced a proposal for a directive harmonizing copyright protection for databases will be prepared as soon as possible; op. cit. p. 20.

Chapter IV The Nordic Catalogue Rule

Gunnar W.G. Karnell*

I. Introduction

The Nordic catalogue rule is an exclusively Nordic phenomenon. The Copyright Acts of all five Nordic countries - Denmark, Finland, Iceland, Norway and Sweden - each contains a provision which may be named a 'catalogue rule'. It should, however, be noticed that the Icelandic provision as compared to the others does not mention the word 'catalogue' and that it is differently phrased and carries a rather different content also more generally. The Icelandic provision is the most recent one, of 1975, whereas the others date from 1960-1961.

None of the Nordic provisions has had any predecessor in the respective legislations. Their roots can be found in a joint proposal for copyright legislation in three of the Nordic countries (Denmark, Finland and Norway), published in 1951, also aiming at special protection for advertisements and other publicity items, such as were later to become excluded everywhere except in Iceland. That country did not take part in the preparatory work where all the other countries joined together during the early 1950's to achieve, by separate legislative acts, almost unified copyright legislations. Still, if we go further back in history, the influence of German law from between the two world wars can be felt.

I shall here use the wording of the Swedish provision in s. 49 of the Copyright Act of 1960 as my statutory basis for references unless otherwise indicated. The Norwegian provision is placed in s. 42 and the Icelandic one in s. 50 of the respective Acts. The Danish and Finnish are in a s. 49, like the Swedish one.

The Swedish provision is worded as follows:

'Catalogues, tables, and similar compilations in which a large number of particulars have been summarized may not be reproduced without the consent

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^{1.} The catalogue rule has been the centerpiece of some rather heated discussion in Nordic legal doctrine; see Karnell, Nordiskt Immateriellt Rättsskydd NIR 1972, 248-260 (summary in English 259-260), Bergström, idem, 393-397, Karnell, idem 1973, 51-55, Mikkelsen, Ugeskrift for Retsvæsen 1976, 257-267, Lund, NIR 1981, 318-327, and Stensaasen, Opphavsrettslovens, 43 ('Katalogregelen), Oslo 1985. The study by Stensaasen is the by far deepest one which has as yet been undertaken in comparing the legal situation in the Nordic countries as related to the catalogue rule. However, his book was published before the changes that have been made or proposed aiming to bring computer programs and data banks properly into the framework of the copyright legislation.

of the producer before ten years have elapsed from the year in which the production was published.

The provisions of sections 6 - 9, 11 1, 12, 14, 15 (a), 16 and 18, 22 1, 22 (a-c), 24 and 24 (a) as well as 26 2, shall apply to the productions mentioned in this section. If a production of this kind or part thereof is subject to copyright, the copyright may also be claimed.'

II. Nature of the Catalogue Rule

It is evident that although the catalogue rule appears in the Copyright Acts it is not a copyright provision proper. It appears in the legal context of neighbouring rights, clearly related to copyright from the point of view of legislative technique by the reference to a number of such sections of the Copyright Acts. Such references appear in the Swedish Act to parts of its Chapters 1 and 2 under the headings 'Subject matter and Scope' and 'Limitations on Copyright' respectively. References to such other parts of the Acts differ somewhat in their scope from one Nordic Act to another, but their aim in common is to make the law uniformly applicable to 'catalogue matter', be it protected under the particular criteria for application of the catalogue rule or of copyright law proper insofar as each system for protection extends to its respective subject matter. The sections referred to give rules for products of joint efforts, products published anonymously, definitions of publication, products as official texts, copies for private use or made for libraries and archives, quotations, reprographic copying in schools, etc.

Unlawful reproduction is punishable as copyright infringement and the provisions about damages and other sanctions related to such infringement also apply to infringements of the rights to catalogues, etc.

III. Differences with Copyright Protection

Compared to copyright protection, the following differences stand out as fundamental to the catalogue protection:

- (1) Its subject matter is determined by the use of other criteria than those that apply to copyright; in particular, there is no demand for creativeness manifested in individuality or originality in the continental legal sense of these words.
- (2) The protection given is only against reproduction, meaning in this context not only the production of copies but the exact imitation ('eftergöra'), in whole or in part, whether in material form or not. This is clear from the contrast to the wording 'producing copies' in the copyright context of rights that are mentioned regarding literary and artistic works in s. 2 of the Copyright Act. That the copying of identical copies of printed or otherwise fixed items was once in the mind of the legislators as their principal 'target area' should not affect the interpretation of the rule to go against its wording and general legislative setting. It should be noted in particular that there is no moral right attached to the catalogue rule.

- (3) The protection period is only ten years, starting at the end of the year of publication (unpublished items enjoying protection anyhow).
- (4) It is to the producer that is given the right to determine whether a protected number of particulars may be reproduced or not. The right originates with the producer, be he a legal or a natural person. However, it is not a settled matter to what extent there is room for an original right of the natural person or persons that have brought the catalogue or whatever is protected together, in which case the producer-person would possibly be that person or those persons and not, initially, the natural person or legal entity that sets the product out onto the market.
- (5) There is no international agreement to bring about even a regional Nordic order related to the catalogue rules. Neither the Berne Convention nor the Universal Copyright Convention obliges any of the countries involved to extend its catalogue protection to any other country. There are not even any bilateral agreements between Nordic countries about catalogue protection. Protected in Sweden are catalogue productions of Swedish subjects who are physical persons or Swedish corporations (legal persons) or persons who have their habitual residence in Sweden, as well as productions first published in Sweden. Limitations to the same effect apply in the other Nordic countries.

IV. Variations in National Laws

In turning our attention for a moment to the differences between the national laws in the Nordic countries, we find that the Finnish and Norwegian provisions (as, until recently, the Danish one), contrary to the Swedish provision, both mention the category 'programs' among the protected items. Program protection does not presuppose that the program contains any great number of elements protected, such as are further defined here below. Programs were intentionally excluded from catalogue protection in the Swedish provision, as were forms, such as are to be filled out (administrative schedules, etc). When programs came to be discussed in terms of computer programs some interpretative turmoil became a troubling element for the application of the catalogue rules in particular in the countries that mention programs among protected subject matter. When the provisions saw the day in the earliest sixties no-one thought about other programs than theater, broadcasting, and sports programs or the like. The need to find legislative protected harbours for computer programs exerted, however, a pressure upon the old concepts, if for no other reason than the likeness of the sounding and spelling of words. I shall return to some aspects of that later here below.

The Danish and the Norwegian provisions use the word 'opplysninger', in the meaning of 'pieces of information', to denote the subject matter most generally, whereas the Finnish and Swedish provisions use the word 'uppgifter', here translated as 'particulars'. This has caused contrary opinions between interpreters of the law regarding its applicability to screen displays in application of computer programs. I shall come back also to these disputes.

The Icelandic provision applies to 'a reprint or other reproduction' of 'a published writing', without any mentioning of a right owner and limiting the protection

to cases where copyright does not apply, whereas in all other countries copyright may apply conjointly with catalogue protection or be invoked separately. It may be of interest to relate the Icelandic rule to the protection of 'all writings', irrespective of originality, as an existing special regime in the copyright law of the Netherlands.

That the Danish and Norwegian laws both require a 'greater' number of 'pieces of information', whereas the Finnish and Swedish laws only ask for a 'great' number of particulars, is generally considered to be of no importance. Icelandic law leaves the quantitative approach out.

V. Competition Law

A fundamental thing to be observed in looking at the Nordic catalogue rules is that the protection given is intended to be of a competition law character, rather than a copyright one. The aim has been to protect enterprises that have spent capital and work on the production of a product of the kind from plagiarism and ensuing unfair competition by means of unwarranted reproductions. Where copyright may fail to give adequate protection because of its criteria for protectability, the catalogue rule fills in.

Also, where until its advent there was a pressure for copyright rules to become applied to 'small coins' of the kinds now covered by the catalogue rule, this pressure has been lifted off, thereby avoiding or anyhow lessening some risk for 'banalization' of copyright. This aspect may have had particular weight in Sweden, where there was no omnibus clause against unfair competion to fall back upon (there still is none against other slavish reproduction in Sweden than such as deceives about the commercial origin of a product in marketing). Thus, the catalogue rule was intended to make it easier for the courts to keep up the standards of individual creativeness etc. for copyright protection.

VI. Subject Matter Protected

In taking a closer look at the kind of subject matter intended for protection, one may find in the preparatory documents to the Copyright Acts such items mentioned as sales and exhibition catalogues, as well as such publications related to books, art, auctions, schools and other educational activities. Lists of names or persons will qualify for catalogue protection. In case law local telephone directories and listings of information to tourists have been protected in a number of cases.

'Tables' are systems of data in schematised form, in columns, under different headings and otherwise, such as timetables, mathematical or statistical charts, etc. However, acounting forms have been denied protection in Denmark and Norway. Where 'similar compilations' are mentioned' as a kind of 'umbrella term', we are supposed to understand that the essential thing is that items have been compiled, not that they need to be just catalogues, tables, etc. It is clear that lists about jobs, knitting instructions and telephone directories may qualify. Some kind of organizing activity is required. Maps will qualify, but often under copyright law as well. Lists of court decisions and of particular kinds of legislation may also qualify. Compilations of mathematical symbols, diagrams, etc. are not excluded from protection. Somewhere, however, there must be set limits to the too ordinary in order

that dissemination of structured numbers of data (particulars/pieces of information) be reasonably unhampered by law. No protection is given to the particular manner in which particulars appear as compiled or summarized.

The criterion that causes the most problems as directed to the banality aspect is that the collection list a 'large number' of particulars/pieces of information. This requirement is intended to function as a bar against appropriation by law of a monopoly to alphabetical or numerical presentations of small quantities of data, e.g. a list of theaters in a city or a time-table for a certain bus. However, it is also supposed to keep out the too easily achieved, at too small cost in money and labour. The interpretation of the criterion must carry into effect the intentions behind the legislation, being basically to protect substantial investment of capital and amounts of working effort. To put it more simply, there must be something that has been made, worth protecting.

That a large number of particulars shall 'have been summarized' in any of the forms mentioned, is a requirement for protection that may be of particular importance in determining whether protection shall be given against something that appears as a product for which someone has made use of a catalogue, table or similar compilation in which a substantial number of particulars are present, but of which only a certain part, in a certain combination, have been taken for reproduction. We are confronted with a partial imitation. What amount -- and in which order -- must be present in the second product for the protection to apply to the first? The question about the importance of how the particulars have been summarized (appear as assembled) may become important if an imitation is not total, to open up for protection of a lesser amount of particulars than otherwise. This need not be contradictory to the statement that the manner in which a compilation has been carried out is not protectable in itself. It is possible that the total amount of particulars in the first product, once qualifying it for protection, may be discounted at the next stage, so that a lesser amount -- when found to compete -- will suffice as a basis for finding that the second product infringes. The test would probably be whether this second product inasmuch as it reproduces the first one would, in itself, deserve protection, were it not just a reproduction. If, on the other hand, the producer of the second product has himself invested considerably in capital and labor of a not reproducing character in his partially similar product, this should reasonably give him a protection of his own. Such protection will be independent of the one given to the producer of the underlying product.

VII. Scope of Protection

It is an unsettled matter whether the protection against reproduction or imitation will apply against an identical compilation of particulars that have been collected, registered and brought together (become summarized) by a second producer who knows about the earlier product or even uses it as a model, if he can prove that he has done the necessary work to achieve the result on his own account and at his own cost. He claims that he has done the same work as the first one. In my view there may here be reasons for and against, but I personally find that the text of the relevant provisions must determine by their use of the term reproduce/imitate.

In looking somewhat closer at what may be meant by reproduction/imitation in the catalogue rule context, it deserves mentioning that insofar as the comparison

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between the first and the second product may exceed the strictly quantitative the degree of general similarity of the reproduced product to the reproducing one will probably be crucial. It is not clear from the texts of the Acts to what extent the catalogue protection extends to the transformation of a product from one form of presentation to another. A transformation, e.g. from writing to a presentation in machine-readable form, will most certainly be considered a reproduction in kind, as would any slavish transformation from one language to another.

More problematic may appear the case of transformation into a non-copy form, e.g. when compilations of particulars summarized will appear on computer screens as a result of the application of certain computer programs. Whether catalogue protection extends to the screen display of particulars is a disputed question in legal doctrine. It is evident that under Swedish and Finnish law, where protection concerns 'particulars' and not only 'pieces of information', catalogue protection may be valuable if allowed to relate to what appears on the screen against similar displays based on perhaps entirely different programs, where e.g. the second in time has been made dissimilar in its program form just to avoid copyright infringement, while raping the fruits of the screen product. It seems, however, presently not possible to argue successfully along this line in Sweden because of a recent declaration of the Minister of Justice related to his proposal to Parliament of the recently enacted legislation on protection of computer programs. He there interpreted the situation de lege lata to exclude protection under the catalogue provision for 'screen uses of material in computer networks, etc.'

VIII. No Catalogue Protection for Computer Programs

It is now becoming ever more clear that Nordic law will generally go against protection for computer programs by the catalogue rules. In Denmark and Sweden the matter is already settled by legislation in force as of the 10th and 1st of June 1989 respectively, and proposals to the same effect have been published in Finland and Norway. On the other hand, the catalogue rule has gained general acceptance as a means of protection for data bases, thus providing protection against reproduction thereof. Also in this context an interest in protection of the screen display against reproduction of particulars from the screen will make itself felt.

Chapter V

Protection of Raw Data and Data Banks in France

Michel Vivant*

I. Introduction

1. Treating the protection of raw data such as that of data banks, i.e. of a group of processed data – especially when the 'processing' is reduced to an activity of compilation – is paradoxically both treating the problem and seeing it under two forms of logic that are *a priori* contradictory.

Indeed, when creating a form in a raw state, in relation to the data bank that will garner the information, but also in a 'fashioned' state, for example a press article, a photograph or a form that is specially processed so that it can become a component of the data bank, it is natural to reason in terms of copyright or neighbouring rights. However, we must ask ourselves whether the copyright that might exist on the raw material protects it from being used by the data bank or favours the data bank and its components, especially if the material is quite raw.

2. Of course, we can also eliminate this doubt by releasing data bank producers from any obligation to respect the copyright of others, since it would hinder the development of the information market. Certain people who extol the 'all-informatics', as, a short time ago in France, certain people in the energy field advocated the 'all-electrical', are in favour of this idea. However, the corporatist character here is not very corporatist in its approach. We say corporatism because it concerns having two separate standards since it recognises rights to certain producers of information (data banks) while it denies them to other producers (those who supply the source information) to the disadvantage of the first! This type of corporatism is not very intelligent for it neglects two things: First, in a society that tends increasingly to become multimedia, we cannot ignore the fact that traditional 'paper' editors and electronic editors are often one and the same and consequently what seems to be won is actually won on one field and lost on another. Second, in respecting a minimum of coherence, we must admit that a producer of data banks, who is free to ignore the rights of third parties when constituting his fund, should

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See J. Huet, note to Dalloz 1986, 273: 'Affaire Microfor - Le Monde, retour à la case départ: un protectionnisme intellectuel inefficace.'

be exposed to analogous claims from his competitors, where one data bank is the source of another.²

3. A certain conception of the law leads us to think that the rule must be the same for all, and that, in the information market, the same rule must govern from one end of the chain to the other, as Professor Catala proposes, except when this rule of reasoning is modified after analysis.³

Thus we distinguish between copyright protection against data banks and copyright protection for data banks.

II. Copyright and Raw Data: Copyright Protection against Data Banks

4. By hypothesis, this question is only asked if the data are such that they can qualify for a copyright or a similar right. In other words, usually the data in question must be original. With a few exceptions, this feature is common to different legal systems.

But beyond this affirmation, too general to be effectively operational, we know that the rule is acquired differently from one country to another. Neither can we fail to recognise that the exceptions to the rule show a contrasting legal land-scape.

A. THE RULE

5. The word 'originality' hides a variety of meanings. We know that the systems of author's rights stricto sensu on one hand, and of copyright on the other, are derived from different philosophies and that the spirit in which protection is acquired is not the same from one system to another. In one system skill and labour are demanded, in another an imprint of personality is required. Even on the continent the paths toward these systems of copyright are not similar. Italy seems to prefer a humanist approach, where the work is moulded by the person of its author.⁴ Germany has a two-speed formula with its 'small change' for which one is less demanding, although this has not prevented the Bundesgerichtshof from being rigid in its views toward software.⁵ More rigid, in any case, than the French system which judged – with regard to this same software – the 'mark of intellectual contribution' of the author to be enough to characterise its originality, However, we cannot be sure whether this pertained to a new definition of the notion of originality or – more

See particularly M. Vivant, C. Le Stanc et al., Lamy Droit de l'informatique - Télématique - Réseaux, annual ed., 1989 ed., spec. no. 1515 and 1627. Also see M. Vivant, 'Liberté de l'information et liberté du pillage,' Le Monde 23 May 1986, p. 2.

P. Catala, I.R.P.I. Conference synthesis report, 'Banques de données et droit d'auteur,' Litec, 1987, spec. no. 13.

^{4.} This is, for example, the opinion firmly defended by Professor Pardolesi.

Bundesgerichtshof 9 May 1985.

probably – to a definition limited to data processing material.⁶ The choice seems to occupy an important place in Dutch law.

And what about systems where certain types of creations bring up neighbouring rights that are more easily acquired but also often, on the other hand, less well protected? This is the case with photography in many countries. Furthermore, shall we mention the example in the Netherlands of unoriginal writings?

6. Let us now turn to France. We must indeed be conscious that the situation in this country is not homogeneous. In theory, the standards of protection are quite high, but in fact, protection is often granted even in cases of weak creativity. The so-called theory of 'unity of art,' which states that all creation of form has a claim to copyright protection, is not unknown in France.⁷ Thus, industrial drawings and models, for which French law requires only a (weak) objective requirement of newness, may benefit from the Law of 11 March 1957 on literary and artistic property. For this reason, for example, protection has been granted to a salad bow!!⁸

Regarding information in the first sense of the term in use today, i.e. the raw material of data banks, we note that the Supreme Court once had its hesitations (in 1900) about press agency dispatches and news. The Court considered that these could not be recognised as literary property, since they lacked originality, but rather as 'special property acquired at great cost' that could generate an exclusive right. This is an old decision and represents an improper use of the term 'property'. It is clear that the Court cannot be held for expressing positive French law. But the question itself is very positive: at what moment should one grant protection? When is a datum raw and when is it not raw? Must we take its 'added value' (since the Court talks of investment) into account and attach protection to it then? These questions must still be resolved and will resurface again and again.

7. For now, our observations lead to the following two conclusions. It is not certain whether a work considered to be protected in one State is so in another and this difficulty must be taken fully into account when a European, or indeed world-wide, information market is launched. Neither is it certain, even if we consider the question from the point of view of a single legal system, that such a work is protected. Even if it is true that the question is rarely asked with respect to certain creations (e.g. literary or scientific compositions for 'traditional' data banks, films or graphic works for image banks, etc.), it is unquestionable that, when regarding data that have undergone less treatment but are just as interesting economically speaking (e.g. agency dispatches, documentary photos, etc.), this weakens the situation of professionals from the sector who are forced to choose between ignoring a copy-

Supreme Court, plenary assembly, 7 March 1986, Babolat v. Pachot, J.C.P. 1986, éd. générale, II, 20631, éd. entreprise II, 14713, note Mousseron, Teyssié and Vivant, J.C.P. 1986, éd. entreprise, I, 15791 (chronique droit de l'informatique), no. 1, obs. Vivant and Lucas, D. 1986, 405, concl. Cabannes and note Edelman, R.I.D.A. 1986, July, p. 136, note Lucas, D. inf. 1986, no. 2, p. 53, note Briat.

See especially H. Debois, Le droit d'auteur en France, Dalloz, 3rd ed., 1978, no. 94 and ff.; C. Colombet, Propriété littéraire et artistique, Dalloz, 4th ed., 1988, spec. no. 95.

Supreme Court, crim., 2 May 1961, J.C.P. 1961, II, 12242, obs. Aymond, D. 1962, 163, note P. Greffe.

^{9.} Supreme Court, req., 23 May 1900, D.P. 1902, 1, 405.

right that might exist or undergoing needless negotiation for authorisation when no copyright does exist. The problem is no doubt not new and the print medium is already familiar with it. But the multiplying effect of data processing certainly emphasises it. This again leads us to consider the relevant exceptions to the monopoly of the right owner.

B. THE EXCEPTIONS

- 8. If the raw datum that is to become part of the data bank is considered so raw that it cannot be protected, there is no problem, at least in the field of copyright (unless one considers suing for parasitism). Therefore, we will retain the single hypothesis whereby such a datum is protected a priori in order to find out whether this a priori can be affected by an exception, such as in many systems of law the legitimate practice of private copying.
- 9. The first observation we make is similar to our previous remarks regarding the rule of protection: derogations vary greatly from country to country and this disparity makes all transborder approaches difficult. The possibility, within certain limits, to reproduce (from our perspective: store in computer memories) documents for teaching purposes is well established in one country, but perfectly unknown (however, in our way of thinking, eminently justified) in another. In one system the same is also possible for cultural purposes (the question remains whether the relevant provisions would permit application to religious data banks!). Another system may allow the reproduction of certain speeches, notifications, pleadings, etc. as newsworthy documents (important, of course, for an electronic press). The short quotation, of necessity considered literary in France, is in other countries applied to other fields of creation, particularly in the audio-visual sector (which is of primary importance to image banks). Further examples are not necessary.
- 10. The problem of the short quotation obliges us to look at the *French situation* since the lawsuit of the newspaper *Le Monde* versus the society under Canadian law Microfor was in the legal news and gained attention beyond France's borders. ¹⁰ In our opinion, the final decision of the Supreme Court was not a good one, despite a few people who take the opposite view. ¹¹ Yet it sought to introduce in copyright law an 'informational' type of logic, no doubt just as badly handled, which led, however, to the requestioning of certain notions that can only arouse the intellectual curiosity of the interpreter. ¹²

Court of Paris 2 June 1981; Supreme Court, civ. 1, 9 November 1983; Court of Paris, special hearing, 18 December 1985; Supreme Court, plenary assembly, 30 October 1987.

See our analysis published in J.C.P. 1988, éd entreprise, II, 15093 (chr. droit de l'informatique), no.
 4 (obs. Vivant and Lucas). Mr. Huet seems to be one of those rare authors who favour the Court's decision.

Supreme Court, plenary assembly, 30 October 1987. See Cahiers Lamy de Droit de l'informatique 1987, December (H), with an interesting article by Professor Françon, 'Le Droit d'auteur menacé...' Also see analysis in J.C.P., supra note 11.

We will not go into yet another analysis of the case. We know that Microfor had meant to set up a data bank by drawing from articles from the Le Monde. newspaper without asking for its authorisation to do so. We will only mention the fact that, navigating somewhere between the notions of short quotation and résumé, the Supreme Court deviated from the criterion of borrowed form to that of the substitutability of content. In other words, it is no longer a question of whether the derived work borrows from the form of the source work. It is the content that must be considered. A résumé of an original work can be freely made no matter whether it takes the form of this work or not, provided it refers to the source work. Instead, if the résumé substitutes itself for the source work - without referring to it - the authorisation of the copyright owner will be needed; the work is then exploited rather than reproduced. It is true that the idea is not new and that it is sometimes discussed by international experts of W.I.P.O. and U.N.E.S.C.O. However, it provokes a few questions. In the artistic field, what is this criterion worth? What exactly is a substitutable work? Is the notion a consecration or a condemnation of the Reader's Digest? De lege lata, is it possible in a democratic system for a judge to modify the spirit of a law completely? De lege ferenda, is it truly satisfying to slip from form toward content? One might admit this. We must understand that this is really another type of logic, one that depends more on copyright than on author's rights: a protection of investment rather than of creation. Still, things are not so simple. In the above-mentioned case, Le Monde's investments were sacrificed. Looking beyond the case, and on the subject of data banks, we must understand that the Court's decision favours those who practice what we call 'collage' over those who have properly fashioned the source information in order to introduce it into a data bank; who have produced proper résumés; who have, in doing so, truly produced an 'added value'.

We always seem to come back to this dialectic of value-added raw data. We will discuss it again when we consider the *corpus* that is constituted when data are joined together.

III. Copyright and Processed Data: Copyright Protection for Data Banks

11. The data bank is inevitably, by its very nature, the result of data processing. The selection made, the choice of entries, the access and path modes, the possibility of combining information, etc. are all elements that will place the information in a certain perspective and give it a certain look. Moreover, we know that the regrouping of information, in other respects perfectly accessible yet sparse, is not neutral. Thus, we can now design an individual's 'profile'; this affects the field of law concerning the protection of private individuals (privacy protection, laws of the type 'Informatique et libertés', etc.). This gives rise to judiciary politics, such as is demonstrated by the use of legal informatics for sociological purposes. One might say that everything is affected by data processing.

Chronique cited supra note 11.

- 12. However, in our view, this affirmation is not enough. In Belgium, Mrs. Denis and Messrs. Poullet and Thunis have written the following: 'If we keep to the traditional definition of orginality, ... understood in the subjective sense of the expression of the personality of the author, no data bank can, without slightly forcing the meaning of the word, be described as original'. No doubt, the remark is too radical. We see no harm in admitting certain data banks are protected: data banks in the form of anthologies comprised of résumés written for the purpose in hand, data banks constituting original photographs dedicated to a particular theme, etc. In observing these, the traditional jurist will discover the subject matter of literary and artistic property with which he is familiar. But what about factual data banks and data banks of pure compilation? Systematic data concerning stock exchange prices, temperatures, decisions made by a Supreme Court and reproduced in full text, etc.?
- 13. The way in which the problem is set is actually not very specific. Since we are reasoning, as we said before, in terms of copyright, this means that the data bank, factual or not, sophisticated or rough, must respond to the criterion of originality. This also means, as we have emphasised above, that behind this requirement, apparently common to diverse systems of law, we find in reality quite varied legal and/or judicial politics. We will not push further with this generally established fact.

Concretely speaking, we find violently opposed positions. In a study conducted in 1989 for the Commission of the European Communities, to which we contributed, as did, among others, some eminent Dutch researchers, we underlined how the status of data banks 'with weak added value' was uncertain. ¹⁶ To preserve the idea that we must be able to discover a personality (but of whom?) in the compilation, would lead to the denial of any protection, whether the compilation be computerised or on paper.

But the problem remains, whether one is satisfied with the existence of choice, which seems to be accepted in French law and, perhaps also, in Dutch law. What indeed is a choice? When one selects, does it mean keeping 30%, 60%, 90% or ... 99% of the source? And, as a further provocation, does not choice include deciding to keep everything? There is more room here for questions than for certainty. There are of course ways in which things can be made easier in a national context, even when they make things more difficult internationally speaking. As a somewhat weak solution, one could lower the originality threshold, as in Germany with its 'small change' doctrine mentioned above, which some authors seem to want to apply to data banks. As a stronger solution to the problem, one could impose appropriate dispositions. In regard to the special statute of writings in the Netherlands, Mr. Meijboom states that the digitalised form of a datum does not affect its

 ^{&#}x27;Banques de données: quelle protection juridique?', Cahiers du C.R.I.D., Story Scientia, 1988, no. 100.

^{15.} Special reference was made to the idea of anthology.

^{16. &#}x27;Proprintell' research entrusted to the French law association Jurimatic (Montpellier); Synthesis report: 'Information et propriété intellectuelle. Ensembles informationnels automatisés et propriété intellectuelle,' by M. Vivant, with the assistance of C. Le Stanc and A. Lucas (unpublished).

^{17.} Cf. similar idea in the report cited supra note 16.

character as a writing.¹⁸ Portuguese law expressly provides for the protection of 'systematic compilations' of texts of conventions, laws, regulations, decisions of justice and other official texts.¹⁹ Regarding Denmark and the Scandinavian countries, we are aware that in terms of neighbouring rights, they offer special protection to 'works of compilation'.²⁰ The list goes on.

14. France, as an example of positive law, offers a contrasting view. There are many examples of protection granted to compilations, even those far-removed from the traditional scheme of literary and artistic property and which are relatively unelaborate: telephone directories, train schedules, commercial catalogues, etc.²¹ The fact that these compilations are not fixed in a digitalised medium changes nothing of the fact that the relevant decisions may be applied to data banks. Thus, one might conclude – on the first impulse – to protect banks of factual data.

However, things are not so simple. In a telephone directory or catalogue, the pagination, visual arrangements and diagrams, etc. are far from negligible and, without being very strict, one may find in it all some trace of originality. Nonetheless, these elements can be so secondary, so meaningless that it then seems difficult to take them into account without using artificial means. Once again, it is a question of threshold. But the problems of courts are real, and we have seen that the Court of Paris, in a peculiar decision dated 25 May 1988, while denying copyright protection, granted a type of informal protection to a collection of automobiles, i.e. a compilation of a particular type (similar to the above-mentioned 1900 decision by the Supreme Court regarding press news). The Court of Appeal declared that this collection of motor cars constituted a 'work of man' that 'merited, in itself, legal protection.' The affirmation by the Court implies the praetorian recognition of a double right: a right of paternity (the conceivers are mentioned) and a right of respect of the work (respect of a certain arrangement). But it is easy to see that no one exactly knows what this 'work of man' may be and, beyond the recognised rights, which prerogatives it may entail.22

It is even more clear that recent decisions have purely and simply refused to recognise that a compilation could merit copyright protection. On 2 May 1989, the Supreme Court, presented with organigrammes relating to the world's largest automobile construction firms, judged that such a work of 'compilation' was not protected in itself by the Law of 11 March 1957. Moreover, the magistrate's court in Compiègne, in a judgement of 2 June 1989, refused protection to a collection of stock exchange prices. However, the truth is that the motivation of the decision is not very firm and it is very difficult to know whether it was the compilation itself that, according to the Court, did not merit protection or whether it considered that the purpose of publishing these prices should prohibit exclusivity, as is the case – in most systems of law – with official texts. In any case, the fact is that the value added by the activity of collection was not judged as meriting protection. Associated to the control of the court, whether it considered that the value added by the activity of collection was not judged as meriting protection.

^{18.} Dutch report submitted as part of the Proprintell research (unpublished).

^{19.} Article 3 (1) c of the Portuguese Copyright Act.

^{20.} For example Article 49 of the Danish Copyright Act.

^{21.} Cf. for a list of addresses: Court of Paris 18 December 1924, D.H. 1925, 30.

^{22.} Court of Paris 25 May 1988, D. 1988, 542, note Edelman.

^{23.} Supreme Court, civ. 1, 2 May 1989, D. 1989, inf. rapides, p. 161, J.C.P. 1990, II, 21392, note Lucas.

^{24.} T.G.I. Compiègne 2 June 1989, Cahiers Lamy Droit de l'informatique 1989, August (E), p. 24.

Therefore, contrary to our first conclusion, do factual data banks finally escape all protection in France? No doubt about it. The negative answer is no more correct than the positive. However, it would be prudent to think that, except in special cases, courts will not easily accept that the law of literary and artistic property protects simple compilations and therefore factual data banks.²⁵

- 15. We should not conclude from this that all legal protection is impossible. If it is true that in the French legal system, as in a few others, bringing the responsibility of an individual or of an enterprise into play supposes that it is in fault, and if it is true that there is normally nothing wrong in reproducing something over which, free from all appropriation, one has 'free reign,' jurisprudence long ago sanctioned slavish imitation and slavish reproduction as unfair competition. One may be even more severe in defining the 'good behaviour' expected from all subjects of law, and in giving two paths toward the same result– either define fault in broader terms so as to include the unauthorised exploitation of another person's labour, or admit that this unauthorised exploitation must be rectified without having to ask whether or not there is question of a fault.²⁶ This is the theory in fact a practice of parasitism, which has become an important issue in France. As an example, we cite the case of the editor who was condemned for slavishly reproducing a Franco-provençal dictionary although it was a work which had fallen into the public domain, as the defendant kept on emphasising.²⁷
- 16. We conclude from the preceding ideas that the law lacks firmness. As we have already said of raw data, answers vary from one country to another as they do even within one country. This is evidently dissatisfying from the point of view of legal security. But it would be wrong to present the problem as belonging solely to the informatics sector and more particularly as linked to the legal status of data banks. In truth, this need to establish the threshold that separates the protectable from the non-protectable leads, when one passes from the abstract to the concrete, to case law that generates uncertainty. Therefore, it is worth reasoning on the originality or lack of originality of a popular song or wondering what is considered, in any circumstance whatsoever, the expected behaviour of a reasonable man, which the French continue to qualify as bonus pater familias.
- 17. By way of conclusion, ought we to be satisfied with this reminder of simple truths that certain people will judge to be disillusioned, while it is only realistic? Perhaps not. To go further, we suggest that reflection yields to two constraints that we believe to be indispensable in order to go beyond the simple classroom exercise.

^{25.} See A. Lucas, supra note 23.

^{26.} On the first idea: J.M. Mousseron, 'Banques de données, parasitisme et reponsabilité civile,' contribution to the Proprintell research, supra note 16; id., 'Recherche-développement et parasitisme économique,' in Le parasitisme économique, Gaz. Pal. and Litec, 1988, p. 29. On the second idea: Ph. Le Tourneau, 'Du nouveau sur la protection du logiciel et la protection des idées,' Rev. jp. com. 1984, 65; M. Vivant and C. Le Stanc, Lamy Droit de l'informatique, no. 1145 (and, on the case of 'ensembles informationnels,' no. 1613).

^{27.} Supreme Court of Appeal 18 Jan. 1982, Bull. (Court decisions) no. 19.

First, we must no longer be satisfied with purely national approaches. Europeans, at least, should reason on a European scale. Moreover, the question of protecting data or a collection of data, whether factual or not, should be brought into the field of copyright (we hope we have given sufficient demonstration), of responsibility and of parasitism (the *common law*. technique of *passing off* is different from Article 1382 of the French or Belgian Civil Code), or in another perspective.

Second, if we feel that a new approach is in order, as the Green Paper suggests, we must know what we want to protect, whether it be by creating a new neighbouring right or by means of a *sui generis* solution. No doubt we must look at this from a point of view of legal technique, which implies we define criteria that are not too vague, but above all from a philosophical, economic and social point of view. No doubt we should protect investments, but we must also make sure not to constitute strongholds or fiefs. The question is basically *political* – but not for politicians.

Chapter VI

Information Monopolies in European Community Law

Thijmen Koopmans*

I. Introduction

European Community law is fashionable nowadays, but recent developments seem to have no major influence on the subject of this article. The famous deadline of 1992 has little or no impact on problems of competition law; and recent harmonization directives adopted by the EEC Council, although touching many different sectors, have not yet dealt with problems of copyright or of information.

In a more general way, the contribution that Community law can make to the subject is not very new or original: a monopoly on information is, in terms of Community law, just a monopoly like any other; and the scope of the protection offered by copyright is not a matter of Community law, but is left to national legal systems and to other international arrangements such as the Berne Convention. I shall therefore limit myself to a rather traditional account of the state of Community competition law, in particular with regard to problems of copyright in information and of information monopolies.

Before doing so, I shall discuss a preliminary question which used to be fiercely debated until recently: as Community law is mainly economic law, can it apply at all to problems of copyright? The answer is undoubtedly in the affirmative: copyright can be used commercially, in particular by a system of licensing, and Community rules are then applicable. The market for popular music, which is a very important market in Europe, illustrates this point: it is more or less a child of the liaison between copyright and contract. There is established case law in the sense here indicated. In *Musik Vertrieb Membran*, a judgment of 1981, the Court of Justice had this to say in reply to the French government's argument that copyright was not comparable to other industrial and commercial property rights, such as patents or trade-marks, as it aimed, it was said, specifically at preventing distortion, mutilation or other alteration of the author's work:

'It is true that copyright comprises moral rights of the kind indicated by the French government. However, it also comprises other rights, notably the

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right to exploit commercially the marketing of the protected work, particularly in the form of licenses granted in return for payment of royalties. It is this economic aspect of copyright which is the subject of the question submitted by the national court and, in this regard, ... there is no reason to make a distinction between copyright and other industrial and commercial property rights'

However, copyright protection may have a still closer relationship with problems of economic law. Although copyright is intended to protect exclusive rights to a work, in the sense of an 'oeuvre de l'esprit', it can also, by means of that protection, be used in order to reinforce a monopoly or to acquire a strong position on a particular market for goods or services. That is the case when, for example, broadcasting organizations use their copyrights on radio and television programs - that is to say on the information they generate themselves - in order to exclude others, and especially private publishers, from the market for radio and TV guides and magazines,² or when motor car manufacturers try to monopolize the market for spare parts by relying on copyrights or rights of model or design in spare parts used in their cars, thus excluding small producers from that market.³ In situations of this kind, the copyright holder uses rights he can exercise because of his position on one market in such a way as to monopolize, alone or with others, a second and quite different market.

II. Copyright and the Common Market

Unlike patents, which owe their very existence to registration by a national patent office, copyright does not have the automatic consequence of dividing the common market into national markets by its territorial effects. However, it may be used to that end, in particular by the way licenses are issued and by the conditions imposed on licensees. Licensing systems are often constructed on a territorial basis, and then the territories concerned are very often national territories. This is not unreasonable, as the main beneficiaries of licenses, for example in sectors such as the film industry or other information media, are themselves organized entirely on a national basis. That is true not only when national authorities have a say in the matter, as they have with regard to broadcasting systems, but also when the organization of distribution of the service concerned is entirely in hands of private enterprise, as is shown by the way distribution systems are organized in the world of cinema.

The object and scope of copyright protection are in principle matters of national law, even though disparities between national legal systems may create obstacles to intra-Community trade. Such obstacles are then 'justified' under Article 36 of the EEC Treaty. This is illustrated by the recent EMI-Electrola case, concerning dissimilar time limits for copyright protection, which implied that copyright holders in Germany could prevent imports of Cliff Richard records which had been

Joined Cases 55 and 57/80, Musik Vertrieb Membran and K'tel v. GEMA, 1981 E.C.R. 147.

See Commission Decision 89/205, Magill TV Guide/ITP, BBC and RTE, O.J. 1989, L 78, p. 43.

See Case 53/87, Cicra v. Renault, and Case 238/87, Volvo v. Erik Veng, judgments of 5 October 1988, not yet reported.

bought in Denmark where copyright protection had already come to an end.⁴ In situations of this kind, free movement of goods can only be realized fully by a process of harmonization of laws.

However, in certain cases the principle of free movement of goods - which is one of the fundamental requirements of the common market - prevails, in the sense that it forbids the enforcement of national copyright law. That is so, in particular, if a licensing system has the effect of enabling copyright holders to ban imports from other Member States where the imported products (books, records, discs) had been marketed by the copyright holders themselves or with their consent. In such a case, Article 36 EEC provides no 'justification' for import restrictions; it does not allow the creation of artificial barriers. The same is true if the copyright holders in question try to levy duties on such products. In other words, copyright cannot be relied on by companies which consciously use that right with the aim of partitioning the common market. This line of case law, occasionally referred to as the doctrine of 'exhaustion of rights' in industrial property through marketing a product, has been specifically developed in the context of patents; but it also applies to copyright protection.

III. Competition Law and Rights in Information

Competition law is interested in market power. As a result, it is concerned with economic relations rather than with rights and obligations in a strict legal sense. Anti-competitive behaviour consists of what business corporations actually do, whatever the contracts they have concluded or the rights they can exercise. A first consequence of this specific character of competition law is that one always has to look at the general situation on a given market; the anti-competitive nature of behaviour on the market can only be assessed in its economic and factual context.6 This characteristic implies in its turn that, so far as competition law is concerned, copyright problems are normally part of wider issues. Mergers and take-overs by large companies which absorb smaller companies will usually be realized because of the particular commercial or industrial assets these smaller companies have to offer, Copyright on certain works may be one of those assets. There are, of course, some exceptional cases where possession of intellectual or industrial property rights alone may give rise to mergers or comparable operations, for example when a leading company wants to complete its market position by having access to technology protected by patents, designs or copyrights held by a small competitor, 7

In some respects, Community competition law is stricter than in others. It is particularly rigid when business life seeks to reinstate economic frontiers between the territories of Member States which national authorities should have abolished in accordance with Article 30 EEC. National regulations are contrary to that provision if they have the effect of partitioning the common market; in the same way, business corporations are not allowed to organize their commercial networks in

^{4.} Case 341/87, EMI v. Electrola, judgment of 24 January 1989, not yet reported.

See Case 119/75, Terrapin v. Terranova, 1976 E.C.R. 1039.

Cf. Case 23/67, Brasserie de Haecht, 1967 E.C.R. 407 ('Haecht I').

^{7.} See Commission Decision 88/501, Tetra Pak I, O.J. 1988, L 272, p. 27.

such a way as to prevent free movement of goods between the territories of Member States

Under the EEC Treaty, a distinction should be made between different categories of restrictions of competition. When anti-competitive behaviour results from concerted action by two or more companies, Article 85 EEC applies, which has a wide scope but a certain degree of flexibility. Its prohibitions have a wide scope, in the sense that they include a great variety of agreements between companies which can have a perceptible influence on the working of the market. Many forms of licensing agreements are covered by Article 85, especially when they provide for territorial protection such as exclusivity. However, the system based on Article 85 is also flexible, because exemptions may be granted. Some group exemptions have been defined by Commission regulations; they normally concern large classes of agreements which, though covered by the general terms of Article 85, have only a limited influence on the market which is, moreover, outweighed by their benefits for the economy as a whole. There is, for example, a group exemption for an important category of well-defined patent licenses.⁸

If an agreement is not covered by a group exemption, the companies may ask for an individual exemption upon notification of the agreement under the terms of the applicable Council regulation.⁹

The picture is entirely different for non-concerted behaviour, which is covered by Article 86. For unilateral action, the system lacks flexibility, but it applies only in a limited number of cases. Article 86 forbids the 'abuse' of a 'dominant position' within the common market or 'in a substantial part of it'. The requirement of a dominant position refers certainly to monopolies, information monopolies included. However, the same concept can also, according to circumstances, cover situations on an oligopolistic market. The Commission often relies on Article 86 when it tries to prevent markets from becoming monopolistic. Thus, the American enterprise IBM was attacked by the Commission under Article 86 when it tried to monopolize the European market in software suitable for the computers it had manufactured (it did so by changing its hardware). To the disappointment of legal scholars, the problem was settled when IBM gave an 'undertaking' before a Commission decision had been adopted; according to available information, IBM finally gave in to the Commissions principal demands. 10

MINI-MONOPOLY

As far as copyright is concerned, there is an additional problem under Article 86: because of the exclusive right any copyright confers on its holder, it might be considered as creating automatically a very small monopoly. There is always, in

Commission Regulation 2349/84, on the application of Article 85 (3) of the Treaty to certain categories of patent licensing agreements, O.J. 1984, L 219, p. 15.

Article 6 of Council Regulation 17 of 6 February 1962, the first regulation on the application of Articles 85 and 86 of the Treaty, O.J. (Special Edition) 1959-1962, p. 87.

See 14th Commission report on competition: 1984, paragraphs 94-95; 16th Commission report on competition: 1986, paragraph 75.

copyright protection, what the present author once called a 'mini-monopoly'. Probably, however, the dimensions of such a mini-monopoly are not sufficiently important for it to be considered as dominating a market. In any event, the judgment of the Court of Justice in Parke Davis (a 1968 decision) seems to imply that exclusive rights in a work do not amount by themselves to a dominant position within the meaning of Article 86. The situation might be different if the exclusive rights have the effect of excluding any competition for a certain form of activity, or for a certain class of products; but there is no case law in this sense.

Individual copyright holders may together have a dominant position through an organization of which they are members. When the French 'Société des auteurs, compositeurs et éditeurs de musique' (SACEM) was involved in a kind of guerilla war with French discotheque owners who refused to pay royalties because they considered the level of the duties excessive, the French courts applied Article 86. They considered that SACEM was an enterprise with a dominant position on the market of recorded popular music in France, and that France was a substantial part of the common market. The Court of Justice gave a preliminary ruling, at the request of some of the French courts, on the criteria to be applied in assessing the abusive character of the duties concerned. It held that one should first look at the level of royalties paid in Member States other than France, but it was aware that this level could only be evaluated once data from the different States had been adjusted in order to make them comparable. In general, it is not an exaggeration to say that case law on abuse of a dominant position by copyright holders is still in its infancy.

IV. Monopolies in Information

We shall now try to consider how to apply Article 86 to monopolies in information. In order to do so, it is necessary to analyze the different elements which constitute the abuse of a dominant position in a substantial part of the common market.

PRODUCT MARKET

Before one can establish whether a dominant position on the market exists, one has first to determine the relevant market for the goods or services in question (the so called 'product market'). The definition of the product market is an essential part of the assessment to be made under Article 86: the more limited the product market, the more easily a dominant position on the market can be established. The issue is therefore important; but it is not an easy one to resolve. Is there, for example, a single market for information, in general, or does a separate market exist for information on personal data? And it is possible to go one step further: is there not then

^{11.} Rechtsgeleerd Magazijn Themis 1983, p. 342.

^{12.} Case 24/67, Parke Davis, 1968 E.C.R. 82.

Case 395/87, Fournier ('Sacem I'), and Joined Cases 110 and 241-242/88, SACEM v. Lucazeau, Debelle and Soumagnac ('Sacem II'), judgments of 13 July 1989, not yet reported.

a separate market for information on solvency of physical persons?¹⁴ The test to be applied is the 'unity' of the market, which exists only when sources of information are potential competitors. The question to be answered is therefore whether sources of information can act as a substitute to each other.

GEOGRAPHICAL MARKET

Apart from the product market there is also a 'geographical market' to be determined. This concept is linked to the requirement that the dominant position should be held in a 'substantial part' of the common market. The Court of Justice has repeatedly stated that this expression covers a virtual monopoly on the territory of a single Member State. It appears to be difficult to handle these concepts with regard to markets for information. Even if information is solidified in computer software, it will permeate geographical boundaries easily. As information systems can be linked very rapidly, and as the demand may change from one day to another, it will be difficult to appreciate the strength of a company's position on the market in a given territory. To take a hypothetical but topical example: an information system may have collected all relevant data on East-German immigrants living in Bavaria and still unemployed; but it is quite likely that potential employers in Cologne or Frankfurt, or even in Holland or in Brussels, will be interested in these data, and it will not be too difficult to make the information rapidly available to them.

A dominant position can be held by a single company or by a group of companies; there is little case law on this point. Concerted action will normally be covered by Article 85, but Article 86 does not exclude a dominant position by more than one enterprise. The Commission was initially inclined to rely mainly on Article 85, probably because this provision leaves room for a competition policy to be conducted by that institution, as it can impose conditions when granting exemptions, or grant exemptions in one case but not in a slightly different one. Later, a certain interest in 'collective dominant positions' began to develop. The Commission's actual practice still favours the application of Article 85; it considers, for example, patent pools under that article, and it will probably do the same with regard to information pools.

I should add that according to recent case law, the fact that behaviour of two or more companies can be viewed as an agreement under Article 85 does not automatically exclude the possibility that Article 86 also applies. In a case on air transportation, the Court held that sometimes agreements can be concluded in circumstances revealing an abuse of a dominant position; this could be the case when an important air carrier, though formally concluding an agreement with a smaller company exploiting the same airline, entirely imposes its own conditions.¹⁶

See K. McLean, Regulation of credit information bureaus, in: Policy issues in data protection and privacy, OECD Informatics Studies 10 (Paris 1976).

For example, in Case 26/75, General Motors Continental, 1975 E.C.R. 1367. See also Case 127/73, B.R.T. and Société belge des auteurs, compositeurs et éditeurs v. SABAM and Fonior, 1974 E.C.R. 313 ('B.R.T. II').

^{16.} Case 66/86, Ahmed Saeed Flugreisen, judgment of 13 April 1989, not yet reported.

ABUSE

The existence of a monopoly is not in itself contrary to Article 86: it is indicative of a dominant position but not of an abuse. The EEC Treaty contains several provisions which seem to recognize that, under certain conditions, a monopoly can be compatible with competition rules.¹⁷ However, operations by a company with a dominant position which aim at creating a monopoly, and at thus eliminating competition from a given market, may amount to an abuse. The Court gave this important ruling in *Continental Can*: it considered that Article 86 is infringed if a dominant enterprise tries to change the market structure by mergers or take-over operations.¹⁸

A Commission proposal for merger control was recently adopted by the Council in Brussels. 19 The relationship of that proposal to Article 86 is not crystal clear, in particular because the new rules seem to have thresholds for Community action which are alien to the wording of Article 86. The application of the Treaty provision to merger operations could therefore retain its importance after the introduction of the new rules, especially because a Community regulation cannot deprive national courts of their power to apply Treaty provisions.

Abuse of a dominant position may consist in imposing unequal conditions on trading partners. Such a situation arises when an important company refuses access to information systems to some trading partners but not to all of them; in that case, its behaviour is considered as discriminatory. A recent Commission decision illustrates this point: the Belgian national airline Sabena refused to grant a small competitor access to its 'Saphir' computer reservation network, with the purpose of imposing minimum air fares. A small company, London European, was running an air service between Brussels and Luton, near London, and it seems that Sabena and British Airways, joint operators on the Brussels-Heathrow route, feared that the price of their tickets might be undercut.²⁰ The Commission came to the conclusion

'that Sabena has infringed Article 86 of the EEC Treaty in that, holding a dominant position on the market for the supply of computerized reservation services in Belgium, it abused that dominant position by refusing to grant London European access to the Saphir system on the grounds that the latter's fares were too low and that London European had entrusted the handling of its aircraft to a company other than Sabena'.²¹

Seven months later, the Council, becoming aware of the problem, defined a 'code of conduct' for computerized reservation systems.²² The Commission decision remains, however, a valid precedent for other areas of computerized information.

Abuse of a dominant position can also consist in imposing 'unfair' prices. Unfair prices are not always excessively high: in some instances, low prices can

^{17.} In particular: Article 90; see also Article 37 EEC.

^{18.} Case 6/72, Continental Can, 1973 E.C.R. 215.

^{19.} Council Regulation 4064/89 of 21 December 1989, O.J. 1989, L 395, p. 1.

^{20.} Commission Decision 88/589, London European/Sabena, O.J. 1988, L 317, p. 47.

^{21.} See paragraph 34 of the decision, supra note 19.

Council Regulation 2299/89, on a code of conduct for computerized reservation systems, O.J. 1989, L 220, p. 1.

amount to unfairness, for example when they have the purpose of removing a competitor from the market by temporarily undercutting him ('predatory pricing', as it is called in American anti-trust law).²³ It will not always be easy to establish the 'fair' price level in a monopolistic market situation - that situation is, indeed, characterized by the fact that there is no real market price. Sometimes comparisons can be made with price levels in other parts of the Community, not affected by the monopoly. If such reference points are absent or inappropriate, a normal price level can be fixed by means of a 'constructed' price (based on costs plus a reasonable profit margin); this method is well-known in other areas of Community law, such as customs and anti-dumping duties.²⁴

Special protection should probably be reserved for developing new technologies, at least during the period in which they are still somewhat frail from a commercial point of view. In a case arising under Article 85, Nungesser, the Court of Justice recognized that exclusive rights do not amount to a restriction or distortion of competition if they aim at sharing the results of a new technology that is still in the process of being developed. The Court held that licensing agreements with such a purpose would, on the contrary, contribute to dissemination of knowledge and thus pave the way for a fully competitive market. The same purpose should probably be taken into account when the fairness of prices and other contract conditions are checked under Article 86. Although Nungesser concerned the growing of hybrid maize seeds and the trade in these seeds, the rationale of the judgment would apply to protection of information technology in its first stage of development.

PUBLIC AUTHORITIES

There is one final, but very important point to be made on the application of Article 86. That concerns the role of public authorities. It is true that they sometimes act, under national anti-trust law, as agents of the government taking action against anti-competitive behaviour by penalizing companies or by dissolving cartels. But it is also true that public authorities sometimes appear in a different role: for purposes of economic policy, they may contribute to the creation of market structures which leave little or no room for competition in a certain sector, like agriculture, or banking, or broadcasting. Information monopolies by private business companies may also result from government interference: credit reporting is an example in some countries. Under EEC competition law, however, public authorities are not allowed to create or to strengthen anti-competitive market structures. ²⁶

The picture is slightly different when monopolies are held by public corporations. Under Article 90 of the EEC Treaty, the competition rules set out in Articles 85 and 86 apply in principle; but if the corporation is entrusted, under national law, with the operation of services 'of general economic interest', the implementation

^{23.} See Lawrence A. Sullivan, Handbook of the law of antitrust, St. Paul, Minn., 1977, 220.

An example is provided by Council Regulation 535/87, imposing a definitive anti-dumping duty on imports of plain paper photocopiers originating in Japan, O.J. 1987, L 54, p. 12.

^{25.} Case 258/78, Nungesser, 1982 E.C.R. 2015.

^{26.} See Case 311/85, Vereniging van Vlaamse Reisbureaus, 1987 E.C.R. 3801.

of competition law cannot obstruct the performance of the particular task assigned to that corporation. A recent Commission directive on telecommunications obliges Member States to ensure, in such a case, a minimum of competition, in the sense that rival enterprises may not be entirely excluded from the market by special rights granted to public corporations. That principle is considered to prevail over a choice in favour of a public system, even if that choice is embodied in national legislation. The legality of the directive is currently challenged before the Court by five Member State governments; the applicants base their case, however, on arguments as to competence rather than on the merits: they claim that the Treaty does not confer any power on the Commission to issue directives of this kind. 28

V. Conclusion

Is it possible to draw any general conclusions from these considerations with regard to the probable effect of Community competition law on the developing information markets? At least two statements can be made. First, problems likely to be met in this area will not be completely new, as most of them have already made their appearance when competition law was enforced in other markets. Secondly, there is no reason to assume that competition law will behave like a raging bull in the china shop of copyright. Rather, it is the other way round: competition law may aim at preventing monopolization of markets, but it has also to accommodate diverging rights, interests and claims when it ventures into new and developing fields of activity. However, in doing so it seeks to contribute to upholding an open society where trade and industry are not stifled under the weight of giant corporations and where consumers have a reasonable choice of suppliers.

The situation is probably somewhat more complicated than in ancient times. As recently as 1835, two years before Queen Victoria's accession to the throne, a British Act of Parliament put the problem in simple terms:

'Be it enacted that every person in any borough may keep any shop for the sale of lawful wares and merchandises by wholesale or retail, and use every lawful trade, occupation, mystery and handicraft, for hire, gain, sale or otherwise within any borough'.²⁹

Plain language - except for the 'mystery' which did not yet refer, one assumes, to the collecting, handling and retrieval of information. But the essence could very well still be the same.

Commission Directive 88/301, on competition in the markets for telecommunication terminals, O.J. 1988, L 131, p. 73.

Case 202/88, French Republic v. EEC Commission, in which Italy, Belgium, the Federal Republic
of Germany and Greece have intervened; see also Case 319/89, Belgium v. EEC Commission, and
Case 331/89, Italy v. EEC Commission. These cases are still pending.

The quotation is taken from Milton Handler, Cases on trade regulation, 3rd ed., Brooklyn N.Y., 1960, p. 34. The law in question is 5 & 6 Will. IV, c. 76, Sec. 14.

Appendix I

SUPREME COURT OF THE NETHERLANDS (HOGE RAAD)

Judgment of 4 January 1991 in the matter of:

RUDOLF JAN ROMME, residing in Bosch en Duin, Municipality of Zeist, plaintiff in the Supreme Court appeal, counsel: Mr. J.W. van Leeuwen

versus

VAN DALE LEXICOGRAFIE B.V., domiciled in Utrecht, defendant in the Supreme Court appeal, in default of appearance

[informal translation]

1. The proceedings in the courts which adjudicated on the facts of the case

In a writ dated 7 July 1989, the defendant in the Supreme Court appeal, hereafter to be referred to as: 'Van Dale', summoned the plaintiff in the Supreme Court appeal, hereafter to be referred to as: 'Romme', to appear before the District Court of Utrecht, and, after an amendment of its claim, requested that Romme be ordered, with immediate effect, to cease and henceforth desist from reproducing and disclosing a corpus of words or a substantial part thereof, and thereby cease any and all infringement of Van Dale's copyright, to inform Van Dale's counsel of the names and addresses of the persons to whom the litigious product had been made available and to inform the persons to whom it was to be made potentially available of the consequences of any use of this product, requesting them to return it, and to convict Romme to pay Van Dale a sum of f 10,000 (later reduced to f 5,000) as advance on the damage suffered by Van Dale, at the forfeiture of a penalty of f 5,000 per day.

Romme conducted a defence against the claim, after which, in a judgment in summary injunction proceedings conducted on 17 August 1989, the District Court of Amsterdam convicted Romme to henceforth cease and desist, with immediate effect, from reproducing and disclosing the corpus of headwords published in the 'Grote van Dale' [dictionary] or a substantial part thereof, and thereby to cease infringing on Van Dale's copyright, with a penalty of f 5,000 per day or f 1,000 for every copy of that product, rejecting any further or alternative claims.

Romme lodged an appeal against this judgment before the Court of Appeal of Amsterdam, in response to which Van Dale lodged an appeal in the incidental proceedings.

In a judgment dated 29 March 1990 the Court of Appeal rejected the appeal in the principal proceedings and quashed the disputed judgment in the incidental appeal, to the extent the provisions set out below were rejected, and rendering judgment anew, ordered Romme to inform Van Dale's counsel of the names and addresses of the persons to whom the litigious product had been made available, to inform those persons of the judgment in writing and, with a view to the latter, to request them to return the product made available by Romme, at the forfeiture of a penalty of f 500.00 per day.

[...]

2. The Supreme Court proceedings

Romme lodged a Supreme Court appeal against the judgment rendered by the Court of Appeal. [...]

The Solicitor-General (Advocaat-Generaal) Strikwerda recommended that the appeal be rejected.

3. Adjudication of the grounds for the Supreme Court appeal

- 3.1 The following has been established in the Supreme Court appeal:
 - Van Dale is the compiler of the dictionary 'Van Dale's Groot Woordenboek der Nederlandse Taal';
 - the 11th edition of this dictionary, hereafter to be referred to as: the 'Grote van Dale') published in 1984 contained approx. 230,000 alphabeticallylisted headwords, each followed by a definition;
 - c. Romme, whose hobbies include solving crossword puzzles and cryptograms and making anagrams, transferred all these headwords (according to his information, along with several thousand other words he had obtained elsewhere) or had these transferred onto computer disks, simultaneously entering the plural of each noun, while omitting hyphens and accents and replacing the Dutch vowel 'ij' with a different symbol;
 - d. with the aid of what the Court of Appeal refers to as 'some computer manipulations' Romme broke through the alphabetized/lexicographic listing of Van Dale's corpus of headwords and re-organized the entire collection of words (including his 'own' words) into a new corpus of words. As the Court of Appeal alleges to understand it, this corpus of words served as basis for the definitive computer program with the aid of which words with a certain number of letters and of which certain letters have been

found can be retrieved to be used in cryptograms (without requiring further mental effort):

- at least two copies of the corpus of words re-organized in this way passed into the hands of persons other than Romme.
- 3.2 On the basis of the fact that the corpus of headwords contained in the Grote van Dale is a work of literature, science or art as referred to in Article 1 in conjunction with Article 10 1 of the 1912 Dutch Copyright Act, or at any rate that this corpus is an 'other writing' (ander geschrift) as referred to under Article 10 1 (1) of the Act, Van Dale primarily based its claims on infringement of its copyright and alternatively on 'tort' (onrechtmatige daad).

The District Court and the Court of Appeal both considered the claims to be admissible, proceeding on the assumption that the present case concerns a work in the above-mentioned sense.

3.3 The dispute in the Supreme Court proceedings centres exclusively on the question of whether the corpus of headwords in the 11th edition of the Grote van Dale is in itself a work of literature, science or art which qualifies for copyright protection as referred to in Article 1 in conjunction with Article 10 1 of the Dutch Copyright Act. The dispute does not concern the question whether the dictionary is in its entirety such a work.

The Court of Appeal based its affirmative response to that question on the consideration that in compiling the 11th edition, the editors based themselves on the corpus of headwords in previous editions, from which they deleted words and which they supplemented with new words (and definitions) collated from other sources and provided by volunteers, employing their own criteria for their inclusion. In the opinion of the Court of Appeal, there was therefore question of an original selection; the corpus derives its original character from the inherent creative labour. [...]

The Court of Appeal rejected Romme's argument that the whole is no more than a sum of disparate words and that a copyright on disparate words is impossible on the grounds that the work 'consists precisely of the vocabulary which comprises a part of the Dutch language and which, according to the editors' criteria, qualify for inclusion, whereby a definition is provided for most of those words.' [...]

3.4 In assessing the grounds for appeal, it must first be pointed out that in order for an object to qualify as a work of literature, science or art as referred to in Article 1 in conjunction with Article 10 1 of the Dutch Copyright Act which qualifies for copyright protection, it is necessary for it to have an original and individual character bearing the personal imprint of its maker.

A collection of words which comprises a part of the Dutch language does not simply comply with this pre-requisite. After all, such a collection is in itself no more than a number of factual data which do not in themselves qualify for copyright protection. This would be otherwise only if that collection were the result of a selection process expressing its maker's personal views.

It cannot be deduced from that which the Court of Appeal has considered that the present case concerns such a selection. On the contrary, there is only

question of 'the vocabulary which comprises a part of the Dutch language' and there is evidence of no other selection criteria than that it concerns the words which qualify for inclusion in a modern dictionary such as the Grote van Dale.

It can be concluded from the above that the Court of Appeal has either proceeded on the basis of an incorrect interpretation of the law in respect of the term 'work' in the sense of the 1912 Dutch Copyright Act, or has provided insufficient grounds for its adjudication. To the extent the ground for appeal challenges this, it is well-founded; the other objections do not require comment.

4. Adjudication

The Supreme Court:

quashes the judgment rendered by the Court of Appeal of Amsterdam on 29 March 1990;

refers the case to the Court of Appeal of The Hague for further adjudication; convicts Van Dale in the costs of the Supreme Court proceedings, estimated for Romme up to the present judgment at f 3,378.75, to be paid to the Clerk of the Court in pursuance of Article 57b of the Netherlands Code of Civil Procedure.

The present judgment was rendered by the Councillor in special service Ras as chairman and the councillors De Groot, Hermans, Haak and Boekman and pronounced in public by Councillor Hermans on 4 January 1991.

Appendix II

SUPREME COURT OF THE UNITED STATES

No. 89-1909

FEIST PUBLICATIONS, INC., PETITIONER v. RURAL TELEPHONE SERVICE COMPANY, INC.

On Writ of Certiorari to the United States Court of Appeals for the Tenth Circuit

[March 27, 1991]

Justice O'CONNOR delivered the opinion of the Court.

This case requires us to clarify the extent of copyright protection available to telephone directory white pages.

I

Rural Telephone Service Company is a certified public utility that provides telephone service to several communities in northwest Kansas. It is subject to a state regulation that requires all telephone companies operating in Kansas to issue annually an updated telephone directory. Accordingly, as a condition of its monopoly franchise, Rural publishes a typical telephone directory, consisting of white pages and yellow pages. The white pages list in alphabetical order the names of Rural's subscribers, together with their towns and telephone numbers. The yellow pages list Rural's business subscribers alphabetically by category and feature classified advertisements of various sizes. Rural distributes its directory free of charge to its subscribers, but earns revenue by selling yellow pages advertisements.

Feist Publications, Inc., is a publishing company that specializes in area-wide telephone directories. Unlike a typical directory, which covers only a particular calling area, Feist's area-wide directories cover a much larger geographical range, reducing the need to call directory assistance or consult multiple directories. The Feist directory that is the subject of this litigation covers 11 different telephone service areas in 15 counties and contains 46,878 white pages listings – compared to Rural's approximately 7,700 listings. Like Rural's directory, Feist's is distributed

free of charge and includes both white pages and yellow pages. Feist and Rural compete vigorously for yellow pages advertising.

As the sole provider of telephone service in its service area, Rural obtains subscriber information quite easily. Persons desiring telephone service must apply to Rural and provide their names and addresses; Rural then assigns them a telephone number. Feist is not a telephone company, let alone one with monopoly status, and therefore lacks independent access to any subscriber information. To obtain white pages listings for its area-wide directory, Feist approached each of the 11 telephone companies operating in northwest Kansas and offered to pay for the right to use its white pages listings.

Of the 11 telephone companies, only Rural refused to license its listings to Feist. Rural's refusal created a problem for Feist, as omitting these listings would have left a gaping hole in its area-wide directory, rendering it less attractive to potential yellow pages advertisers. In a decision subsequent to that which we review here, the District Court determined that this was precisely the reason Rural refused to license its listings. The refusal was motivated by an unlawful purpose 'to extend its monopoly in telephone service to a monopoly in yellow pages advertising.' Rural Telephone Service Co. v. Feist Publications, Inc., 737 F. Supp. 610, 622 (Kan. 1990).

Unable to license Rural's white pages listings, Feist used them without Rural's consent. Feist began by removing several thousand listings that fell outside the geographic range of its area-wide directory, then hired personnel to investigate the 4,935 that remained. These employees verified the data reported by Rural and sought to obtain additional information. As a result, a typical Feist listing includes the individual's street address; most of Rural's listings do not. Notwithstanding these additions, however, 1,309 of the 46,878 listings in Feist's 1983 directory were identical to listings in Rural's 1982-1983 white pages. [...]. Four of these were fictitious listings that Rural had inserted into its directory to detect copying.

Rural sued for copyright infringement in the District Court for the District of Kansas taking the position that Feist, in compiling its own directory, could not use the information contained in Rural's white pages. Rural asserted that Feist's employees were obliged to travel door-to-door or conduct a telephone survey to discover the same information for themselves. Feist responded that such efforts were economically impractical and, in any event, unnecessary because the information copied was beyond the scope of copyright protection. The District Court granted summary judgment to Rural, explaining that '[c]ourts have consistently held that telephone directories are copyrightable' and citing a string of lower court decisions. 663 F. Supp. 214, 218 (1987). In an unpublished opinion, the Court of Appeals for the Tenth Circuit affirmed 'for substantially the reasons given by the district court.' App. to Pet. for Cert. 4a, judgt. order reported at 916 F. 2d 718 (1990). We granted certiorari, 498 U.S. – (1990), to determine whether the copyright in Rural's directory protects the names, towns, and telephone numbers copied by Feist.

II.A

This case concerns the interaction of two well-established propositions. The first is that facts are not copyrightable; the other, that compilations of facts generally

are. Each of these propositions possesses an impeccable pedigree. That there can be no valid copyright in facts is universally understood. The most fundamental axiom of copyright law is that '[n]o author may copyright his ideas or the facts he narrates.' Harper & Row, Publishers, Inc. v. Nation Enterprises, 471 U.S. 539, 556 (1985). Rural wisely concedes this point, noting in its brief that '[f]acts and discoveries, of course, are not themselves subject to copyright protection.' Brief for Respondent 24. At the same time, however, it is beyond dispute that compilations of facts are within the subject matter of copyright. Compilations were expressly mentioned in the Copyright Act of 1909, and again in the Copyright Act of 1976.

There is an undeniable tension between these two propositions. Many compilations consist of nothing but raw data -i.e., wholly factual information not accompanied by any original written expression. On what basis may one claim a copyright in such a work? Common sense tells us that 100 uncopyrightable facts do not magically change their status when gathered together in one place. Yet copyright law seems to contemplate that compilations that consist exclusively of facts are potentially within its scope.

The key to resolving the tension lies in understanding why facts are not copyrightable. The sine qua non of copyright is originality. To qualify for copyright protection, a work must be original to the author. See Harper & Row, supra.. at 547-549. Original, as the term is used in copyright, means only that the work was independently created by the author (as opposed to copied from other works), and that is possesses at least some minimal degree of creativity, 1 M. Nimmer & D. Nimmer, Copyright § 2.01[A], [B] (1990) (hereinafter Nimmer). To be sure, the requisite level of creativity is extremely low; even a slight amount will suffice. The vast majority of works make the grade quite easily, as they possess some creative spark, 'no matter how crude, humble or obvious' it might be. Id., § 1.08[C][1]. Originality does not signify novelty; a work may be original even though it closely resembles other works so long as the similarity is fortuitous, not the result of copying. To illustrate, assume that two poets, each ignorant of the other, compose identical poems. Neither work is novel, yet both are original and, hence, copyrightable. See Sheldon v. Metro-Goldwyn Pictures Corp., 81 F. 2d 49, 54 (CA2 1936).

Originality is a constitutional requirement. The source of Congress' power to enact copyright laws is Article I, 8, cl. 8, of the Constitution, which authorizes Congress to 'secur[e] for limited Times to Authors ... the exclusive Right to their respective Writings.' In two decisions from the late 19th Century – The Trade-Mark Cases, 100 U.S. 82 (1879); and Burrow-Giles Lithographic Co. v. Sarony, 111 U.S. 53 (1884) – this Court defined the crucial terms 'authors' and 'writings'. In so doing, the Court made it unmistakably clear that these terms presuppose a degree of originality.

In The Trade-Mark Cases, the Court addressed the constitutional scope of 'writings'. For a particular work to be classified 'under the head of writings of authors,' the Court determined, 'originality is required.' 100 U.S., at 94. The Court explained that originality requires independent creation plus a modicum of creativity: '[W]hile the word writings may be liberally construed, as it has been, to include original designs for engraving, prints, &c., it is only such as are original, and are founded in the creative powers of the mind. The writings which are to be pro-

tected are the fruits of intellectual labor, embodied in the form of books, prints, engravings, and the like.' Ibid. (emphasis in original).

In Burrow-Giles, the Court distilled the same requirement from the Constitution's use of the word 'authors.' The Court defined 'author,' in a constitutional sense, to mean 'he to whom anything owes its origin; originator; maker.' 111 U.S., at 58 (internal quotations omitted). As in The Trade-Mark Cases, the Court emphasized the creative component of originality. It described copyright as being limited to 'original intellectual conceptions of the author,' ibid., and stressed the importance of requiring an author who accuses another of infringement to prove 'the existence of those facts of originality, of intellectual production, of thought, and conception.' Id., at 59-60.

The originality requirement articulated in *The Trade-Mark Cases* and *Burrow-Giles* remains the touchstone of copyright protection today. See *Goldstein* v. *California*, 412 U.S. 546, 561-562 (1973). It is the very 'premise of copyright law.' *Miller* v. *Universal City Studios*, *Inc.*, 650 F. 2d 1365, 1368 (CA5 1981). Leading scholars agree on this point. As one pair of commentators succinctly puts it: 'The originality requirement is *constitutionally mandated* for all works.' Patterson & Joyce, Monopolizing the Law: The Scope of Copyright Protection for Law Reports and Statutory Compilations, 36 UCLA L. Rev. 719, 763, n. 155 (1989) (emphasis in original) (hereinafter Patterson & Joyce). Accord *id.*, at 759-760, and n. 140; Nimmer § 1.06[A] ('originality is a statutory as well as a constitutional requirement'); *id.* § 1.08[C][1] ('a modicum of intellectual labor ... clearly constitutes an essential constitutional element').

It is this bedrock principle of copyright that mandates the law's seemingly disparate treatment of facts and factual compilations. 'No one may claim originality as to facts. 'Id., § 2.11[A], p. 2-157. This is because facts do not owe their origin to an act of authorship. The distinction is one between creation and discovery: the first person to find and report a particular fact has not created the fact; he or she has merely discovered its existence. To borrow from Burrow-Giles, one who discovers a fact is not its 'maker' or 'originator.' 111 U.S., at 58. 'The discoverer merely finds and records.' Nimmer § 2.03[E]. Census-takers, for example, do not 'create' the population figures that emerge from their efforts; in a sense they copy these figures from the world around them. Denicola, Copyright in Collections of Facts: A Theory for the Protection of Nonfiction Literary Works, 81 Colum. L. Rev. 516, 525 (1981) (hereinafter Denicola). Census data therefore do not trigger copyright because these data are not 'original' in the constitutional sense. Nimmer § 2.03[E]. The same is true of all facts – scientific, historical, biographical, and news of the day. '[T]hey may not be copyrighted and are part of the public domain available to every person.' Miller, supra, at 1369.

Factual compilations, on the other hand, may possess the requisite originality. The compilation author typically chooses which facts to include, in what order to place them, and how to arrange the collected data so that they may be used effectively by readers. These choices as to selection and arrangement, so long as they are made independently by the compiler and entail a minimal degree of creativity, are sufficiently original that Congress may protect such compilations through the copyright laws. Nimmer § 2.11[D], 3.03; Denicola 523, n. 38. Thus, even a directory that contains absolutely no protectible written expression, only facts, meets

the constitutional minimum for copyright protection if it features an original selection or arrangement. See *Harper & Row*, 471 U.S., at 547. Accord Nimmer § 3.03.

This protection is subject to an important limitation. The mere fact that a work is copyrighted does not mean that every element of the work may be protected. Originality remains the sine aug non of copyright; accordingly, copyright protection may extend only to those components of a work that are original to the author. Patterson & Joyce 800-802; Ginsburg, Creation and Commercial Value: Copyright Protection of Works of Information, 90 Colum. L. Rev. 1865, 1868, and n. 12 (1990) (hereinafter Ginsburg). Thus, if the compilation author clothes facts with an original collocation of words, he or she may be able to claim a copyright in this written expression. Others may copy the underlying facts from the publication, but not the precise words used to present them. In Harper & Row., for example, we explained that President Ford could not prevent others from copying bare historical facts from his autobiography, see 471 U.S., at 556-557, but that he could prevent others from copying his 'subjective descriptions and portraits of public figures.' Id., at 563. Where the compilation author adds no written expression but rather lets the facts speak for themselves, the expressive element is more elusive. The only conceivable expression is the manner in which the compiler has selected and arranged the facts. Thus, if the selection and arrangement are original, these elements of the work are eligible for copyright protection. See Patry, Copyright in Compilations of Facts (or Why the 'White Pages' Are Not Copyrightable), 12 Com. & Law 37, 64 (Dec. 1990) (hereinafter Patry). No matter how original the format, however, the facts themselves do not become original through association. See Patterson & Joyce 776.

This inevitably means that the copyright in a factual complication is thin. Notwithstanding a valid copyright, a subsequent compiler remains free to use the facts contained in an another's publication to aid in preparing a competing work, so long as the competing work does not feature the same selection and arrangement. As one commentator explains it: '[N]o matter how much original authorship the work displays, the facts and ideas it exposes are free for the taking ... [T]he very same facts and ideas may be divorced from the context imposed by the author and restated or reshuffled by second comers, even if the author was the first to discover the facts or to propose the ideas.' Ginsburg 1868.

It may seem unfair that much of the fruit of the compiler's labor may be used by others without compensation. As Justice Brennan has correctly observed, however, this is not 'some unforeseen byproduct of a statutory scheme.' Harper & Row, 471 U.S., at 589 (dissenting opinion). It is, rather, 'the essence of copyright,' ibid.,. and a constitutional requirement. The primary objective of copyright is not to reward the labor of authors, but '[t]o promote the Progress of Science and useful Arts.' Art. I, 8, cl. 8. Accord Twentieth Century Music Corp. v. Aiken, 422 U.S. 151, 156 (1975). To this end, copyright assures authors the right to their original expression, but encourages others to build freely upon the ideas and information conveyed by a work. Harper & Row, supra, at 556-557. This principle, known as the idea/expression or fact/expression dichotomy, applies to all works of authorship. As applied to a factual compilation, assuming the absence of original written expression, only the compiler's selection and arrangement may be protected; the raw facts may be copied at will. This result is neither unfair nor unfortunate. It is the means by which copyright advances the progress of science and art.

This Court has long recognized that the fact/expression dichotomy limits severely the scope of protection in fact-based works. More than a century ago, the Court observed: 'The very object of publishing a book on science or the useful arts is to communicate to the world the useful knowledge which it contains. But this object would be frustrated if the knowledge could not be used without incurring the guilt of piracy of the book.' Baker v. Selden, 101 U.S. 99, 103 (1880). We reiterated this point in Harper & Row:

'[N]o author may copyright facts or ideas. The copyright is limited to those aspects of the work-termed 'expression' – that display the stamp of the author's originality.'

'[C]opyright does not prevent subsequent users from copying from a prior author's work those constituent elements that are not original – for example ... facts, or materials in the public domain – as long as such use does not unfairly appropriate the author's original contributions.' 471 U.S., at 547-548 (citation omitted).

This, then, resolves the doctrinal tension: Copyright treats facts and factual compilations in a wholly consistent manner. Facts, whether alone or as part of a compilation, are not original and therefore may not be copyrighted. A factual compilation is eligible for copyright if it features an original selection or arrangement of facts, but the copyright is limited to the particular selection or arrangement. In no event may copyright extend to the facts themselves.

II.B

As we have explained, originality is a constitutionally mandated prerequisite for copyright protection. The Court's decisions announcing this rule predate the Copyright Act of 1909, but ambiguous language in the 1909 Act caused some lower courts temporarily to lose sight of this requirement.

The 1909 Act embodied the originality requirement, but not as clearly as it might have. See Nimmer 2.01. The subject matter of copyright was set out in §§ 3 and 4 of the Act. Section 4 stated that copyright was available to 'all the writings of an author.' 35 Stat. 1076. By using the words 'writings' and 'author' – the same words used in Article I, 8 of the Constitution and defined by the Court in *The Trade-Mark Cases* and *Burrow-Giles* – the statute necessarily incorporated the originality requirement articulated in the Court's decisions. It did so implicitly, however, thereby leaving room for error.

Section 3 was similarly ambiguous. It stated that the copyright in a work protected only 'the copyrightable component parts of the work.' It thus stated an important copyright principle, but failed to identify the specific characteristic – originality – that determined which component parts of a work were copyrightable and which were not.

Most courts construed the 1909 Act correctly, notwithstanding the less-thanperfect statutory language. They understood from this Court's decisions that there could not be copyright without originality. See Patterson & Joyce 760-761. As explained in the Nimmer treatise: 'The 1909 Act neither defined originality, nor even expressly required that a work be 'original' in order to command protection. However, the courts uniformly inferred the requirement from the fact that copyright protection may only be claimed by 'authors' ... It was reasoned that since an author is 'the .. creator, originator' it follows that a work is not the product of an author unless the work is original.' Nimmer § 2.01 (footnotes omitted)(citing cases).

But some courts misunderstood the statute. See, e.g., Leon v. Pacific Telephone & Telegraph Co., 91 F. 2d 484 (CA9 1937); Jeweler's Circular Publishing Co. v. Keystone Publishing Co., 281 F. 83 (CA2 1922). These courts ignored § 3 and 4, focusing their attention instead on § 5 of the Act. Section 5, however, was purely technical in nature: it provided that a person seeking to register a work should indicate on the application the type of work, and it listed 14 categories under which the work might fall. One of these categories was '[b]ooks, including composite and cyclopaedic works, directories, gazetteers, and other compilations.' § 5(a). Section 5 did not purport to say that all compilations were automatically copyrightable. Indeed, it expressly disclaimed any such function, pointing out that 'the subject-matter of copyright [i]s defined in section four.' Nevertheless, the fact that factual compilations were mentioned specifically in § 5 led some courts to infer erroneously that directories and the like were copyrightable per se, 'without any further or precise showing of original-personal-authorship.' Ginsburg 1896.

Making matters worse, these courts developed a new theory to justify the protection of factual compilations. Known alternatively as 'sweat of the brow' or 'industrious collection,' the underlying notion was that copyright was a reward for the hard work that went into compiling facts. The classic formulation of the doctrine appeared in Jeweler's Circular Publishing Co., 281 F., at 88:

'The right to copyright a book upon which one has expended labor in its preparation does not depend upon whether the materials which he has collected consist or not of matters which are publici juris, or whether such materials show literary skill or originality, either in thought or in language, or anything more than industrious collection. The man who goes through the streets of a town and puts down the names of each of the inhabitants, with their occupations and their street number, acquires material of which he is the author' (emphasis added).

The 'sweat of the brow' doctrine had numerous flaws, the most glaring being that it extended copyright protection in a compilation beyond selection and arrangement – the compiler's original contributions – to the facts themselves. Under the doctrine, the only defense to infringement was independent creation. A subsequent compiler was 'not entitled to take one word of information previously published,' but rather had to 'independently wor[k] out the matter for himself, so as to arrive at the same result from the same common sources of information.' *Id.*, at 88-89 (internal quotations omitted). 'Sweat of the brow' courts thereby eschewed the most fundamental axiom of copyright law – that no one may copyright facts or ideas. See *Miller v. Universal City Studios, Inc.*, 650 F. 2d, at 1372 (critizing 'sweat of the brow' courts because 'ensur[ing] that later writers obtain the facts independently ... is precisely the scope of protection given ... copyrighted matter, and the law is clear that facts are not entitled to such protection').

Decisions of this Court applying the 1909 Act make clear that the statute did not permit the 'sweat of the brow' approach. The best example is *International*

News Service v. Associated Press, 248 U.S. 215 (1918). In that decision, the Court stated unambiguously that the 1909 Act conferred copyright protection only on those elements of a work that were original to the author. Associated Press had conceded taking news reported by International News Service and publishing it in its own newspapers. Recognizing that 5 of the Act specifically mentioned '[p]eriodicals, including newspapers,' § 5(b), the Court acknowledged that news articles were copyrightable. Id., at 234. It flatly rejected, however, the notion that the copyright in an article extended to the factual information it contained: '[T]he news element – the information respecting current events contained in the literary production – is not the creation of the writer, but is a report of matters that ordinarily are publici juris; it is the history of the day.' Ibid.*

Without a doubt, the 'sweat of the brow' doctrine flouted basic copyright principles. Throughout history, copyright law has 'recognize[d] a greater need to disseminate factual works than works of fiction or fantasy,' Harper & Row, 471 U.S., at 563, Accord Gorman, Fact or Fancy: The Implications for Copyright, 29 J. Copyright Soc. 560, 563 (1982). But 'sweat of the brow' courts took a contrary view; they handed out proprietary interests in facts and declared that authors are absolutely precluded from saving time and effort by relying upon the facts contained in prior works. In truth, '[i]t is just such wasted effort that the proscription against the copyright of ideas and facts ... [is] designed to prevent.' Rosemont Enterprises, Inc. v. Random House, Inc., 366F. 2d 303, 310 (CA2 1966), cert. denied, 385 U.S. 1009 (1967). 'Protection for the fruits of such research ... may in certain circumstances be available under a theory of unfair competition. But to accord copyright protection on this basis alone distorts basic copyright principles in that it creates a monopoly in public domain materials without the necessary justification of protecting and encouraging the creation of 'writings' by 'authors.' Nimmer § 3.04, p. 3-23 (footnote omitted).

II.C

'Sweat of the brow' decisions did not escape the attention of the Copyright Office. When Congress decided to overhaul the copyright statute and asked the Copyright Office to study existing problems, see *Mills Music, Inc.* v. *Snyder*, 469 U.S. 153, 159 (1985), the Copyright Office promptly recommended that Congress clear up the confusion in the lower courts as to the basic standards of copyrightability. The Register of Copyrights explained in his first report to Congress that 'originality' was a 'basic requisit[e]' of copyright under the 1909 Act, but that 'the absence of any reference to [originality] in the statute seems to have led to misconceptions as to what is copyrightable matter.' Report of the Register of Copyrights on the General Revision of the U.S. Copyright Law, 87th Cong., 1st Sess., p. 9 (H. Judiciary Comm. Print 1961). The Register suggested making the originality requirement explicit. *Ibid*.

Congress took the Register's advice. In enacting the Copyright Act of 1976, Congress dropped the reference to 'all the writings of an author' and replaced it with the phrase 'original works of authorship.' 17 U.S.C. § 102(a). In making ex-

^{*} The Court ultimately rendered judgment for International News Service on noncopyright grounds that are not relevant here. See 248 U.S., at 235, 241-242.

plicit the originality requirement, Congress announced that it was merely clarifying existing law: 'The two fundamental criteria of copyright protection [are] originality and fixation in tangible form ... The phrase 'original works of authorship,' which is purposely left undefined, is intended to incorporate without change the standard of originality established by the courts under the present [1909] copyright statute.' H.R. Rep. No. 94-1476, p. 51 (1976) (emphasis added) (hereinafter H.R. Rep.); S. Rep. No. 94-473, p. 50 (1975) (emphasis added) (hereinafter S. Rep.). This sentiment was echoed by the Copyright Office: 'Our intention here is to maintain the established standards of originality ...' Supplementary Report of the Register of Copyrights on the General Revision of U.S. Copyright Law, 89th Cong., 1st Sess., Part 6, p. 3 (H. Judiciary Comm. Print 1965) (emphasis added).

To ensure that the mistakes of the 'sweat of the brow' courts would not be repeated, Congress took additional measures. For example, § 3 of the 1909 Act had stated that copyright protected only the 'copyrightable component parts' of a work, but had not identified originality as the basis for distinguishing those component parts that were copyrightable from those that were not. The 1976 Act deleted this section and replaced it with 102(b), which identifies specifically those elements of a work for which copyright is not available: 'In no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied in such work.' § 102(b) is universally understood to prohibit any copyright in facts. Harper & Row, supra, at 547, 556. Accord Nimmer § 2.03[e] (equating facts with 'discoveries'). As with § 102(a), Congress emphasized that § 102(b) did not change the law, but merely clarified it: 'Section 102(b) in no way enlarges or contracts the scope of copyright protection under the present law. Its purpose is to restate ... that the basic dichotomy between expression and idea remains unchanged.' H.R. Rep., at 57; S. Rep., at 54.

Congress took another step to minimize confusion by deleting the specific mention of 'directories ... and other compilations' in § 5 of the 1909 Act. As mentioned, this section had led some courts to conclude that directories were copyrightable per se and that every element of a directory was protected. In its place, Congress enacted two new provisions. First, to make clear that compilations were not copyrightable per se, Congress provided a definition of the term 'compilation'. Second, to make clear that the copyright in a compilation did not extend to the facts themselves, Congress enacted 17 U.S.C. § 103.

The definition of 'compilation' is found in § 101 of the 1976 Act. It defines a 'compilation' in the copyright sense as 'a work formed by the collection and assembly of preexisting materials or of data that are selected, coordinated, or arranged in such a way that the resulting work as a whole constitutes an original work of authorship' (emphasis added).

The purpose of the statutory definition is to emphasize that collections of facts are not copyrightable *per se*. It conveys this message through its tripartite structure, as emphasized above by the italics. The statute identifies three distinct elements and requires each to be met for a work to qualify as a copyrightable compilation: (1) the collection and assembly of pre-existing material, facts, or data; (2) the selection, coordination, or arrangement of those materials; and (3) the creation, by virtue of the particular selection, coordination, or arrangement, of an 'original' work of authorship. '[T]his tripartite conjunctive structure is self-evident,

and should be assumed to 'accurately express the legislative purpose." Patry 51, quoting *Mulls Music*, 469 U.S., at 164.

At first glance, the first requirement does not seem to tell us much. It merely describes what one normally thinks of as a compilation – a collection of pre-existing material, facts, or data. What makes it significant is that it is not the *sole* requirement. It is not enough for copyright purposes that an author collects and assembles facts. To satisfy the statutory definition, the work must get over two additional hurdles. In this way, the plain language indicates that not every collection of facts receives copyright protection. Otherwise, there would be a period after 'data'

The third requirement is also illuminating. It emphasizes that a compilation, like any other work, is copyrightable only if it satisfies the originality requirement ('an *original* work of authorship'). Although § 102 states plainly that the originality requirement applies to all works, the point was emphasized with regard to compilations to ensure that courts would not repeat the mistake of the 'sweat of the brow' courts by concluding that fact-based works are treated differently and measured by some other standard. As Congress explained it, the goal was to 'make plain that the criteria of copyrightable subject matter stated in section 102 apply with full force to works ... containing preexisting material.' H.R. Rep., at 57; S. Rep., at 55.

The key to the statutory definition is the second requirement. It instructs courts that, in determining whether a fact-based work is an original work of authorship, they should focus on the manner in which the collected facts have been selected, coordinated, and arranged. This is a straightforward application of the originality requirement. Facts are never original, so the compilation author can claim originality, if at all, only in the way the facts are presented. To that end, the statute dictates that the principal focus should be on whether the selection, coordination, and arrangement are sufficiently original to merit protection.

Not every selection, coordination, or arrangement will pass muster. This is plain from the statute. It states that, to merit protection, the facts must be selected, coordinated, or arranged 'in such a way' as to render the work as a whole original. This implies that some 'ways' will trigger copyright, but that others will not. See Patry 57, and n. 76. Otherwise, the phrase 'in such a way' is meaningless and Congress should have defined 'compilation' simply as 'a work formed by the collection and assembly of preexisting materials or data that are selected, coordinated, or arranged.' That Congress did not do so is dispositive. In accordance with 'the established principle that a court should give effect, if possible, to every clause and word of a statute,' Moskal v. United States, 498 U.S. -, - (1990) [...] (internal quotations omitted), we conclude that the statute envisions that there will be some fact-based works in which the selection, coordination, and arrangement are not sufficiently original to trigger copyright protection.

As discussed earlier, however, the originality requirement is not particularly stringent. A compiler may settle upon a selection or arrangement that others have used; novelty is not required. Originality requires only that the author make the selection or arrangement independently (i.e., without copying that selection or arrangement from another work), and that it display some minimal level of creativity. Presumably, the vast majority of compilations will pass this test, but not all will. There remains a narrow category of works in which the creative spark is utterly lacking or so trivial as to be virtually nonexistent. See generally, Bleistein v. Do-

naldson Lithographing Co., 188 U.S. 239, 251 (1903) (referring to 'the narrowest and most obvious limits'). Such works are incapable of sustaining a valid copyright. Nimmer § 2.01 [B].

Even if a work qualifies as a copyrightable compilation, it receives only limited protection. This is the point of § 103 of the Act. Section 103 explains that '[t]he subject matter of copyright ... includes compilations,' § 103(a), but that copyright protects only the author's original contributions – not the facts or information conveyed:

'The copyright in a compilation ... extends only to the material contributed by the author of such work, as distinguished from the preexisting material employed in the work, and does not imply any exclusive right in the preexisting material.' § 103(b).

As 103 makes clear, copyright is not a tool by which a compilation author may keep others from using the facts or data he or she has collected. 'The most important point here is one that is commonly misunderstood today: copyright ... has no effect one way or the other on the copyright or public domain status of the preexisting material.' H.R. Rep., at 57; S. Rep., at 55. The 1909 Act did not require, as 'sweat of the brow' courts mistakenly assumed, that each subsequent compiler must start from scratch and is precluded from relying on research undertaken by another. See, e.g., Jeweler's Circular Publishing Co., 281 F., at 88-89. Rather, the facts contained in existing works may be freely copied because copyright protects only the elements that owe their origin to the compiler – the selection, coordination, and arrangement of facts.

In summary, the 1976 revisions to the Copyright Act leave no doubt that originality, not 'sweat of the brow,' is the touchstone of copyright protection in directories and other fact-based works. Nor is there any doubt that the same was true under the 1909 Act. The 1976 revisions were a direct response to the Copyright Office's concern that many lower courts had misconstrued this basic principle, and Congress emphasized repeatedly that the purpose of the revisions was to clarify, not change, existing law. The revisions explain with painstaking clarity that copyright requires originality, § 102(a); that facts are never original, § 102(b); that the copyright in a compilation does not extend to the facts it contains, § 103(b); and that a compilation is copyrightable only to the extent that it features an original selection, coordination, or arrangement, § 101.

The 1976 revisions have proven largely successful in steering courts in the right direction. A good example is Miller v. Universal City Studio, Inc., 650 F. 2d, at 1369-1370: 'A copyright in a directory ... is properly viewed as resting on the originality of the selection and arrangement of the factual material, rather than on the industriousness of the efforts to develop the information. Copyright protection does not extend to the facts themselves, and the mere use of information contained in a directory without a substantial copying of the format does not constitute infringement' (citation omitted). Additionally, the Second Circuit, which almost 70 years ago issued the classic formulation of the 'sweat of the brow' doctrine in Jeweler's Circular Publishing Co., has now fully repudiated the reasoning of that decision. See, e.g., Financial Information, Inc. v. Moody's Investors Service, Inc., 808 F. 2d 204, 207 (CA2 1986), cert. denied, 484 U.S. 820 (1987); Financial In-

formation, Inc. v. Moody's Investors Service, Inc., 751 F. 2d 501, 510 (CA2 1984) (Newman, J., concurring); Hoehling v. Universal City Studios, Inc., 618 F. 2d 972, 979 (CA2 1980). Even those scholars who believe that 'industrious collection' should be rewarded seem to recognize that this is beyond the scope of existing copyright law. See Denicola 516 ('the very vocabulary of copyrights is ill suited to analyzing property rights in works of nonfiction'); id., at 520-521, 525; Ginsburg 1867, 1870.

Ш

There is no doubt that Feist took from the white pages of Rural's directory a substantial amount of factual information. At a minimum, Feist copied the names, towns, and telephone numbers of 1,309 of Rural's subscribers. Not all copying, however, is copyright infringement. To establish infringement, two elements must be proven: (1) ownership of a valid copyright, and (2) copying of constituent elements of the work that are original. See *Harper & Row.*, 471 U.S., at 548. The first element is not at issue here; Feist appears to concede that Rural's directory, considered as a whole, is subject to a valid copyright because it contains some foreword text, as well as original material in its yellow pages advertisements. See Brief for Petitioner 18; Pet. for Cert. 9.

The question is whether Rural has proved the second element. In other words, did Feist, by taking 1,309 names, towns, and telephone numbers from Rural's white pages, copy anything that was 'original' to Rural? Certainly, the raw data does not satisfy the originality requirement. Rural may have been the first to discover and report the names, towns, and telephone numbers of its subscribers, but this data does not "ow[e] its origin" to Rural. Burrow-Giles, 111 U.S., at 58. Rather, these bits of information are uncopyrightable facts; they existed before Rural reported them and would have continued to exist if Rural had never published a telephone directory. The originality requirement 'rule[s] out protecting ... names, addresses, and telephone numbers of which the plaintiff by no stretch of the imagination could be called the author.' Patterson & Joyce 776.

Rural essentially concedes the point by referring to the names, towns, and telephone numbers as 'preexisting material.' Brief for Respondent 17. Section 103(b) states explicitly that the copyright in a compilation does not extend to 'the preexisting material employed in the work'.

The question that remains is whether Rural selected, coordinated, or arranged these uncopyrightable facts in an original way. As mentioned, originality is not a stringent standard; it does not require that facts be presented in an innovative or surprising way. It is equally true, however, that the selection and arrangement of facts cannot be so mechanical or routine as to require no creativity whatsoever. The standard of originality is low, but it does exist. See Patterson & Joyce 760, n. 144 ('While this requirement is sometimes characterized as modest, or a low threshold, it is not without effect') (internal quotations omitted; citations omitted). As this Court has explained, the Constitution mandates some minimal degree of creativity, see *The Trade-Mark Cases*, 100 U.S., at 94; and an author who claims infringement must prove 'the existence of ... intellectual production, of thought, and conception.' *Burrow-Giles*, supra, at 59-60.

The selection, coordination, and arrangement of Rural's white pages do not satisfy the minimum constitutional standards for copyright protection. As mentioned at the outset, Rural's white pages are entirely typical. Persons desiring telephone service in Rural's service area fill out an application and Rural issues them a telephone number. In preparing its white pages, Rural simply takes the data provided by its subscribers and lists it alphabetically by surname. The end product is a garden-variety white pages directory, devoid of even the slightest trace of creativity.

Rural's selection of listings could not be more obvious: it publishes the most basic information – name, town, and telephone number – about each person who applies to it for telephone service. This is 'selection' of a sort, but it lacks the modicum of creativity necessary to transform mere selection into copyrightable expression. Rural expended sufficient effort to make the white pages directory useful, but insufficient creativity to make it original.

We note in passing that the selection featured in Rural's white pages may also fail the originality requirement for another reason. Feist points out that Rural did not truly 'select' to publish the names and telephone numbers of its subscribers; rather, it was required to do so by the Kansas Corporation Commission as part of its monopoly franchise. See 737 F. Supp., at 612. Accordingly, one could plausibly conclude that this selection was dictated by state law, not by Rural.

Nor can Rural claim originality in its coordination and arrangement of facts. The white pages do nothing more than list Rural's subscribers in alphabetical order. This arrangement may, technically speaking, owe its origin to Rural; no one disputes that Rural undertook the task of alphabetizing the names itself. But there is nothing remotely creative about arranging names alphabetically in a white pages directory. It is an age-old practice, firmly rooted in tradition and so commonplace that it has come to be expected as a matter of course. See Brief for Information Industry Association et al. as *Amici Curiae* 10 (alphabetical arrangement 'is universally observed in directories published by local exchange telephone companies'). It is not only unoriginal, it is practically inevitable. This time-honored tradition does not possess the minimal creative spark required by the Copyright Act and the Constitution.

We conclude that the names, towns, and telephone numbers copied by Feist were not original to Rural and therefore were not protected by the copyright in Rural's combined white and yellow pages directory. As a constitutional matter, copyright protects only those constituent elements of a work that possess more than a de minimis quantum of creativity. Rural's white pages, limited to basic subscriber information and arranged alphabetically, fall short of the mark. As a statutory matter, 17 U.S.C. § 101 does not afford protection from copying to a collection of facts that are selected, coordinated, and arranged in a way that utterly lacks originality. Given that some works must fail, we cannot imagine a more likely candidate. Indeed, were we to hold that Rural's white pages pass muster, it is hard to believe that any collection of facts could fail.

Because Rural's white pages lack the requisite originality, Feist's use of the listings cannot constitute infringement. This decision should not be construed as demeaning Rural's efforts in compiling its directory, but rather as making clear that copyright rewards originality, not effort. As this Court noted more than a century ago, "great praise may be due to the plaintiffs for their industry and enterprise in

APPENDIX II

publishing this paper, yet the law does not contemplate their being rewarded in this way." Baker v. Selden, 101 U.S., at 105.

The judgment of the Court of Appeals is

Reversed.

JUSTICE BLACKMUN concurs in the judgment.

With the year 2000 in sight, the information industry is changing into second gear. New information services are introduced each day, using telecommunications networks or newly developed carrier media. Factual information, such as stock market data, weather reports, topographical data and business news, is rapidly becoming a very valuable commodity. And wherever business is booming, piracy is looming.

Can copyright law provide adequate protection? Is there a conflict between a copyright in works of fact and the freedom of expression? Are information monopolies compatible with the EEC Treaty?

Protecting Works of Fact' is about these and other dilemmas of information law. The book contains a collection of articles written by legal scholars and practitioners. Most articles were originally presented at the Copyright in Information Conference of the Institute for Information Law (University of Amsterdam), which was held in Amsterdam on December 1, 1989. In addition, the book contains a general introduction to information law.

'Protecting Works of Fact' is the first volume of the Information Law series.

