11 Tractactus germanico-informaticus – Some fragmentary ideas on DRM and information law

Thomas Hoeren[1]

Abstract

Information has become on of the leading topics in European regulation and case law. The question how to balance rights in information against freedom of information is now discussed controversially in all European states especially in the light of DRM. The controversies has led to a point where people believe in a new legal area arising out at the horizon: Information law. The following considerations describe the main elements and ideas of the recent discussion on DRM and "information law" in Europe and include the last trends in the discussion in Germany.

11.1 Information is everything that is the case

11.1.1 Nobody knows what information is

This is one of the strangest aspect of information law: Its topic – information – cannot be defined. Since the early days of information theory, researchers tried to define information. More than a hundred different definitions are known to exist. They come from mathematics, informatics, economics, philosophy, communication theory and not least from law.[2] They distinguish between information as a product, a process, an action.[3] But there is no single definition accepted by the scientific community. That makes at least Germanic researchers feel desperate.

[1] Professor Hoeren is affiliated to the University of Münster, Germany.

[2] Wilhelm Steinmüller, Informationstechnologie und Gesellschaft: Einführung in die Angewandte Informatik, Darmstadt: 1993.

[3] Jean Nicolas Druey, Information als Gegenstand des Rechts, Zürich/Baden-Baden 1995, 3 ff. The concept of Druey is highly discussed in Europe; cf. Viktor Mayer-Schönberger, Information und Recht, Vienna 2001, 10 ff.; Garstka, DVBl. 1998, 981 ff.

Without any acceptable definition, information law is regarded as an indefinable, indefinite, unclear concept within itself.[4]

11.1.2 But everybody has information

However, there is another striking aspect of information which gives hope: Everybody has information and has an intuitive understanding what information might be. Call it information, knowledge[5], data[6], that doesn't matter.[7] We know that a valuable good like information exists although we might not understand what it exactly is. This fact might be one of the reasons why we can't define information. Information is such an important, self-evidential good, an atomic fact, that we are unable to summarise what it is. We are imprisoned in an information world; missing an external view on information, we cannot say much on the nature of information.

11.1.3 Information is overall

Information can be found everywhere and anytime. Knowledge is one of the elements of mankind. We build up our daily life on information. Getting information is part of our educational system. To have more information is regarded as a competitive advantage in economy. Especially in the 21st century, the term "information society" relates to the postmodern feeling that information is the glue of our living conditions. Information is the essence of the internet as well. The Internet is only one way for disseminating information. Due to the dotcom bubble, the Internet itself has been overstressed as an area of research. But today, after the bubble it has become clear that the Internet is only one, but important distribution channel among others.

[4] The problem has been clearly stated by Michael Kloepfer, Informationsrecht, Munich 2003, 24 ff.

[5] The term "knowledge" (Wissen) is for instance used by Helmut Spinner, Die Wissensordnung, Opladen 1994, 24 ff.

[6] The term "Data" is mainly used by Ebsen, DVBl 1997, 1039. The German act on the access of environmental data uses data and information as being synonmous; see § 3 (2) UIG.

[7] Schoch VVDStRL 57 (1998), 158, 167.

11.1.4 Information is by its nature – what?

The assertion „information is free" belongs to the dogmas of utmost importance for a certain model of information law.[8] According to that model, information is the common heritage of mankind; it has by its nature the same quality as the air or the sky. The model sometimes relates to statements in the area of law and economics that information is a public good[9] which is by its nature non-exclusive and non-rivalrous.[10]

However you have to distinguish between the empiric observation that information is free and the normative claim that information should be free. The latter will be discussed in 1.5. Therefore, the question remains whether information really IS free. There are two words in that sentence which need to be clarified before making empirical notes. The term "information" is in itself nebulous as it cannot be clearly defined. If we cannot define information we cannot define its nature. The reference to nature is the attempt to ontologize information, to give information an objective shape. But information is a term so abstract und nebulous that its nature is everything that somebody supposes it. The term "free" is even more vague as it relates to an implicit understanding of freedom. Freedom from what and to do what? If the sentence means that everybody can use any information without restrictions the statement is empirically wrong. To the same extent, the contradicting view has been developed stressing that information is valuable. The best way to make information valuable is simply to restrict access to it. There is a lot of information which is secret, such as the famous recipe of Coca Cola or the data stored by the CIA or FBI. Parallel to the fact that there is not a general definition of information there is no general evidence that information is free.

---

8 The idea can be traced back to a legendary article of John Perry Barlow, The Economy of Ideas. A framework for patents and copyrights in the Digital Age. (Everything you know about intellectual property is wrong.), Wired Issue 2.03 – Mar 1994, http://www.wired.com/wired/archive/2.03/economy.ideas_pr.html

9 This sentence can be found again and again in the internet world: cf for instance the Oxfam International Campaign Proposal 2004, Information as a global public good: a right to knowledge and communication, http://danny.oz.au/free-software/advocacy/oicampaign.html. More substantial research on the public good topos can be found in William Fisher, Promises to Keep. Technology, Law, and the Future of Entertainment, Stanford 2004.

10 Lawrence Lessig, Free culture, 2004, 17 ff. Similiarly James Love, Artists Want to Be Paid: The Blur/Banff Proposal, http://www.nsu.newschool.edu/blur/blur02/user_love.html

11.1.5 Information should be regarded as being a common good

This is one of the statements which need some philosophical backings. Being a Kantian, it is impossible to say that "is" leads to "ought". The (unproven) suggestion that information might be a common good is not in itself a justification to state that "information" should be a common good. Some justify the normative element of the sentence by making a reference to the nature of the information.[11] They say that commercial and governmental efforts to control information are incompatible with the nature of information.[12] Other refer to liberalism and its protection by the First Amendment of the US constitution. It doesn't matter which normative background is used to justify "information should be free". The Kantian dualism doesn't forbid to use the nature of a good in order to construct normative sentences. It only demands to clarify things, to make the additional normative value involved transparent. This relates to some hermeneutical concepts on the so-called "Vorverständnis" (pre-understanding).[13] Everybody who deals with information law has a particular pre-understanding about information and its "nature". The problem is thus not to have such a "Vorverständnis"; it is instead necessary to have one for understanding things. Things are however bad if the "Vorverständnis" is not reflected upon, if it remains hidden, unquestioned, unaltered. Then a dangerous fundamentalism is going to creep into research on information law. The task of legal research in the area of information law is thus to determine these dangerous fundamentalism as being fundamentalistic.

For instance, theories like the Creative Commons approach lack transparency regarding their normative background. Some argue that information by nature wants or "yearns" to be free.[14] However information is incapable to "want" or "yearn"; authors arguing like that unreflectingly use an anthropomorphism, a metaphor which transfers the wishes of a human being (evidently the authors themselves) to "information". Similar problems arise if you want to use the "nature" of information to determine what information should be. First, it has

---

[11] Lessig, The Future of Ideas – The Fate of the Commons in a Connected World, 2001

[12] Kröger, Informationsfreiheit und UrheberR, 2002.

[13] The hermeneutical problem of "Vorverständnis" relates to the concept of Hans-Georg Gadamer, Wahrheit und Methode, 5th ed. 1986. The term has been introduced into the legal discussion by Josef Esser, Vorverständnis und Methodenwahl in der Rechtsfindung, 2nd ed. 1972.

[14] The origin of the phrase, "Information wants to be free," is with Stewart Brand, creator of The Whole Earth Catalog, CoEvolution Quarterly, and the pioneering online community The WELL. He coined it in 1984 at the first Hackers' Conference, saying: "On the one hand information wants to be expensive, because it's so valuable. The right information in the right place just changes your life. On the other hand, information wants to be free, because the cost of getting it out is getting lower and lower all the time. So you have these two fighting against each other." (Whole Earth Review, May 1985, p. 49.)

been shown in 1.4. that information doesn't have a nature; this is an inefficient way of ontologizing information. And in addition, a separate conclusion needs to be proven in order to use that way of argumentation – that is: if information has a certain nature, why should we protect the nature of information?

11.2 What is law?

11.2.1 Nobody knows what law is

For centuries the question of what law is has not been settled. A lot of open questions still exist. Is law a mere fact or a normative tool? What does normative mean to that extent? Legal theory has meanwhile collapsed. Everything that has to be said about law has been said and written. There is nothing new under the jurisprudential sun. Legal theory is thus in this moment in a very critical position.[15]

11.2.2 But every community has legal rules

There is however one element of law which can be regarded analogous to information. Although nobody really knows what law is, law is everywhere. It is working. States have it. They enforce it – in a more or less efficient way. There is no such thing as a unregulated commons. Even if there are places in this world like Hyde Park Corner or the commons for the use of poor people in the Middle Ages, these areas exist/existed due to regulatory permissions and within the framework of regulatory restrictions.

11.2.3 Law is not overall

Distinct from information, law is not everywhere. It has been a prejudice that lawyers tend to regulate everything. Law exists where it is needed. And it is not needed in every facet of life. There are still a lot of areas which are unregulated and which need not be regulated. Legal rules need a justification. Regulating an area which has been left unregulated in the past is an act which restricts human freedom and should thus be justifiable to the citizens.[16]

---

[15] See Coase, 36 J. of Law & Economics 239, 254 (1993): "Much, and perhaps most, legal scholarship has been stamp collecting".

[16] Cf. Wolfgang Fikentscher, Eine Einführung in die Rechtsvergleichung, Tübingen 1967, 212 ff...

11.2.4 Law lags technology

It is quite often thought and criticized that law is missing the speed of technological innovation.[17] But both are co-evolving. Lawyers are the legastenics of innovation. It is their task to let innovation start, see what it is doing and then re-acting, restricting it if it becomes dangerous. Facing innovation, law has to determine the underlying regulative ideas, the normative values involved, the dangers involved for society. The slowness of law is not a mistake; it is a necessary element both for law and technology.

11.3 What is a theory?

11.3.1 The concept of regulative ideas

All disciplines are based upon certain regulative ideas, a specific "Vorverständnis". These ideas form the archimedic external point which allows understanding of the essence of the discipline. The regulative idea cannot be proven within the system; it is axiomatic.

11.3.2 Functionality as the regulative idea of technology

Technicians often forget that they are working on the basis of a regulative idea themselves. They normally regard themselves as being neutral, not related to ethical concepts, merely devoted to solving a technical problem. Yet the mere use of a programming language is based upon pre-assumptions and pre-existing purposes. Technicians have, like the rest of us, a concept of our living in mind when they start to work. Information and its technologies are inseparably related to pre-understandings of technicians. The assumption of neutrality with regard to information technology therefore doesn't work. It is an ideology which might be used or even misused. The major elements of technical pre-understanding might be called functionality. The term is a mere symbol for the openness of technology towards meta-technical, normative values. Technicians mainly execute within a given normative background. If their product fits into and suits the given, presupposed value system, then the technicians are satisfied.

[17] Wolf, R. (1987): Zur Antiquiertheit des Rechts in der Risikogesellschaft. In: Leviathan 15. H. 3, 357-391; Scharpf, F. (1991): Die Handlungsfähigkeit des Staates am Ende des zwanzigsten Jahrhunderts. In: Politische Vierteljahresschrift 32, 621-634.

11.3.3 Efficiency as the regulative idea of economics

Economics are based upon the concept of efficiency.[18] According to Pareto efficiency a change that can make at least one individual better off, without making any other individual worse off is called a Pareto improvement: an allocation of resources is Pareto efficient when no further Pareto improvements can be made. Kaldor-Hicks efficiency is guaranteed if the economic value of social resources is maximized. A more efficient outcome can leave some people worse off. However this is still efficient if those that are made better off could *in theory* compensate those that are made worse off and lead to a Pareto optimal outcome.

11.4 Informational justice as the regulative idea of information law

Informational justice[19] is the regulative idea of information law[20], a metaphor for the meta-rules that decide upon access to information versus exclusive rights in information. It is a symbol for a critical approach that questions existing solutions in normative conflicts regarding access to information. It is an utopian idea therefore as it does not stick to the prevailing ideas on information rights. The idea of the ideal community of communicators serves as a kind of utopia, which therefore has to be taken as (potentially) realizable in our real world.

11.4.1 Deconstructive power

Nobody knows what informational justice is. The idea of informational justice can be only used as a critical theory for determining injustice in the dissemination of rights in information. It has to be used in the deconstructive sense.[21] You cannot determine if informational justice exists or not.

---

[18] See Horst Eidenmüller, Effizienz als Rechtsprinzip, Tübingen 1998. Schmidtchen, D.: Effizienz als Rechtsprinzip. Bemerkungen zu dem gleichnamigen Buch von Horst Eidenmüller, in: Jahrbücher für Nationalökonomie und Statistik, 217/2, 1997, 251-267.

[19] The term is used in other disciplies as well; see Kernan MC, Hanges PJ., Survivor reactions to reorganization: antecedents and consequences of procedural, interpersonal, and informational justice. J Appl Psychol. 2002 Oct;87(5):916-28

[20] Thomas Hoeren: Zur Einführung: Informationsrecht, in: > JuS 2002, 947 ff.; ders., Internet und Recht – Neue Paradigmen des Informationsrechts, NJW 1998, 2849 ff.

[21] Thomas Hoeren, Vom praktischen Nutzen der Rechtswissenschaft, in: ZRP 1996, 284-287

11.4.2 Informational justice is a regulative idea to determine state regulation

Informational justice is only a concept which is binding for the state. A company is not obliged to consider ethical values. It can do it and thus improve its reputation among its customers. But in the long-run, enterprises have to consider only one principle: profit.

11.4.3 Information should be free

As explained above, a theory is possible which axiomatically (sic!) presupposes that information should be free. In dubio pro liberatate. If there is any doubt whether to grant exclusive rights in information or not, the answer is "no".

11.4.4 Property rights in information need be justified

Exclusive rights in information need a clear justification. Exclusive rights in information are exceptions to the general rule that information is and should be free. Therefore, these exceptions need to be justified. There has to be a legitimate interest which underlies the property right.

11.4.5 Property rights in information need to be constitutionally justified

There are in fact a lot of interests which might be used to justify property rights. Power, work, labour, energy are elements often used in order to claim rights. But the interest has to be "legitimate". It needs some normative legitimation. This legitimacy can only be found via meta-rules. Meta-rules are for instance constitutional rules that determine legitimate interests from non-legitimate interests. The Universal Declaration of Human Rights (UDHR) for instance grants:

- Respect for the dignity of human beings (Art. 1)
- Confidentiality (Art. 1, 2, 3, 6)
- Equality of opportunity (Art. 2, 7)
- Privacy (Art. 3, 12)
- Right to freedom of opinion and expression (Art. 19)
- Right to participate in the cultural life of the community (Art. 27)
- Right to the protection of the moral and material interests concerning any scientific, literary or artistic production (Art. 27).

11.4.6 Property rights which are not constitutionally justified cannot be accepted

Let us check constitutional rules for possible justifications. If we take for instance copyright law, the reason for granting exclusive rights is creativity and is thus justified under Art. 27 UDHR. The same applies to patent protection foreseen to protect scientific innovation. Data protection protects the legitimate interests of private citizens to have privacy and determine if and how their personal data are used (Art. 3, 12 UDHR).

But intellectual property rights exist which cannot be clearly justified. Trademark protection for instance has its roots in the protection of consumers and producers against misleading advertisements. Trademarks are protected originally as one element of competition. But why should a society give somebody an exclusive right in a trademark simply on the basis that he is registering the trademark for an unlimited period of time? Or take the database protection provided for in the EU Database Protection Directive. The exclusive right in a database is assigned to the producer of the database, that is to say to the person who put labour, time and/or money in the creation of a database. A lot of people expend much energy to build up things like self-made wooden houses, ships made out of matches, but we don't give them an exclusive right in anything apart from the property in the products used.
Similarly there is no need to protect DRM systems against unauthorized access. The fact somebody used a key for closing a door doesn't give him the right to sue against somebody who is using another key to open it. We protect people against trespassing in their house and garden; but we don't protect the key system as such.

11.4.7 Balance of rights

If we have found a justification for a property right in information, that doesn't mean everything is solved. Exclusive rights intermingle with other exclusive rights; they interfere with fundamental rights protected as well in a constitution. Therefore, we need to find a system for balancing the legitimate interests. The conflicting rights both have, if necessary, to be equally restricted; the opposing protected legal interests must be balanced against each other in each individual case in the light of general and specific considerations. According to the intention of the Constitution, both constitutional concerns are essential aspects of the liberal-democratic order of the Constitution with the result that neither can claim

precedence in principle. The view of humanity taken by the Constitution and the corresponding structure of the community within the State require respect for all conflicting rights. In case of conflict both concerns of the Constitution must be adjusted, if possible; if this cannot be achieved it must be determined which interest must be postponed having regard to the nature of the case and to any special circumstances. For this purpose, both concerns of the Constitution, centred as they are on human dignity, must be regarded as the nucleus of the system of constitutional concerns.

11.4.8 The impact of functionality

Lawyers can learn from technicians that functionality is one integral part of regulation in information law. A policy-decision has to be technically well made. Regulation is a craft in itself. It thus has to be made in a suitable, functional way. Each policy decision has to be evaluated ex ante and ex post in order to check its functionality. Therefore, the technical question of functionality has a regulatory dimension. The question is whether the stated objectives have been achieved. The target of a regulation needs to be analysed and clarified as well as its mechanisms. There are a lot of examples where information law regulations were not made correctly. For instance, the EU Software Directive contains more than 20 technical mistakes.

It has however to be considered that functionality is a necessary, but not sufficient criteria of informational justice. A regulation which is in itself drafted well according to pre-existing policy aims can nevertheless violate informational justice.

11.4.9 The impact of efficiency

The reference made above to fundamental freedoms in general and the proportionality principle in particular has its limitations. These dogmatic instruments do not totally bind the legislator, but they do narrow the parameters within which the legislator remains free to act. Thus the constitutionality of a legislative act by no means implies that it is appropriate or reasonable. The court will only intervene if the unconstitutionality is obvious. Defining a legitimate aim is primarily a task for the legislator, not the court. A court can invalidate the statute only if it is "evidently" not conducive to the legislative aim. It is sufficient for a legislative measure if it is only partly conducive to the end. Therefore additional instruments have

to be found to determine the reasonableness or better the "justness" behind a legislative act.

One element might be the economic analysis of law and its reference to efficiency. As research has shown, economic criteria might indeed be used to determine the reasonableness of legislative acts. Indeed, efficiency is one of the aims of regulation not only in information law. Each policy decision has to be checked whether the outputs are proportionate to costs and resources used. Efficiency also includes sustainability in order to determine whether the benefits achieved last over time. Economic analysis thus helps to obtain quantitative estimates of the likely effects of initiatives on affected groups. Within a Cost Benefit Analysis all negative and positive effects of policy measures on the society can be expressed in monetary values.

However, the commonly used Kaldor-Hicks criteria of economic efficiency tries to measure all interests involved in monetary terms rather than in terms of preference satisfaction. The economic system is open to a wide range of values, but these are incorporated only to the extent that they are reflected in preferences, which in turn can be economically measured. Efficiency presupposes that every human action, desire, interest can be regarded as an element of efficiency. Humans are however not always acting as a homo economicus.[22] They act emotionally; they sometimes are altruistic, their interests are often led by considerations which cannot be classified as rationalistic egoism. Economic theory has a tendency to reduce values to a mere element of efficiency.

11.5 The impact of procedural justice

Procedural justice[23] is concerned with making and implementing decisions according to fair processes.[24] People feel affirmed if the procedures that are

[22] The usability of the concept has been widely discusssed in Germany See Eidenmüller, Der homo oeconomicus und das Schuldrecht, JZ 2005, 216 und 670 against Rittner, Critical remarks, JZ 2005, 668 ff.

[23] Bora, A. (1995): Procedural Justice as a Contested Concept: Sociological Remarks on the Group Value Model. In. Social Justice Research, Vol. 8, No. 2, 175-196; Epp, A, (1998): Divergierende Konzepte von "Verfahrensgerechtigkeit" Eine Kritik der Procedural Justice Forschung. Wissenschaftszentrum Berlin; Röhl, K. F: (1993): Verfahrensgerechtigkeit (Procedural Justice): Einführung in den Themenbereich und Überblick. In: Zeitschrift für Rechtssoziologie 14, H 1, 1-34.; Tyler, T. R. (1988): What is Procedural Justice? Criteria used by citizens to assess the fairness of legal procedures. In: Law and Society Review 22, Vol. 1, 103-135; ders. (1990): Why People obay the Law. New Haven and London. Yale University Press; ders. (1993): Legitimizing unpopular public policies: Does procedure matter? In: Zeitschrift für Rechtssoziologie 14, H. 1, 47-54.

[24] Thomas Hoeren: Was Däubler-Gmelin und Hunzinger gemeinsam haben – Die zehn Verfahrensgebote der Informationsgerechtigkeit, NJW 2002, 3303

adopted treat them with respect and dignity, making it easier to accept even outcomes they do not like. Therefore, the principle of procedural justice is not only binding in the area of parliamentary decisions.[25] The democratic legitimation of parliaments is very important, but not sufficient. Important regulatory decisions are today made within the government, by ministers, counsellors, lobbyists. Due to the changing mechanism of policy-making, it is thus necessary to control the preparatory steps before a policy is discussed and decided upon in parliament as well. This is especially so for the decision-making process in Brussels.[26] Due to the fact that parliamentary control doesn't work at the EU level to the same extent as in the EU Member States, the European Commission and the EU Council of Ministers should be obliged to stick to the rules of procedural justice as well. The lack of procedural justice in Brussels is one of the reasons why the European institutions are regarded widely as remote and secretive.

[25] Teubner, G./Willke, H. (1984): Kontext und Autonomie: Gesellschaftliche Selbststeuerung durch reflexives Recht. In: Zeitschrift für Rechtssoziologie 2/84, 4-35; Willke, H. (1987): Kontextsteuerung durch Recht? Zur Steuerungsfunktion des Rechts in polyzentrischer Gesellschaft. In: Glagow, M./Willke, H. (eds.), Dezentrale Gesellschaftssteuerung. Probleme der Integration polyzentrischer Gesellschaften. Pfaffenweiler: Centaurus Verlagsgesellschaft, 3-26.

[26] Moser, P. / Schneider, G. / Kirchgässner, G. (eds.): Decision Rules in the European Union. A Rational Choice Perspective, Houndsmills, Basingstoke, Macmillan Press, 2000.