Archives in the Service of the People

Peter Seipel

1   Introduction

Over the centuries archives have had to rely on different types of media and different means of recording and communicating information – briefly, from clay tablets to electrons. From the point of view of legal informatics this makes them an interesting object of study. A few words are in place about the rationale.

Legal informatics is defined and practiced in various ways in universities and research institutions around the world. In the Nordic countries one may say that, generally speaking, emphasis is on legal aspects of the uses of information technology in society. In short, this means that issues of interest and matters to study are found both in the context of legal regulation of information processing (usually referred to as *IT law* or *computer law*) and in the context of methods and goals of information processing, including the design and use of information systems and the formation of society's information infrastructure (*legal information theory*). To what degree these two main fields of interest are interconnected is a matter of diverging opinions. The Stockholm school of legal informatics strives to call attention to the links between the two and to view the intersection of regulatory issues and issues of legal information theory as a particularly fruitful field of study for legal informatics.[1] In this perspective, archives and the many issues surrounding them have since long been considered a central field of study. This is, however, not only a question of arguments having to do with scientific strategies, paradigms, and theories. In addition, it must also be pointed out that the far-reaching right of access to official documents stipulated in the Swedish constitution, or, more precisely, in Chapter 2 of the Freedom of the Press Act of 1949, has played and continues to play an important role as a motivating factor.

The development of use of IT in public administration began early in Sweden and also early on generated discussions about the openness of public administration and – generally speaking – the significance for the shaping of openness of new methods for the processing and communication of information.[2]

One of the contributions to this discussion was a report in 1975 to the so called Data Coordination Committee on EDP and law.[3] It was predicted that the possibilities for citizens to obtain access to and use computerised information systems would become an increasingly important constitutional matter and that EDP would contribute to creating a new information environment where many issues would have to be reformulated.[4] Among other things the report suggested

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[1]   *See* sub-section 3.1 and, in particular, footnote 11.

[2]   *See*, for example, Swedish Government Official Reports, SOU 1966:60, *Offentlighet och sekretess* (Openness and Secrecy). The committee that issued the report (Offentlighetskommittén) was quite farsighted and discussed possible positive as well as negative consequences of automated data processing for the right of access to official documents.

[3]   Seipel, Peter, *ADB och juridik. En problemöversikt* (EDP and Law. A Problem Survey), Ds Fi 1975:3, Departementens Offsetcentral, Stockholm 1975.

[4]   Op.cit. at p. 186.

that special "people's data systems" be created in order to provide information services to the citizens:

> "Access to a vast volume of 'raw data' cannot be equated with effective dissemination of knowledge and freedom of information. On the contrary, it will probably be necessary to introduce *special information systems* for every sector where it is considered particularly important to inform and activate the citizens. Such special information systems shall enable the citizens to actually use data in the computer systems of public authorities and also see to it that data of common interest are collected and stored if this is not already the case".[5]

Ideas of this kind have now been around for a long time. To some extent they have been implemented and put into practice, not least during the latest decade when developments in data communications (the *internet effect*) have facilitated mass distribution of information and made possible online contacts between public authorities and the citizens on a scale previously unknown. But progress has been much slower than many observers hoped for in the 1960s and 1970s, not least since our ideas about a 'knowledge society' tend to be less advanced than the technology that inspires them. This judgement holds true both for practical policy making and for the theory of public information systems. Still, there are many reasons to be optimistic and it is in this spirit that the following thoughts about archives in the service of the people have been formulated.

2   Starting Points

The title of this paper seems simple enough – *Archives in the service of the people*. But a closer look will quickly reveal complications. We will take up some of them.

2.1   The Concept of an 'Archive'

As pointed out above, archives have a long history. The historical perspective tells us that archives certainly did not come about as resources for the citizens in general but rather as resources for the rulers or the ruling class. The Greek word *archeion* referred to something physical, a building where the authorities kept their official files. In both antique Greece and Rome a building of this kind was considered to be something of a holy place, a temple.

The roots of the archives go back much longer than to ancient Greece and Rome. The question is – how far back? In the long perspective one can seek the origins in various thousand-year old information carriers that, by the use of pictures and signs, tell about human thoughts, activities and strivings. Examples could be the two meter high stele of the Babylonian emperor Hammurabi filled with inscriptions expressing legal rules with commentaries, and the information about wars, diplomacy, and trade recorded on temple walls, clay tablets and sheets of papyrus on the command of the Egyptian pharaohs. This is the field of

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5   Op.cit. at p. 275-276.

study of special branches of historiography and archaeology such as epigraphy and papyrology. If we continue even farther back in time we reach the caves in for example Lascaux in France where more than a thousand Palaeolithic paintings and inscriptions have been found. What was their purpose? Was it mainly religious? Was it to create some kind of collective memory?

The question is, of course, whether these old paintings, marks, and inscriptions can be considered to be 'archives'. Strictly speaking, they are not, if by 'strictly speaking' we mean what we today perceive as 'archives'. The present-day notion refers to increasingly well-organised collections of documents for administration and government, which have existed for slightly more than one thousand years – the archives of nations, principalities, the church, and so forth. A dividing line between an old period and a modern period is usually associated with the creation, during the French revolution, of the *Archives Nationales* in 1789 and the *Archives Départementales* in 1796. The distinguishing marks of the modern period experts usually find in (a) a uniform administration of diverse archives and archive builders, (b) a more or less far-reaching national responsibility for the activities and (c) access for the citizens to the archives, i.e. openness.

The core of the notion of a modern archive can be described as an organised collection of documents in a wide sense, i.e. records in the form of information carriers of all kinds. The sources of information are likewise of all kinds: public authorities, religious bodies, private associations, interest groups, business enterprises, etc.

In different nations one finds different ways of distributing responsibility and organising activities. These differences are due to a number of circumstances, among them the varying views on what constitutes records in archives, the suitable degree of centralisation, the way to distribute work tasks, the way to organise cooperation between responsible institutions, and so forth. Clearly, such national differences are of interest for a discussion of archives in the service of the people, but they will not be treated here.

To conclude this brief discussion of the concept of an archive, it ought to be pointed out that the field is broad and that it includes not only traditional archives such as the records of a court of justice but also libraries and museums. If we want to give a name to this broad phenomenon it may be called *society's information system for recollection and reflection.*

2.2   Archive Theory

One important component of society's information system for recollection and reflection is the theory or science on which it is based. As far as modern archives are concerned, the development of a science of records control began in the 19th century with France as an important centre. It had important links to historiography, which are worth a few words.

Historiography had not been very successful in establishing itself as a systematic discipline or branch of knowledge in the emerging modern world. Among other things, its strivings in this direction had not impressed leading scientists of the 17th century, among them Renee Déscartes, and attempts to

mimic the natural sciences and formulate general historical theories of the kind found in, for example, Montesquieu's *The Spirit of Laws* (1748) had not (with certain rare exceptions) opened the doors of the universities for historiography. In the 19th century the situation changed, which had much to do with the increasing use by historians of unpublished source materials placed in archives. Theory building could begin with attention focused on the dating of documents, critical evaluation of their authenticity, and interpretation of their contents. In this way, archives became an increasingly important resource for historical research and at the same time archives helped historians develop their field of study and legitimise their discipline. From the opposite point of view, the early development of archive theory was in many ways influenced by its close connection to 19th century historiography and it is easy to understand that the so called *principle of provenance* became the basis of archive theory. In brief, this principle means that the archive materials of each single agency of origin (archive builder) should be treated and kept as one entity and not be broken up and regrouped according to subject matter or other classification criteria. The principle of provenance, thus, has a theoretical underpinning associated with historiography but it must also be pointed out that the reasons for its adoption were to a large extent practical, viz. the hard work and the high costs associated with reorganising archives according to more or less refined and more or less arbitrary principles of classification.[6]

2.3   In the Service of the People

The heading above gives rise to two basic questions: who are *the people,* and what kind of *services* ought to be discussed?

   The people is at the same time an abstraction, an ideological appeal, and a large and varied crowd of individuals with differing needs in different situations of life. Obviously, a discussion of archives in the service of the people may bring up many different themes and place them into different frameworks. Consider the following:

- Archives that make the exercise of power visible and support democracy.

- Archives that are useful not only for specialists but also for a broad circle of ordinary people. Consider, for example, genealogical research and the activities of groups working with local history and geography.

- Archives for minority groups.

- Archives for people who are blind, deaf or otherwise physically disabled.

- Archives for educational institutions and enlightenment in general.

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6   Gränström, Claes, Lundquist, Lennart, Fredriksson, Kerstin, *Arkivlagen. Bakgrund och kommentarer*, Norstedts Juridik AB, Stockholm 2000 at p. 23-24.

Among the many questions of detail there is the one concerning experts as 'go betweens', i.e. the question of whether services should be directly to the people or whether they can also include services through the aid of helpers or representatives of the people such as journalists, politicians, scholars, and librarians. Consider as an example information about risks of infection that may be difficult for laymen to put together and to interpret. In such a case services to the people may consist in making files available to experts who comment on the data and prepare information for broad circulation. In many situations such indirect ways of servicing the people are probably a better way of providing information than simply giving access to raw data or preparing support functions that enable laymen to use raw data themselves (compare the citation from the 1975 report to the Data Coordination Committee above, footnote 5).

All the aspects of services to the people mentioned so far are associated with good purposes – government through the people, enlightenment, social involvement, and so forth. But archives and their services may also be associated with evil purposes. One example, close in time, can be found in the effort of the Nazi regime to cleanse the Aryan race of all individuals of Jewish ancestry. For the Nazis this meant to identify not only baptised Jews but also all ancestral Jews all the way down to one sixteenth biological Jewish origin. This led to a widespread interest in the tracing of ancestry as described by Edwin Black in *IBM and the Holocaust*:

> "Logical or not, everywhere Germany was buzzing with the need to trace ancestry by cross-indexing births, deaths, baptisms, and other data going back generations. Since racial decrees mandated that only Aryans could participate in many walks of life, German individuals, companies, schools, associations of every size and calibre, and even churches, were gripped by the necessity to prove their Aryan purity and to exclude everyone else."[7]

Some people had obvious difficulties of seeing their record keeping profession in a moral perspective and did their professional best to aid in the disgraceful effort. One of them was Jacobus Lentz, Inspector of Population Registries in the Netherlands, whose motto was "to record is to serve". Black describes him in the following way:

> "He was not a Nazi. Those who have studied him have not proven his innate anti-Semitism. Instead, Lentz was a population expert, cocooned in his own stacked and tabulated world of ratios, registration programs, and rattling Hollerith machines. Perfection in human cataloguing was for Lentz more than a matter of pride, it was a crusade."[8]

The multifaceted discussion of archives in the service of the people can be summarised by describing the different possibilities in a three-dimensional space such as this:

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[7] Black, Edwin, *IBM and the Holocaust. How America's Most Powerful Corporation Helped Nazi Germany Count the Jews*, Time Warner, London 2002, p. 115.

[8] Op.cit. at p. 387, 388.

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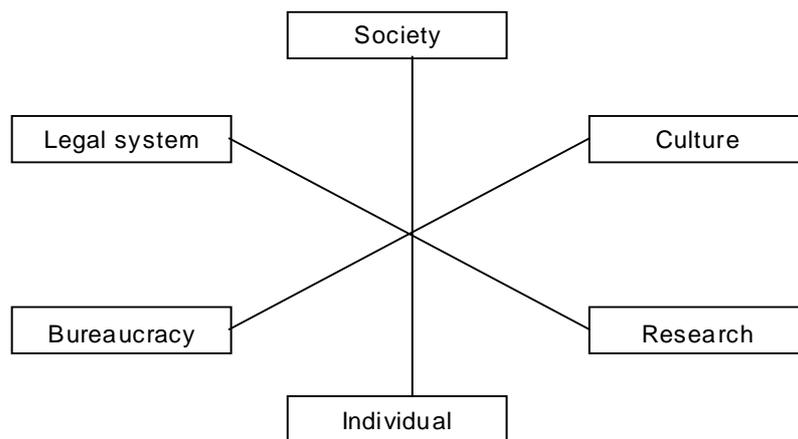
Some examples in the form of possible questions or requests for information may serve to clarify the meaning of the different mixes of interests and frameworks:

a) Legal system, bureaucracy, individual:
   What decisions have been taken by public authorities in cases similar to my own?

b) Legal system, culture, individual:
   Why were a number of women sentenced to death for witchcraft and burned at the stake in 1676 in Stockholm?[9]

c) Bureaucracy, research, society:
   How do the municipalities manage to take care of aging people who are not in need of acute hospital care?

d) Culture, research, individual:
   What persons corresponded with Dagerman and what subjects did the letters take up?

Evidently, a scrutiny of the many possible direct and indirect services to the people will result in a long list of wishes to be met. Since in the practical world there will be economic restraints, it will be necessary to set priorities. In other words, a discussion of archives in the service of the people must consider both the total resources available to the archives and priorities with regard to what kind of services are offered. Among other things, this means that individual demands have to be assessed with regard to their utility from the point of view of *society as a whole*. This discussion, in its turn, will prove complicated since

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[9] The reader may wonder why an individual would be interested in putting a question of this kind. In this case the answer is simple; two of these unfortunate women were my distant relatives, Anna and Britta Seipel (Sippel). The story is told by Per Anders Fogelström, *Häxorna i Katarina* (The Witches in St Catherine) in: Samfundet Sankt Eriks Årsbok 1960, red. Selling, Gösta, Wahlström & Widstrand, Stockholm 1960.

there are many factors and many ways of evaluating usefulness to be considered. Some examples in the form of *pairs of opposites* may be used to illustrate:

- Fiscal interests vs. cultural interests

- Political concerns vs. non-political

- The past vs. the future

The opposites should not be understood as absolute, i.e. dichotomies in the strict sense. Instead, we are talking about different blends of preferences. The first pair of opposites means, in short, that a person favouring fiscal interests opts for visible usefulness, preferably expressed in economic terms, whereas a person favouring cultural interests emphasises spiritual values, mental progress, and the like. Compare, for example, research about the health status of the population with research about its mentality (generally held ideas, attitudes, beliefs, etc.).

As for pair number two, the differences, obviously, have to do with the importance political preferences and values. To opt for 'the political' does not necessarily mean to opt for dictatorial decisions about what the people 'needs to know'. It may mean softer and less controversial standpoints. For example, it could involve favouring the needs of the 'information weak' in society, i.e. to regard information services as a matter of conflicts between social classes. It may also mean efforts to counterbalance commercial information flows or to pay attention to gender aspects of information and information services.

As for pair number three, the historical view emphasises understanding of the passed, how it was, how activities were carried out, what decisions were taken, and so on. The opposite end of the scale strives to place the passed into new perspectives in order to build a platform for future actions and activities. Questions arise about drawing conclusions and formulating experiences and about the use of old data in new constellations according to upcoming information needs. Briefly, cultivation of the past aims at describing how it was whereas cultivation of the future strives to make historical experience useful for the shaping of what is to come. Yet another aspect has to do with differences between the narrative and the analytical.

It would not be difficult to formulate additional pairs of opposites but the three presented here should be sufficient to remind us that the perspective of *society as a whole* is complex and leaves room for different conclusions. Briefly, different players will see things differently.

2.4   Conclusion

Archives have a long history. Applying the grand perspective, one can talk about efforts during thousands of years to use different kinds of physical information carriers to document and store in memory human strivings, ideas and activities. The phenomenon as a whole may be named *society's information system for recollection and reflection*. How we look upon modern archives in this grand perspective is a question of choice of terminology and point of view. To many

observers (including myself) it seems obvious both that archives are of key importance in society and that the different institutions concerned – archive institutions, museums, libraries, research institutions, schools etc. – ought to cooperate as closely as possible. They ought to be guided by a common ideology and have a common theoretical platform.

As for archive theory, the principle of provenance has played an important role and appears to be both methodologically sound and practically motivated. However, classical archive theory appears to be in a state of change. This change is due to a number of factors. Some of them can be associated with general changes of society (such as globalisation and the speeding up of all kinds of activities). Above all, it is by now well-known that information processing has drastically changed in nature due to electronic computing and data communications. The situation of the near future (already partly here) was described in a recent official report issued by the Swedish Arkivutredningen (The Committee on Archives) in 2002:

> "Archives now have a dual nature. They remain physical space with documents, study places and meeting places. At the same time, the new electronic tools used for dealing with matters and for documentation by the organs of the State, municipalities, business enterprises, and organisations have also developed the archives. Archives have turned into virtual institutions offering a variety of services over the network. The competence of archivists, the IT structure of the archives, and their logistics have become increasingly important parts of the notion of an archive.
> The digitalisation of archive materials gives rise to new kinds of 'archive products'. The treasures resting in the archives have through cooperation with the experience industry become online products that via the net give the citizens access to their history. The participation of archive pedagogues in the production of such products have turned them into popular teaching tools both in the schools and for private individuals. New thinking in the world of archives have led to an increased understanding of the importance of the cultural heritage for integration, learning, and development in society."[10]

Given this dynamic situation of on-going change, it is essential that the many issues regarding archives in the service of the people are approached not only with ideological and practical concerns in mind but also theoretical. There is a need to develop archive theory so that it is able to deal with new challenges, including the notion of services to the people. Such a development is already going on. But there are probably not so few who worry about its tardiness.

Another cause for worry has to do with the many different wants and wishes associated with archives in the service of the people. Decisions on priorities are necessary and the criteria for such decisions ought to be clearly accounted for. Ultimately, social needs must show the way but this principle does not always facilitate the search for solutions. An overriding question has to do with the total amount of resources that society ought to make available to the archives.

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10 *Arkiv för alla* (Archives for All), Swedish Government Official Reports, SOU 2002:78, p. 24.

The following discussion will go deeper into some of the aspects of what may be called *the people's archives*. The perspective will be that of legal informatics. A few words are needed to explain what this means.

3   The People's Archives in the Perspective of Legal Informatics

3.1   *Legal Informatics in a Nutshell*

Legal informatics is an interdisciplinary branch of legal science. It seeks its problems and challenges in the intersection of law and information theory, in particular to the extent that the latter focuses on uses of information technology in society. As pointed out in the introduction, the two main branches of legal informatics are *IT law* and *legal information theory*. The former branch is being developed in different directions, which may be more or less stably anchored in traditional legal science. Traditional studies may concern, for example, the protection of property rights in electronic databases or taxation of international electronic commerce. Studies of information regulation of a more advanced kind (from the point of view of the development of the paradigms of legal informatics) may be illustrated with analyses of the relationships between legal regulation on the one hand and the design of information processing systems on the other (in the field of automated public administration, for example). Typical examples of topics in the area of legal information theory are issues of document management and informational issues associated with legal steering in society. The two branches of legal informatics are not isolated from one another. On the contrary, they are interlinked and even to some extent tend to fuse and form a core area of legal informatics where regulatory and informational aspects blend with one another.[11]

Clearly, legal informatics and archive theory are each other's neighbours. There are many contact points and they even share certain problem areas, issues of the management of electronic documents, for example.

3.2   *The New Information Environment*

The development of the people's archives presupposes a good understanding of the new electronic, information environment. Among other things, such an understanding comprises new ways of storing and using data with a view to making them useful for a broad range of purposes. It also comprises ways of avoiding that data become difficult to access or cease to exist although they should have been kept and made accessible.

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[11] The description of legal informatics is compressed, to say the least. *See* for more details and further references: Seipel, Peter, *Computing Law. Perspectives on a New Legal Discipline*, Liber, Stockholm 1977. Seipel, Peter, *IT Law in the Framework of Legal Informatics*. In: Scandinavian Studies in Law, Vol. 48, ed. Wahlgren, Peter. Stockholm Institute for Scandinavian Law, Stockholm 2004 and Seipel, Peter, *Information System Quality as a Legal Concern*. In: Information Quality Regulation: Foundations, Perspectives, and Applications, Ed. Gasser, Urs, Nomos Verlagsgesellschaft, Baden-Baden 2004.

Analyses of the new information environment and its effects on archives and archive theory may be said to have two basic components. One of them focuses on *the most recent developments* of technology and the present-day situation. The other focuses on *the long-range perspective* and seeks to understand the general characteristics of electronic data processing and data communications.

As for the present-day situation, two hot topics are *the semantic web* and *grid computing*.[12] The semantic web means that unintelligent, automated data processing – where, for example, a search for information about 'Helsingfors' will not result in information about 'Helsinki' – step by step is replaced by automated processes based on understanding, logical reasoning, and knowledge about contextual frameworks (for example, that a *sentence* may be the punishment ordered by a court upon a person convicted of a crime). One of the tools used to build the semantic web is notational systems such as XML (Extensible Mark-up Language), which can be used to give the web a syntax and a way of constructing its semantics, such as the basic structure 'subject – verb – object' (Sweden – belongs to – Scandinavia). Other elements are being fetched from artificial intelligence and aim at creating, for example, ontologies – dictionaries containing words with explanations of meaning and simple rules of deduction for different fields of activity (health care, handling of administrative matters, processing of census data, etc.).

The second hot topic, grid computing, aims at large-scale integration of the uses of high speed data networks so that data processing capacity and functionality can be made available on-demand to each user, the advantage being that by such networked pooling of resources the individual user can dispose of more data processing power than the user could have set up alone. Simply put, the data network becomes a powerful, shared supercomputer far more advanced than the dispersed resources of each individual user. Experiments of this kind are being carried out in, among other things, the project *PlanetLab*, which treats the internet as one single, large computer program.[13]

There are other hot topics and topics tend to come and go, often returning under a new name and with a new terminology. Already during the 1960s, for example, the basic blueprints for the semantic web were drawn up.[14] Thus, it is important to make out trends and to understand how they are related to the

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[12] Berners-Lee, Tim, Fischetti, Mark, *Weawing the Web*, Harper, San Francisco, New York,1999, p. 177 et seq. Warren, Paul, *The Next Steps for the WWW. Putting Meaning into the Web*, in: Computing & Control Engineering, April 2003, p. 27-31. Foster, Ian, *The Grid: Computing without Bounds*, in: Scientific American, April 2003, p. 78-85.

[13] PlanetLab is presented as "an open, globally distributed platform for developing, deploying and accessing planetary-scale network services. PlanetLab's goal is to support both short-term experiments and continuously-running network services, and ultimately to develop and demonstrate a new set of network services at planetary scale". *See* www.planet-lab.org.

[14] One example is Licklider, J.C.R., *Libraries of the Future*, The MIT Press, Cambridge 1965. Licklider's discussion focuses on what he calls 'procognitive systems' described in, for example, the following way: "The raw materials or inputs to the 'organizer' are alphanumeric data, geometrical patterns, pictures, time functions, and the like. The outputs of the organized system are expressed in one or more of the input forms, but they are not mere reproductions or translations of particular inputs; they are suggestions, answers to questions, and made-to-order summaries of the kind that a good human assistant might prepare if he had larger and more accurate memory and could process information faster." (p. 25).

general characteristics of information technology. In my view, these general characteristics can be summarised under six headings, viz. automation, information, communication, integration, penetration, and sensation. In sum, *automation* refers to high speed processing without human intervention, *information* refers to the vast volumes of data that serve to convey information, *communication* refers to data networks and online processing, *integration* refers to different kinds of melting together (computers, telecom, and mass media, for example), *penetration* refers to the spreading of IT to all kinds of activities and practices (today usually referred to as 'ubiquitous computing'), and, finally, *sensation* refers to the complex relationships between human beings and the machines they use to facilitate or enable their experiencing, reasoning, playing etc. I will not go deeper into the meaning of these catch words and the associated many issues but limit the discussion to some features of IT-based information processing that are of particular importance for the archives.[15]

One of them has to do with the digitalisation (representation of all kinds of information in the form of ones and zeroes) that is a key element of automated data processing. It tends to lead to *a dissolving of borders* of all kinds, among them organisational borders between different activities in both the public and the private sector. Obviously, developments of this kind will exert pressure on the principle of provenance since it may, among other things, become unclear what are the sources of particular documents and data. Another kind of danger is created by the loss of information through information overload – the more information, the more difficult it is to sort out what is relevant, valuable, useful etc.

Documentation of information systems poses difficulties from the design and construction stage and onwards. From the point of view of archives, there are two aspects that ought to be mentioned. One is that matters of keeping data and creating well-ordered archives should as a rule be dealt with already when information systems are built. This shift of weight from the use stage to the construction stage is a general trait associated with the regulation of IT-based information systems. One may talk about a principle of future-orientation.

Finally, the distinction between *operative and directive information* may be mentioned.[16] Operative information is that information, which is absolutely necessary to carry out a specific task. Directive information serves to improve the quality of activities based on the use of particular information. The two concepts are of interest in connection with the purging of data files, for example. One solution may be to keep only operative information or to keep operative information and a limited sample of directive information.

The short presentation of the general characteristics of IT and the examples above are intended as a reminder that it must be considered a central task for archive theory to clarify how the new information environment affects the development of archives for the people. This task has two aspects. One of them has to do with the fact that public administration and the administration of

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15 For a more detailed discussion of the six attributes and further references, *see* Seipel, Peter, *Information Law in the Framework of Legal Informatics* cited in footnote 11.

16 Langefors, Börje, *Theoretical Analysis of Information Systems, Vol. 1*, 2nd ed., Studentlitteratur, Lund 1967, p. 150-158.

justice as well as business activities and private life are all changing and taking on new shapes. Whether one likes it or not, this means that the process of creating and using archives is also changing – from the first recording of data and all the way onwards.

The second aspect, which is not clearly distinct from the first one, means that expanded archive services to the people presuppose that archivists themselves participate in the development and trying out of new methods such as new ways of catching data, basic technical and other standards (regarding data formats, system documentation etc.), retrieval tools, man/machine interfaces, and so forth. It should be noted that this is not only a question of adding some general technical knowledge to traditional archive theory but also a question of developing archive theory as such. Such a development is already underway but it is urgent that it accelerates.

3.3 *A Necessary Adaptation*

The question of how archives and archive theory may be developed is complex and it is easy to get lost in details: for example, there is the question of electronic mark-up languages (see above), the question of technologies for authentication, the question of strategies to deal with information overload, and the question of terminology and standards. Here we will concentrate on two principal issues that are of clear importance for the development of archives in the service of the people. More precisely, an attempt will be made to explain why it is not only important but even *necessary* that archives and archive theory are developed with a view to producing increasingly better services to the general public and what this means in practice.

The first reason has been alluded to already. It has been commented on by, among others, the Committee on Archives in its 2002 report mentioned above. It has to do with the widespread use of electronic data by public authorities, courts and other organs in the public sector and all kinds of organisations in the private sector. The tendency is in the direction of more or less complete dependence on information and communication technology and the trend is boosted by the many interdependencies between public and private subjects which necessarily lead to informational cooperation based on electronic data. A typical example is the Swedish customs authorities, which during recent years have switched to electronic handling of all kinds of information and services not because this was necessary for the customs authorities themselves but because the transformation was required by importing and exporting firms using electronic procedures in all their activities: the intercourse with customs authorities simply could not remain an isolated island of manual data processing.

An expression of the strivings may be found in a report of the Swedish Information Technology Commission titled *Broad Services – A New Stage of IT Politics*.[17] The commission recommends that action be taken to develop electronic services that reach, directly or indirectly, a large number of people

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17 The report is in Swedish: *Breddtjänster – Ett nytt skede i IT-politiken*, Swedish Government Official Reports, SOU 2002:51.

and are clearly useful to them all. Such services, which may be called *information utilities*, ought to be based on combinations of information from many sources in the public and private sectors. Some examples are geographical information services of various kinds based on electronic maps, land survey data, location data, and so forth; information about motor vehicles for the police, insurance companies, car sellers etc.; and information about health and health care for planning, treatment, research, development of medical products and services etc.

Information utilities of this kind are seen as important in all developed countries. But when such services are being developed there is a tendency to forget that day-to-day usefulness is not the only goal to be obtained. In addition, the information systems must also be *open*, *safe*, and *legal*. Among other things this means that the costs of creating archives should be taken into account and resources allocated when information systems are being developed. One way of safeguarding this is to impose an *archive levy* related to the volume of data processed in a particular system. This would contribute to making it clear that information utilities give rise to costs associated with the creation and maintenance of archives. One may compare with, for example, levies on storage media such as videotapes and compact discs to compensate copyright owners for loss of revenues associated with private copying, environment protection levies on energy consumption, and scrap levies on motor vehicles.

To summarise: the expansion of all kinds of electronic information utilities in society should not take place with disregard for society's information system for recollection and reflection. In other words, archives are not an unnecessary burden – they complement day-to-day activities and they are important elements of well-balanced, i.e. open, safe and legal, information utilities.

Another argument for the importance of archives is perhaps less obvious and is associated with system theory and, in particular, the theory of steering in complex organisations.[18]

A basic hypothesis of system theory states that in all dynamic systems, i.e. systems which undergo change, the information subsystems are of critical significance for the total performance. Because of the complexity of modern, human societies and their environment, steering, change, and adjustment require well-functioning information systems of a very high quality. Deficient societal information systems lead to risks of a "drift to low performance" and it has been pointed out that the generally low capacity to guide societal processes, especially societal change, can be traced to deficiencies in steering processes. Briefly: "Without accurate information about the current states of societal subsystems and components, optimal guidance and control of a society are not possible." [19]

One way of stating this need for well-functioning information systems is the principle of so called *requisite variety*.[20] Briefly, it means that any steering

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18 The theory of steering is also known as *cybernetics* and constitutes a special branch of general system theory.

19 Miller, James G., *Living Systems*, McGraw-Hill, New York 1978, p. 747, 785-786, 892-893 (with further references).

20 Beer, Stafford, *Cybernetics and Management*, The English Universities Press, London 1965, p. 50, 144: "Only variety in the control mechanism can deal successfully with variety in the

system must be more complex than the system which it purports to steer. All goals, situations and states, alternative choices etc. related to the system to be steered must be within what we may call the information range of the steering system. If the information subsystem of the steering system is hampered by a lack of information or by distorted information, then the steering system as a whole will most likely be lacking in requisite variety.

To better understand these abstract concepts, one may think of a sailing ship navigating from harbour to harbour. The ship is an "open system" affected by winds, waves and streams. Its steering system consists of, among other things, information subsystems such as navigation skills, charts, and a compass. According to the principle of requisite variety, navigation skills should include, among other things, knowledge about bad-weather sailing, and a chart is deficient if, for example, it does not indicate the tides, and a compass can fail due to declination. A human society is, of course, much more complex and difficult to describe in terms of steering. It suffices to glance at the many information systems that support steering: systems for official statistics, systems for public debate, systems for recollection and reflection, and so on. These systems must all live up to the principle of requisite variety. In practice this involves a number of requirements or quality criteria. There must, for example, exist a large number of open sources of information containing a rich variety of data. The information sources should be free from errors, delays and information overload. They should be available to a large number of organs and individuals at a low cost. The processes of obtaining, interpreting, and disseminating data must not be distorted, and so on.[21]

Against this background, archives – and, generally, society's information system for recollection and reflection – constitute key components of the steering system of a society, which means that they should be assessed according to the principle of requisite variety. More specifically, archives ought to be organised not only to account for history but also to assist in learning from the past, building new knowledge, placing today's problems into the context of the past, and the like.

A useful parallel is human recollection. It is characterised not so much by retrieving memories fixed once and for all in the mind (frozen impressions) as by a dynamic (re)construction of memories, a process that is to varying degrees steered by the context and the situations where the re-collection takes place.[22] Human memory, it may be said, is an instrument for *survival* rather than *revival*. The human brain is the answer of evolution to the law of nature that the only thing that can be foreseen is that life is unforeseeable. Memory would be worth little if it could not be related to new challenges and changed conditions. Thus, in the perspective of steering theory, memory – the collective as well as the individual – has obligations both to the past and to the future.

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system controlled." (p. 50). Beer refers to W. Ross Ashby who named the principle 'the *law of requisite variety*'.

21 *Cf.* Miller, James G. Op. cit. at p. 788.

22 *See*, for example, Engel, Susan, *Context is Everything. The Nature of Memory*, W.H.Freeman, New York 1999.

What this means exactly remains to be discussed and developed. How can one, as it is expressed in a report on long-range keeping of digital records "prepare oneself to administer tomorrow's documents in new, challenging ways?"[23] Among other things, the task consists in clarifying what future-orientation means in different areas of application of information technology – compare, for example, health care with crime prevention. Experiences from the private sector may become usable, viz. efforts to use databases as key elements of an on-going strive to develop and adapt business processes to new goals and changing conditions.[24]

The conclusion is that the traditional principle of provenance ought to be reassessed and complemented with other principles based on the possibilities opened by electronic archives and the new challenges facing society's information system for recollection and reflection. Generally speaking, in my view there is a need for complementing the principle of provenance with *a principle of progression*, where *progression* (latin = progressio) refers to development and steps forward and marks the possibilities of archives to aid in learning from the past.

A simple table structuring the tasks of archives viewed in this perspective should be sufficient to summarise the above:

	The past	The present	The future
Technical	A	C	E
Logical issues	B	D	F

The following are some typical examples of activities in each of the cells of the table:

A = Digitalise and migrate archive materials.[25]
B = Describe old reality as it once was.
C = Follow recent developments of information technology (see above about "hot topics").

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23 *Långsiktigt bevarande av digital arkivinformation*, Swedish Government Official Reports, SOU 2002:78, p. 184.

24 Compare the following statement regarding private sector records: "The goals of long-term electronic management of information are that electronic archives fulfil today's requirements on authenticity, legal status, security and reliability, and that they can also be used in the operational business activities as a "corporate memory" with advanced navigation and search functions. It is the latter that make an electronic archive superior to a paper-based traditional archive, both in functional and economical terms." *Swedish National Archives and Astra AB. Workshop on Electronic Archiving*, ed. Andersson, Ulf, Skrifter utgivna av Svenska Riksarkivet 15. Astra AB & Riksarkivet, Stockholm 1997, at p. 22.

25 *Migrate* means to move digitalised material from one storage medium to another in order ensure that the material remains readable and usable over the years notwithstanding technological changes (new storage media etc.).

D = Cooperation between various institutions (traditional archives, libraries, museums, schools, and the like).

E = Prepare for recording data in future information systems.

F = Simulate possible futures with the aid of historical data.

4 Issues in IT Law

4.1 General Remarks

The previous discussion has focused on the tasks of the archives and how these tasks are related to the new information environment. Attention will now switch to some central problems having to do with legal regulation of significance for the archives. Two aspects will be dealt with, viz. that legal regulation may either *support* or *impede* the creation and use of archives. An analysis of this kind could be made very broad and cover all kinds of legislation, encompassing, for example, such diverse fields as the organisation of archives, public administration, official statistics, obligatory deposit of copies of texts, films etc., and bookkeeping and reporting of business enterprises. The following comments will, however, be limited to three areas of law, viz. rights of access to official documents, protection of personal data, and copyright. The first-mentioned will serve to illustrate possibly helpful regulation, the other two will illustrate possible hindrances.

4.2 The Right of Access to Official Documents

The right of access to official documents has a long history in Sweden.[26] It is also far-reaching compared to what is common in many other countries. The details of the history and the present situation will not be treated here since focus will be only on some ways in which the regulation supports or can support the creation and use of archives.[27] The general significance of the right of access for democracy is taken for granted, which means that many central principles will not be dealt with – for example, that the right of access forms an important part of freedom of information and should be protected by law, that the right of access should apply to information regardless of the medium used for recording it, and that archives should serve the interests of the citizens and not only the interests of the public authorities.

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[26] The first Swedish law on administrative openness was enacted in 1766. The present regulation is found in Chapter 2 of the 1949 Freedom of the Press Act, which is a part of the Swedish constitution (fundamental laws). Similar legislation can be found in all the Nordic countries, where Finland and Sweden share the long tradition of openness.

[27] For a more detailed, general account, *see*, for example, Seipel, Peter, *The Technology of Insight. Computers and Informed Citizens*, in: Chicago Kent Law Review. Vol. 69 (1993) No. 2, 417, and Seipel, Peter, *Access Laws in a Flux*, in: Law and Information Technology. Swedish Views. An Anthology produced by the IT Law Observatory of the Swedish ICT Commission, Swedish Government Official Reports, SOU 2002:112. Ed. Seipel, Peter, Fritzes Offentliga Publikationer, Stockholm 2002.

The issues that will be taken up are the following five:

- Archives as a parts of public information systems

- Access for many people

- Assistance and help

- Different degrees of openness

- Priorities

The importance of taking archives into consideration when information systems are being planned and designed has been commented on above in connection with information utilities. It is an important *general concern* and this is reflected in, for example, the Freedom of the Press Act of 1949, the Swedish Secrecy Act of 1980, where chapter 15 contains special provisions regarding 'recordings for automated processing', and the Swedish Public Records Act of 1990. In sum, the notion of official documents constitutes the basis of both the right of access and the creation and management of archives. More precisely, this means that archives are made up of, in principle, all official documents and that archives are to be kept and maintained so that they comply with the right of access, the information needs of courts and public administration organs, and scientific research. Data that constitute official documents may be purged but only to the extent that the remaining data can fulfil the purposes just mentioned.[28]

Thus, in theory valid Swedish law sets up a helpful framework for building archives that are well-integrated parts of the information systems of public organs.[29] Experience shows, however, that in practice there may be difficulties and weaknesses resulting from a lack of understanding of the requirements and how they ought to be met, for example. The level of ambition may also vary.[30]

The issue of access for many people has changed in nature due to the effects of new information technologies. The traditional way of arranging for access, i.e. physical visits to archives, is giving way to electronic visits. The development

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28 *Swedish National Archives and Astra AB. Workshop on Electronic Archiving*, ed. Andersson, Ulf, Skrifter utgivna av Svenska Riksarkivet 15. Astra AB & Riksarkivet, Stockholm 1997 summarises the situation in the following way: "The preservation of public information is to a large extent guided by legislation. What is considered as official documents and how appraisal should be performed is formally stipulated. Together with our western cultural tradition this legislation provides us with an excellent platform for participation in the records creation in state and municipal agencies, thus answering to demands for transparency and freedom of information." at p. 9.

29 Improvements of the legislation have recently been proposed in *Ordning och reda bland allmänna handlingar* (Orderly Official Documents), Swedish Government Official Reports, SOU 2002:97. It is suggested that the provisions in the Secrecy Act regarding the registration of official documents etc. and provisions of the Public Records Act be integrated into a new Management of Official Documents Act.

30 One of the reasons behind the proposal mentioned in footnote 29 is that the present regulation is not sufficiently easy to survey and to understand. *See* op.cit. p. 17-18.

began in the 1970s and 1980s with possibilities of using 'citizens' computer terminals' on the premises of archive keepers or at special 'citizens offices' set up by the municipalities.[31] In the 1990s, the WWW big bang has radically changed the situation and it is becoming increasingly common that archives go virtual, i.e. that they begin to offer all kinds of net-based services that do not require physical visits. These efforts will most likely continue and they can be extended in different directions. For example, it is possible for archive organs to offer consulting services and set up specialised web hotels for archive builders who cannot themselves organise and maintain online archives. For example, a private interest group or association may use this way to inform about its existence and make available records intended for public discussion.

As for *assistance and help*, valid Swedish law contains some provisions concerning documentation of archives and limited services to help-seeking individuals. It seems, however, obvious that much remains to be done not least in order to develop the general competence of citizens to use and learn from information in archives. It may be said that this task forms part of the development of the principle of progression that was commented on above.

The background of the question of *different degrees of openness* is that in many legal systems the right of access is limited to administrative documents or to documents that belong to a case, or some similar restriction. The Swedish regulation is more generous and may be described in terms of three possible categories of access.[32] They are: case-oriented access, activity-oriented access, and knowledge-oriented access. The first category is the basic one and restricts access to documents that belong to a particular case or administrative matter. In its most restrictive form it can only be made use of by the parties to the case. The second category allows access to any kind of information that is related to the activities of a particular organ. The purpose of openness may be more or less limited; it may, for example, comprise only information that serves to assess the performance of the organ at issue but not information that is asked for because of its commercial value. Finally, knowledge-oriented openness allows access to any records kept by a public authority and no limits are set with regard to the possible uses of the information. Its rationale is that the information resources of the public sector are to be regarded as a common good that should be open to access and use for anybody.

Access rights according to Swedish law extend all the way from case-orientation to knowledge-orientation. Just how far is a matter of some uncertainty and, of course, of different opinions. This, on the whole, generous stance corresponds with the democratic interest in open government and may

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[31] According to Section 15:9 of the Swedish Secrecy Act of 1980, public authorities should, when organising their data processing, pay attention to the interest of individuals to use the terminals of public authorities to access official documents. Moreover, according to Section 15:10 of the same act, public authorities should grant requests by individuals to use terminals on their own to access electronic records, unless there are obstacles in the form of secrecy requirements, risks of tampering with or destruction of records, or disturbance of ordinary work routines.

[32] Seipel, Peter, *ADB-upptagningars offentlighet* (Access to Computer Recordings), IRI-rapport 1988:1, Institutet för rättsinformatik, Stockholm, 1988 (also appended to Swedish Government Official Reports, SOU 1988:64).

also be seen as beneficial from the point of view of the principle of requisite variety as described above.

Finally, the question of *priorities* is related to all the four other questions that have been treated above. For example, it seems logical that the degree of importance of various kinds of access can and should affect decisions regarding the way in which archives are organised and integrated into the information systems of public authorities, how access is arranged for, and what kind of assistance and help it is considered necessary to provide. Judgments regarding the proper degree of openness can also be influenced by the significance of the information. For example, it is considered particularly important that journals and similar registries of documents are always open for inspection and searches.

One of the aspects pertaining to priorities has to do with the notions of *basic information services* and *value-added information services*. In the view of some observers, public authorities should only engage themselves in basic information services, i.e. only give access to raw (unrefined) data whereas value-added or refined information and information services should be provided by the commercial sector.[33] In practice, and due not least to changes in available information technology, such a distinction has proved difficult to uphold. Today, it is generally accepted that public authorities can very well develop and offer value-added services that are (more or less) closely related to their areas of activity and to the kind of basic data that they generate. It may be a question of putting together commentaries, providing explanations, links to related information, chronological ordering, and so forth. From the point of view of archives in the service of the people it appears to be important that public authorities are not inhibited by rigid ideas about dividing lines between the public and the private sector.

4.3 *Protection of Personal Data*

Archives in the service of the people have a duty both to cater for generous access to information and to protect information that is related to the private life of individuals. The balancing of these two interests has generated much discussion and is regulated both in national legislation and in international instruments such as the data protection directive of the European Union (95/46/EC) and the recommendation of the Council of Europe on access to official documents.[34] The following discussion will be limited to some general viewpoints on the possible conflicts between personal data protection and the creation and use of archives.

Given its main purpose, it should not surprise that the data protection directive does not elaborate on the value of archives for society. Recitals 29 and 72 refer in general terms to the possibility of creating archives in the private and the public sectors while article 7 (e) signals that the interests of the data subjects

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[33] For an example, *see Guidelines for improving the synergy between the public and private sectors in the information market*. Commission of the European Communities. Office for Official Publications of the EC, Luxembourg 1989.

[34] Recommendation , No. R (2002) 2 of the Committee of Ministers.

may have to give way to interests associated with tasks "carried out in the public interest". It is a common view that the latter also includes 'historical purposes', i.e. the creation and use of archives.[35]

A principal difficulty has to do with the purpose specification principle, which may be seen as a basic element of the protection of the privacy of individuals. In the OECD guidelines of 1980 governing the protection of privacy and transborder flows of personal data the principle is stated in the following way:[36]

"The purposes for which personal data are collected should be specified not later than at the time of data collection and the subsequent use limited to the fulfilment of those purposes or such others as are not incompatible with those purposes and as are specified on each occasion of change of purpose."

In the data protection directive, article 6 (b) states that personal data must be collected "for specified, explicit and legitimate purposes and not further processed in a way incompatible with those purposes. Further processing of data for historical, statistical or scientific purposes shall not be considered as incompatible provided that Member States provide appropriate safeguards." Article 6 also states that personal data must not be kept in a form that permits identification of data subjects for longer than is necessary for the purposes for which the data were collected or for which they are further processed. Appropriate safeguards shall be laid down for personal data stored for longer periods for historical, statistical or scientific use.

It follows from the above that the purpose specification principle does not rigidly prevent that personal data can be kept in archives and used for purposes that are not identical to the ones for which they were originally collected. The crucial concept, according to both the OECD guidelines and the EU data protection directive, is *compatibility* and the data protection directive also adds a requirement regarding *appropriate safeguards*. The Swedish Personal Data Act (1998:204) makes use of the exemptions and contains provisions on the use of data for historical, statistical or scientific purposes that limit the scope of the purpose specification principle in relation to archives.[37] Nevertheless, there are worries that the purpose specification principle leads to widespread and early purging of data that ought to have been kept, often prescribed in statutes regulating the data processing activities of particular public authorities. The Swedish National Archives has referred to this predicament as "a right of access to documents without documents".[38]

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[35] Recital 29 refers to further processing of personal data for historical, statistical or scientific purposes and recital 72 allows the principle of public access to official documents to be taken into account when implementing the principles set out in the directive. In the Swedish view, recital 72 is considered particularly important and is seen a general permit for public authorities to create archives.

[36] The OECD guidelines of 23 September 1980 set out a number of "basic principles of national application". The basic idea of the guidelines is to distinguish between *principles* and *machinery*, i.e. to leave it to the member states how they wish to implement the principles. *See* Seipel, Peter, *Transborder Flows of Personal Data. Reflections on the OECD Guidelines*, in: Transnational Data Report, Vol IV (1981) No. 1, 32.

[37] In particular Sec. 8 and 9 of the Personal Data Act.

[38] Seipel, Peter, *Det nya handlingsrummet* (The New Document Space), in: Handlings-

A typical situation that illustrates the difficulties in practice concerns data collection by way of fishing expeditions on the internet. Since the information obtained can no doubt be harmful to individuals but can also be of high value from the historical point of view, it needs to be regulated in more detail. In Sweden the Royal Library is engaged in such a project, at the outset relying only on the general principles set out in the Personal Data Act but later regulated in a special ordinance.[39] The ordinance allows use of robot technology to collect, keep, and provide access to the national digital heritage or, more precisely, "the Swedish material that is published on the Internet". This material is defined as material that can be related to Sweden through linkages such as address, addressee, language, author or sender (Sec. 2). The permissible purpose of the project is to meet needs of scientific research and information (Sec. 5).

The database is regulated in several ways (Sec. 7-11): The database may only contain personal data that have been made public through publishing in the Swedish material on the internet. Data may be delivered on media for automatic processing only if they are to be used for scientific research. Direct access to the database of the project is only allowed via terminals on the premises of the Royal Library. Sensitive personal data according to the Personal Data Act may not be used as search arguments.

The ordinance raises many interesting issues. One of them shall stand for the rest, viz. the issue of the notion of scientific research. The common view is that only professional or institutional activities are included. But it may also happen that private persons engage in work that meets the conditions of scholarship, importance, and social value and thus can be accepted.[40] Not least in the perspective of the principle of progression as developed in this article, it appears to be important that liberal thinking prevails, both in this particular case and in general.[41]

4.4   Archives and Copyright

Copyright legislation creates monopoly rights and aims at securing remuneration to authors of literary and artistic works, producers of databases, producers of movies, performers of music, and a number of other categories of right owners as recognised in international agreements and national laws. The basic monopoly rights afforded are broad in scope and include the right of reproduction, i.e. the production of copies, and the right of making works and other subject matter

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offentlighet utan handlingar? Riksarkivet, Stockholm 2004 (Skrifter utgivna av Riksarkivet nr. 21).

[39] Förordning (2002:287) om behandling av personuppgifter i Kungl. bibliotekets digitala kulturarvsprojekt (ordinance on the processing of personal data in the digital cultural inheritance project of the Royal Library).

[40] *Cf.* Öman, Sören, Lindblom, Hans-Olof, *Personuppgiftslagen*, 2 ed., Norstedts Juridik AB, Stockholm 2001, at p. 103.

[41] Consider the case of the North American housewife *Mae Brussell* who devoted seven years to creating a comprehensive index, containing more than 20,000 entries, to the 26 volume Warren report on the murder of president Kennedy. *See* "www.prouty.org/brussell/".

available to the public both by distribution of tangible articles such as books and by other means of distribution, computer networks, for example.

The copyright system contains a basic conflict. On the one hand, its aim is to promote culture and education, on the other hand the instrument that it uses is commercial rights that may even come close to information monopolies. The conflict is visible in many ways and continues to engage people in all quarters – lobby groups in the entertainment sector, the publishing industry, politicians, librarians, scholars, and so on.[42] In recital 22 of the EC directive on the harmonisation of certain aspects of copyright and related rights in the information society (2001/29/EC), the so called information society directive or infosoc directive, the conflict surfaces in the following formulation:

"The objective of proper support for the dissemination of culture must not be achieved by sacrificing strict protection of rights or by tolerating illegal forms of distribution of counterfeited or pirated works."

To solve the conflict and balance the opposing interests, which may be summarised as freedom of information interests, exceptions and limitations are needed to the benefit of, among others, public institutions such as archives and libraries. This balancing of interests has always been a delicate task. With the advent of computers and data networks it has become even more complicated and sensitive. In fact, this is one of the main reasons why the information society directive has come about. In the perspective of recital 31:

"The existing exceptions and limitations to the rights as set out by Member States have to be reassessed in the light of the new electronic environment. Existing differences in the exceptions and limitations to certain restricted acts have direct negative effects on the functioning of the internal market of copyright and related rights."

This is not the place to go into the many complicated matters embedded in existing copyright legislation and the information society directive. The following brief remarks will be limited to the main theme of this article.

In the copyright discussion information technology is often described as a *threat* to the interests of authors and other right owners. It enables the production of perfect copies at a high speed and, not least, the dissemination at an almost negligible cost and on a global scale of legally protected works and other subject matter.[43] On the other hand, technological measures are being developed that intend to make it possible for rightholders to prevent and restrict unauthorised acts. Such measures may in their turn be perceived as threats to freedom of information interests since they may both lead to invasive systems for the management of rights and payments and, in practice, set up technical barriers that make it difficult or impossible for ordinary users to exploit existing exceptions and limitations to monopoly rights. The technological protections

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[42] *See*, for example, Lessig, Lawrence *The Future of Ideas*, Random House, New York 2001. A Swedish perspective may be found in Seipel, Peter *Upphovsrätten, informationstekniken och kunskapsbygget*, in: Vitterhetsakademiens årsbok 1998, Vitterhetsakademien, Stockholm 1998 (An English translation is available in Scandinavian Studies in Law, Vol. 47, ed. Wahlgren, Peter, Stockholm Institute for Scandinavian Law, Stockholm 2002 titled *Copyright, Information Technology, and the Edifice of Knowledge*).

[43] Shapiro, Carl and Varian, Hal R., *Information Rules. A Strategic Guide to the Network Economy*, Harvard Business School Press, Boston 1999 p. 3-5, 83 et seq.

(rights management systems) may in their turn be circumvented by code breaking devices etc. What will be the outcome of this battle is still uncertain. What is essential, it seems to me, is to look beyond the threats and counter-threats viewed in the dominant perspective of the entertainment industry and to strive to deepen our understanding of the *possibilities* of information technology for society as a whole. What should be the shape and the goals of the heralded *information society*? What does recital 8 of the information society directive mean when it states that the various social, societal and cultural implications of the information society require that account be taken of the specific features of the content of products and services? If taken seriously, questions of this sort will, one can hope, lead to a design of copyright protection in the new electronic environment that does not inappropriately interfere with society's information system for recollection and reflection.

Above all, existing exceptions in the favour of archives, libraries, museums and the like ought to be re-assessed in the light of the possibilities opened by information technology to develop new services and to put the principle of progression into practice. Particular attention will then have to be paid to possibilities of using records in new and alternative ways, possibilities of developing value-added services based on official so called raw data (see above), collection by robots of materials from data networks, online availability of archives for a broad audience, and migration of records to keep them alive in new technological settings. Matters of detail as well as matters of principle are involved. As for details, there is uncertainty with regard to, for example, the international scope of national regulation of rights to preserve materials on data networks, and the situation of computer programs, which enjoy particularly strong copyright protection and which may form parts of the content fetched from the net. At the level of principles, there is, of course, the question of resources. The development of advanced information services is costly and it may be necessary to compensate right owners for the use of their materials. As discussed earlier, there are good reasons to view such public expenses as necessary in a complex society in need of good steering mechanisms. To the arguments presented above may also be added the wish to avoid clefts between the information rich and the information poor. The people's archives are there for everybody.

5   Summing up

It is hardly a matter of controversy that official archives belong to the people. The question is what this means in practice and, not least, in a new, electronic information environment. The article has dealt with some aspects of this question and will end with three theses:

The first thesis proclaims that the development of an information society based on electronic administration and all kinds of information utilities must be *well-balanced* and *legal*. Society's information system for recollection and reflection contributes to the balancing to the extent that it broadens the perspective to include the future and, in doing so, counters myopic preoccupation with the past and with the present.

Legality has to do with, above all, obligations of institutions to cater for the creation, maintenance, and availability of official archives. Legality, of course, also means that other legal requirements such as the ones commented on above (privacy, copyright) are to be respected. This latter aspect also involves an element of balancing in the sense that different competing interests are weighed against one another.

The second thesis states that society's information system for recollection and reflection is, in the same way as the individual's memory, not a luxury to be had or not had but *a basic prerequisite for survival*. Good arguments for this view can be found in general information system theory and, in particular, in the theory of steering in complex living systems such as a human society.

The third thesis claims that *archive theory* must live up to the challenges of the new electronic environment and develop its paradigms and interdisciplinary contacts, including its contacts with legal informatics. From the point of view of legal informatics, such contact seeking is more than welcome.