In the last two decades the archival profession has been bombarded with the idea of a fundamental change in thinking which, according to the believers has taken the shape of a real paradigm shift. The title of this round table also takes the idea of a paradigm shift as a premise. The aim of this round table is not to discuss the notion of a paradigm shift as such, but instead to shed more light on the question whether and how a ‘paradigm shift’ in archival thinking has been implemented in recordkeeping practices. I however consider it is absolutely necessary to make some remarks on the concepts of ‘paradigm’ and ‘paradigm shift’ before turning to the topic of appraisal within the records continuum. I have two reasons for doing this: the first one has to do with my personal astonishment by the use of the term paradigm in archival literature. In my opinion archival scholars pay too much attention to the idea of a paradigm shift as if it were the object of research. Although some elucidative articles have been written about the paradigmatic changes in archival thinking, I am amazed and amused at the same time by the fact that many publications, instead of trying to make contribution to the puzzles awaiting to be resolved, are so eager to show that there is a paradigm shift taking place within archival science. The second reason is that Kuhn’s concepts and theory have predominantly been used only on partial ground and sometimes in a rather sloppy way. If we want to use the Kuhnian concept of the paradigm shift, we should pay more attention to the crucial relationship between the scientific and professional communities and the respective paradigms used by these different communities. Only then will we be able to understand the real meaning of Kuhn’s ideas.

Paradigm: a problematic term

The Greek word ‘paradeigma’ which means ‘exemplar’ attained its current significance due to Thomas Kuhn’s influential book *The Structure of Scientific Revolutions* that was published more than half a century ago. According to Kuhn scientific knowledge does not develop in a

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1 For instance: Sue McKemmish, ‘Placing Records Continuum Theory and Practice’ in *Archival Science* 1 (2002) 333-359 and Terry Cook, ‘What is past is prologue: a history of archival ideas since 1898 and the future paradigm shift’ in *Archivaria*
linear and continuous way. He claims that progress of science is marked by radical discontinuities and he distinguishes three stages of scientific development: pre-science, normal science and scientific revolution or extraordinary science. The central element in these three stages is the concept of the paradigm: the set of values and beliefs scholars of a community\(^2\) share and use to explain and to understand the world. As long as the members within a scientific community observe, frame and analyse the world via the same set of basic values and beliefs, or maybe better said, see the world through the same lenses, and as long as they are able to conduct research and explain their studied objects with these shared beliefs, they are working within what Kuhn calls ‘normal science’. When a scientific community is confronted with problematic anomalies that seriously undermine the existing set of beliefs on which the scientific community has founded its scientific practices, there is crisis and this is the starting point for finding a new paradigm that is able to explain the anomalies. This change from an existing paradigm via the stage of a crisis to a new paradigm is the much discussed paradigm shift and the revolutionary element of Kuhn’s theory.\(^3\) Interesting however is that Kuhn more than once admitted that he had lost control of the word paradigm. Linguist and philosopher Margaret Masterman discovered as many as 21 different uses of the word in Kuhn’s book and she categorized them in three main groups: metaphysical-, sociological-, and construct paradigms.\(^4\) Thanks to Masterman it becomes clear that the real relevant Kuhnian paradigm is in fact the construct paradigm. She writes: “[if] we ask what a Kuhnian paradigm is, Kuhn’s habit of multiple definition poses a problem. If we ask, however, what a paradigm does, it becomes clear at once (...) that the construct sense of "paradigm", and not the metaphysical sense (...) is the fundamental one. For only

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\(^2\) The scientific community is a crucial entity in the understanding of a paradigm. In a postscript of his book, written in 1969, Kuhn stressed the importance of the community. ‘A paradigm governs, in the first instance not a subject matter but rather a group of practitioners. Any study of paradigm-directed or of paradigm-shattering research must begin by locating the responsible group or groups’ (page 179). And to know what a paradigm is, it is necessary to connect it to the community: ‘A paradigm is what the members of a scientific community share, and, conversely, a scientific community consists of men who share a paradigm’. (page 175).

\(^3\) Kuhn wrote: ‘Confronted with anomaly or with crisis, scientists take a different attitude towards existing paradigms, and the nature of their research changes accordingly. The proliferation of competing articulations, the willingness to try anything, the expression of explicit discontent, the recourse to philosophy and to debate over fundamentals, all these are symptoms of a transition from normal to extraordinary research. It is upon their existence more than upon that of revolutions that the notion of normal science depends.’ Thomas Kuhn, The Structure of Scientific Revolutions, 4th edition (Chicago and London 2012) 91.

with an artifact can you solve puzzles”. This last remark is a fundamental one. Kuhn claims that normal scientific research ‘is directed to the articulation of those phenomena and theories that the paradigm already supplies’. This means that puzzle solving is the distinctive feature of what most scientists do. Most scientists do not aim at inventing new theories, but organizing their research within existing theoretical boundaries. Put it in a simplified form as Kuhn himself has done: normal science focuses on the pieces that belong to one and the same puzzle box and scholars try to solve the puzzle according to the agreed rules of the game, based on shared assumptions. Kuhn makes this perfectly clear by stating that a jigsaw puzzle whose pieces belong to two different puzzle-boxes can never be solved and is in fact not a puzzle at all. A good, and recent example of this puzzle solving activity is the expensive and intensive search for the missing Higgs particle for almost half a century. There was an urgent need for in order to be able to explain and to understand the very existence of matter according to the theory that has been developed already decades ago.

Scientific and professional communities
Now back to archival science and archival practice. I am not so much interested in whether or not a real paradigm-shift has taken place in archival thinking. Instead I want to understand the relationships between scientific and professional communities on the one hand and the different paradigms within which these communities work on the other. If we stay with the Kuhnian analogy, we may say that a scientific and a professional community consists of a group of playmates. They share and agree on the rules about how to solve a jigsaw puzzle with the pieces they have at their disposal in the puzzle box they share. The question I would like to raise here is who the playmates are and which puzzle we try to solve. Here by ‘we’ I restrict the scope of my paper to those who are involved in the formal, government based record keeping and archiving practices. The question is whether all our playmates use the same puzzle box. This focus on the scientific and professional community may help us to understand why, in spite of all efforts and even the firm belief held by some

7 Ibidem, 37-42
8 Ibidem, 37.
professionals that archival thinking has undergone a paradigm shift, there is still no revolutionary progress in solving the many puzzles of records management and archiving. In Kuhn’s approach it is impossible to talk about a paradigm without defining the scientific community that makes use of it. A community works within its paradigms and its members develop their own toolboxes for solving the puzzles they have defined. Therefore it is of vital importance to know how the levels of the three kinds of paradigms as categorized by Masterman are related. In discussing a paradigm, we should at least understand on which level we are so as to identify the scope and significance of the paradigm. The nowadays worldwide-dominant recordkeeping community that uses on a metaphysical level the theory of the records continuum, originated in Australia and was initially organized around a key concern of the recordkeeping–accountability nexus. Within this community the pivot of archival science is evidence and not information. From that perspective it is understandable that the big puzzle this community tries to solve is how the recordkeeping-accountability nexus can be operationalized and assured. One of the main artifacts with which this community tries to solve the recordkeeping-accountability nexus seems to be the standard. The shared belief of this recordkeeping community is that it will be possible to master the accountability puzzle via standardisation. To use the Kuhn-Masterman terminology one could say that the ‘exemplar’ of standardization is a construct paradigm for the records community organized around the recordkeeping-accountability nexus.

**Incommensurability**

Sue McKemmish has shown the importance of understanding the relationship between a recordkeeping community and the binding forces of such a community in some of her outstanding articles on this subject. Only when we know the underlying and binding forces of a community, which is the paradigm, we will be able to identify the puzzle the community tries to solve. The binding force operating in what McKemmish once has labeled as the ‘recordkeeping and archiving’ community is the records continuum thinking, because it ‘focuses on the unifying purposes shared by all recordkeeping professionals, defined as to do

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10 In a Kuhn-Masterman sense one could say that the records continuum is a paradigm in a metaphysical sense.

11 I think the label of ‘recordkeeping and archiving community’ does better cover the real community, because I am not convinced that the members of the community find themselves well represented by the label ‘recordkeeping community’.
with the delivery of frameworks for accountable recordkeeping regimes that enable access to essential, useable evidence of social and business activity in the business, social and cultural domains’. The discussion about the label of the community may, at first sight, seem far-fetched, but is in fact substantial. It’s of course not about the label as such, but about the probability communities with different paradigms coexist in the same scientific and professional domain. Here we encounter Kuhn’s important notion of ‘incommensurability’, which causes ‘significant limits to what the proponents of different theories can communicate to one another’. The implication of the important notion of incommensurability is that it will make almost impossible a real discussion between different scientific and professional communities, for the very reason that these communities are not solving the same jigsaw puzzle and do not follow the same rules of the game.

We probably all have our own experiences with this notion of incommensurability. At least I have mine. I vividly remember the often difficult and almost literally dead end discussions I had in the past with records managers about appraisal and selection of records. The very idea that some records could have ‘an afterlife’ - as they were often so labeled - when they were of no use anymore for administrative purposes was for most records managers a nice cultural phenomenon but was generally not regarded as a very important part of their job. Archivists were welcome to sort out and take the valuables from the ‘trash’ and it was only because of legal obligations that some time was spent on these matters of appraisal and selection. Archivists and records managers simply didn’t speak the same language and we didn’t see the same things as a problem. On a larger scale, I think the incommensurability between these two different views at that time was already an important reason for

12 Sue McKemmish, "Yesterday, Today and Tomorrow: A Continuum of Responsibility", in P.J. Horsman, ECJ, Ketelaar, and T.H.P.M. Thomassen (eds.), Naar een Nieuw Paradigma in de Archivistiek ('s-Gravenhage: Stichting Archiefpublicaties, 1999), pp. 195-210. In 'Placing Records Continuum Theory and Practice' in Archival Science 1 (2002) 333-359 she explained that the Australian recordkeeping community was not the best label to identify the new emerging community of practice. With hindsight, the more awkward label, “recordkeeping and archiving community”, might have been better. The Australian use of the term “recordkeeping” to label a broad and inclusive concept of integrated recordkeeping and archiving processes for current, regulatory, and historical recordkeeping purposes within a records continuum worldview can lead to confusion in other contexts. This is in part because the term “recordkeeping” and its variants “record keeping” and “record-keeping” are used by other communities to refer to narrower concepts – more akin to corporate recordkeeping – or even more narrowly to records management systems’. (page 337)

stagnation in the work of appraisal and selection of records. The many backlogs in the paper world are the best evidence of it.

But now we experience a paradigm shift. What are the most important changes in archival thinking? And because I want to zoom in a bit on one specific function: what are the effects on practicing appraisal? What change in acting can be perceived in the way the Dutch recordkeeping and archiving community deals with appraisal and selection. In discussing these things, I still want to refer to Kuhn’s theory, again not so much to prove the existence of a so called paradigm shift, but to find out whether his theory can help us to understand the difficulties the records and archiving community still faces in solving the intractable problem of appraisal of government records.

From life-cycle to records continuum

Before doing that, let me first try to characterize the most fundamental changes in archival thinking. Already in the 1980’s Hugh Taylor anticipated on fundamental changes for records managers and archivists that were to come as a result of technological change. Technology made information move ‘at the speed of light’ and therefore the society will face ‘an implosion’ which buries us in data available instantly from all directions and levels, as opposed to the old explosion, which moved away from the centre down fixed and dispersing chains of force or command.14 This is not Taylor’s exaggeration. Nowadays no one disputes the far-reaching consequences of the digital techniques on our very existence. And of course the digital revolution has deeply influenced archival thinking. The easiest and probably also the most convincing way to demonstrate these changes in archival thinking is to show the direction in which the thinking of records and archives management in general has moved to during the last few decades. It is a thinking from analogue to digital, from custodial to non-custodial and when we look at the function of appraisal in particular from matter to mind and from rear-end activity to front-end activity. Canadian archivist Glenn Dingwall attempts to explain what the practical consequences are when the theory of the current records continuum model is translated into archival practice. While the life cycle model places

appraisal at one single point in time, a point in time that is oriented towards bringing records into archival custody; in the records continuum model it is different: ‘[e]nvisioning appraisal as a process that exists in a continuum requires more than simply advancing the act of appraisal to a point earlier in time; it requires seeing appraisal as a process that spans the entire length of the records’ existence’. But what does this ‘seeing appraisal as a process’ exactly mean? Most literature on appraisal stresses that appraisal and selection in a digital environment should already be done at the moment of creation, just after creation or even before the creation of records. This raises the question whether it is only a matter of the timing of appraisal or is there more at stake? Isn’t there also a need to redefine the function of appraisal in the records continuum? I will come back to this later.

The two most well known and used theories in the field of archivistics are the life cycle model as developed by Schellenberg, which is juxtaposed and contrasted by the Australian records continuum model. Both theories provide on a metaphysical level the framework, the metaphysical paradigm so to say, for the different archival functions. The life cycle model distinguishes well-defined stages in recordkeeping and differentiates between records and archives, while the records-continuum has integrated the recordkeeping and archiving processes and time and space dimensions. I will not spend much energy here to further explain these theories, but for now it is important to stress that encompassing the records-continuum thinking implies a redefinition of the professional and scientific community.

**Appraisal in the life cycle concept**

The life cycle model has its roots in the USA and was constructed in an attempt to solve the problem of abundance in a still analogue information world. Growing bureaucracy with continuous increasing amounts of records made a systematic approach more and more pressing, if only because of solving the problem of limited capacity of shelving. By distinguishing between records and archives archivists found justification for destroying large amounts of records, based on what I want to label as the ‘archives-research’ nexus.16

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15 Glenn Dingwall, ‘Life Cycle and Continuum: a view of Recordkeeping Models from the Postwar Era’ in Terry eastwood and Heather MacNeil (eds), Currents of Archival Thinking (Santa Barbara 2010) 139-161, 151

16 Reto Tschan concludes in his article ‘A comparison of Jenkinson with Schellenberg on Appraisal’: ‘Schellenberg and Jenkinson thus had very different views of the nature of archives which Schellenberg classed as a separate group of records and which Jenkinson considered an organic extension of office
Although in European countries this distinction between records and archives has never been made in terminology, the archival practices in both continents were however comparable. Within the framework of the life-cycle theory, the ‘historian-archivist community’ consisted of playmates that tried to solve the puzzle by identifying the records of enduring, historical value. Records managers didn’t belong to this community. They were at the most ‘instrumental’ to the ‘historian-archivist community’ with its clear defined interests. The records managers and archivists met each other mainly via the retention list, the tool for both communities to instrumentalize the function of appraisal for selecting records. Via the tool of the retention list the decision was made which records were allowed to cross the archival threshold. For the records manager the perspective was the ability to destroy, for the archivists the perspective was to keep. Appraisal in the life cycle thinking was done with the one and only reason to select ‘end products’.

Appraisal in the records continuum concept
The perspective of the records continuum is completely different. Nowadays the records continuum is widely embraced as an inclusive, unifying framework for recordkeeping and archiving which moves beyond the dichotomies and dualisms of life cycle-model approaches. The ‘recordkeeping and archiving’ community has become the worldwide dominant professional and scientific community, but in limiting my analysis to the situation in the Netherlands, integrative efforts of the two professional communities that traditionally dealt with records and archives were not very successful. Educational programmes for records management and archival management are still apart and the same is true for the professional associations. Furthermore, when we have a closer look at the solutions of the professional community to master the problems of records management and archiving, I
don’t see a revolutionary shift. Yes, we develop e-repositories based on the OAIS-model with stern demands on the quality of the records before ingest. But is the e-repository not mainly a technological shift based on principles that come from the analogue world to safeguard the ‘end products’, which still reflects life-cycle thinking? Although records nowadays are born digital and can immediately ‘at the speed of light’ be distributed among and used by different users at different places, we still play the ritual game of producing retention schedules or ‘selectielijsten’ to decide which records are to be destroyed after a certain period of time or should be kept for eternity in the same way as we already did decades ago. Although the Australians redefined appraisal as ‘the process of evaluating business activities to determine which records need to be created [my emphasis] and captured and how long the records need to be kept, to meet business needs, the requirements of organizational accountability and community expectations’ the involvement of records managers and archivists in ‘determining which records need to be created’ is still negligible. What are the reasons to stick to the traditional model? Steve Bailey, who wrote a provocative book about records management in a web 2.0 environment has a clear opinion about this: “[r]ather than trying to push our professional relevance to each of the (...) new technical trends at every possible opportunity, we seem to have done our best to run the other way (...). We cling to the fact that the vast majority of e-mail and instant messages are not records, so we can focus only on the fractional percentage that are and ignore the rest (...).” It also means that there have been no real changes made in the way we think about and practice retention schedules. In his view the impact of records managers in the management of blogs, tweets, websites etc. has been marginal due to the narrow focus of records managers and archivists on what they consider as records and on an underlying assumption of centralized control. He suggests to lift the distinction between records and information. It is in the words of Bailey: ‘[a]s with the referee in a football match, it is up to us to keep pace with the game to a sufficient level to enable us to officiate; we cannot simply ask the players to slow down just because we are unfit’. He doesn’t believe in the construct paradigms of standardization, regulation and centralized control because it has the consequence of pursuing a continuous

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19 The Australian Records Management Standard, AS4390
21 Steve Bailey, Managing the Crowd, 54.
22 Bailey, Managing the crowd, 65.
and in advance lost battle ‘to get the users of their systems to add even the merest and simplest of metadata from a predefined list’. Instead he advocates aggregating the wisdom of the creators and all the users of information via the technique of user-defined tagging. He propounds the same principle for the appraisal process and to give a voice and a vote to the user.

Redefining appraisal with new playmates

Where do all these observations lead us? When we go back to Kuhn’s theory, we can at least make some interesting remarks along the lines of the three paradigmatic levels. On a metaphysical level the records continuum provides an interesting inclusive theory, which integrates records management and archiving, but this is not mirrored on the sociological and on the construct levels. Many archival scholars write from the perspective of the records continuum using a postcustodial model to show the differences in approach and differences in thinking with the past. But there is a yawning gap between the theoretical writings of scholars and the acting professionals. On the professional level I don’t see a clear and vast ‘recordkeeping and archiving community’ that experiments with and practices drastic new solutions for managing records and archives within the framework of the records continuum. Although the scientific and professional communities have changed in the last decades due to a larger involvement of, for instance, information specialists, I agree with Bailey that the focus of the community is still very narrow. One of the main reasons for stagnation in making a real switch to records continuum acting is the relative lack of attention records managers and archivists pay to potential new playmates with whom they would be able to solve a different kind, but also more relevant puzzle. In the theoretical writings by archival scholars this aspect doesn’t get much attention either. Since I am involved in the issue of appraisal and selection of records I more and more realize that by narrowing down the scope of appraisal only for the purpose of selection, records managers and archivists immediately fall out of the interest of many professionals who also deal with information and who evaluate information within their own construct paradigms. The interesting thing, however, is that in the many discussions I had with information creators,

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23 Bailey, Managing the crowd, 73.
24 Bailey, Managing the crowd, 133-136. Bailey also acknowledges some limitations of using the wisdom of the crowd, but he definitely wants to make use of the opportunities the web 2.0 techniques offer.
users, keepers and processors of information we always found each other on one common interest: the meaning of information. Evaluating information is not only done by archivists and records managers, but also by legal specialists, IT-specialists, data security officers, privacy officers, policy making officials, public administrators, professional creators and professional users, heritage interest groups, journalists, historians etc. Many of these groups work within their own construct paradigms and the problem of incommensurability lies in ambush. It means that in the records continuum, appraisal indeed should be seen as a process that spans the entire length of the records’ existence as Dingwall explained. I want to add that this requires a different scope in which appraisal is not confined to the limited purpose of selection. Appraisal needs to become an inclusive and not an exclusive function as it is still at this moment, which means that it should be associated to all different kinds of meaning making and evaluation. This will affect the composition of the community and the puzzles this community has to solve. To give an example: questions whether access to information is open or restricted, whether information can be used without any restriction as open data or not, can be made public or needs to be classified, published on a government website or not, destroyed or not are related matters. The narrow interpretation of appraisal for the only purpose of selecting records becomes a weird business if at the same time information has already been made public via government websites. Broadening the scope of appraisal to all evaluating aspects requires a search for defining common, shared problems with other communities that deal with records, or more precisely termed, information. If we do not succeed to define a commonly shared problem, government officials will continue to work in their own incommensurable paradigms and live together without real contact. The current big challenge for the recordkeeping and archiving community is to broaden their professional boundaries, which will lead to a different kind of records managers and archivists involved in solving different kinds of puzzles with different playmates. Maybe we can think of a professional and scientific community that is organized around an ‘information and meaning making’ nexus?

Some concluding remarks
I want to conclude. If we take Kuhn’s theory as a framework to read the development of the scientific and professional position of recordkeeping and archiving, I see a landscape of changing positions, of thorough searching for new directions and new solutions. Among
archival scholars there seems to be, on a metaphysical level, a kind of consensus about the records continuum as an all-encompassing framework for understanding records management and archiving. The picture is however very different and shattered at the level of the construct paradigms, the guides for the puzzle-solving activities. In the professional realm, the image is even more fragmented. There is not a consensus about the paradigms on a construct level and many institutions, archivists and records managers still seem to work within the framework of the life cycle. I think we need to pay more attention to the adjacent disciplines and we should enlarge the professional recordkeeping and archiving community in order be able to contribute to solutions. I am still not so sure whether a real paradigm shift in the Kuhn-Masterman sense of the word has taken place. Probably it is also not so important. Spending more energy to the puzzles the recordkeeping and archiving communities want to solve with new playmates and offering solutions for the puzzles would be more effective. Maybe, when future archival scholars look back on our time, they will label this period as a Kuhnian stage of crisis. Crisis shapes opportunities and is the engine for innovation. I am sure that the target keeps moving in the years to come.