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1.02 Review Article

1.02 Pregledni znanstveni članek

## **MOREQ2: AFTER 10 YEARS. SOME CONSIDERATIONS ON SYSTEMS FOR MANAGING RECORDS**

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### **Abstract:**

*In 2008, the author attended a conference in Toulouse (France), where DLM Forum officially issued a significantly updated version of a much-praised Model Requirements for the Management of Electronic Records (MoReq). Ten years afterwards, it may be a good moment to look back on how history tested this specification for managing records. The paper will look for avatars of this specification and dedicated systems and try to make some reflections about managing electronic records, more or less in a standardized way.*

### **Key words:**

*Electronic records management system, MoReq, electronic archiving*

### **Izvleček**

#### **MoReq2 deset let kasneje: razmišljanje o sistemih za upravljanje z dokumenti**

*V letu 2008 se je avtor prispevka udeležil conference v Toulousu v Franciji, kjer je DLM Forum uradno predstavil močno izpopolnjeno različico Modela zahtev za upravljanje z elektronskimi zapisi (MoReq). Po desetih letih je morda čas za pogled nazaj in oceno, kako se je specifikacija obnesla. Avtor bo navedel nekaj primerov specifikacije in temu namenjenih sistemov ter podal razmisleke o upravljanju z elektronskimi zapisi na bolj ali manj standardiziran način.*

### **Ključne besede:**

*sistem za upravljanje z elektronskimi zapisi, MoReq, elektronsko arhiviranje*

## **1. INTRODUCTION**

In 2018, it could have been the ten years' anniversary of Moreq 2. Nobody—at least to the author's knowledge—did not celebrated that moment, not even DLM Forum or European Commission who were the sponsors of this specification for electronic records management systems. It may look like an omission, but one cannot ignore the fact that only one product (Fabasoft) certified for MoReq2 requirements. Two (in fact

three) years afterwards, a new alleged “lite” version of MoReq2, known as MoReq2010<sup>1</sup>, was released; until now, no software product was certified against its requirements.

In the following, using the MoReq case as a pretext, the author shall try to answer a brutal and maybe cynical question, that crossed his mind several times in the latest years, seeing the failure of advocating ERM in Romania. Are the records management requirements relevant for anybody else outside of the profession? Or are just requirements of recordkeeping professional minds, trying to complicate the life of organizations?<sup>2</sup>

While this question is intentionally provocative, the author will try to bring some arguments and make some remarks, from contemplation of some facts. Therefore, even though the author will try to substantiate his remarks with references as much as possible, he would limit himself to say that this paper intends to be a “meditation” on a professional topic, which may highlight an issue at least partially valid in some countries, but not necessarily aiming to a universal validity.

## 2. MOREQ AS ONE SPECIFICATION FOR ERMS TECHNOLOGY

Electronic Records Management Systems as a technology started to be created after the first Gulf War (Fresko 2010), as a solution for a better management of records produced by various applications. It was intended to manage mainly the so called “unstructured records”, that is “*records are those that contain information presented in a form primarily intended to be used by human users*” (DLM Forum 2008, p. 5), with more sophisticated requirements than Electronic Document Management Systems (DLM Forum 2008, p. 124).

The development of such products was pushed forward by a set of standardized specifications, issued by various state authorities. Among the first were DoD from USA (for a brief history of ERMS development see Fresko 2010), Canada, Australia and UK (Other specifications). The UK National Archives developed also a set of testing procedures, certifying software for compliance (Wilhelm 2008, pp. 9-11). Sponsored by the European Union, a first set of requirements, called MoReq, was issued in 2001 (Wikipedia.org - MoReq2 n.d.). Other specifications, less or more complex, were developed in the following years in various countries (Other specifications). ICA issued a set of requirements (International Council on Archives (ICA) 2010), adopted later as standard ISO 16175.

The abundance of these specifications may lead to the conclusion that ERMS, as a technology, was considered the appropriate professional solution for managing unstructured records. Considering the digitalization of large government organizations, the paradigm was to use centralized ERMS for proper records management. It was, in the same time, a “glorious” moment for archivists and records managers, whose requirements were promoted through standards and specifications. But, a series of studies and debates showed a different perspective. Criticism towards the way ERMS were implemented in UK revealed serious flaws; summarized, the critics were:

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<sup>1</sup> *In discussion with practitioners, some considered in fact MoReq 2010 as a new product, with a completely new perspective comparing with its predecessor. Also, MoReq 2010 was denounces as a failure, being, despite its initial “MoReq2 lite” purpose, characterized as “voluminous, complex, too detached from reality and impossible to implement specifications”.*

<sup>2</sup> *In fact, I am not the first asking such questions. For a recent case, see Engelhard 2018.*

*Strategic level:*

- It was impossible to implement one model for all cases. General specifications should have been customized for specific needs (and this did not happen).
- System implementation implied a strategy and synchronization between various divisions of the same organisation. Sometimes, different concurrent systems were implemented.
- ERMSs did not support, by their functionalities, in all cases, the business; though records management was a support business, by implementing ERMS it became a core business.
- ERMSs were not used to manage all records from all systems, therefore access to information was fragmented. Moreover, there was no differentiation between records and ephemera.
- Implementing ERMS was very expensive.
- It lacked a change management programme, in order to train the practitioners for new systems.
- Classification schemes were not understandable buy users.

*Usability level:*

- Systems deployment faced sometimes malfunctioning, due to limited scalability, network and workstation weakness.
- ERMSs specifications were too high compared to real needs.
- ERMSs were not user friendly.
- Practitioners saved the information outside of the system, so out of the ERMS control.

*The culture of information management:*

- The knowledge of records keeping in public service was in dissolution.
- Implementing ERMS implies changes in current records management practices.
- There was not top management support for change.<sup>3</sup>

The criticized issues outline a landscape where the specialized software for managing records seems not a good investment. After all, the office practitioners are there to do a specific business, not to manage records! Therefore, some new approaches were considered, that is not to aim for dedicated applications, but for records management functionalities within the business systems, mainly in Enterprise Content Management systems (Wikipedia - Enterprise\_content\_management), (Kampffmeyer 2008). Despite all these, MoReq2 was still developed in the “old fashioned” way, while MoReq2010, for instance, in an attempt to be more flexible, enounced 3 possible models and was developed as a specification for records management services (DLM Forum 2011, pp. 18-19). This approach is also used when developing a new version of ISO 16175 (ISO 16175 2019).

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<sup>3</sup> These elements are an abstract of various arguments presented in (Bailey 2008), (University of Northumbria 2010), (Icelandic Records Management Association 2010), (The National Archives 2008), (Lapin 2014) (Johnston 2005).

Despite the flexibility in creating specifications, today one can barely find independent systems, labeled as ERMS<sup>4</sup> on the market, while some argue that ECMs are not feeling good either<sup>5</sup>. Beside the complexity of developing, implementation and use, an important factor in this regard was the evolution of market and ICT sector. Let me just remind that from 2008 the social networks, smart phones or tablet technologies impacted the society in a significant way, decomposing the “record” in pieces of interconnected information, at a large scale. The business documentation became cloud hosted, the work collaborative. New trends switched from managing documents and records to managing data and information, and so the Information Management or, rather Information Governance, is the new buzzword<sup>6</sup>. Let us not forget, also, the economic depression, that affected public institutions and private sector, reducing budgets for investments. A lot of merging occurs and many ERMS producers are today no longer active or the standalone ERMS products are not delivered anymore, in favor of software with a broader range of functionalities (an hence, with a broader market). For example, Fabasoft, that had the only Moreq2 certified product (First MoReq2 certified product 2009), it is still on market and produces several software (e-gov suite, folio), but none of them is not highlighted as ERMS standalone solution (It is true, however, that many functionalities of records management are present in the description of software). Another example is Microsoft Sharepoint: it manages to have a big share in some markets, it is able to manage records (in some way...), but it is mainly sold as collaborative platform and content manager<sup>7</sup>.

Romania was not in the vanguard of digital society; the first Government decision about a planning digitalization of public administration being released in 2001 (HG 1007/2001). Successive Acts were passed (Electronic Signature, Time Stamping, Electronic Archiving), but the main effect was the development of “electronic archiving” (in a particular understanding, that is scanning, indexing and storing the paper records<sup>8</sup>) and not a real electronic records management in fact, the most frequent use of “electronic archiving” is scanning paper records and store them electronically. What is obvious for anybody searching the offers of professional IT vendors is that there are no products

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<sup>4</sup> A simple internet search for ERMS products is speaking for itself.

<sup>5</sup> <https://blogs.gartner.com/michael-woodbridge/the-death-of-ecm-and-birth-of-content-services/>,  
<https://www.cmswire.com/information-management/are-we-really-having-the-ecm-is-dead-conversation-again/>,  
<http://blog.onbase.com/onbase/ecm-is-dead-long-live-ecm/>,  
<https://filesolve.com/2015/06/ecm-not-dead/>,  
<http://www.softwaremag.com/ecm-is-dead-long-live-intelligent-content-analytics/>,  
<https://newgensoft.com/blog/ecm-dead-long-live/>,  
<https://www.colligo.com/blog/is-ecm-dead/>, Lucia Stefan, *Documentum, the last ECM Standing Published on September 13, 2016* <https://www.linkedin.com/pulse/documentum-last-ecm-standing-lucia-stefan-mphil/>.

<sup>6</sup> „Information governance encompasses more than traditional records management.” (Wikipedia - Information Governance n.d.). See also (Association for Information and Image Management (AIIM) n.d.) where, already at p. 2, records management is tacitly turned into information governance. This also implied a change of label on products, and less of functionalities, which may also be an explanation for the lack of advertised ERMS in some jurisdictions.

<sup>7</sup> See <https://en.wikipedia.org/wiki/SharePoint>;  
<https://www.microsoft.com/en-us/microsoft-365/blog/2017/10/10/microsoft-sharepoint-recognized-as-a-leader-in-gartner-magic-quadrant-for-content-services-platforms/>.

<sup>8</sup> In Romania, this is even called *electronical archiving*: “Electronic archiving is the action of transforming the physical records—text or drawings, on paper, tracing paper or any other physical medium—in digital records (files) and indexed in one way or another in order to be easily retrievable. In order to quickly retrieve and examine, records can be included in a database or it can be used a software for document management”. (Pavelescu and Odagescu 2002)



advertised for ERM and the only tool deemed a solution for managing records are Document Management Systems.

To my surprise, the Romanian case is not unique. In many other countries, DMS seems to be the main offer for anyone aiming to manage the records, and digitization process is the main target for “electronic archiving”. At first sight, there is a lack of interest to classification, aggregation, and disposition. Hence, I start wondering whether (MoReq like) ERMS is a product specific for Anglo-Saxon world or, in fact, there are other solutions/models/flows for electronic records management. In the following, I shall try to analyze some aspects of this alternative way of managing records.

### 3. WHICH TOOL FOR WHICH PURPOSE?

Originally, ERMS were developed based on the Anglo-Saxon recordkeeping system, that is, to manage the *records* during their lifecycle, that is, before being sentenced to be permanently preserved, as *archives*. Such a system was supposed to cover, therefore, from 5 to 30 years of records lifetime, which was hardly realistic. In this regard, it is to be noticed MoReq2010 introduces the principle of continuous migration between ERMS and attempts to standardize the process of export/import.

The Continental Europe has “Three Ages” model in many countries. Recordkeeping processes, registration or classification of record occur during first stage (“current archives”), while the second stage (repository or intermediate archives”) implies mostly storage, access and disposition actions. Mapping this paper processes to digital involved, sometimes, the development of separate systems (registration systems and storage systems/records center)<sup>9</sup>. In the French case, even more, due to the lack of recordkeeping tradition for the *archives courantes*, recordkeeping systems were basically developed as intermediate stage only.<sup>10</sup> In Italian case, the legislation seems not even to accept as an option preserving data in production system (Pigliapoco 2019, pp. 9-10).

Another strategic approach towards management of electronic records concerned the storing of records captured. Traditionally, ERMS were designed for unstructured records, with standalone repositories, where information from various applications should be captured. ISO 16175 and also MoReq2010, even exemplified importing a record from a database, aggregating data from various database tables. This model basically envisaged a central tool in the organization which was supposed to manage all the records, no matter their specific system of creation or use. While honoring for records professional, it was not necessarily the most practical. Hence, even from MoReq2010, some alternative solutions were envisaged. First, managing records “in place” model, meaning the recordkeeping system would only manage metadata of records, while records themselves were kept in other business system. Second model dismiss ERMS completely, intending only to include records management capabilities in the business systems (DLM Forum 2011, pp.18-19). The last model privileged the business systems, specific for business processes, and only added recordkeeping functionalities—one may say, a solution very closed to paper processes.

<sup>9</sup> See presentation of scope RC by Scope solutions ag ([www.scope.ch](http://www.scope.ch)).

<sup>10</sup> For a certain perspective, see <https://fr.slideshare.net/inforoutes/diaporama-gedsae>. To be checked with another standpoint, better mapped to Anglo-Saxon understanding, here [https://fr.wikipedia.org/wiki/Fichier:Cycle\\_de\\_vie\\_document-record\\_mac.png](https://fr.wikipedia.org/wiki/Fichier:Cycle_de_vie_document-record_mac.png).

#### 4. CONSIDERATIONS ON CAPTURE OF RECORDS

The standard flow for managing records in ERMS implies that, once a document is created in its final version, it is “declared” record, that is it is captured in the system<sup>11</sup>. The process may be considered similar with traditional registration of paper records: a set of metadata is created, which should be persistently associated with the content of the record (i.e., a pdf file, in the simplest example). Further on, no alteration of initial content is possible, ERMS being enabled with functionalities that would prevent any change and an audit trail to record any event associated with that record.

Going further with analogy of a paper system, in a simplest case the ERMS should be the main “container” for all records of an organisation. But this process has a prerequisite the existence of a rather expensive, sophisticated system, running to always be integrated with other email or business systems; this is not necessarily affordable for any organisation. Of course, some actions can be done manually (create a read-only variant of the record, for instance), but they are work intensive and not very efficient. Instead, an alternative was considered, where the emphasis is changed from securing the system to securing the record only: document signed with qualified electronic signature<sup>12</sup>. Avoiding complexity of ERMS, an electronic signature provides the necessary evidence of authenticity and integrity for the record, all these embedded in the record and not associated with it, as in the case of audit trail from an ERMS. The metadata can be then created in rather simple ways and linked to record.

The use of qualified electronic signature makes an equivalent with paper world, and it is a simple, easy to implement, convenient solution for creating electronic records with legal value. A first step for digitalization of processes is done, but I see some downsides of this approach.

A first aspect is that the business systems are considered in many cases as mere records-producer and not as records-holders, nor even being records. For instance, an accounting system generates some individual records (invoices, balances etc.). These are treated as records and signed and managed as records. But all the information contained in those records is in fact stored in the system and could have been generated anytime again. From internal preservation point of view (that is, not discussing the fact an invoice may need to be sent to a partner), there is a duplication of information, in the system, as structure data, and out of the system, as “assembled” data. In fact, both are the same record, only in different instantiations<sup>13</sup>. It is what was described in professional literature as “records in becoming” (Duranti and Thibodeau 2006). This is a case when, in our opinion, adding records management functionalities to the system would bring greater benefices in de-duplicating and managing information<sup>14</sup>. On the other hand, it is also true that loose records (pdf files, for instance) are less prone to digital obsolescence, and their life span may be longer than that of a systems or the conversion/migration

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<sup>11</sup> ISO 15489:2016 enumerates the following records management processes: creation, capture, classification and indexing, control access, preservation, using and reusing migration and conversion, disposition.

<sup>12</sup> This came quite naturally since, in general, the registers (as control tools) were the first automated. Then the production of records themselves was computer based, and the records were linked, not embedded, to the previous systems. Security then was considered at record level, not at the system level. Basically, even though the records-as-files are managed by the file system, the existent electronic signature offers, for a certain time, a certitude for authentication and integrity.

<sup>13</sup> The funniest case is when an invoice is generated by IT systems, printed on paper and, after a few years, the invoice is scanned, to create back an electronic form of it.

<sup>14</sup> It is true that generating records out of a business system may allow that records to be aggregated and related wit other records, creating the narrative and context of use. However, our remarks concerned the compact series, not the case of contextualization.



issues of files of the same format are less complex than in the case of migrating systems, mostly in the case where such processes were not considered “by design”.

A second issue with the alternative to ERMS is the electronic signature itself. The time-limited possibility of checking the validity of signature implies that, on a long run, it needs periodically resigning<sup>15</sup>—which implies a professional system. If the option for using electronic signature was chosen because of costs and lack of complex architecture, then it is obvious such re-signing would not happen and some issue of legal value of those signed records may appear. It is true, nonetheless, that, if we are only discussing of records with small retention periods (up to 10 years), then this is not a real issue. And, since accountability records are a big amount and common to all organisations, it is likely such an approach was also driven by dematerialisation of—mainly—accounting records.

And this brings us to another disadvantage that may come from the extent of the electronic records usage. If an enterprise of a certain size intends to only use electronic records, it implies all employees creating records, no matter how “insignificant”, need to have an electronic signature. This may be costly, and this may nullify the initial driver—the reduced cost. In cases that I am aware of, only certain series of records were digitally signed so it was not a case of all the records in the organisation being digitally signed.

Apparently, the main driver for using electronic signature approach is determined by the legislation, at European level, which promoted electronic signature and electronic seal as a solution for authenticate unstructured electronic records. While this is true, it is frequently lost from sight the fact not all electronic records are electronically signed and they are still considered by legislation as valid records. Some simple examples: the log of systems, which may be evidence of an intrusion in a system or prosaic emails send by a private person to an organisation and it is not rejected in most of the cases as not authentic because it does not bear electronic signature.

## 5. CONSIDERATIONS ON AGGREGATION AND CLASSIFICATION

The classification and aggregation of records are considered the second process in managing records, and the rationale for their use is rather general accepted (DLM Forum 2011, p. 77). Considering the traditional recordkeeping practices of three ages, this process was a responsibility of the practitioner: it was the office clerk the person who knew the best how to group the records based on shared criteria, and to recognize the series of similar documentation.

In digital world, in many implementations, after the record (or, at the best, associated records to a case file) ceases to be useful for current business, they are sent to the “electronic archiving” area, i.e., intermediate archives. Rights of access and use, retention period, maybe some relations are set—if they are at all—at item level, so apparently, in some cases, there is no need for aggregation or classification for office practitioners. So, in the best case, it seems classification of records turned into a task for intermediate repository administrators.

While for paper world, aggregating records is the natural solution for the need to manage large amount of records, to contextualize them and grant authenticity on long

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<sup>15</sup> For a good overview of the state of electronic signatures, and also with new options, like blockchain solutions, see (Stancic 2018).

term, the relevance of aggregating records in digital realm<sup>16</sup> was an issue of debate<sup>17</sup>. Many systems are either conceived as flat lists of (metadata for) records or creating aggregations and classification is left at the free will of the users, as it is the case in most document management systems. The arguments may be that 1) metadata at item level and capabilities of reading the text in files are enough for retrieval use cases and 2). OCR technologies, implemented almost universally in any system are able to retrieve the information even in text of the scanned record and 3) extracting/assigning keywords are considered enough to group relevant records together<sup>18</sup>, so not much attention is paid to aggregation and classification (Delneri 2019, p. 9).

This practice is in most cases doubled by retro-scanning that is converting to digital older records made on paper. The process implies scanning, indexing<sup>19</sup>, OCR transforming; in some cases, it is followed by destruction of the original, but this is not always the case; also, sometimes, the copies are digitally signed, but this is not a general rule. While the main purpose for this conversion is to facilitate a readily access and quicker retrieval of records, aggregation and classification are not always taken into account, being assumed that search engines are enough for retrieval.

The lack of interest for aggregation or formal classification in many cases can make a life easier for practitioner in capturing/ (not)assigning metadata for records. But in my opinion, it may not a good option for a general organisational interest. The retrieval of information in the context of a certain case/activity is hardly possible in the absence of explicit and consistent linkage of records. Creating such relations may be done specifically, but it is very time-saving just to “drop” a record in the proper folder and thus creating the parent-child association with all the necessary metadata inheritance. Aggregation helps understand better the context of records and tells the story of an activity in a way that “indexing” records cannot do. At last, the issue of information noise should be considered: it is rather strange to see that users are not concerned that a full text search or even a keyword based search in large silos of records may return hundreds or thousands of irrelevant results, irrelevancy derived primarily from the lack of contextualisation of information<sup>20</sup>.

Classification, on the other hand, helps contextualizing the records at a higher level, in the organisation. Classic approach connects the records with the activities of a business unit. In other cases, classification helps connecting records with retention periods. But in all cases, a formal classification scheme supports consistency in organising records, despite staff mobility or departmental changes, or various form of record (paper or digital)<sup>21</sup>. Letting the classification or aggregation to be substituted by individual practitioner initiatives of grouping records or relying on keywords for association of records may lead to inconsistent results.

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<sup>16</sup> See the very classical MoReq2 approach (DLM Forum 2008), or a very nice and sophisticated, though clear and convincing presentation in MoReq2010 (DLM Forum 2011).

<sup>17</sup> See positions here: <http://community.aiim.org/blogs/lisa-ricciuti/2013/10/25/are-folders-still-necessary> and <https://weblogs.asp.net/bsimser/434454>.

<sup>18</sup> There is a stronger trend of autclassification tools, many of them allegedly powered by artificial intelligence.

<sup>19</sup> It should be also mentioned that the process of indexing is very time consuming, and, if outsourced, very costly. This is why the amount of indexes harvested may be, sometime, quite limited. As about OCR, the informational noise in retrieval may be huge.

<sup>20</sup> See other arguments in (Chabin 2018, pp. 58, 94).

<sup>21</sup> See a professional critique in (Clarke 2018).

But, if such advantages exist, why the classification and aggregation are not a standard? In my opinion, from a technical point of view, classification and aggregation add a layer of high complexity in building the systems (DLM Forum 2011, pp. 69-97). This may be an explanation why developers encourage users to adopt different solutions instead of creating hierarchies and groupings<sup>22</sup>. On the other hand, it may depend, as I mentioned above, on the typology of records and work typology. If the records are pooled from limited business units<sup>23</sup>, with rather consistent series of records, aggregation and classification may be less relevant at least from the pool users' point of view. If a business activity is intensive in records producing and not in records retrieval, the interest for a complex grouping of records, contextualisation etc. (that basically enhance retrieval) may be low.

## 6. CONSIDERATIONS ON STORAGE AND USE

The storing of records was traditionally associated with intermediate archives: the need for using the records still exists, but not as frequent as at the first stage, so there is a need for storing records<sup>24</sup>. With electronic records, the practice of clearing the production environment still exists, but some aspects of managing records change.

Firstly, as noted in previous section, the time span of current archives stage seems to reduce dramatically. For paper records, for various reasons (legislation, practical aspects), this stage lasted from one to several years. In some implementations, the record may be sent to the "electronic archiving" area immediately after creation/finishing the current need, thus reducing to the minimum the duration of current archives stage.

One change from paper practices is the level of control for records. For analogue records, since they were in general grouped in files, the control list accompanying records to the repository comprised description of aggregation of records (either file, folders or series). If an electronic record is send directly to the "records centre", then the control list comprises record level metadata and, as mentioned above, the eventual establishment of relations between records (aggregation/classification) may be the task of the electronic archiving administrator. If such classification action is not undertaken, then records would be retrievable based on the set of initial metadata for record level, which may be enough for management of current records, but insufficient for medium or long term<sup>25</sup>.

Similar to paper case, intermediate archives may be outsourced in some jurisdictions. For instance, in Romania an Electronic Archiving Act issued in 2007, that set the framework for outsourcing the storage of electronic records to third party

<sup>22</sup> See, for instance, the policy recommended in MS Sharepoint, to avoid creating folders for hosting files (<https://sharepointmaven.com/12-reasons-folders-sharepoint-bad-idea/>; <https://www.knowledgewave.com/blog/reasons-folders-in-sharepoint-are-a-bad-idea>, <https://www.sharepointeurope.com/15-reasons-not-use-folders-sharepoint/>).

<sup>23</sup> It may be implemented at organization scale, but access to a records area to be permitted only for one business unit.

<sup>24</sup> The distinction of various stages (current, intermediate) seems to become more and more relevant in digital environment, in order to make business systems more efficient. This is it is an undeniable proof about the irrelevance of academic debate, on supremacies or flaws in Three Ages vs Continuum approaches.

<sup>25</sup> An alternative may be offered by artificial intelligence (see, for instance <http://idm.net.au/article/009392-can-technology-classify-records-better-human>), but the enterprise level implementation needs still to be tested.

repositories<sup>26</sup>. But it is hardly a Romanian particularity: similar services are advertised in Slovenia, Hungary, France, Italy—to name a few. The release of ISO standards on this matter<sup>27</sup> shows the trend is rather global. Regarding the big picture, this is rather a natural trend: it takes budget, infrastructure, skills and commitment to ensure preservation of records, all of them to a higher scale due to technological dependencies of electronic records. Specific requirements for outsource storage may vary, though. In Romania for instance, sending a record in the “electronic archive” is conditioned by existence of several metadata (questionably enough, from a recordkeeping point of view) and, most notably, by the presence of qualified electronic signature of the record owner, which will be cross-signed by the administrator of “digital archive”<sup>28</sup>. The flow described by the law excludes the ingestion of records aggregations, allowing only record by record approach.

Another point concerns the life records on medium and long term. While production system may change rather fast, for operational efficiency purposes, it may not be a good option (as envisaged by MoReq2010) to migrate petabytes of data at each implementation. It may be, therefore, more desirable to have a repository of “old records”, while the current records (limited as number) may reside in the working system or being transferred from a legacy system.

Another aspect of intermediate archives is the attempt to bridge the separation of carrier. Though the approaches to records are quite different, it seems there is a need of consolidate the information from paper and digital records. This may be the explanation for a huge endeavour (at least in Romania) for conversion of paper records into searchable, digital records.

The above-mentioned practices may result in some contradictory outcomes, from the recordkeeping point of view, and I shall mention some of them, based on some direct observations I made based on Romanian case.

The legal provision to have a record digitally cross-signed in order to be accepted in a digital archive is, from a certain point of view, perfectly reasonable: a creator that record is his, and the validity of his signature proves the integrity of the record on return from the repository; while the repository’s signature certifies that this record was received from the depositor, and its validity confirms that it wasn’t altered while in storage. On the other hand, since there is no electronic signature, it is supposed there is no record— a radical approach assuming that there is no record in the absence of an electronic signature. There are many records in an organisation that are not electronically signed, but they are still records<sup>29</sup>. This implies the outsourced “electronic archive” can only be a part of whole of records produced by the organisation, “the most important one”. This is an appraisal *sui generis*, based on a questionable methodology. The presumed “archives” is therefore a collection, a fragment of all records produced.

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<sup>26</sup> At the beginning of 2019, according to the official website, there were 21 registered administrators of electronic archives, so the business has a certain market (<https://www.comunicatii.gov.ro/wp-content/uploads/2018/08/REGISTRU-ARHIVE-ELECTRONICE.pdf>).

<sup>27</sup> For example, ISO 17068:2017 Information and documentation -- Trusted third party repository for digital records, but also ISO 14641:2018 Electronic document management -- Design and operation of an information system for the preservation of electronic documents – Specifications and ISO/TR 15801:2017 Document management -- Electronically stored information -- Recommendations for trustworthiness and reliability.

<sup>28</sup> A similar case in Hungary (see <https://www.lexology.com/library/document.aspx?q=11f57cce-c893-4215-84ff-3efbbde0e75f>).

<sup>29</sup> As visible in Hungarian legislation too, ‘archiving’ is based rather on technical considerations than on records metadata or context (<http://www.cms-lawnow.com/ealerts/2018/10/new-rules-on-digital-archiving>).

For converting paper to digital records, it may be the same situation. Assuming all the records of an organisation were scanned, the effect will be the use of “new born” electronic records in the transaction of business, due to their obvious advantages. In this regard, since the electronic variant is the one relied upon in transactions, or even further annotated, it means that the true record is the electronic one, not the source, analogue records. The latter may be even considered as intermediary versions, since they are excluded from administrative workflow resulting in some significant additions and annotations

If such a process is performed in a controlled manner, there can be a thorny issue from records management point of view: what to keep, which is the most complete version, which is the authoritative version to be preserve—are all legitimate questions. If the above assumption (that the whole body of records is converted) is false, then the issues are even bigger, because fragmentation of sources is bigger and multiplication of the same content may become uncontrolled.

A third aspect that shows rather a fragmentation than a unification of records, is the system controlling the records. In paper system, control lists and various registers could track the records, in one system. But in electronic environment, since the records may reside both in active system and in archiving system (depending of the implementation), it may imply there are at least two systems where to search for information<sup>30</sup>. If a scanned set of records exists, which may be controlled by a separate document management system, the retrieval architecture starts to become quite complex<sup>31</sup>. And then not only fragmentation starts to enlarge, but also a risk of redundancy, of multiplication of records in various system and various forms (Pigliapoco 2019, p. 10). All these may determine difficulties in controlling the same information on all storage areas, which may lead to security and legal issues, supplementary to informational noise in retrieval (Chabin 2018, pp. 15, 58).

## 7. CONSIDERATIONS ON RECORDS DISPOSITION

Every time I opened the discussions about disposition of digital records, the first answer I received was: “we do not dispose of anything, the storage is cheap”<sup>32</sup>. Indeed, the high-density carriers for digital information, the high availability of cloud storare solutions, all for a rather low price make the issue of disposition apparently irrelevant. Promoting for solutions to perform disposition process, which implies rather complicated tools (creating and implementing of retention and disposition schedules, technical controls for deleting files beyond any possible restore) is not so easy to find followers. All these issues are incremented by the new technological trend of blockchain, which relies on previous information in order to authenticate a new one, leaving very small room (if not at all) for eliminating some past information. In short, it seems cheaper to keep everything than to try to eliminate something.

On the other point of view, this perspective, that disposition is only about storage space reflects a lack of understanding of the risks involved, both due to the “noise” in retrieval, or due to keeping information longer than necessary (see, for an opinion, Hill 2013). In fact, it really does not matter if the systems can handle large amount of information residing in large amount of records; the simple fact that information obsolete,

<sup>30</sup> Or course, it may be the case of a consolidated system, too.

<sup>31</sup> Not to mention the legacy systems, still in use as passive recipients of information...

<sup>32</sup> One may comment that no matter how cheap it is, a professional storing system implies some significant investments; but of course, this is a matter of budget available and may not be a general argument.



incomplete or contextually irrelevant may be returned when queried is already an issue in a proper information retrieval for an organisational user<sup>33</sup>.

The recent EU General Data Protection Regulation of provisions have just offered a new justification for timely elimination of (parts of) records, but risk of disclosure of other sensitive or classified information was often overlooked as an argument in favour of disposition. The recent scandals related to profiling undertaken by social networks and their subcontractor or car test emissions have highlighted the risks associated with keeping obsolete and maybe undesired information. Therefore, it is likely that the issue of elimination of irrelevant information will go beyond large-scale enterprise systems and be a factor in all systems hosting records (Chabin 2018, pp. 15-16, 41-48).

The IT approach to elimination of records is often based on typology of records (information). This was always a tension point between recordkeeping and IT professionals. While profiling types of records can be easily automated, providing undeniable advantages in for their management in the future, the informational value of records depends on context. The same type of record in different contexts may be of different values. As mentioned above, documentary context allows for the records to tell the “story” (DLM Forum 2011, pp. 81-82) about one particular matter, which may have gaps if some types of records are removed. Of course, on the other hand, if the series of records are consistent and present the same typology, disposition based on records type may be performed.

## 8. CONCLUSIONS

This paper is a systematization of some concerns I have and observations I made, attending various conferences, regarding dynamic of professional discourses and practices, in the last 10 years. It may, therefore, be challenged as subjective but, as long as many similar observations can be traced in professional literature, at least some points are valid and go beyond personal or national experience.

One of my conclusions is that ERMS product, at last as envisaged by MoReq series of specification, may be a solution conditioned by cultural and administrative traditions. Level of maturity in dealing with digital records, administrative practices and “customs” in managing and understanding records are a factor that can lead to adoption or rejection of MoReq-like systems. It is true, nevertheless, that market labels may hinder the true functionalities of systems. On the other hand, as numerous evidences suggest, the real needs of practitioners and their organizations may not fit very well with products designed by recordkeeping professionals<sup>34</sup>. The recordkeeping processes we are accustomed with resulted from some practices; the input data has changed, and maybe some of our

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<sup>33</sup> *One morbid joke circulating a social network said that “the best place to hide a corpse is on the second page of a Google search results”. If on a daily exercise of searching the internet a second page of results may be irrelevant, it cannot be the case in organisational environment here, if obsolete, decontextualized information is prompted firstly, it may generate inefficient and ineffective findings and decisions.*

<sup>34</sup> *“Archiving experts often blame poor archiving on the work process that produces the information. You often hear such criticisms as: ‘The staff are failing to follow by our rules’, ‘The work process managers don’t support our work properly’ and ‘The managers are postponing the problems of poor archiving, seeing it as something for the future, when they have more urgent problems to contend with’. In other words, ‘They don’t really care’. This kind of scapegoating is all too convenient. But are we, the experts, also doing something wrong? Of course, we know that we struggle to convince staff in a work process of the merits of our case. But that is an easy excuse. It is reminiscent of a political party losing half of its seats and then blaming poor communication or the media. Perhaps it’s time to rethink the case we are presenting?” (Saaman n.d.).*



principles may need to also change. Or, it may very well be the case that sound recordkeeping practices may be ignored because it is easier than to implement them...

What seems to be obvious is that one solution may not fit all cases. Since electronic records depend fundamentally on technology, between a small organization managing 1000 emails, 10 contracts and 500 invoices per year and a government organization, with one hundred employees and tens of responsibilities and work processes it obviously needs customized technical solutions and tailored records management procedures. For the former, a complex system for managing records would be not economically justified; for the latter, a records system with all the records digitally signed may not be satisfactory and operational.

The advent of technologies may offer perspective for solving the issues. Maybe artificial intelligence, data mining solutions will make record keeping processes, of classification, aggregation, contextualization, retrieval etc., just a component of their toolset; the records professional may be in a good part replaced by the tools. Until then, we may very well assume that Big Data is also a result of non-disposal of records in due time<sup>35</sup>...

In my opinion, the professional tools should be tested continuously against practice; it should be examined whether the need for which they were created still exists or whether conditions has changed. Except for professional recordkeeping organization, all the other creators exist for other goals than managing records; our tools should be integrated in theirs, not viceversa. But it cannot be denied that it may also be a disinterest in managing record, and not all feedbacks are valid, professionally speaking. In this regard, Garth Clarke made a nice remark, noting fundamental differences between archival science and computing science: *“archival science and computing science are separated by fundamental differences in their ultimate goals: archival science requires that there be stability of recorded information, while computing science requires that there be systems in place to allow both synchronous and asynchronous communication of data on the fly. The difference resides between stability and dynamism. Computational systems can be engineered to reduce the loss or distortion of signal or data, but the long-term preservation of a stable copy of digital information is not usually the primary focus of systems design, unless there is an engineering requirement”* (Clarke 2018).

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<sup>35</sup> Strictly speaking, Big Data is of course about uncovering hidden dependencies that are difficult or impossible to investigate using traditional “small data” methodology. Sometimes, the term is also used as referring to large datasets preserved, and this is the meaning I am using here.

## POVZETEK

### **MOREQ2 DESET LET KASNEJE: RAZMIŠLJANJE O SISTEMIH ZA UPRAVLJANJE Z DOKUMENTI**

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Leta 2018 je minilo natančno 10 let od izdaje težko pričakovane specifikacije za orodja za upravljanje z dokumenti – MoReq2. Toda obletnica je minila tiho, še več, strokovno področje se je v vmesnem času tako zelo spremenilo, da je danes že težko najti oglas, ki bi promoviral izdelek, ustvarjen na podlagi te specifikacije. Je morda razlog v tem, da ni bila dobra? Ali pa v tem, da sistemi sami niso bili dobra rešitev za upravljanje z dokumenti v vsakdanjem svetu?

Eno izmed opažanj, ki jih avtor podaja, je dejstvo, da so informacijski sistemi za upravljanje z dokumenti (ISUD) temeljili na anglosaškem sistemu dveh obdobj gradiva – dokumentarnem in arhivskem – in predvidevali, da bodo aktivni ustvarjalci uporabljali izdelek za upravljanje s svojo dokumentacijo od nastanka le-te do izločitve. Poleg težav pri sami implementaciji (obstaja nemalo strokovnih člankov, ki kritizirajo ISUD-izdelke) je specifikacija padla v mnogih državah celinske Evrope, kjer je v rabi model treh obdobj gradiva in kjer raje govorijo o sistemih produkcije in »arhiviranja«.

Avtor podaja še nekaj primerov procesov upravljanja z dokumenti, kjer osvetli prakse, ki se razlikujejo od tistih, ki jih predvideva MoReq. Večja priljubljenost in uporaba kvalificiranega elektronskega podpisa za dokazovanje celovitosti in avtentičnosti dokumenta, zaupanje v indeksiranje in iskanje po ključnih besedah nasproti klasifikacijskim načrtom in sistemom odlaganja, splošni trend prenosa hrambe napol aktivnih oz. neaktivnih dokumentov na zunanje izvajalce ter skoraj popolno ignoriranje izločanja dokumentacije nakazujejo po avtorjevem mnenju na to, da je prišlo pri sistemih za upravljanje z dokumenti, ki so temeljili na specifikaciji MoReq, do težav pri implementaciji, čeprav bile so alternativne rešitve pogosto v nasprotju s strokovnimi priporočili in s stališča upravljanja z dokumenti tudi manj učinkovite. Glavni zaključek je, da bi morali biti sistemi za upravljanje z dokumenti podporni, ne pa osrednji del aktivnosti ustvarjalcev; orodje v senci, torej, ne v ospredju, kakor to predvideva MoReq.

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