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Media Selection and Archival Appraisal

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The paper discusses media selection and its relevance to appraisal and archives. Media selection has been widely studied in communication science. There are today several theories explaining why people select a particular media (informal message, formal letter, telephone, email, conversation face-to-face, etc.) when they communicate with each other. Although media selection ultimately determines what is recorded and, thus, what can be preserved in archives, it has not drawn the attention of archivists and records managers. The paper suggests that record professionals should take a closer look at media selection. Media selection theories state that some commonly used media in organizations works better for certain tasks than others. Daft and Lengel (1984) concluded that written media was preferred for unequivocal messages while face-to-face media was preferred for messages containing equivocality. A successful organization does not always create formal records - even though this might be desirable from the perspective of accountability and for archival reasons. Hence, media selection theories may

Introduction

Media selection theories are attempts to explain why people select a particular media (informal message, formal letter, telephone, email, conversation face-to-face, etc.) when they communicate with each other. Curiously, although media selection ultimately determines what is recorded or not recorded, or where and how something is recorded, media selection has not drawn the attention of record keeping professionals. Journals of communication are rarely cited in archival journals (Cox 2000). This may indicate that communication studies are not widely known among archival scholars.

In this paper I discuss the findings of media selection theories and their relevance to appraisal¹. The term “appraisal” has slightly different meanings in literature. Appraisal may focus on business activities, materials, or retention periods, and it may be done either from archives or records management perspective (see, for instance, definitions in ICA 2008; Pearce-Moses 2005). Models for archival appraisal are quite sophisticated. For instance, Boles and Young (1991) divide appraisal criteria in categories of “value of information”, “costs of retention”, “implications of selection”, “institutional differences”, and the “usefulness of quantification in selection”. In this paper I refer by appraisal to the process of identifying materials which best document organizational activities and decision making.

From archival perspective not all media choices - or theories explaining them - are equally interesting. A communication scientist may want to understand, for instance, why people choose to meet face-to-face instead of having a telephone conversation. From archival perspective, however, the choices are equal, because neither is likely to leave a record behind. Consequently, I am not trying to discuss here all features of media selection. Instead, I try to introduce points which seem to have relevance to appraisal in particular and to records and archives management in general.

Records – poor media with no social presence

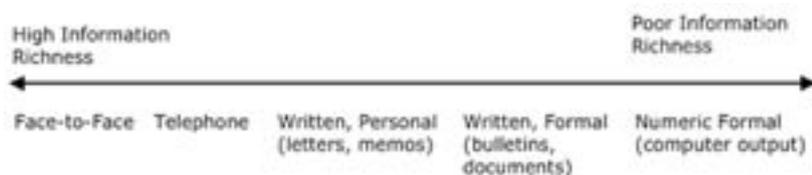
Choice of media becomes important for archives, firstly, when people decide, whether they communicate in a way which creates a

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record of some kind. Second crucial point is the choice between different forms of recorded media. Archives have long tradition in dealing with paper documents, but technology today offers also other media for communication. In addition, message characteristics, like degree of formality, are significant. All messages do not generally have the same likelihood to end up in organizational archives.

Archival issues are not a concern for media selection theories. Consideration of whether to make a “record” for later use does not seem to play a significant role when people are making their media choices. Generally, media selection theories have little to say about records. However, some of them have ideas that are easily applicable in records and archives management. Especially media richness theory is interesting, because it has clearest connections to theories of archival appraisal. It is also one of the most well-known and influential media selection theories.

Media richness theory (Daft & Lengel 1984) states that different media have different capacity for carrying data. A “rich” medium carries more information than “poor” or “lean” media. Richness is the amount of information that can be transferred and its ability in changing human understanding. The richness of a medium is defined by (i) ability to provide rapid feedback; (ii) the ability to communicate multiple cues; (iii) the ability to convey personal feelings; and (iv) the ability to use natural language. (Büchel 2001; Daft & Lengel 1984) The scale below shows the richness of different media (Daft & Lengel 1984):



Face-to-face communication is the richest medium. It provides immediate feedback. With feedback understanding can be checked and interpretations corrected. The medium allows the simultaneous observation of multiple cues, including body language, facial expression and tone of voice. The cues convey information beyond the spoken language. Information is also of a personal nature and utilizes natural language, which is high in variety. At the opposite end of the scale is numeric formal written medium: feedback is very slow, and numeric language does not convey much information. There is no opportunity for visual observation, feedback or personalization (Daft & Lengel 1984). Hence, records are a poor or very poor medium, depending on their content and degree of formality.

From archival perspective media richness theory becomes thought-provoking when one looks at what it is used for. Media richness theory suggests that managers - and organization members in general - use the right media at the right place. Generally, media richness matches with the complexity of the organizational phenomena. When phenomena are mechanical, routine, predictable and well understood, poor media can be used, because it conveys enough information for the problems to be solved. On the other hand, if phe-

explain, for instance, why background of important decisions is sometimes inadequately documented in official documents. Media selection theories enable record professionals to see when official records need to be complemented with informal communication, and, vice versa, when official records are likely to alone sufficiently document organizational actions. Hence, they may help to develop the theory of appraisal further.

HENTTONEN, Pekka, Selezione dei media e selezione archivistica. Atlanti, Vol. 18, Trieste 2008, pp. 297-305.

L'articolo parla della selezione dei media e della sua rilevanza nella selezione archivistica. La selezione dei media è stata largamente studiata nella scienza della comunicazione. Ci sono oggi parecchie teorie che spiegano perché la gente scelga un particolare media (messaggio informale, lettera formale, telefono, email, conversazione faccia a faccia, ecc.) nel comunicare. Sebbene la selezione dei media determini infine cosa viene registrato, e quindi ciò che viene mantenuto nell'archivio, non ha ancora attirato l'attenzione degli archivisti. L'articolo suggerisce che i professionisti dovrebbero avere un'occhio di riguardo per la selezione dei media. Le teorie al riguardo stabiliscono che alcuni media comunemente utilizzati negli enti facciano per certi scopi più al caso di altri. Daft e Lengel (1984) hanno concluso che i media scritti sono preferiti per i contenuti non equivocabili, quelli faccia a faccia per contenuti passibili di svariate interpretazioni. Un ente all'avanguardia non produce sempre documenti formali – anche se ciò sarebbe preferibile in un'ottica archivistica. Per cui le teorie sulla selezione dei media potrebbero spiegare, ad esempio, perché il contesto di decisioni importanti non sia sufficientemente documentato, a volte, nei documenti ufficiali. Le teorie sulla selezione dei media permettono ai professionisti di vedere quando documenti ufficiali abbiano bisogno di essere integrati con documentazione informale, e, al contrario, quando i documenti ufficiali siano sufficienti a documentare le attività di un ente. Così, esse possono aiutare nello sviluppo delle teorie sulla selezione.

HENTTONEN, Pekka, Odbiranje dokumentacije v medijih in arhivsko vrednotenje dokumentacije. Atlanti, Zv. 18, Trst 2008, str. 297-305.

V prispevku avtor obravnava odbiranje dokumentacije v medijih in njen vpliv na vrednotenje arhivske dokumentacije. S študijem odbiranja se srečamo v predmetniku komunikologije. Danes poznamo več teorij, zakaj odbiramo posamezne medije (informacijska sporočila, pošto, telefonska sporočila, elektronsko pošto, medsebojne pogovore, itd.) in tudi vzrokov za odbiranje je več. Mnogo podjetja ustvarjajo veliko dokumentarnega gradiva, zato teorije odbiranja v medijih

pojasnjujejo uporabo in veljavnost dokumentarnega gradiva, prav tako se pa tudi z njihovo pomočjo dokopljemo do teorije vrednotenja dokumentarnega gradiva.

SUMMARY

The paper discusses media selection and its relevance to appraisal and archives. Media selection has been widely studied in communication science. There are today several theories explaining why people select a particular media (informal message, formal letter, telephone, email, conversation face-to-face, etc.) when they communicate with each other. Although media selection ultimately determines what is recorded and, thus, what can be preserved in archives, it has not drawn the attention of archivists and records managers. The paper suggests that record professionals should take a closer look at media selection. Media selection theories state that some commonly used media in organizations works better for certain tasks than others. For instance, Daft and Lengel (1984) concluded that written media was preferred for unequivocal messages while face-to-face media was preferred for messages containing equivocality. In other words, in some cases, a successful organization does not create records - even though this might be desirable for accountability and archival reasons. Hence, media selection theories may explain, for instance, why background of important decisions is often inadequately documented in official documents. Media selection theories are relevant for record professionals because they enable them to see when official records need to be complemented with informal communication, and, vice versa, when official records are likely to alone sufficiently document organizational actions. Hence, they may help to develop the theory of appraisal further

nomena are complex, difficult, hard to analyze, and perhaps emotionally laden, a good manager selects a rich media so that (s)he can process all the information. If the media is too rich, the result is over-complication: there are too much cues, noise, and ambiguity. If, on the contrary, it is too poor, there is a danger of oversimplification: there are too few cues and no feedback. (Daft & Lengel 1984) Richness of media required depends on the equivocality of information processed. Equivocality means differing interpretations that arise from ambiguous content or different frames of reference. Low equivocality messages have clear content that suggests a single interpretation. When equivocality is low, communicators agree about the meaning. (Trevino, Daft & Lengel 1990)

For instance, if a manager wants to know the status of company's inventory, there is no need for him to discuss personally with the person in charge of the inventory. That would be excessive, because numeric data conveys all the information that is needed. On the other hand, a manager who relies only on poor media when it comes to equivocal questions - like organizational goals, strategies, managerial intentions, employee motivation, or developments in changing environment - quickly gets out of synchronization with events. Less rich media may oversimplify complex topics and may not enable the exchange of sufficient information to alter a manager's understanding. (Daft & Lengel 1984)

Daft and Lengel (1984) also suggested that information is processed differently at different organizational levels. Organizations reduce equivocality through the use of sequentially less rich media down the hierarchy. Information is processed through media of high richness until equivocality is reduced to an acceptable level so that less rich media can be used to communicate specific goals. Top managers confront uncertainty. They use rich media to discuss, analyze, and interpret the external environment, and to develop goals and strategies which are then translated into less rich policies, paperwork, rules and procedures for use at middle and lower organizational levels. Lower organizational employees make use of policies, rules, and regulations and formal authority. They work within defined plans, goals, and the technology of organization. Therefore, information can be processed through less rich media and still convey relevant task information. (Daft & Lengel 1984)

Social presence theory was developed in parallel with media richness theory. It suggests that people assess the social presence of a task and match it to the social presence of the medium. Social presence is defined as the extent to which an individual psychologically perceives other people to be present when interacting with them. Choosing a medium is a result of the assessed need for social presence. Highly involving tasks (e.g. conflict and negotiation) are best completed using high social presence media. Similarly, media with less social presence are optimally efficient for simple information exchange tasks. The classification of media used is similar to the media richness theory. Media having a high degree of social presence is judged as being warm, personal, sensitive, and sociable. Both media richness theory and social presence theory make similar predictions regarding media choice. (Büchel 2001; Fulk, Schmitz & Steinfield 1990; Short, Williams & Christie 1976)

Other determinates

There has been a growing empirical support for media richness theory. However, new technologies - such as email, teleconferencing and voice mail - have entered organizational life. They exhibit properties which go beyond the features originally mentioned by Daft and Lengel (1984), like “reach” (ability to address multiple people simultaneously), “recordability” (ability to document and modify communication flow), “memory” (ability to search previous messages and thereby keep a thread), and “concurrency” (ability to send and receive from more than one person simultaneously). (Büchel 2001)

This may explain some of the conflicting results in empirical studies on media richness, and particularly the low ranking of electronic media in the media richness scale. (Büchel 2001; Markus 1994). Email is faster than paper communication, but written and asynchronous media. Most analysts have rated email falling somewhere between the telephone and non-electronic written communications in richness. Media richness theory does not successfully explain managerial use of email. Managers generally perceive various media in ways which are relatively consistent with media richness theory, but they use email more and differently than the theory predicts. The theory suggests that senior managers will make relatively little use of email and not use it for equivocal tasks like defining problems, resolving disagreements or creating shared understanding. Instead, managers, and especially senior managers, use email more intensively than the theory predicts and also in complex, equivocal matters; thus, in a manner that the theory regards as ineffective and unlikely. (Markus 1994)

There are also other known determinants of media choice. Empirical studies have shown that both theories of media richness and social presence alone provide an incomplete picture of media choice and they have to be supplemented with other determinants. With the growing literature on media choice, the number of determinants offered by various theoretical approaches has also increased. It now seems that media selection is a complex process with many variables. Büchel (2001) summarizes them the model in Figure 1.

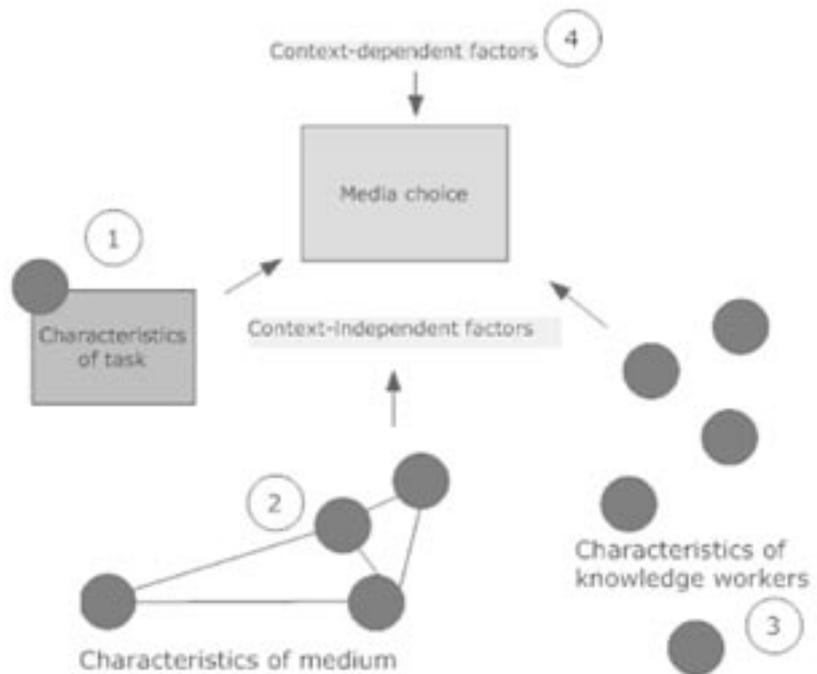


Figure 1 Conceptual model of media choice (Source: Büchel 2001)

The determinants of the model are described briefly in Table 1. The model together with the table shows that there are many factors affecting media choice. Characteristics of task, medium, worker and social environment determine the outcome of media choice. Besides theories of media richness and social presence there are many others, like situational theory (Rice 1992), critical mass theory (Markus 1987), media symbolism theory (Trevino, Daft & Lengel 1990), cost minimization theory (Reinsch & Beswick 1990), model of technological acceptance (Davis 1989), and personal traits theory. (Büchel 2001) The theories combine determinants differently and emphasize different aspects of the choice. Some theories assume that selection is a result of individual, rational choice. Others see it socially constructed and resulting from co-worker influences, social norms, culture of media use, etc. (Büchel 2001)

Class of media choice determinants	Key determinant (brief description)	
Task characteristics	Ambiguity	The extent to which a task is ambiguous
	Task urgency	Urgency of the message to be communicated
Medium's characteristics	Social presence of medium	Extent to which the medium is perceived to be socially present
	Accessibility of medium	Extent to which the medium is perceived to provide information
Knowledge workers' characteristics	Job category	Type of job employee exercised
	Managerial role	Type of activity a manager performs
	Media experience	Knowledge about media usage
	Individual traits	Personality of individual knowledge worker
	Message intention	Knowledge worker's intended signal with message
Context dependent social environment characteristics	Recipient availability / task closure	Extent to which a recipient of a message is perceived to be available immediately to take the message / The ability to finish the task rapidly
	Proximity	Physical proximity of sender and receiver
	Organizational position	Location of sender and receiver in hierarchy
	Number of organizational members using a medium	Existence of critical mass of users
	Relational media attitudes and use behavior	Extent of overlap of attitude and behavior co-workers

Table 1 Determinants of media choice (adopted from Büchel 2001)

While social influences may determine media choice in the short run, rational choices are likely to dominate in the long run. Over time individuals will probably make rational choices, which then become part of the social norms within organizations. Context-dependent determinants are more important during the early adoption of a new communication technology, while context independent factors - the nature of the task, the medium's and knowledge worker's characteristics - explain media choice in the long run. Social influence defines the boundaries within which media are chosen. (Büchel 2001)

Discussion

It is striking, how different the landscape of organizational communication and record creation is from the perspective of media selection theories. Archival theorists emphasize need for juridical or historical accountability, organizational memory, or the need to protect personal or organizational rights. In the light of media selection theories these factors do not play a major role in individual choices, albeit they may indirectly have influence on what is deemed as social-

ly acceptable. Between recordkeeping and communication studies there seems to be a clash resulting from their different perspectives. This is a fruitful platform for future research combining ideas from both sciences.

Schellenberg says in his classic writing about appraisal that “it is a curious anomaly that the more important a matter, the less likely is a complete documentation of it to be found”. According to Schellenberg, the records on important matters are often not as complete as records on unimportant matters. He notes that much that influences the development of policies and programs never makes its way into formal records. Important matters may be handled orally in conferences or by telephone, “an instrument that has been referred to as the ‘great robber of history’”. Scholarly interest in records is often in inverse ratio to their quantity: the more records on the subject, the less is the interest. (Schellenberg 1956)

From the point of view of media selection theories this is not at all “a curious anomaly”, but a predictable result of media selection. Although many factors affect media selection, an archive is likely to best document relatively simple, mechanistic, repeatable organizational processes that often produce records in large quantities. These processes are the least equivocal, and, therefore, those in which poor media is likely to convey enough information for the task to be completed.

Conversely, intricacies of high level decision making are likely to escape archival documentation. Decisions appear in records when final products of decision processes are communicated via poor media downwards the organizational hierarchy. This is especially true, if archives are satisfied with having formal paper documents in their custody. If they want to document the background of decision making, how policies and common understanding organizational is shaped, they should complement formal records with richer media, like personal papers. Appraisal should also pay special attention to email, because even in equivocal matters it can be a good information source.

The focus of archival appraisal has shifted from records to functions and processes creating records. (Cook 1997) Media selection theories suggest that a part of developing appraisal policy should be evaluating the nature of the decision making: if it is equivocal and complex, focus should be in rich media. If it is predictable and simple, poor media alone is likely to document it.

Besides appraisal, media selection theories may have applicability also in other archival areas. Several studies have shown that successful implementation of electronic records management systems is a complex task which often fails (Gunnlaugsdóttir 2006; Henriksen & Andersen 2008; Maguire 2005; Smyth 2005; Williams 2005). Media selection theories may provide theoretical background for examining ERMS implementation. After all, success of ERMS implementation depends on whether ERMS is the medium selected when people communicate in their work.

Literature

Boles, F. & Young, J. M. 1991, *Archival appraisal*, Neal-Schuman Publishers Inc., New York; London.

Büchel, B. S. T. 2001, *Using Communication Technology. Creating Knowledge Organizations*, Palgrave, Houndmills, New York.

Cook, T. 1997, *What is past is prologue: a history of archival ideas since 1898 and the future paradigm shift*, «Archivaria», vol. 43.

Cox, R. J. 2000, *Searching for Authority: Archivists and Electronic Records in the New World at the Fin-de-Siècle*, «First Monday», vol. 5, no. 1.

Daft, R. L. & Lengel, R. H. 1984, *Information richness: a new approach to managerial behavior and organizational design*, JAI Press Inc., Greenwich CT.

Davis, F. D. 1989, *Perceived usefulness ease of use and user acceptance of information technology*, «MIS Quaterly», vol. 13, no. 3.

Fulk, J., Schmitz, J. & Steinfield, C. W. 1990, *A social influence model of technology use*, in *Organizations and communication technology*, Sage, Newbury Park CA, pp. 117-140.

Gunnlaugsdóttir, J. 2006, *The Implementation and Use of ERMS: A Study in Icelandic Organizations*, Acta Universitatis Tampereensis, Tampere University Press, Tampere.

Henriksen, H. Z. & Andersen, K. V. 2008, *Electronic records management systems implementation in the Pakistani local government*, «Records Management Journal», vol. 18, no. 1, pp. 40-52.

ICA 2008, *Principles and Functional Requirements for Records in Electronic Office Requirements. Module 2. Guidelines and Functional Requirements for Electronic Records Management Systems*. Draft. February 2008, International Council on Archives.

Maguire, R. 2005, *Lessons learned from implementing an electronic records management system*, «Records Management Journal», vol. 15, no. 3, pp. 150-157.

Markus, M. L. 1987, *Toward a "Critical Mass" Theory of Interactive Media - Universal Access, Interdependence and Diffusion*, «Communication Research», vol. 14, no. 5, pp. 491-511.

1994, *Electronic Mail As the Medium of Managerial Choice*, «Organization Science», vol. 5, no. November, 4, pp. 502-27.

Pearce-Moses, R. 2005, *A Glossary of Archival and Records Terminology*, The Society of American Archivists, Chicago.

Reinsch, N. L. & Beswick, R. W. 1990, *Voice mail versus conventional channels: a cost minimization analysis of individuals preferences*, «Academy of Management Journal», vol. 33.

Rice, R. E. 1992, *Task Analyzability, Use of New Media, and Effectiveness: A Multi-Site Exploration of Media Richness*, «Organization Science», vol. 3, no. 4, pp. 475-500.

Schellenberg, T. R. 1956, *The appraisal of modern public records*.

Short, J., Williams, W. & Christie, B. 1976, *The social psychology of*

telecommunications, Wiley, New York.

Smyth, Z. 2005, *Implementing EDRM: has it provided the benefits expected?*, «Records Management Journal», vol. 15, no. 3, pp. 141-149.

Trevino, L. K., Daft, R. L. & Lengel, R. E. 1990, *Understanding managers media choices: a symbolic interactionist perspective*, in *Organizations and communication technology*, eds J. Fulk & C. Steinfeld, Sage, Newbury Park CA.

Williams, D. J. 2005, *EDRM implementation at the National Weights and Measures Laboratory*, «Records Management Journal», vol. 15, no. 3, pp. 158-166.

