Opportunities Out of Chaos: Survival Strategies in the Information Age

Will instabilities in the corporate environment signify the downfall of traditional records management? Perhaps, but in this period of instability and transition there are a variety of specific and positive strategies which today's energetic, intelligent, and effective records management professionals will want to consider as they look ahead both personally and professionally.

By DR. J. MICHAEL PEMBERTON and DR. RAYMOND R. McBETH

Several trends in the corporate environment are having a significant impact on the way information and records managers view their responsibilities. These trends include mergers, acquisitions, business process re-engineering, downsizing, outsourcing, broad-banding of salaries, and related phenomena. These are strategies which managers are using to lead their organizations more efficiently and effectively. Even more important to information professionals is the widespread availability and use of powerful information processing technologies in the form of personal computers (PCs), software, networks, and related developments which are changing the nature of work in unprecedented ways. Many of these managerial and technological changes threaten traditional records management activities since they are changing the ways in which organizations do business and, consequently, the way that records are produced, maintained, and destroyed.[1]

It is increasingly clear, for example, that in the future those who use information will also have to manage it. As a result, previous distinctions between information users and information or records managers—as personified in traditional file rooms, records centers, and most data processing operations—will become less useful and may in fact prove dysfunctional. In this PC generation, information systems which in the past were difficult, or at best inconvenient, to use are becoming more user-transparent. The users of information will themselves be creating, storing, retrieving, revising, disseminating, and disposing of information at their individual computer-based workstations, often without being consciously aware of it. In essence, all employees will be managing information as well as using it.

STRATEGIC PERSPECTIVES FOR RECORDS MANAGERS

Does this mean, then, that records will not have to be managed? Of course not; but changes in corporate structure created by information technology innovations, as well as business environment instabilities, make the future of many traditional records management positions difficult to predict. Today's records managers, if **they** intend to be successful, must help plan and implement the transition to this emerging perspective in which users of information also manage it. Their insights into the nature of their organizations and the roles that information plays in making them successful will put records managers in a position to redirect their organizations toward those enhanced information strategies, policies, and procedures which will make their organizations more effective and competitive. If, on the other hand, their current organizations remain unconvinced regarding the value of managing information, experienced records managers have the ability to apply their expertise and skills in other venues.

Records managers may consider two strategic directions in responding to the managerial and technological changes occurring in their organizations. One is internal; that is, how can they use their information management skills to improve their organizations and to demonstrate that managing information is vital to long-term organizational success? The second is external; that is, what services can records managers provide as independent vendors, suppliers, contractors, or consultants to meet the information management needs of their customers, one of which might be their former organization?

First, let us focus on the changing profiles of organizations and some of the new roles knowledgeable records managers can bring to these

	ARCHIVES	LIBRARIES	RECORDS MANAGEMENT	MANAGEMENT INFORMATION SYSTEMS
Paradigmatic Focus	Knowledge Expansion; Historical Information	Knowledge Expansion; Research, Technical, Cultural Information	Reduction of Uncertainty	Reduction of Uncertainty
Primary Function	History of Organization Over Time	Information Needs of Organization from External Sources	Internal Information Resources Control	Make Available Relevant Current Internal Data for Decision Support
Character of Agency	Receiving Agent	Collecting & Access Agent	Controlling & Collecting Agent	Collecting, Processing Agent
Nature of Acquisitions	Internal Historical, Legal, Fiscal, Administrative Records	Published Information to Support Functions of Organization (e.g. R & D, Marketing)	Selected According to Organizational Needs	Selected According to Organizational Needs
Acquisitions Sources	Organizational Entities	Publishers, Other Information Providers (e.g. database vendors)	Organizational Entities	Organizational Entities
Names of Files	Records Accessions	Acquisitions; Online Services	Records, Files	Data Records, Files
Selection Basis/ Domain	All Record Series of Archival Value	Selected Discrete Relevant Items or Serial Publications	All of Organization's Information	Selected Organizational Data As Needed
Processing Terminology	Cataloging, Finding Aids	Descriptive & Subject Cataloging	Labeling & Indexing	Data Entry & Processing (e.g. Sorting, Reports)
Information Representation	Describes Aggregate Units; Entire Unit Treated	Describes Discrete Units (e.g. Books, Reports)	Dependent on Record Type (e.g. Color Coding Files, Data Dictionaries, etc)	Random, Serial, & Inverted Files
File Organization	Names of Offices, Then By Record Series	Library Classification Scheme (e.g. Dewey, LC)	Numeric, Chronological, Alphabetic, Subject	By Process (e.g. Payroll, Inventory) & Relational Databases
Retention of Information	Permanent	Periodic Weeding	According to Retention Schedules	Updated Periodically
Users	Organization's Employees; External Scholars	Organization's Employees; Other Libraries	Organization's Employees Only	Organization's Employees Only

Table 1—Common Elements Among Information Disciplines as Service Units[3]

transformed organizations. Records managers must respond to changes that are occurring and employ techniques which will lead to an **enhanced** understanding of the value of information, not a diminished one. Implementing the transition to these new organizational dynamics may mean eliminating traditional "records management" and then applying the field's most effective principles and achievements to manage information in new ways, at all levels, and in every part of the organization.

IN-YOUR-FACE RECORDS MANAGEMENT?

Passively waiting for organizational units to seek out the records manager's advice is a high-risk strategy. Instead, records managers must aggressively seek out and analyze the records and information management needs and practices throughout their organization and make specific recommendations for change at the unit level as well as organization wide. For this analysis and the subsequent recommendations to be credible, records managers must forge beyond the familiar—but limiting—records management processes and techniques. They must also become aware of the rapid acceptance by their organization of such technologies as telefacsimile, electronic mail, electronic data interchange (EDI), and imaging systems, which are changing the forms and flows of information in their organizational environment. Such innovations will simply not "go away."

These information technologies and others have developed as processes for formatting, storing, and transmitting information, information which **still** has to be actively managed, not merely "saved to disk." The virtually complete acceptance of PCs, along with evolving client-server architectures as the everyday method of doing business, has in many cases removed both control and accountability from centralized data processing departments or management information systems units. Employees in all areas of organizations are using PCs to generate and maintain vast amounts of information. Who, however, is helping those who create this information to manage it? Who is providing services and technical assistance at the individual workstation level on matters like directory design, file-naming conventions, diagnostic utilities, hard-drive management, backup procedures, and, perhaps most importantly, information retention considerations?[2] Who is providing support in the design and re-design of systems to meet stated functionalities and optimal records structures? All too often, no one! But those with records management backgrounds can fill this service void as their world view of information expands.

The traditional functions of records management have focused on top-down, policy-driven, and organization-wide services rather than services to persons. That is, the needs of units rather than needs of individuals-as-customers have been addressed. The information management needs of these individuals, however, can be part of the enhanced domain of the records-turned-information-manager. Providing this comprehensive approach will widely and more visibly demonstrate not only the benefits to be gained by managing information but the value, to the organization, of the records-become-information manager as well. There are many exciting opportunities and much to be accomplished in the current records and information arena, but successful practitioners will over time view information as a dynamic, but manageable, organization-wide commodity in its own right, regardless of the multiplicity of its evolving forms.

BUILDING FROM WHAT WE KNOW

The diverse information specializations use a wide variety of field-specific terminology in an attempt to stress their special qualities or abilities. Nonetheless, they are all actually engaged in the same fundamental processes in which value is added as information progresses though the cycle of:

Creation
Identification
Evaluation
Acquisition
Storage
Retrieval
Access/Delivery
Repackaging/Customization
Dissemination/Distribution
Review of Value
Disposition/Preservation

For a comparison of the terminology and perspectives among various information management specializations, refer to Table 1. Note the extent to which functions differ more in terminology than in actuality.

Recognizing these commonalities among the various information disciplines suggests that there are a variety of career alternatives within the broader field of information work. An analysis of the information disciplines funded by the U.S. Department of Labor identified some 1,500 occupational titles for those working at professional levels in the information disciplines.[4] Only one percent of them were in "records management." Knowing at least something about the other 99 percent seems well advised!

Further, there are—and will be—many new and expanding information-based careers in which information management skills are valuable and beneficial. They include such areas as: information analysis, strategic information services, managing intellectual capital, environmental scanning, competitor intelligence, research support, information re-packaging, and information systems design. A growing number of new positions like these—and some either not yet imagined or waiting to be created—can build from the skills and abilities which many of today's records managers already possess. Innovative records managers can bring any of a variety of new services to their organizations.

Another logical direction, one that builds on current insights and skills, is evolution toward and promotion into what may currently be non-existent information positions in many organizations. This strategy may, in fact, require that some records managers phase out their current positions and create new ones. The new positions might include those with titles such as "Chief Information Officer (CIO)," "Vice President for Information Resources Management," or "Director

of Information Services." These titles are often associated with computing resources, but a widespread dissatisfaction with the computer-czar CIO model and a realization by senior management that there is much more to "information" than computing suggests that there are opportunities for broad-based information specialists.[5] In fact, the education, skills, and previous experience likely to be needed in these positions have already been delineated in ARMA's *Job Descriptions* guidelines.[6] A variety of upward career paths, then, already exist. There is reason to believe that an effective and knowledgeable information professional with roots in records management could set a career course toward such positions.

Another career development strategy concerns management functions beyond those associated, strictly speaking, with information work. One such area is administrative services, which includes such functions as mail services, reprographics, telephone and telecommunications services, building maintenance, risk assessment, leasing management, and office services—and, often, records management. ARMA's *Job Descriptions* publication shows the relationship between records management and administrative services. And it is now fairly common for those successful in records management with effective management skills to be promoted into leadership positions in administrative services.

Entrepreneurially-minded records managers may consider extending their unit's products and services beyond the customer base in their own organization. Many records management programs could become profit centers by marketing their service abilities to external organizations. New efficiencies and effectiveness in these service areas are likely to be of increasing value, and this knowledge and the related services will be marketable to others. One large aerospace company, for example, developed powerful document tracking software for its internal use and later marketed it to other organizations. The imaging unit of a major company now provides source-document and Computer Output Microfiche (COM) services to others. Our views of such formerly internal-only functions are likely to change over time as knowledge itself becomes the basic resource.

In his *Post-Capitalist Society*,[7] Peter Drucker shows that knowledge is replacing capital as society's basic resource and that a market economy organizes economic activity around information. More importantly, he shows that the business of most organizations is now the production and distribution of knowledge and information rather than the production, inventory, and distribution of "things." Under these circumstances a diverse records management background provides many skills that are essential to knowledge workers and knowledge-based organizations. These include the ability to organize information for efficient retrieval, an understanding of information retention considerations, such as retaining information for decision making as opposed to retaining it for legal, financial or historical purposes. These insights can be especially valuable in showing the organization how to cut costs and to regain both efficiency and organizational effectiveness.

INFORMATING THE MANAGEMENT DISCIPLINES

Shoshana Zuboff in *In the Age of the Smart Machine: The Future of Work and Power* has shown that an organization becomes increasingly "informated" as information technology is used by more and more employees to accomplish everyday tasks.[8] Increasing "informating" means that as all other areas in the organization are becoming information intensive, information management skills will not only be necessary but crucial in every part of the organization. Areas such as accounting, personnel, purchasing, inventory control, transportation/logistics, and customer services are already information-intense, and other areas such as engineering and production are becoming more "informated" all the time. Skills focused narrowly or solely on records management will increasingly be inadequate; instead, they will need to be applied in some functional area in the organization. Some estimates suggest that 70% to 80% of the quality problems in organizations are not production problems but those associated with information, such as inaccurate and/or late billing or the inability to answer customer inquiries in a timely fashion. It is increasingly clear that information skills are needed and can make a significant difference in virtually any part of the organization and at all levels within it. These skills can be used by information managers to help individual units of the organization rethink their mission by continually asking questions about the information stored and the reasons for maintaining it: "why do we do this in this way; what are our alternatives; does this really need to be done?" The answers can be used to re-engineer work processes effectively in order to save time, money, and energy.

KNOWLEDGE TRAVELS WELL

To be a successful manager in an information-intense environment will require enhanced knowledge and skills. A major study by Griffiths and King on the educational needs of information managers, funded by the U.S. Department of Education, defines a variety of knowledges, skills, and attitudes needed by information professionals in a variety of work settings. At the foundation level, these include: *knowledge* in areas of literacy, numeracy, and communications; *skills* in oral and written communication, time management, cognitive and analytical areas; and *attitudes*, such as a willingness to share knowledge and experiences with others, dependability, willingness to take responsibility, and a desire to follow through.[9] At both middle and senior-management levels, the successful records and information manager will possess all these characteristics along with others, some of which are more discipline-specific. Among these are:

- Knowledge of the legal, fiscal, administrative and/or historical reasons for retaining information,
- Knowledge of available vendor-supplied systems, services and products to support information-intense activities,
- Knowledge of the contracting process, both in general and within the organization,
- Knowledge of facilities management: building and fire codes, safety regulations, etc.,
- Knowledge of methods and

techniques to evaluate systems, services, and products,
- Knowledge of public relations techniques,
- Knowledge of statistical description, analysis, interpretations, and presentation skills, and
- Knowledge of cost and cost analyses associated with information management processes and resources.[10]

Note the extent to which these various types of knowledges are applicable to information management positions other than records management **and** even to other types of management beyond the more narrowly defined information disciplines (e.g., facilities management, statistical descriptions, public relations, cost analysis).

In the area of skills, there are a variety of abilities generic to all information-work areas at the middle and senior-management levels. These include abilities to:
- Understand needs of the entire organization and not just those of the records/information management program,
- Anticipate long-range resource needs of the program,
- Design systems and procedures to improve program operations,
- Arbitrate and negotiate,
- Apply methods of measurement and evaluation, and
- Budget and make projections.[11]

Thomas Stewart maintains that, when they are present, these types of knowledge and skills along with the information that is available in an organization form a type of capital. This "intellectual" capital is the most valuable asset an organization has.[12]

It is important for one's own career development to understand the difference between "competencies," such as the knowledge, skills and attitudes outlined by Griffiths and King, and "activities." Activities are those duties performed at a particular job site during a particular time interval. Competencies, on the other hand, are areas of ability which are portable from one work environment to another and which withstand the test of time better than mere workplace activities or duties. To an extent, the differences between activities and competencies define the difference between clerical staff and professionals: a clerical worker works for a company and **happens** to be performing records management *activities*; a professional is a career records manager who, for now, is applying his *knowledge* in a company. Knowledge belongs to those who have it, **not** to those who employ the person with knowledge.[13] Understanding this distinction may make a world of difference when one views records/information management in career terms rather than as the occupation of the moment. But why even consider a career beyond the organization for which you now work? Because quite possibly they are considering a corporate future without you!

YOUR EXTERNAL STRATEGIES

Another approach to career change focuses on what you might do to prepare for new careers and positions outside your present organization. There are four alternative directions that will allow you to take advantage of your records management experience. Your future may be that of an entrepreneur, a consultant, a vendor, or as part of a temporary staffing organization.

In *Post-Capitalist Society*, Drucker discusses a corporate phenomenon he calls "unbundling."[14] Unbundling is the external procurement of services that are necessary for, but not directly related to, the mission of the organization. Outsourced services can range from such everyday things as building maintenance and food services to accounting and information management expertise and services. Organizations turn to outside vendors for these services because they believe they can get better value for their investment from specialists in those areas. Perhaps even more importantly, many bright, ambitious, and innovative employees are finding that they have career paths available to them in these specializations which do not exist in their current organizations.

Today, reorganization and outsourcing are facts of organizational life, but their impact on records managers is not necessarily negative. These transformations can provide an opportunity for you to become your own boss and use your insights and skills to create a successful new organization. For example, if you like managing a records center, are successful doing it, and you are certain that you could do an even better job if allowed to make your own decisions, then why not open one? That is, "spin off" your function to a new organization, one that you control, and use your knowledge of your former organization to build a successful partnership with it as well as with other customers. Entrepreneurship means risk-taking, of course, but if you are convinced that your organization will outsource the records center function anyway, why shouldn't they contract with you, especially since you already know the organization well?[15] We work in a market economy, and if you are effective at what you do and if organizations want and need your knowledge and services, you will be successful.

A second direction could be to become an independent consultant. If you are taking your current responsibilities seriously, you are already an internal consultant in your organization because you are working with many departments and divisions "selling" them new ways to improve their information and records management systems. You can apply your insights and skills in any environment, either inside the organization (as an *intrapreneur*) or outside of it (as an *entrepreneur*).

In addition to being risk-tolerant, becoming an entrepreneur requires significant business sense, marketing skills, and the energy needed to become your own boss. If you accept the risks, you also reap the rewards. You have records and information experience as well as insights into the needs and concerns of the industry in which you have worked. It may be that your current organization does not need those insights on a full-time basis but that a number of similar organizations would contract with you on a part-time basis. According to the U.S. Department of Labor's *Occupational Outlook Handbook (1994-95 Edition)*, employment of management consultants

> will grow **much** faster than the average for all occupations through the year 2005 as indus-

Continued on page 14

Continued from page 12

> try and government **increasingly** rely on outside expertise to improve the performance of their organizations [emphasis supplied].[16]

There may well be an appropriate market niche for your particular consulting skills.

A third direction could be to become a vendor. This requires shifting roles from those of an intelligent buyer of information management equipment, supplies and services to being an ethical and knowledgeable seller of them. Like records managers, vendors are typically involved in a form of consultative process with their customers to meet both perceived and actual needs. This consultative process occurs between vendors and their customers in virtually every aspect of information management, from, at the lower end, the buying and selling of filing cabinets through the acquisition of the most sophisticated imaging systems. In between those extremes are such alternative solutions as color coding, mobile shelving systems, database software, automated retrieval, specialty supplies, and an array of other permutations and combinations. Your established records and information knowledge and experience places you in a very strong, credible position to meet customer needs because you understand the possibilities that are available along with their strengths and weaknesses.

A fourth direction might be to affiliate with a temporary staffing service. In this staff-specialist capacity you could market to, or manage records management activities in, those organizations that require them on an as-needed basis. Many organizations are now purchasing information services from external contractors. Some of those contractors are not independent consultants but "temporary" agencies such as Olsten, Manpower, or Kelley that supply services on demand. This option would allow you the flexibility of entrepreneurship without all the responsibilities that go with ownership. In this capacity you could work with customers to identify their information management needs and then design solutions to meet those needs. In many cases (e.g., conversion projects), this requires short-term staff which your organization would supply. This approach would not only draw on your information and records management skills to identify customers' near-term problems but could also lead to providing continuing long-term solutions to the client organization's information management problems as well.

A STRATEGIC PLAN FOR "YOU, INC."

Because of rapid changes in the corporate environment and the need to reduce uncertainty, most organizations are involved with continuous strategic thinking and planning. This concern about an unpredictable environment should give you as a professional the models and the incentive needed to perform your own personal strategic planning initiative. You might, for example, take as your mission the development of a plan to begin a records management consulting organization. Goals and objectives necessary to fulfill that mission would be developed; these would include efforts such as: learning the procedures of setting up and running a small business, assessing the values and pitfalls of incorporation, creating a viable business plan, looking for sources of capital needed to establish and market one's services, examining the prospect of a home-based business, and so forth.

Related to these endeavors would be professional-development activities usable in this new venture. Skills such as marketing techniques, proposal writing, effective presentations, and cost-benefit analysis can be learned from books, seminars, college courses, and other training opportunities. While these are discrete and short-term efforts, there are other and more challenging initiatives which may be necessary to meet your strategic goals. Among them should be education and professional certification.

Those who will achieve the future they want will share many common traits, including educational qualifications beyond an associate's degree. A personal and systematic approach to professional growth and development is important, but it must have as a foundation formal, relevant educational credentials because that is what organizations are requiring. In any case, those who will achieve success must acquire a thorough understanding of management functions and techniques, a genuine understanding of the nature of information as a resource, and a credible and comprehensive understanding of information technology. Undergraduate and advanced degrees which unite management education **with** that for information management, information science, and information technology represent an ideal combination. A commitment to pursuing education enrichment is increasingly valued in a knowledge-based marketplace.

While degrees provide a formal certification of basic understanding, the information underlying such degrees often becomes obsolete quickly. For this reason, certification (e.g., Certified Records Manager, Certified Archivist) is especially important, since this process verifies that you have a foundation of understanding related to the core knowledge of a professional field. Linked to that knowledge, the hours of required certification maintenance are valuable not only because they suggest to current and future employers that skills and knowledge are current but also they enforce a discipline to ensure understanding of changes in the field. Thus, skills and competencies are continuously improved.

CONCLUSION

While lifetime employment in a single occupation and in a single company is no longer a reasonable expectation, your understanding of your organization and its needs to manage information gives you a significant advantage. You can use this knowledge and skills not only to enhance your own career but also to improve the efficiency and effectiveness of your organization. This is true whether you stay in your current organization, move to another work place, or create a new business of your own. Whatever direction you take, monitoring the activity of your organization, its industry, and the trends and developments in the information management field will be increasingly vital.

The future can hold many attractive possibilities. The choices are yours, but deciding not to decide, or leaving things the way they are, is today the **most** risky strategy. To "leave well enough alone," which in the past was often a reasonable strategy, is now likely to be a short trip to unemployment. One option, if you are to be seen as a valuable part of the organization, is to eliminate your present job by restructuring and re-directing the information management functions. This means finding more effective and efficient ways to accomplish the necessary (and only the necessary) information-based tasks. Could there be a better way—however ironic—for you to demonstrate your value to the organization?

The future of your organization and your role in it are matters only you can decide; only you can take the appropriate next steps. You can pretend that your job and your future are secure, or you can face the reality of the current business environment and organizational dynamics and develop not only a place for your skills but also an awareness of the significance that the effective management of information plays in your—or any other—organization. What you know now about managing information can make a big difference in your future and in the future of any organization of which you are—or will be—a part.

AUTHOR: J. Michael Pemberton is an Associate Professor in the Graduate School of Library and Information Science at the University of Tennessee, Knoxville. He teaches in such areas as: records management, archives, management of information systems and services, academic information systems, and the growth of knowledge.

Mike is President of Information Management Associates, Inc. of Tennessee, a records management consulting organization. As a consultant, he has developed records management programs for universities, consortia, and local governments.

He has been active in ARMA International for fourteen years. Mike has served as Vice President for Region III and President and Vice President of the Knoxville/East Tennessee Chapter. He chaired the Publications and Research Development Subcommittee of ARMA's Publications Coordination Committee and served as chair of the Industry Action Committee for Educators. In 1990, he was the winner of ARMA's Britt Literary Award for the best article in *Records Management Quarterly*. Currently he chairs the ad hoc Committee on Ethics and the Committee on Standards for Educational Programs.

Mike has written books and articles for the library and information science fields as well as for records management. In July of 1987, he was named Contributing Editor to *Records Management Quarterly*, for which he writes "Perspectives," a column covering professional issues in information and records management.

He graduated in 1964 from the University of the South with a B.A. He also has a Master's in English, a Master's in Library and Information Science, and a Ph.D. in English.

AUTHOR: Raymond R. McBeth is Assistant Dean and Director of Academic Affairs and Professor of Business Management Technology at the University of Akron-Wayne College, Orrville, Ohio. Prior to fall of 1993 he was the Coordinator of the Information Management Technology Program at the University of Toledo in Toledo, Ohio. In this capacity he established, in 1981, an Associate Degree program emphasizing Information and Records Management, which has included microcomputer courses using office productivity software.

Previously he was an Assistant Professor in the Department of Library and Information Services, Community Information Specialist Program, University of Toledo. There he taught in the areas of community and social needs, administration and grantsmanship.

In addition to his work at the University of Toledo he is one of the co-founders of the Notari Systems Group, which was a firm that specialized in solving a variety of information management problems for small and medium-sized businesses.

Dr. McBeth holds a Ph.D. from the University of Toledo in Higher Education with a minor in Educational Research and Measurement. He also holds an M.A. and a B.A. from the University of Detroit. He was an active member of the Greater Toledo Chapter of ARMA of which he is a charter member. In the fall of 1990 he was named Chapter Member of the Year for that chapter. He is now a member of the Akron/Canton Chapter.

REFERENCES

1. We are hardly the first observers of the records/information management scene to suggest the effect on the field of recent changes in business practice and technology. See: Jo Ann M. Constantini, CRM, "Survival Skills for Information Professionals in the Decade of Turbulence," *Records Management Quarterly*, 28, i (January 1994), 26-28, 30, 40 and Jim Coulson, CRM, FAI, "Our Professional Responsibility," *Records Management Quarterly*, 27, ii (April 1993), 20-25.

2. John T. Phillips, *Organizing and Archiving Files and Records on Microcomputers* (Prairie Village, KS: Association of Records Managers and Administrators, 1992).

3. Adapted from: Russell F. Moore, ed., *AMA Management Handbook* (New York: American Management Association, 1970), p. [112]. Most items in the chart are self-explanatory; some explanation of the chart's "paradigmatic focus," however, is warranted. Within the information fields, there appear to be two ruling paradigms: knowledge expansion and uncertainty reduction. In their services, archivists and librarians reflect and operate from a set of assumptions (a paradigm) that their role is that of expanding their customers' knowledge base (e.g., learning **more about** salary scales in the widget industry or learning **more about** marketing trends in the widget industry). The other paradigm, the one more closely associated with records management and MIS, is often termed "uncertainty reduction"; that is, their customers want information to establish clearly a specific fact (e.g., "what are we currently paying John Doe?"; "how many widgets did we ship last month?").

4. Anthony Debons et al, *The Information Professional: Survey of an Emerging Field* (New York: Marcel Dekker, 1981).

5. See J. Michael Pemberton, "*Will the Real* CIO Please Stand Up?" *Records Management Quarterly*, 26, iv (1992), 42, 44-45, 52.

6. ARMA Guidelines. *Job Descriptions*. 3rd ed. (Prairie Village, KS: Association of

Continued on page 71

Opportunities Out of Chaos: Survival Strategies in the Information Age...

Continued from page 15

Records Managers and Administrators, 1991).

7. *Post-Capitalist Society* (New York: Harper Business, 1993); see also: Hubert Saint-Onge, "The Generation of Intellectual Capital: A New Approach to Managing Corporate Value and Organizational Capability in the Knowledge Era," paper presented at Managing Information—Meeting the Challenge of Change: ARMA International, 39th Annual Conference, Toronto, September 25-29, 1994.

8. *In the Age of the Smart Machine: The Future of Work and Power* (New York: Basic Books, 1988).

9. Jose-Marie Griffiths and Donald W. King, *New Directions in Library and Information Science Education* (New York: Knowledge Industry Publications, 1986), p. 196.

10. Griffiths and King, *New Directions in Library and Information Science Education*, Volume Eight, "Records and Information Manager Competencies," p. 12.

11. Griffiths and King, *New Directions in Library and Information Science Education*, Volume Eight, "Records and Information Manager Competencies," p. 13.

12. Thomas A. Stewart, "Your Company's Most Valuable Asset: Intellectual Capital," *Fortune*, 130, vii (October 1994), 68-74.

13. In this information and knowledge society, it should be realized, as one economist remarked in 1923, that "knowledge is the only instrument of production that is not subject to diminishing returns" (J. Maurice Clark, "Overhead Costs in Modern Industry: Part III—How and Why Large Plants Bring Economy," *The Journal of Political Economy*, 31, iv [August 1923], 621). In today's knowledge-driven economy, this idea applies as well to the individual's knowledge resource as it does to that in an organization. See also: J. Michael Pemberton, "Professionals and Clerks: One Happy Family?" *Records Management Quarterly*, 28, ii (April 1994), 56-59, 60-61.

14. *Post-Capitalist Society*, pp. 169-70.

15. Because records inventories, analysis, and scheduling provide so much information about the internal processes of an organization, records managers often claim to know more about an organization than virtually anyone else. Information and records experience, then, typically provide a broad organizational perspective which can also be of significant value in other positions which stress the classic managerial responsibilities of planning, organizing, leading, and controlling.

16. U. S. Department of Labor, Bureau of Statistics, *Occupational Outlook Handbook (1994-95 Edition)* (Washington, DC: Superintendent of Documents, 1994), p. 56.

■

People Make It Work...

Continued from page 32

the things that could possibly go wrong and counter them before the process falls apart.

At the work system stage

The machine and the people make a whole. The work structure must be designed to complement the abilities of both people and machine, to make the very most of all their skills and talents—and I do mean the skills and talents of the machine as well. You paid for these when you bought it—use them to the maximum.

The whole structure must be designed so that people do the things people are good at, such as thinking and deciding and giving customers a smile, and machines do the things machines are good at, such as repetitive tasks that are monotonous or fatiguing, or are slow for people and fast for machines. Then ensure that the interaction points between the two are such that the structure as a whole is as effective as possible.

CONCLUSION

Every work process has a series of points of interaction between machines and people. While machines are generally capable of heavy monotonous work, they can do little thinking, and have no ability to overcome breakdown. They just stop.

People, on the other hand, are flexible, and intelligent, and responsible, and effectively complement the machine when both are part of a properly designed work system.

Proper system design is essential. If it doesn't occur, there will be a series of weak points in the work process, and people will invariably be the losers. The system must be designed to maximise the role of both people and machines, but in particular to ensure that the very real strengths of people are not subordinated to the inflexible demands of machinery and that people are not hurt in any way.

■