

---

# TRUST AND TRANSFORMATION

---

Kenneth Thibodeau

Center for Advanced Systems and Technology  
National Archives and Records Administration, U.S.

UK and Ireland Forum for Archives and Records Management Education and Research  
And

Network of Archival Educators and Trainers (North West Europe)

Questions of Trust? Archives, Records and Identities

Wolfson College, Oxford University, Oxford, U.K.

5-6 July 2010

The National Archives and Records Administration (NARA) of the U.S. is three years into a massive infusion of information technology (IT) into its core businesses. New technology or new uses for technology can be enabling or disruptive or both. They can change the way business functions are carried out and even enable activities that were not possible previously. The impacts are not limited to changes in practices and related policies but can extend to organization, professional identity, and trust. The technology infusion at NARA is the consequence of the recognition, in 1998, that NARA faced a high probability of critical failure in its core mission if it did not find a way to preserve and provide sustained access to massively increasing volumes and varieties of electronic records. To avert this catastrophe, NARA undertook the Electronic Records Archives (ERA) program.

NARA has multiple responsibilities, ranging from registration of amendments to the Constitution to daily publication of the official notices of the U.S. Government, but its core mission is the management of the government's records. This mission includes several distinct lines of business according to different authority and responsibility. Records management authority derives from two laws. The Presidential Records Act (PRA) covers records created by the President and any official or organization in the Executive Office of the President whose only function is to advise the President. The Federal Records Act (FRA) covers all agencies of the government, including all departments and independent establishments in the Executive Branch, wholly owned government corporations, and entities within the Executive Office of the President that have authority to act independently of specific decisions of the President. Under the constitutional principle of separation of powers, NARA has no authority over the Congress or the Supreme Court, but agencies within the Legislative Branch and lower level courts are subject to the Federal Records Act. NARA does have responsibility for preserving the records of the Supreme Court and the Congress, but as a courtesy and under their direction.

The definition of federal record encompasses not only what archivists and records managers normally consider to be records, but also any informational material that an agency comes to

possess in its activities whose content has value for some period of time, without regard to its relationship to the conduct of government. (44 U.S.C. 3301) In contrast, presidential records are limited to materials made or received in “activities which relate to or have an effect upon the carrying out of the constitutional, statutory, or other official or ceremonial duties of the President.” (44 U.S.C. 2201) Under the FRA, no federal record may be destroyed without authorization from the Archivist of the U.S. and the Archivist may select records to be preserved in the National Archives. Under the PRA, the moment a president leaves office the Archivist becomes responsible for “custody, control, and preservation of, and access to” all extant presidential records of that administration. (44 U.S.C. 2202) NARA has the right to appraise and dispose of presidential records, but in reality there is never time to appraise them because the demand for access and the need for detailed review for sensitive content are too great. In broad terms, the management of federal records is very process intensive, while the management of presidential records is very information intensive. The management of Supreme Court and congressional records is at the discretion of the records creators.

The prospect of critical mission failure emerged, in 1998, from the projection that tens of millions of presidential electronic records would be transferred to NARA at the end of the Clinton Administration. At that time, NARA had custody of very few presidential electronic records; moreover, the Clinton records, which turned out to comprise some 33 million electronic records, exceeded by more than 300 times the volume of federal electronic records that NARA had accessioned since 1970. While the impetus for change was presidential records, NARA decided to take an enterprise wide approach to preserving electronic records. Moreover, NARA decided that electronic records should be integrated, wherever appropriate, into the life cycle management of all types of records. There were sound reasons for taking a comprehensive, integrated approach; however, it entailed a considerable expansion of the scope and complexity of the ERA system. The increased complexity stemmed from the need to address the different requirements of federal, presidential, congressional and Supreme Court records, to support the different business processes of the National Archives, Presidential Libraries, and Federal Records Centers, where agencies store inactive records that remain under their legal control, also NARA’s exercise of government wide authority over the lifecycle of federal records, and to implement uniform records management transactions, whether they involve traditional or electronic records or both.

The first sign that NARA management recognized the potentially transformative impact of the Electronic Records Archives came at very meeting where the scope was defined. After consensus was reached, one of the senior managers remarked to his peers that their decision would entail changing the way the agency does business. Among other things, he said, they – the managers – would have to suspend their usual willingness to revisit any management decision at any moment for any reason.

Although this remark provoked quiet laughter at the time, it was quite telling with respect to NARA’s corporate culture. The agency has been characterized as an association of self-employed professionals. Many staff and managers agree with that assessment. The physical constraints of hard copy records – be they paper, microfilm, photographs, audio recording, motion picture films, or charts and maps – both enable and make it difficult to overcome an individualistic and, some might say, idiosyncratic approach to archival and records

management practice. The fact that an organization can accomplish its mission while trusting its professionals enough to allow them wide latitude in how they go about their jobs might be regarded as a positive trait, a form of empowerment; however, it does have drawbacks.

Specifically, in the 1980's, when I was the records officer of the National Institutes of Health, I remarked that with respect to the functions of scheduling and appraisal of records, NARA processed cases, but did not manage the process. No one from NARA disputed that claim. In fact, in the mid 90's, several years after I came to NARA, I asked those in charge of records scheduling what were the biggest problems they had with other agencies. After they answered, I asked if the problems had been different five years earlier. The response was a simple, unanimous, "No." And they didn't set anything wrong with that. To me, that was symptomatic of the focus on cases rather than process. If you are responsible for managing the process of appraisal, and not just getting schedules approved, you would have to admit significant performance failure if you had made no progress addressing your biggest problems over a period of five years or longer.

Generically, broad discretion in the way individuals carry out the same types of transactions jeopardizes basic customer relationships when employees leave positions, and it creates considerable inertia against systematic efforts in areas such as increasing efficiency, reducing risks, interpreting policy consistently, or implementing computer systems effectively. Moreover, the apparent trust in employees may be superficial and even contain the seeds of its own destruction. It reinforces a tendency of managers who, when a major problem occurs, are not content to solve the problem but move quickly to create a policy which, hopefully, would prevent that type of problem from happening again.

Although there was some recognition of the potential of the ERA system to have significant organizational impact, managers' attitudes were ambivalent or worse. When I started the ERA initiative I argued that it was not just a technology project, but also needed to address important issues of organizational change. It was not just a matter of bringing the best technology to NARA. We also needed to bring NARA to the point where its employees were able and eager to take advantage of the technology. Some key managers who had a clear bias against the discipline of organizational change management. To assuage managers' malaise, we limited our activities in change management to issues closely related to technology; such as, what new or different competencies would employees need and how should the organization be structured to improve the return on its investment in technology?

While we were ordered to cease organizational change activities before any part of the system had been deployed, we did have notable successes in this area, largely by doing things that were not labeled as organizational change. In order to get employees to be eager to use new technology, they need to perceive that it will be beneficial both to themselves personally and to their professional and official objectives. Although NARA's staff consistently exhibit extensive knowledge and deep commitment to mission, or at least to the part of the mission where they are involved, they are wary of new technologies because of the not-uncommon experience of being told they have to use new technology, even though they had no input into its selection or design and have inadequate information to perceive its potential benefits. Primarily to ensure that ERA responded to NARA's real needs, but also to build employee commitment, we introduced the Integrated Product and Process Development (IPPD)

methodology in NARA. IPPD is not very specific as to techniques used to implement it, but it requires adherence to two fundamental principles. One is that you must involve representatives of all stakeholders in the development. The other is that cost must be treated as an independent variable. The second principle was fairly easy to follow because funds available to a federal agency depend on congressional appropriations, which are somewhat arbitrary.

In the ERA program, we could not fully implement the first principle. U.S. agencies face major constraints on interactions with private parties. So we had limited ability to engage with two important groups of stakeholders: persons interested in doing research in NARA's holdings and organizations capable of meeting our requirements for technology. Through a combination of market research and confidential briefings from IT companies, we overcame the barrier to the second group. However, we had largely to rely on NARA staff, who interact with researchers, to act as their proxies.

We formed a series of Integrated Product Teams (IPTs) to deal with various aspects of the system development, with members appointed from across NARA. Thus we started with a Business Analysis IPT, which developed the business case for the system, and an Analysis of Alternatives team which identified and evaluated options for meeting the agency's needs. The Concept of Operations IPT developed a high level description of how the system should work. The Requirements IPT translated this description into a set of atomic requirements. We even succeeded in getting senior managers into an IPT, called the Committee on Archival Requirements (CAR). The premise for the CAR was that the various IPTs would inevitably hit upon policy issues in the course of their deliberations and that policy should be addressed by management. While it took lengthy negotiations to get the CAR started, the members did fully engage, to the extent that they were eventually willing to take on a major task that concerned operations rather than policy. ERA engineers translated the 853 ERA requirements into 21 use cases. We then walked the CAR through every step of these use cases, asking them, "Does this describe how you want this agency to work?" After incorporating their comments into a revision, we stepped them through the use cases a second time, to ensure that the final version faithfully expressed their intent. During design and development, we established new IPTs appropriate to successive stages. Thus, we have or have had teams dealing with business process, business security, federal records, presidential records, public access, preservation, risk management, training, acceptance testing, and the system as a whole.

In spite of its minimal core and its open adaptability, IPPD is a demanding method to implement. There are a number of inevitable tensions, such as between management control and stakeholder contributions. IPTs require a certain ceding of management control. Even though NARA managers agreed to the approach, they tend to assert authority when exposed to IPT work products, which is counter to the collaborative approach at the heart of IPPD. To promote collaboration we made it a rule to not allow high level managers to serve as IPT chairs. In the case of an enterprise initiative, such as ERA, one needs to counteract parochialism and local interests in the selection of members and the work of the teams. Another continuing burden is making sure that IPT members are given sufficient time to do the work required of the team. Communications require continual attention. IPTs naturally generate a great deal of communication across organizational and occupational boundaries;

however, there are basic difficulties when you bring together people from disparate units who are not used to communicating, much less working, with each other on an intense basis. Communications between the IPTs and other parts of the institution required continuing attention. For each IPT the ERA Program Management established formal requirements for communication in the form of required deliverables. We promoted peer-to-peer communications by forming IPT “working groups.” Each group was lead by a member of an IPT but included other employees, who were not IPT members but had relevant expertise.

In spite of the difficulties and demands, after 10 years experience I remain convinced that IPPD is a good method for dealing with technological change in organizations. Two basic benefits for system development and implementation are in the areas of requirements and user acceptance. By engaging stakeholders from across the agency in requirements elicitation and validation, the method fosters generation of a solid set of business requirements. A derived benefit from involving the stakeholders in requirements management from the start is that they are better equipped when it comes time to translate business requirements into engineering specifications that can guide development, as well as in assessing delivered products. The IPT process eliminates problems of stakeholders wondering what was done with their input, because the IPT members are themselves responsible for key products that govern system development and acceptance.

Involvement in system development is a solid way of convincing stakeholders that their concerns are addressed. This not only allays the kind of fears that are born of ignorance or exclusion, but also creates champions for the change. Several senior professionals, who at the start of the initiative expressed the view that “It ain’t broke: don’t try to fix it,” subsequently decided to delay their retirements because they want to use ERA. In fact, one early critic has become a very effective trainer for other users. Other employees, who tried to kill the initiative in its early days, came to assume leadership roles. Involvement also helps records managers and archivists to understand what they are up against in the digital arena and to appreciate what technology could and cannot do for them.

These aspects were perhaps best expressed by an archivist who works with presidential records. Because of the differences in business needs, we developed a specialized version of the ERA system for the George W. Bush Presidential Library. The electronic records in that library are not only larger than the combined digital collections of all other presidential libraries, but also larger than the electronic records in the National Archives. The presidential records ERA is optimized for the library’s biggest need, search and retrieval. About half way through the design of the Bush instance, this archivist reported that the staff recognized that if the ERA development failed, they would be dead because there would be no way they could deal with the hundreds of millions of electronic records that were expected from the Bush White House. But he also stated that they realized if the ERA development succeeded, they would be dead, because there’s no way they could do the required intellectual analysis of the Bush records given the volumes of records. Well, they’re not dead yet. In less than a year, the 25 archivists who spend some of their time dealing with Bush electronic records have executed more than 50,000 searches against the system. More recently this archivist has asserted that the ERA system is like oxygen to the presidential libraries. They don’t fully understand it from a technical perspective; they can’t say they love it, but they know they could not live without it. The important lesson in this is not that NARA has become

dependent on the ERA system. It is that increasingly the managers and professional staff realize that they can progressively deal with more and more aspects of the ever larger and more complex challenges of electronic records; that they are not locked into a system, but put in position to take advantage of improved technologies as they become available; that it is unlikely they will ever solve the problem of electronic records for the simple reason that not only is it a moving target but it is also one which morphs as it moves; that the proper attitude is not one of avoidance, or fear, or distrust of technology, but one of excitement and justifiable pride that they can continue to grow as professionals and to improve the performance of their organization.