



**BRUCE R. JAMES**  
Public Printer of the United States

FROM THE FOUNDING FATHERS  
TO THE DIGITAL AGE  
*A Look At The Latest American Revolution*

Rochester Institute of Technology  
Rochester, NY

Tuesday, September 26, 2006

BRUCE R. JAMES  
Public Printer of the United States

FROM THE FOUNDING FATHERS  
TO THE DIGITAL AGE  
*A Look At The Latest American Revolution*

Rochester Institute of Technology  
Rochester, NY

Tuesday, September 26, 2006

President Simone, distinguished members of the RIT board and faculty, our honored guests the members and spouses of the National Government Publishing Association, students, and ladies and gentlemen...

It is a special honor and pleasure for me to be here with you this evening, at this university that launched me on a career of more than 40 years in the printing, publishing, and information industries. It was a career that led me ultimately to the post from which I speak to you this evening, as Public Printer of the United States.

As most of you know, this will be one of the last times I have the privilege of appearing before you in that capacity. Since 2002, I've been working with Congress, Federal agencies, the courts, the library community, the printing and information industries, and others, to turn GPO in a new direction, one that promises a positive future for many years to come. Now, after nearly four years of striving to achieve that result and much more, it's time for me to return to my home in Nevada.

I've advised the President that I'll continue to serve until a new Public Printer is chosen, and I'll continue working hard to make a smooth transition of leadership so that GPO doesn't miss a step going forward. What I'd like to talk about this evening is the experience we've shared in moving the GPO forward, and on the future of Government information in the years to come.

### *Printing and Information*

---

Several years ago I spoke here on what it was like to receive a printing education at RIT some 40 years ago. I talked about the talented professors who revealed the mysteries of this craft in order to teach us the history, art, and technical principles of printing.

Most important of all, these were professors who thought of printing as a sacred mission. The mission was clear and simple. We were being handed a torch to carry forth in our lifetimes, to continue the mission begun with Gutenberg in the 15th century of promoting the free flow of information to the public. As a student, I took this mission seriously. I still do.

That's why taking the job of Public Printer ultimately appealed to me. GPO is where the mission of guaranteeing the flow of information to the public is carried out every day. It's there that printing and its successor technology, digital information, play a fundamental role in America's continuing experiment with self-government first envisioned by our Founding Fathers, by providing public access to Government information. And it's there that we have been using digital information technology to improve on—to revolutionize—how that role will continue in the 21st century, for generations of Americans yet to come.

### *The Government Printing Office*

---

As I told the Senate at my confirmation hearing, GPO has a proud history, one built on innovation, craftsmanship, scale, flexibility, and a singular dedication to meeting the information needs of the Government and the people. It is one of the Nation's oldest and most venerable agencies, within which the official version of every great American state paper since President Lincoln's time has been produced.

It was at GPO that the text for the Emancipation Proclamation was most likely set, and it was there that ink was put to paper for the declarations of war sought by Woodrow Wilson and Franklin Roosevelt, for the great civil rights legislation of the 1960s, and for the actions that define our war on terror today. Throughout America's

history, GPO has been there, producing and distributing the official documents of our Nation. Where we once relied solely on ink and paper, we now use electrons, but our job is the same: to record the words and actions of our Government and make them available for our people.

### *Providing Public Access*

---

Making Government information available to the public is the core of GPO's mission: *Keeping America Informed*. This critically important function sustains one of the keystones of our republic: an informed and enlightened citizenry.

The notion of an informed public is one of the great ideas to emerge in the past millennium. Those of you studying history know that the spread of information by printing fundamentally altered the relationship of people to their governments, eroding the divine right of kings and making way for representative self-government. James Madison summarized the role of an informed public in his famous letter to W.T. Berry in 1822:

*A popular Government without popular information, or the means of acquiring it, is but a Prologue to a Farce or a Tragedy; or perhaps both. Knowledge will forever govern ignorance: And a people who mean to be their own Governors, must arm themselves with the power that knowledge gives.*

The importance of access to Government information has been widely commented upon in legal, economic, academic, and other circles. As Americans, we need ready access to Government information to make informed, responsible choices about ourselves and our future. The First Amendment to our Constitution includes a specific freedom of information—freedom of the press—which comprehends a more expansive freedom: a right to know, a right to have access to information, including Government information. We have a long cultural and social heritage of public access to Government information that is synonymous with that concept, and which continues to prevail today.

Access to Government information is also essential in our Nation with its highly-developed technological and industrial capacity, and where the links between that capacity and the Government are strong. Government information is a tool and a commodity: it has economic value, especially consumer information and information reporting new technological developments both at home and abroad. Government information on the Nation's economy has wide-ranging effects on Wall Street and in international markets.

Equally as important, Government regulation of business, lawmaking, and statistical compilation have created vast information-gathering industries to service highly-diversified and growing client groups. In the international arena, the free exchange of Government information, except that classified for security reasons, is indispensable to diplomacy and commerce.

And in the academic environment, Government information is a primary research source that continues to grow in importance. This importance is not limited to the social science field, but extends to the physical sciences, the humanities, and even the arts. No one will dispute the fact that Government information is crucial to informed public decisionmaking and the achievement of our national goals.

So important is public access to Government information in our country that as early as 1813 Congress passed an act to provide for the distribution of congressional and other Government documents on a regular basis to libraries and other institutions in each state for the free use of the public.

This legislation was the antecedent of the GPO's Federal Depository Library Program, under which today we distribute the broadest possible spectrum of Government publications in print and online formats to some 1,200 public, academic, law, and other libraries located in virtually every congressional district across the Nation, to be used by millions of Americans free of charge every year.

There are two such libraries here in Rochester, one the Rush Rhees Library at the University of Rochester, which has been a Federal depository library since 1880, and the other the Rochester Public Library, part of the Monroe County Library System, whose depository status dates to 1963.

Along with the depository program, GPO today also provides public access to the wealth of official Federal information through public sales, through various statutory and reimbursable distribution programs, and—most prominently—by posting more than 300,000 Federal titles online on *GPO Access* ([www.gpo.gov/gpoaccess](http://www.gpo.gov/gpoaccess)), our current Web site.

### *The Rise of Digital Information*

---

Throughout most of its history, GPO guaranteed public access to Government information through printing. Even today we continue to print the majority of our most important documents. But in just the past few years, there have been revolutionary changes in the way the public accesses and uses Government information.

New and continuously-evolving strategies of communications now are not only possible but have become mainstream practices, changing how America is kept informed. This has put GPO at the very epicenter of change in the ways people create and use information to communicate, remain informed, research a topic, and preserve a record.

Today, for a large and growing share of Government documents, there is no longer a requirement for typesetting, printing, or binding, and there is no tangible document to make its way to library shelves or otherwise be preserved for the future. A document author begins the process by digitally recording a manuscript on a personal computer. By making this document available through a Web portal there often is no need for an original printing of multiple copies.

Such documents are said to be “born digital and published to the Web.” So pervasive and common has this publishing strategy become that we estimate that as many as 50 percent of all Federal Government documents are now born digital, published to the Web, and will never be printed by the GPO.

### *Transforming the GPO*

---

This trend was well established when I took office, and therein lay the challenge for GPO. What the White House asked me to do was move GPO out of a 19th-century-based printing mentality and into the 21st century digital world. Throughout my life I have used technology to enhance the ability to get information into the hands of people, and this was a task I was up to taking on.

Transforming GPO to a modern digital platform would involve a number of fundamental changes, however. While GPO's mission would remain essentially the same, the introduction of digital technology would change the ways our products and services would be created. It would change how they would look and function to meet the changing needs of the Federal Government and the public. And it would change the very culture and outlook of an agency grounded in an earlier era.

The digital age itself presents its own unique set of issues and concerns, and carrying out GPO's transformation would require us to develop solutions to the problems that digital information presents.

For example:

- Printed books can last hundreds of years, but how do we ensure that digital information will be easily accessible even five years from now?
- With so many publishing solutions now available, how do we create a common set of standards for digital documents?
- What's the best way to ensure the security of digital information?
- How do we deal with the multiple versions of official documents in a digital environment? How do we determine which version deserves to be preserved for the future?
- What's the best way to go about making legacy information content—the content now stored in millions of printed Government documents housed in library and agency collections nationwide—digitally available?
- Now that information content is easily separated from the form and format in which it can be delivered, what kind of system can be developed that most efficiently permits content to be repurposed?
- In the vastly decentralized information marketplace that the Government has become, how do we create a system for capturing that information for convenient and effective public access?

To be sure, GPO already had considerable experience with electronic technology when I arrived. The agency had successfully navigated the transition from hot metal to computerized typesetting in the 1960s and 1970s with little if any of the strife that accompanied that change elsewhere in the industry, and in fact up to and beyond that era it continued to be known as a technological leader. And in the early 1990s GPO set up one of the Government's earliest and most comprehensive Web sites, *GPO Access*, which achieved considerable acclaim.

But subsequently the agency fell behind the pace of digital technology innovation. This was due to a variety of factors. For example, there was a period in which GPO's future status was being debated intensely, which led to a decrease in investments pending the resolution of that question.

But there was also the absence of a comprehensive vision of GPO's future in a digital environment. Fundamentally, GPO hadn't been organized around a digital platform. The agency didn't have a good concept of what that digital platform would look like, and as a result the questions and challenges posed by the digital transformation were left only partly resolved. The print-centric culture of the agency, which had served printing well, was not well suited to moving the agency forward in the digital era. Even where GPO's digital activities were concerned, we were putting data in typesetting codes and formatting the data as replicas of the printed page.

Moreover, the print-centric culture of the agency imposed recurring costs on the taxpayers that weren't necessary. From product categories to equipment profile, from workforce skill sets to even the structure of the building itself, GPO's ability to transform to modern digital platform was burdened by a cost structure dictated by technologies and systems from the previous era, resulting in a continuing series of financial losses and impeding the ability to make the critical investments in technology and personnel to move the agency forward and solve the problems presented by the digital environment.

## *Restoring GPO's Finances and Organization*

---

To build the foundation for our digital transformation, we first put GPO's operations back on a business-like basis, both organizationally and financially. Relying on best practices found throughout the private sector, we carried out a broad reorganization to redirect GPO's management and instill a new focus on preparing for the future, bringing in experts from the outside and refocusing GPO veterans from the inside on our new direction.

We conducted a major workforce restructuring involving three highly successful retirement incentive programs that reduced our staffing by more than 630 positions, or more than 20 percent. With a portion of the savings, we created a range of new positions to help move the agency forward. We carefully recruited for those positions and successfully brought on board personnel with new talents and skills, both from within and outside the Government, in technology and systems integration, finance, marketing, secure and intelligent documents, digital media, and related fields, which have been fundamental to our transformation efforts.

With this new agency leadership, we created an Office of Innovation and Technology to identify new technologies and practices to help us move forward. We initiated several broad scale evaluations to help determine our future course, ranging from reviewing the suitability of our current buildings to analyzing the scope of our relationships with other Government printing and information organizations and how they should be retooled in a digital environment.

We redoubled our training programs to help us shape the staffing capabilities we will need for the future, and successfully obtained additional Congressional appropriations to underwrite workforce development aimed at providing digital skills. To communicate our new direction and purpose, we created a new logo to show that GPO fully embraces the 21st century.

We moved quickly to communicate our new commitment to the Congress, Federal agencies, and the public we serve. One of our early achievements was the resolution of a longstanding controversy with the executive branch over Federal printing through the establishment of a more cooperative working relationship with Federal agencies.

We also began a continuing round of meetings and briefings for Members of Congress, heads of Federal agencies, representatives of the printing industry, the library and information communities, employee representatives, and others to discuss how we could improve the services we provide, and to forge new business relationships.

Cumulative losses at GPO by the time I had arrived totaled over \$100 million in the late 1990s. The retirement incentive programs we carried out cut GPO's payroll costs by approximately \$46 million annually, setting us on the road to recovery. Recognizing the public's preference for accessing Government information via the Internet, we closed GPO's ailing retail bookstores. Other cost-saving efforts were undertaken to restore the GPO to a positive financial footing.

It took us a year, but by the end of 2004 we had restored GPO's finances to a positive basis for the first time in five years. We repeated that performance in 2005, generating an even larger net income, and a positive financial outlook is on track for this year. Few if any other Federal agencies can make that claim, and it's a result that would be the envy of many a private sector company as well.

## *The GAO's Study of Federal Printing*

---

Our transformation program was aided significantly by the release in 2004 of a major study of Federal printing and publishing by the Government Accountability Office—Congress's watchdog agency, in which we participated.

Fundamentally, the GAO stressed that GPO should envision itself as a disseminator of information and place greater emphasis on direct electronic dissemination methods as our primary goal, rather than printing.

The GAO's confirmation of our approach laid the groundwork for the release of our *Strategic Vision for the 21st Century* in December 2004. Based on months of discussions with Congress, our customer agencies, the library and information communities, the printing industry, our employee representatives, and others, the *Vision* is a roadmap of where GPO needs to go in order to fully embrace the technology capabilities of the 21st century in the coming years.

### *Creating a New Digital Platform*

---

Today, our *Strategic Vision* forms the core of our management operations. All policies and procedures—including budgeting and capital investments, workforce development, hiring and promotions, industry partnerships, customer relations, operational decisionmaking, and related actions—are tied to it.

The core of our future operations will revolve around a GPO-developed Future Digital System, which we're currently calling FDsys, that is being designed to organize, manage, and output authenticated content for any purpose. This system will ingest into a central repository all the public information of the Government and reduce that information to a common denominator, which means having a uniform character set and coding structure for data. This system will preserve the content independent of specific hardware or software so that it can be migrated forward for the benefit of future generations.

Eventually, all known Federal documents, whether printed or born digital, produced both prospectively and retrospectively, will be cataloged and authenticated and then entered into the system according to GPO metadata and document creation standards. Content may include text and associated graphics, video and sound, and other requirements that may come to be. Content, which may be stored at various quality levels, will be available for Web searching and Internet viewing, downloading and printing, and as document masters for conventional and demand printing, or other digital requirements.

This strategic goal took a significant leap forward last month with the award of a contract to Harris Corporation for master integrator services to guide the planning and acquisition of the FDsys component system. This partnership represents the culmination of careful analysis and planning to specify our system requirements, and it marks a major milestone as we forge ahead to develop a robust and flexible digital platform that will provide permanent public access to information from all three branches of the Federal Government.

### *Refocusing Customer Services*

---

For our customers in Federal agencies, we're continuing to provide traditional printed products through private sector vendors, using GPO's experience and buying power to create the best value for taxpayers. However, we're working with them more cooperatively, offering them more flexibility in choosing and working directly with vendors, especially with small value purchases and complex purchases involving multiple functions such as data preparation, personalization, and distribution.

We reorganized our Customer Service unit to include teams of individuals assigned to specific departments and agencies. These teams are providing conventional printing support and are available to work with program managers in planning the best solutions to their information dissemination needs, such as content development, graphic design, web site design and hosting, rich media and print-on-demand.

Last year we augmented our expert printing procurement services by partnering with FedEx/Kinkos to provide innovative new convenience duplicating and printing services to Federal agencies across the country. This contracting mechanism features provisions for capturing Federal documents electronically, which will significantly assist our efforts to broaden the availability of Federal information for public access and reduce the incidence of “fugitive documents”—documents that belong in the Federal Depository Library Program but which don’t get included, frequently because of printing performed outside GPO programs. We also significantly increased the dollar limit on our popular simplified purchase agreements, expanding and simplifying the ability of Federal agencies to procure products and services directly from lists of pre-qualified vendors without first having to go through GPO.

### *Investing in Modern Plant Capabilities*

---

Our internal production capabilities will be focused in support of the Official Journals of Government, including the *Congressional Record* and *Federal Register*, Congress’s requirements, and security and intelligent documents. We will engineer a new, more flexible and cost efficient printing platform for these documents in conjunction with the move to new facilities.

To improve plant production efficiency and broaden the range of product and service options for Congress and Federal agencies, since 2003 we’ve invested in a variety of new color and digital production technologies. The product offerings that have become possible with this equipment can lead to significant future savings for Congress and other customers of our plant production services. We’ve also retooled our preproduction digital design services and relocated them to enhanced facilities to provide improved services to our customers.

### *Providing Security and Intelligent Documents*

---

Security and intelligent documents—including passports, Federal identification cards, and potentially other documents will be a growing and increasingly important business line for GPO, perhaps as much as 50% of GPO’s business in the future. There are new statutory requirements for these documents in the recently-passed legislation that GPO is working to implement. And from our standpoint, there are certain digital technology synergies that can be brought to bear to improve the security of these important documents.

We created a new business line for Security and Intelligent Documents in 2005 that consolidates our long-standing expertise in security documents and offers a broad range of consultative services to Congress and Federal agencies attempting to respond to new standards and statutory requirements in this area. An early product of the unit was the security printing requested by the Joint Congressional Committee on the Inauguration to support the first Presidential inaugural ceremonies since 9/11, in January 2005.

The major product of this unit, of course, is U.S. passports, which by law must now include computer chips containing identifying information. We’ve been working on the e-passport project for better than two years, involving testing and creating the new production process for these documents. Along the way we’ve found that the same skills used for this product could be used to help Federal agencies meet other security document requirements, such as the production of new Federal ID badges that must also contain computer chips. As a result, we’re developing a new capability for this product line.

We’re getting support for this program from Congress and the Executive branch and forging ahead with the investments and other development it requires. Our Security and Intelligent Documents unit is working closely with the Social Security Administration, the State Department, the Department of Homeland Security, and other

Federal agencies on these and related issues, utilizing the latest in digital technology to help produce these new and emerging requirements.

### *Mapping the Future of the Depository Library Program*

---

In the future, the Federal Depository Library Program will determine the content of FDsys, set standards for Federal documents, authenticate documents, catalog and manage the content, and determine the standards for preservation of the content for coming generations.

We've engaged the depository library community in a dialog to define the future of this program while continuing to move it toward a predominately electronic basis as required by Congress. The total number of titles we now make available on *GPO Access* has increased to more than 300,000, with an average of 37 million retrieved every month. The dollars we now dedicate to distributing print publications to depository libraries have fallen by 50% over the past decade, generating program savings to finance electronic access.

The continuing evolution of the depository system has not been easy for everyone involved, and in managing the transition we have had to take extra care to ensure that documents in print formats that are required at this time by some communities, particularly law libraries, continue to be supplied. As we work to bring FDsys into operation, we envision that its capabilities to provide for security and authenticity will eventually eclipse the continued need for print in many cases, while improving access by these communities to Government information.

### *Expanding Digital Services for GPO's Customers*

---

We've also established a new business unit called Digital Media Services that will provide a platform for training GPO employees in 21st century workforce skills while providing document scanning services for the Federal Depository Library Program and our customers.

Employees will be selected to work in this unit based on their interest, aptitude, existing skills and education. Jobs will range from simple machine operation to complex editorial requirements. All, however, will be under the umbrella of 21st century workforce skills. After training, some employees will be rotated back to other business units to utilize their newly learned skills.

The program will also set the standards for digitizing retrospective tangible documents, acquire both the tangible documents and digitizing services, and provide quality assurance for the content. Working in cooperation with other agencies involved in similar projects, including the Library of Congress and the National Archives, the eventual goal is to digitize all retrospective Government documents that can be authenticated back to the earliest days of the Nation. Currently we're involved in a project to demonstrate our capabilities for converting analog content into digital files which are configured for optimal storage, search, and retrieval.

### *Restructuring GPO's Organization*

---

To carry out this vision, we have reconfigured our organizational structure around six new business lines, supported by an Oracle enterprise system software and applications. The new organization will assist GPO's transformation into a more efficient and customer-driven agency, implement a more integrated approach to printing, publishing, and information dissemination requirements, employ more advanced business systems, and improve management control and decision making.

## *A New Facility for GPO*

---

Finally, we're working on relocating our headquarters to new facilities sized and equipped for our future requirements. Our current facilities, the oldest dating back 100 years, together comprise four buildings and vacant land on approximately 8.5 total acres. They are too large and too antiquated for our current and future needs, and they continue to drain the organization of vital resources needed for investments in new technology. We are currently working through our oversight committee in Congress on a proposal for a new facility, which will be fundamental to GPO's ability to succeed in the years ahead.

## *Final Thoughts*

---

I don't want to mislead you into thinking that bringing a program of transformation to GPO has been easy. Introducing change and risk-taking tends to induce uncertainty and a sense of instability, which can be uncomfortable.

However, the essence of bringing about change is to take risks, and you learn more from mistakes than getting it right every time. Once this was understood at GPO it was easy to create safety nets under our employees, to encourage risk-taking in order to make change possible. It took a while, but after the first few initial successes, we've created a culture of change and progress that I believe will sustain our transformation for years to come.

When I became Public Printer, my job was to design a new GPO for the 21st century and to get the right people in place to carry that design forward. I consider that job done.

As I've often said, it was the hardest job I ever had, but the one I most enjoyed. I'm a Westerner and didn't know how to think about Federal employees, but this is the best workforce I've ever had. Nowhere have I ever encountered more talented and dedicated employees, a workforce that is committed to its mission and actively wants to make it work better for our customers and for the taxpayers. It has truly been an honor and pleasure to work with them.

Thanks to the hard work of all our employees, and with key support from our oversight and appropriation committees in Congress, we've managed to turn GPO in a new direction, one that promises a positive future for our great agency for many years to come.

As a result, our digital technology now represents a 21st century model of excellence, in leading customers to digital solutions through effective leadership, employee assistance, and customer-driven partnerships.

Those solutions themselves take full advantage of the opportunities provided by new and emerging technologies, and will resolve the questions posed by permanent access, authentication, versioning, digitization, standards, and accessibility.

Our digital platform, once it's relocated and fully equipped with the new technology, will provide the physical image that reflects GPO's full participation in the digital world.

And finally, we have been branded with a new organizational culture, as the men and women of the GPO work in an environment of intelligent risk taking that encourages continuous innovation, change, and improvement, all in the service of our ongoing mission of *Keeping America Informed*. It's been an exciting time for me, and for GPO there's an exciting world of opportunity ahead in the months and years to come.

The U.S. Government Printing Office is the Federal Government's primary centralized resource for gathering, cataloging, producing, providing, authenticating, and preserving published U.S. Government information in all its forms. GPO is responsible for the production and distribution of information products and services for all three branches of the Federal Government.

In addition to publication sales, GPO makes Government information available at no cost to the public through GPO *Access* ([www.gpoaccess.gov](http://www.gpoaccess.gov)), and through partnerships with more than 1,250 libraries nationwide participating in the Federal Depository Library Program.



U.S. GOVERNMENT PRINTING OFFICE  
Keeping America Informed | [www.gpo.gov](http://www.gpo.gov)

732 North Capitol Street, NW, Washington, DC 20401-0001 202.512.0000