

**OVERCOMING ORGANIZATIONAL
OBSTACLES:
Strategies for Successful Federal
Information Asset Management**

John Paul Deley
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1

You can't do it.

It won't work.

2

The system is too expensive.

There isn't enough time.

Staff will resist change.

3

It's not accessible / practical

**Management won't support
this.**

Statutes are outdated.

4

The technology is obsolete.

Nobody will make a decision.

Nobody will respond.

5

Nobody cares about evaluation.

There's no infrastructure.

There's no shared mission.

6

**You're underpaid / under
appreciated.**

There's no incentive.

There's no champion.

7

**What's Enterprise
Architecture?**

There's no vision.

There's no cooperation.

8

There's no commitment.

There's no accountability.

You're just crazy!!!

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Goals of this Presentation:

- Use Records Management Service Components to tie together and unify the SRM, PRM, DRM, BRM, TRM – and make the FEA practical
- To provide comfort and solace
- To highlight tips for RM success
- To enunciate a shared federal RM vision

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Organization of this Presentation:

- Premises
- 10 RM “Obstacles” / “Opportunities”
- Tips for Overcoming Obstacles
- Five Component “Values” of Successful Federal Records Management
- Future Directions of Federal Records Management

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Premises of Federal Records Management:

- Effective, accountable, service oriented government DEMANDS successful records management
- Trustworthy records are the foundation of good decision making and reliable history
- Although technology is always changing – the fundamental principles of records management have been consistent since mankind made marks in mud.

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Quality Records Management

- Mitigates FEA complexities
- Establishes a common language
- Assigns responsibility
- Protects value
- Creates new value
- Meets statutory requirements
- Provides context
- Supports history and democratic processes

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Obstacles of Federal Records Management

10. Context for collaboration not understood
9. Maintaining information quality underemphasized
8. Creating, maintaining, preserving information documentation not a priority
7. Information custodianship / stewardship not always clearly delegated
6. Statistical, linguistic, legal and semantic information culture not appreciated

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Obstacles of Federal Records Management (cont.)

5. E-information viewing policies not uniform
4. E- Life Cycle poorly understood (esp. "Holding / Freezing" dynamic information)
3. Misinterpretation of the languages of information – esp. procurement policy
2. Information policy is not integrated or updated
1. Inability of leadership to emerge and enunciate a vision for the future of federal information.

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Obstacle #10 - Context

“Among modern occupations, only cult leaders and TV weathermen rival the technological visionary’s ability to retain credibility despite all evidence to the contrary.”

Nathan Myhrvold, Wired Magazine

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Avoid believing over hyped headlines

- “Tailor Made Content Management”
- “One Size Fits All for Web Site Needs”
- “Tools for Managing Web Content are as varied as the agency sites they support”
- “Making Form Fit the Audience”
- “The Big Fix”

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Query:

Is the federal “permanent” collection currently in the custody of our national archival institutions a suitable biography of the American people and does it accurately reflect our collective relationship with our government?

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Query?

Do current federal appraisal policies, reflected in federal record schedules, draw from our collective backwash? The backstreets and gutters of history? The places where people meet – where souls are suspended between nostalgia and despair? The grand and subtle gestures of ALL the people? Our tears, the hopes, the dreams?

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T&T for Triumphant #10

- ISO 14721 – OASIS Reference Model
 - ...provides a common conceptual framework describing the environment, functional components and information objects within a system responsible for the long-term preservation of digital materials.

<http://www.iso.org/iso/en/ISOOnline.frontpage>

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Obstacle #9 Information quality

Trustworthy Records are the foundation of successful business processes

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Trustworthy Records are:

- Authentic
- Reliable
- Secure
- Complete
- Timely
- Scheduled
- Able to be certified
- Accompanied by proper and adequate documentation.
- Able to be segregated / managed
- Systems are compliant with DOD 5015.2
- Part of a formal, written, integrated technology plan that makes provisions for future system migration.
- Controlled and accessed by metaInformation.

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A Trusted Digital Repository:

Some characteristics include:

procedural accountability

financial sustainability

uniform ingest / storage procedures

consistent preservation / migration

Information and access management

documentation / descriptive
metaInformation

verifiable security / authentication

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T&T for Triumphant #9

For more information on trusted digital
repositories please see:

[http://www.rlg.org/en/pdfs/rlgnara-
repositorieschecklist.pdf](http://www.rlg.org/en/pdfs/rlgnara-repositorieschecklist.pdf)

**“An Audit Checklist for the Certification of
Trusted Digital Repositories”**

Draft out for Public Comment until
January 2006 a product of a RLG-NARA
Taskforce

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Obstacle #8 Preserving Documentation

“Preservation is transformed from protecting the **physical integrity** of an object to specifying the creation and maintenance of an object whose **intellectual integrity** is its primary characteristic.” Paul Conway, Duke University

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What to Do?

- Do we save the book or the behavior of the book?
- Do we save the data or just the latest version of the data?
- How do we handle version control?
- How do we deal with dynamic data?
- How do we mitigate / promote redundancy?
- How can digital objects “self-identify”?

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“Adequate and Proper” Documentation

At a minimum, documentation necessary to use, maintain, back-up, protect and migrate each electronic system that represents the organization, functions, policies, decisions, procedures and essential transactions” of the agency, its staff, constituencies and programs, including: record layouts, data element definitions, and code translation tables (codebooks) for coded data; data element definitions, codes used to develop and represent data values; output specifications, etc... Additional requirements for COOP systems and legacy systems.

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T&T for Triumphant #8

ISO 15489

The International Records Management
Standard

<http://www.iso.org/iso/en/ISOOnline.frontpage>

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Obstacle #7 Custodianship / Stewardship

“Good workmen blame their tools too;
there’s such a thing as bad tools. REALLY
bad workmen tend to keep quiet about it,
ask to be paid cash and run.” Don Paterson, *Aphorisms*

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The problem

is that all too often – If everyone is
responsible – then no one claims
full responsibility

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Rethinking “Life Cycle”

- **CREATED** or **COLLECTED**
- **LINKED** or **INTEGRATED**
- **REVIEWED** or **DISSEMINATED**
- **ACCESSED** or **MODIFIED**
- **MAINTAINED, MIGRATED** or **STORED**
- **ARCHIVED** or **PRESERVED**
- **AUDITED, REDACTED** or **CATALOGUED**
- **SEGREGATED, EDITED** or **REFINED**

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YWH “Pay no attention to the man behind the curtain”

But knowledge representation is locked up
NOT in agencies, programs – or even
documents and records – **KNOWLEDGE
RESIDES IN PEOPLE.**

Federal behavior needs to change – there is
no “Information ownership” - **POWER**
comes from Information sharing and
system interoperability.

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T&T for Triumphant #7A

Electronic Information Management Standards - DoD 5015.2

[http://www.archives.gov/records-
mgmt/initiatives/standards.html](http://www.archives.gov/records-mgmt/initiatives/standards.html)

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T&T for Triumphant #7B

See the latest draft of the FEA's Data Reference Model (XML Schema) which is intended to promote the common identification, use and appropriate data sharing across the federal government through the standardization of description, context and message structure.

(link from CIO site)

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Obstacle #6 – Information Culture

“Postmodernism will soon be confirmed as the American academic orthodoxy because it permits, ultimately, the summary dismissal of the last inconvenience to the free and democratic intellect: the primary text.” Don Peterson, *Aphorisms*

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Record Culture

1. Attention on the human side; strong leadership; significance in even the most mundane Information functions
2. Create shared meaning to work together for desired outcome
3. Every individual must acknowledge impact of their program on the FEA
4. Information relationships are affected by Information environments

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ISO Standards

ISO/IEC 11179-1:2004 MetaData registries (MDR)

ISO/IEC 11179-2:2000 Specification /
standardization of Data elements

ISO/IEC 11179-3:2003 Registry metamodel and
basic attributes

ISO/IEC 11179-4:2004 Formulation of Data
definitions

ISO/IEC 11179-5:2005 Naming and identification
principles

ISO/IEC 11179-6:2005 Registration

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T&T for Triumphant #6

OFFICE OF MANAGEMENT AND BUDGET

**“Guidelines for Ensuring and Maximizing the Quality,
Objectivity, Utility, and Integrity of Information
Disseminated by Federal Agencies”**

"quality" = "utility," "objectivity," "integrity"

<http://www.whitehouse.gov/omb/fedreg/reproducible.html>

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Obstacle #5 - E-information viewing

- Levels of Security / Coding
- Access protocols
- Multiple and ever changing passwords
- Scrambling and encryption
- Proprietary obsolescence
- Not “survival of the fittest” but “survival of the slickest”
- Longevity sacrificed for trendiness

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Viewing

- Information often needs to be translated using obsolete proprietary software applications
- Information inter-relationships often unclear
- Deleted, shadowed, fragmented, redacted or residual Information can still be “evidence”

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T&T for Triumphant #5A

M-06-02

December 16, 2005

MEMORANDUM FOR THE HEADS OF
EXECUTIVE DEPARTMENTS AND AGENCIES

FROM: Clay Johnson, III

Deputy Director for Management

- SUBJECT: Improving Public Access to and Dissemination of Government Information and Using the Federal Enterprise Architecture Data Reference Model
- <http://www.whitehouse.gov/omb/memoranda/fy2006/m06-02.pdf>

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T&T for Triumphant #5B

OMB E-Forms for E-Gov Pilot
Team
Final Report

http://www.fenestra.com/eforms/deliverables/final_report.htm

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Obstacle #4 “Holding / Freezing” of dynamic information

“I’m sorry to disappoint science fiction fans, but if information is preserved, there is no possibility of using black holes to travel to other universes.”

Stephen Hawking, cosmologist, 17th International Conference of General Relativity and Gravitation

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The “Hold/Freeze”

- The suspension of the normal disposition or processing of Information/records as a result of current or anticipated litigation, IG/CFO audit, OGC or congressional investigation, executive inquiry or other such matter (creation of snapshots or “views”)
- Information can be used as “evidence” when it:
 - Documents a business transaction
 - Documents a decision, policy, procedure
 - Documents a condition or environment
 - Can be used to enforce an obligation

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Some Reasons for a Records Hold:

- Personnel Matter
- Financial or Program Audit / Review / Assessment
- Impending or Anticipated Litigation (ALJ or Judicial request / subpoena / warrant,
- Health and Safety Issues
- Changing Regulatory Requirements
- Congressional Inquiry / Press Inquiry
- Best interest of Public
- ETC...

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T&T for Triumphant #4

Sedona Conference:

Electronic Information and documents are potentially discoverable under Fed. R. Civ. P. 34 or its state law equivalents.

Organizations must properly preserve electronic Data and documents that can reasonably be anticipated to be relevant to litigation.

<http://www.thesedonaconference.org/>

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Obstacle #3 Procurement Policy

- From 1999 to 2002 the government eliminated 46,000 civil servant jobs while adding an est. 730,000 contractor positions. Michael Scherer, *Contracts With America*, *Mother Jones*, May/June 2004
- The Federal Government currently spends approx. 90 Billion dollars a year to MAINTAIN its I/T infrastructure. Government Computer News

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YWH Words Like -

- Paradigm
- Inferential Architecture
- Virtualization
- Multi-Pathing
- Semantic Inter-operability
- Re-purposed content

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Examples of Language Issues

- Information Element** Physical description of the Information used within an information exchange package.
- Information Model** Representation of the information required to support the operation of any set of business processes and/or the systems used to automate them.
- Information Object** Basic definition of the Information element.
- Information Property** Description of the Information element in context of the Information object.
- Information Provider** A Information Provider maintains one or more repositories (web servers) that support the OAI-Protocol for MetaInformation Harmony (PMH) as a means of exposing metaInformation.
- Information Representation** Describes how Information is described within the property and object layers.
- Information Reference Model (DRM)** Information and Information Reference Model of the Federal Enterprise Architecture High-level approach to the categorization of a set of Information elements for purposes of organization and standardization.

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Language

Terminology / Nomenclature (same stuff called different names by related communities of practice)

- Glossaries
- Taxonomies
- Ontologies
- Authority Lists
- Thesauri
- Faceted or Hierarchical Classification Schema
- Information Dictionaries
- MetaInformation Registries

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T&T for Triumphant #3

- **Federal Information Processing Standards (FIPS)**
- Examples of FIPS standards:
 - [Information Encryption Standard](#) (FIPS 46)
 - and the [Advanced Encryption Standard](#).
 - [FIPS two-letter country codes](#) (10-4)
 - [FIPS place codes](#) (55-3)
 - [FIPS county codes](#) (6-4)
 - [FIPS state codes](#) (5-2)
- All similar to or comparable with [ISO 3166](#), or the [NUTS](#) standard of the [European Union](#)

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Obstacle #2 - Information policy is not integrated / updated

Connecting Related E-Legislation passed over the last 20 years:

E-FOIA, E-Gov Act of 2002, GPEA, EO-13011, GPRA, ITMRA failed to incorporate relevant provisions of the Federal Records Act and a mechanism for integrating the principles of records management within the quickly evolving technological infrastructure.

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Regulations, Rules and Righteousness

- Models
- Standards
- Best Practices
- Guidelines
- Policies, Rules, Regulations
- Checklists and Help Sheets

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RM Service Components:

- Capture a record
- Assign a record
- Categorize a record
- Search a record
- Retrieve a record
- Ensure authenticity
- Associate a record
- Execute disposition

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Components of an Electronic Records Management Policy:

- Purpose and Framework (Context)
- Authority and Scope
- Definitions and Implementation Plan
- Custodianship and Registration
- Schedule Citations and Technical References
- Vital Records and Disaster Recovery
- Access, Preservation and Back-up
- Documentation
- Security and Policy Audit

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T&T for Triumphant #2

“Records Management Service Components
Requirements Development Project
Final Report”
March 31, 2005

<http://www.archives.gov/era/pdf/rmsc0305.pdf>

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Obstacle #1 – Enunciating Vision

- “Are we, because we remember, remembered?” James Dickey, from *The Sheep Child*
- “In the current process – How much of any one of us survives?” John Ashberry, from *The Skaters*
- How can we better discover in our records of the past the “echo of the future” W.S. Merwin from *The River of Bees*

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YWH that -

“Industry is driving... statutes are driving... courts are driving... technology is driving... customers are driving... patterns that are repeatable... best practices are driving, security is driving... etc...”

BUT

Strong, central, assertive, knowledgeable enterprise-wide LEADERSHIP with control of the purse strings SHOULD be driving

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Reasons for RM Vision:

- Forces an organization to think about the connection between long-term Information, long-term need and long-term success
- Facilitates development of effective business processes
- Provides basis for sound decision making
- Recognizes Information as core asset of org.
- Avoids duplication / redundancy
- Promotes partnership / interoperability

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Five Values for Federal RM Future:

- Trustworthy Records
- Regulations, Rules and Righteousness
- Unscrambled Program Missions
- Sustained Transparency and
- Treasured Partnership

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Regulations, Rules and Righteousness

RM's need Practical methodologies for:

- Accentuating
- Empowering
- Facilitating
- Enhancing

The role of the “Primary Source” in their agency’s successful accomplishment of their missions.

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Unscrambled Program Missions

Records required for citizen centered government require broader interpretations of the word interoperability. Trends toward I/T globalization will necessitate the breakdown of organizational “walls” to accommodate refined search capabilities across traditional “stovepipes.”

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Sustained Transparency

Despite institutional inertia, antiquated procurement policies and built in technological obsolescence, federal records managers must persist in insisting that RM principles, practices and best practices be incorporated “seamlessly” into daily automated business practices of their agencies.

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Treasured Partnership

Reaching out / over / above / within is the only way federal records managers can insure that they can network with like minded disciplines to share:

Context	Collegial
Content	Consistency
Consolidated processes	

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Conclusions:

- Mitigates FEA complexities
- Establishes a common language
- Assigns responsibility
- Protects value
- Creates new value
- Meets statutory requirements
- Provides context
- Supports history and democratic processes

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What we need to do as soon as possible #1:

- Get a handle on duplicative and inefficient I/T spending – esp. project management
- Publicize and crosswalk enterprise-wide, model projects with reproducible cost effective results
- Provide incentives for cooperative inter-agency program integration
- Move beyond abstraction to front-line non-proprietary asset management solutions

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Conclusions #2

- We need to recognize that even though the role of information in the Federal Enterprise is complex, potential collaborations and leveraging projects offer many rewards.
- We must insist that federal information is EVERYWHERE and a specific and identifiable federal employee is always responsible.
- We must recognize that people make mistakes. Quality control is a high priority. Citizen expectations change. I/T statutes need to undergo frequent review.
- We need to advocate transparency in RM applications especially where systems are interoperable.

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Conclusions #3

- We need to advocate for the improvement of Federal Procurement Policy and force it to focus on integrated infrastructure that has integrity and an emphasis on preservation and not the latest, fastest and cheapest.
- We need to advocate “Big Picture” over “Big Fix” solutions and not overlook practical solutions in favor of temporary bandaids.
- When “re-engineering” we must “avoid the look of the familiar glance and look down, look past, look through.” Fatima Lim-Wilson from [Upon Overhearing Tagalog](#)

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Is the Past Really Prologue?

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Next to Last Thought:

“How many a man has dated a new era in his life from the reading of a record! The record exists for us, perchance, that will explain our miracles and reveal new ones. Records contain unutterable things we may find somewhere uttered....

... Simplicity, simplicity, simplicity! I say, let your affairs be as two or three, and not a hundred or a thousand - instead of a million, count half a dozen, and keep your accounts on your thumb-nail.” (Henry David Thoreau)

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Final Thought

“In time we seem less moved than a part of what once moved us, fleeting, uncontained, our presence seen only in what we’ve touched: papers scattered and lost, bodies of dust swirling. We long to find some calm within what we’ve become, inside the sound, a roaming stillness. We seem so close, as if we might even now link and be there, restored, prepared, whispering all we remember.” Christain Wiman from *Elsewhere*

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THANK YOU!

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