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## What Is Enterprise Content Management and ...

Federal Library and Information Center Committee  
Library of Congress

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**and Why Is It  
Important in the Federal  
Government?  
... Policy “Currents” ... plus  
Responsibility and Information  
Technology**

## Topics / Questions

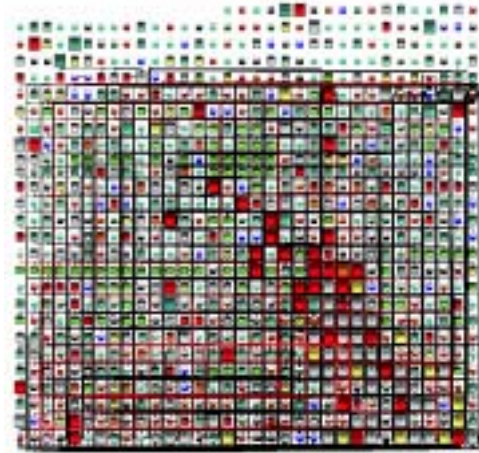
- Content management
- Demographics
- Federal policy
- Technology fly by



## Section 1

# Content Management

## Map of DoD Computers



Source: Catherine Santana, Director FMMP, DoD, 2002

## Information Explosion--Wow

**“More information will be  
created in the next three  
years than in the history of time.”**

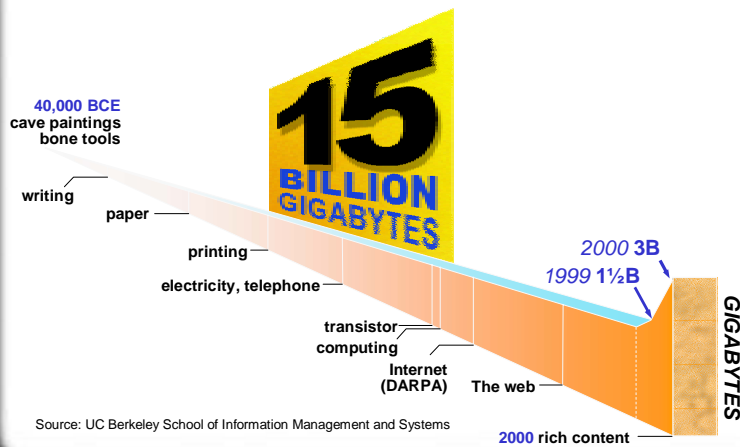
(Berkeley School of Information Management, 2002)

## Information Explosion—Yikes!

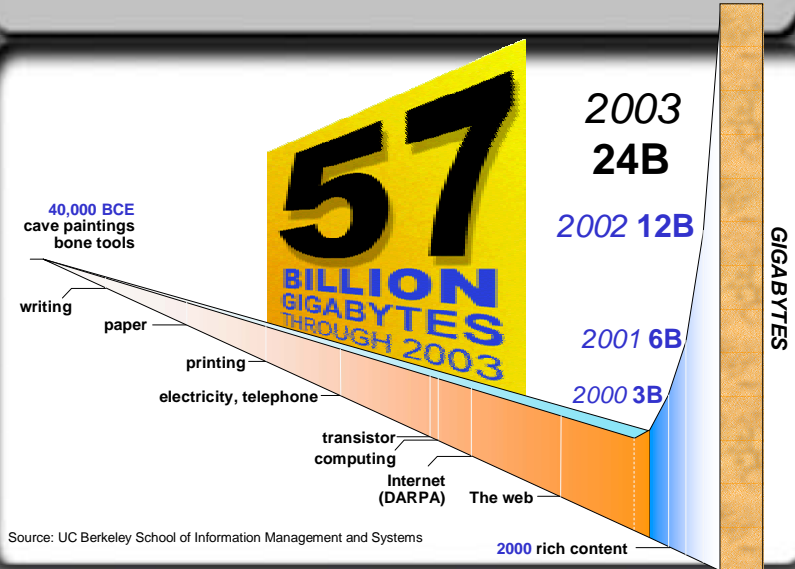
**93% of all new information  
is created in digital form**

## Growth of Information

### Information Creation Through 2000



## ... And After Next Two Years



## What's Content?

- Textual information about products, people
- Binary files (audio, video, programs, pictures)
- Electronic mail with text and rich media
- Facts—structured in database tables or unstructured text
- Numeric information—static or dynamic tables, visual representations
- Metadata — information about information

## **CMS Is ...**

- **Creation**
- **Production**
- **Management**
- **Distribution**
- **Delivery**
- **Promotion of:**
  - **Text**
  - **Audio**
  - **Video**
  - **Images**

## **Content ...**

- **The fuel for knowledge work**
- **Threatening to overwhelm**
  - **Individuals**
  - **Decision making**
  - **Government agencies**
  - **Even the Internet**

## Content Mgmt Vendors

- Documentum
- Ektron Inc.
- IBM
- Microsoft Corp.
- Oracle Corp.
- Stellent
- Vignette

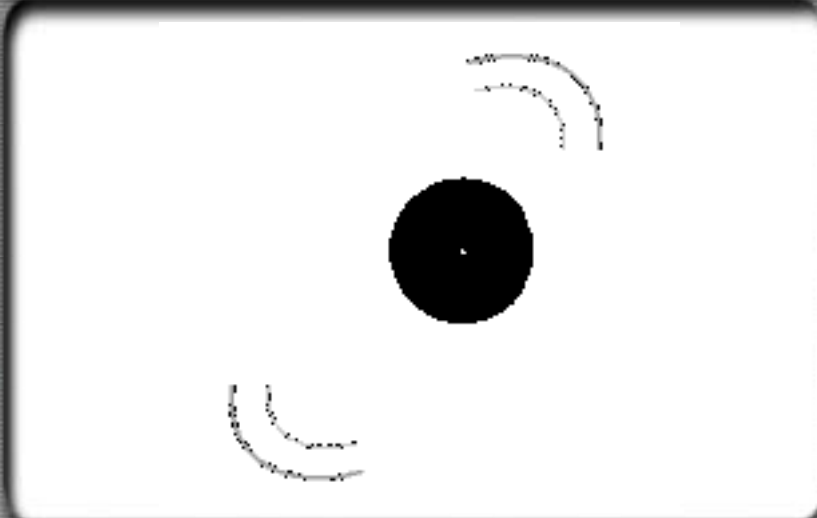
## Checklist of CM Drivers

- ① Awareness expanding: upwards (management), downwards, and outwards
- ② New users want rich media, caching exploding
- ③ Solutions, not separate programs
- ④ Integration with existing ERP applications
- ⑤ Intense price competition, conflicting claims
- ⑥ XML -- mandatory technology
- ⑦ Wireless, pervasive access

## Libraries and Digital Content: 1980



## Libraries and Digital Content: 1995



## Libraries and Digital Content: 2005

Online  
information

Libraries provide  
an important  
point of access

## Section 2

# Demographics

## Anytime, Anywhere Access



## Computerization



## Starbucks-ification



## The Devices...



## Blackberry 2003



Updated design supports e-mail and provide phone service

## Motorola (Moto A835)



Camera, PDA, and GSM phone

## Nokia 3300



An MP3 player plus phone

## NTT Dual Processor Phone



Multifunction, including  
streaming video...

## Multimedia / Rich Media: Tablets



A collaborative  
laptop... write or  
use keyboard

## Section 3

# Policy Momentum

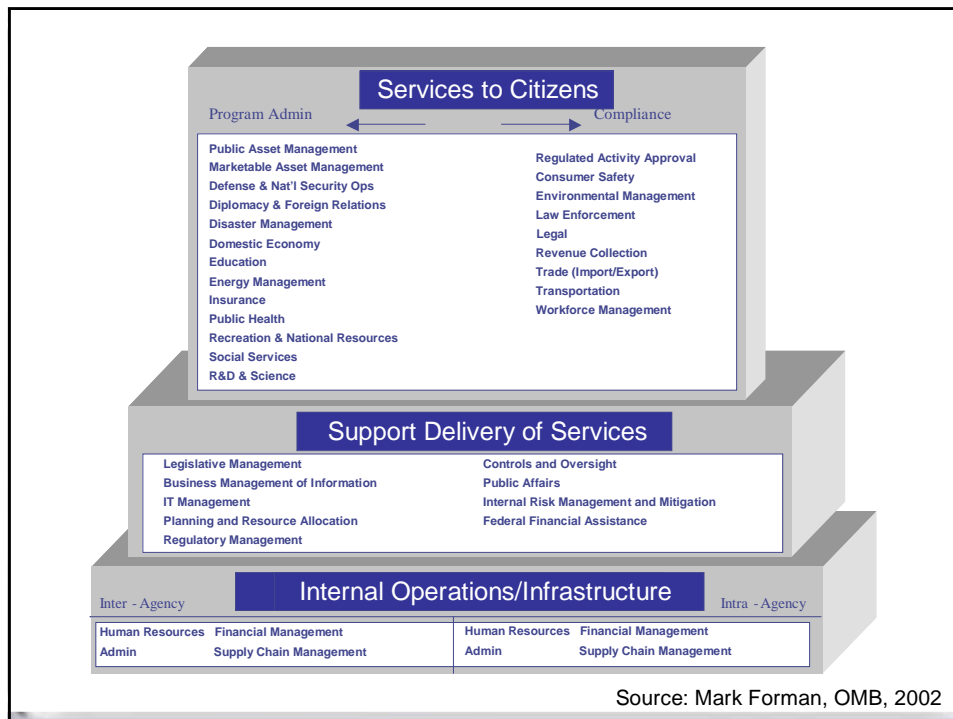
# Enterprise Content Mgmt Challenges

## Chronic Problems

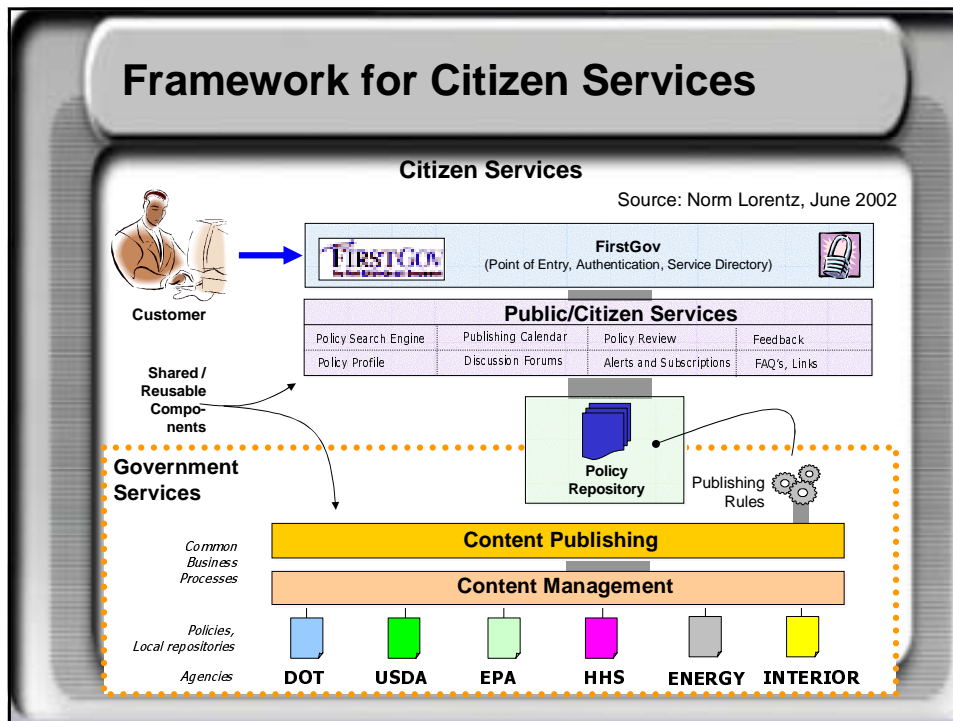
- Silos or “islands of automation”
- Fads
- Good government management requires technology
- Communication gap between IT and lines of business
- Lack of enterprise architecture

## Digital Problems

- 5,600 G2B, G2G, & G2C transactions to be put online
- About 1,000 intra-governmental transactions to be put online
- 70 million Web pages operational across the ~40,000 Federal government Web sites
- Process integration and leveraging redundant investments



## Framework for Citizen Services



## Federal Initiatives

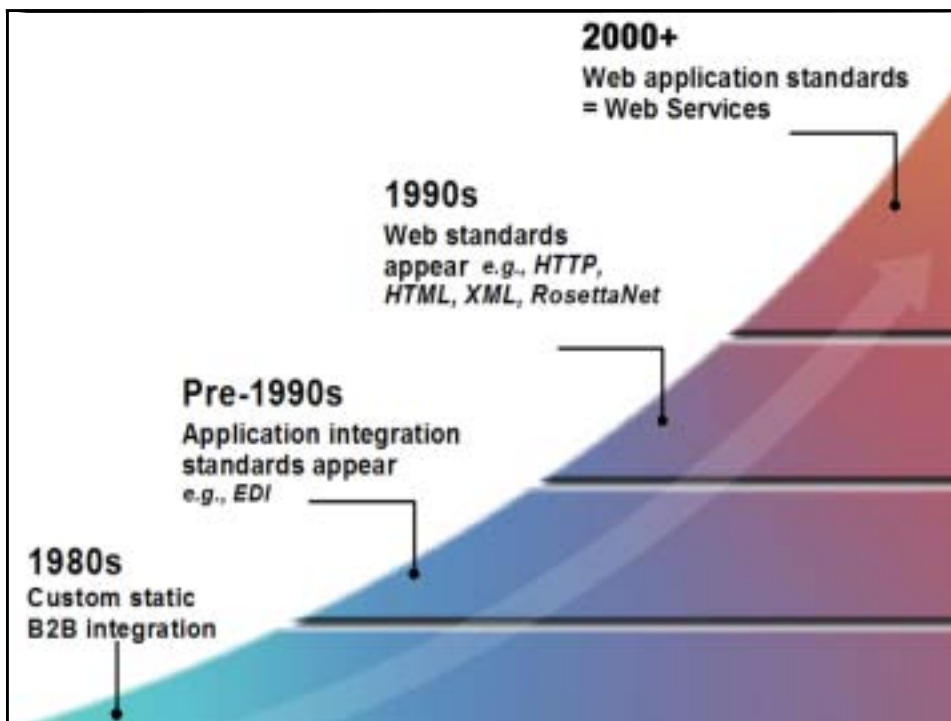
- **CIO Council:** “Develop standards for XML data definitions so the information we create can be shared and accessed easily regardless of its origins.” (Sent endorsement on Dec. 16, 2002)
- **E-Government Act:** “Address the integration of the data elements used in the electronic collection of information within databases”





## Section 4

# Technology Fly By



## Snap Together... Reusable

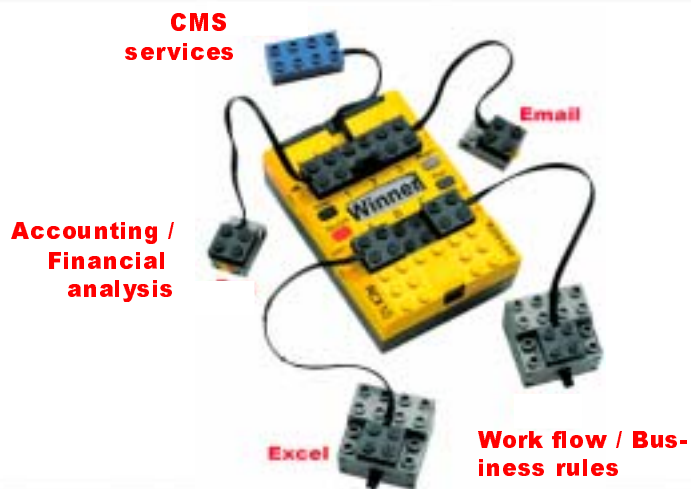


Lego blocks can be used to build different things by snapping the standardized pieces together...

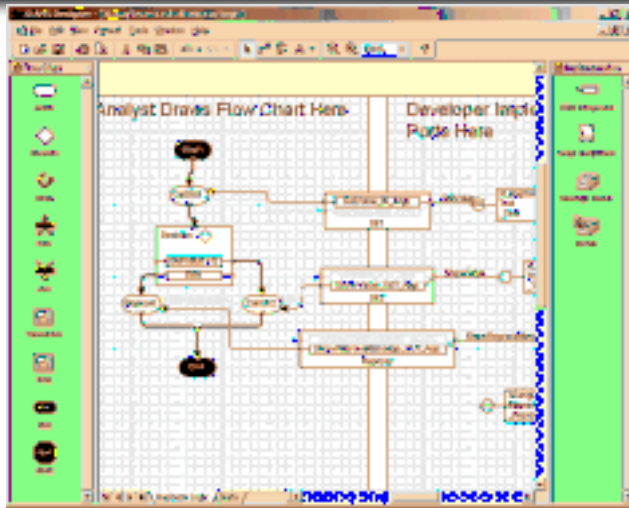
Standardized pieces that snap together...



## The Framework "Concept"



## Drag and Drop Programming



## XML... Enabling “Teflon”

- **XML and search:**

- Search is now invoked by inputting data into HTML forms and sending the data to Google

```
http://www.google.com/search?q=Skate+boots&btnG=Google+Search
```

- **XML is a better way to send the data:**

```
<SOAP-ENV:Body>  
<s:SearchRequest  
  xmlns:s=www.xmlbus.com/SearchService>  
<p1>Skate</p1>  
<p2>boots</p2>  
<p3>size 7.5</p3>  
</s:SearchRequest>  
</SOAP-ENV:Body>
```

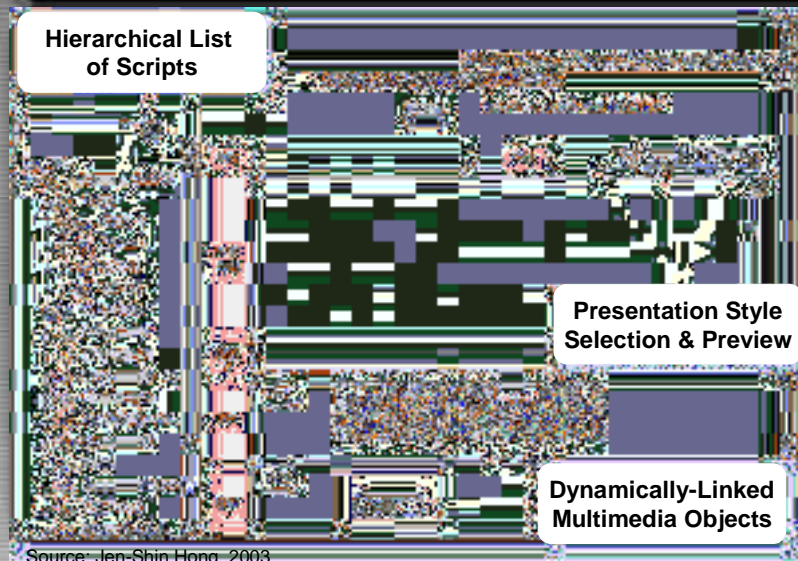
Source: Eric Newcomer, *Understanding Web Services*, Addison-Wesley, 2002, pp. 4-5.

## Integrated Content Tool



Source: Statistical Abstract, 2002

## Content Authoring/Composing Interface



Source: Jen-Shin Hong, 2003

## 4. Summary

# Wrap Up

## Characteristics of a “Real Time Enterprise”

- Available to every employee or authorized user
- Superior Information availability
- Streamline business processes using the Web via communications plus content
- Lower costs via analytics
- Enter data once
- Single interface

Source: Ray Lane, General  
Partner, Kleiner Perkins, 2001

## **This Presentation**

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