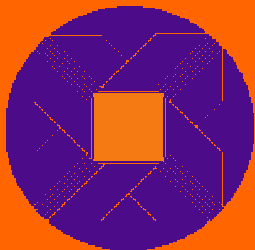




The Future of Interlibrary Loan

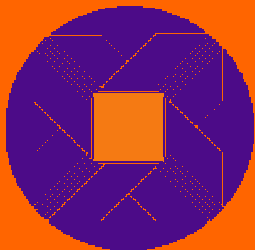
Mary E. Jackson
Senior Program Officer for Access Services
Association of Research Libraries
Washington, DC USA
mary@arl.org

© 2003, Mary E. Jackson



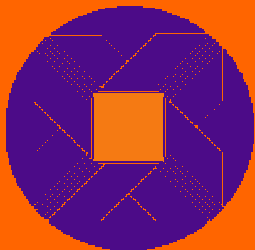
Overview of Presentation

- Highlight new trends in ILL/DD services
- Explore how they can be applied to your operation
- Speculate on the future



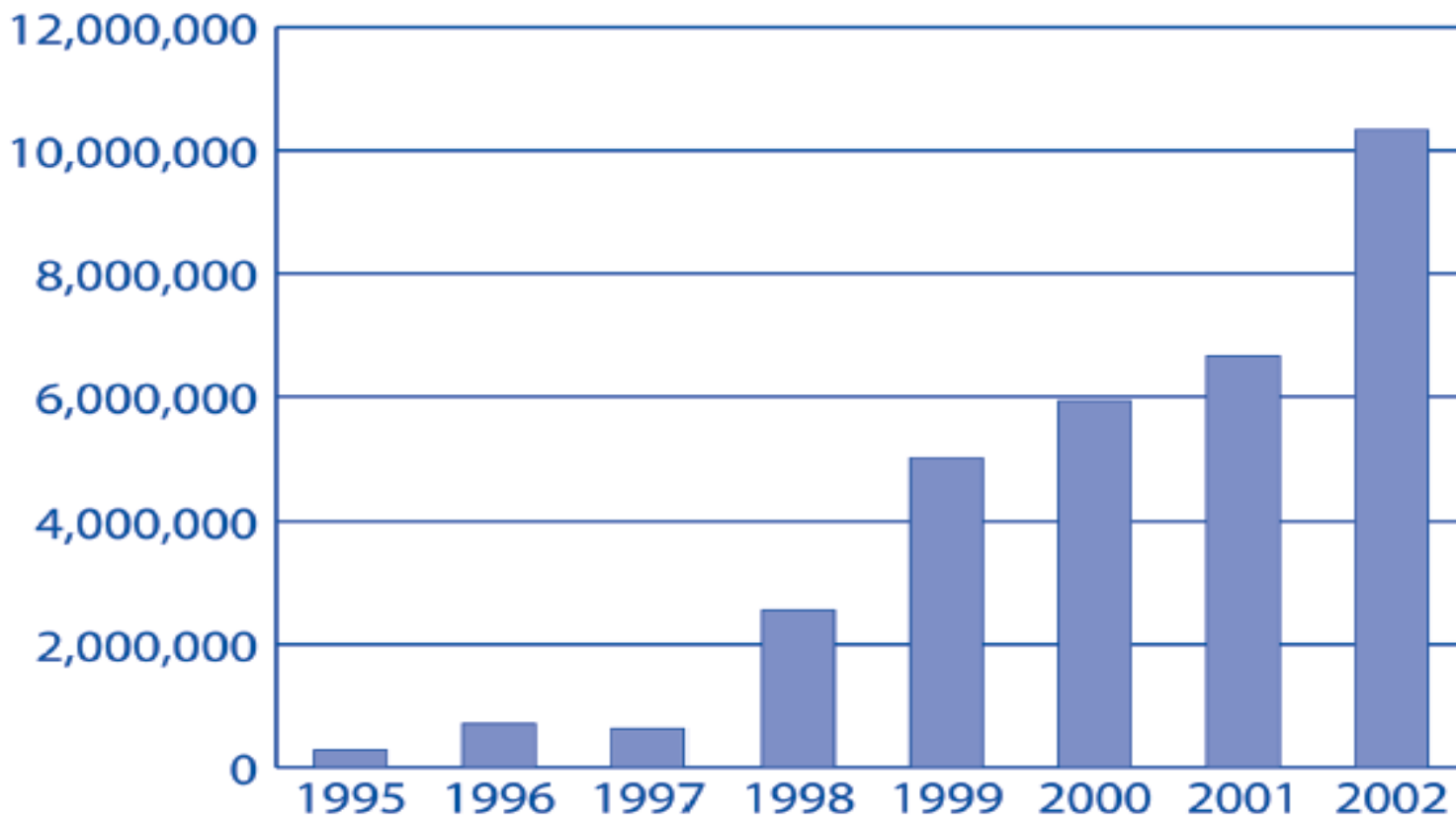
Accessing Electronic Resources

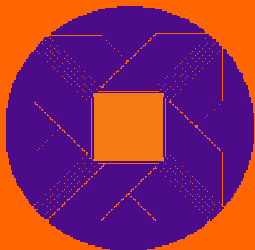
- Full-text/image titles in aggregated collections
- State or consortial purchases
- Alternative to ordering articles on ILL?
 - British Library Document Supply Centre's 10% decrease in ILL in 2002
 - OhioLINK - 2,944,980 EJC articles downloaded in 2002 (35,500/institution)



OHIOLink

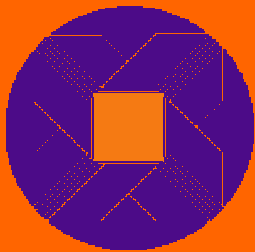
Growth in Electronic Full-Text Documents Downloaded





Assessing ILL/DD Services Study

- Self-funded, ARL administered
- 75 ARL and non-ARL participants
- Mediated ILL
 - Unit Cost, Turnaround time, Fill rate
- User-initiated
 - Unit Cost, Turnaround time, Fill rate
- Preliminary results due June, 2003



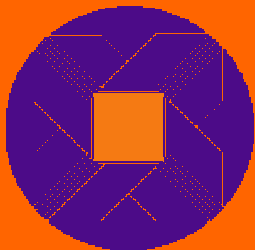
Changing Expectations

...of patrons

- Want ILL to work faster and easier
- Just like Amazon.com

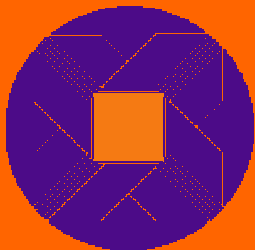
...of ILL staff

- Want to work more efficiently
- Eliminate paper files
- Feeling attention from administrators
- Expect to manage ILL, not “do” ILL



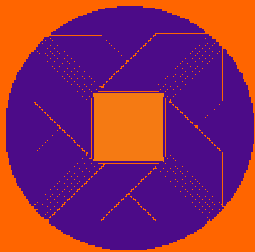
Consortia

- Libraries are members of multiple consortia
 - average of 6 reported in 1997 ARL ILL/DD Performance Measures Study
- Focus has shifted from resource sharing to group purchase of electronic journals and e-books



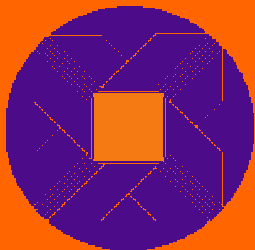
Delivery Direct to the User

- Now supported by the National ILL Code
- Orlando (FL) County Public Library
 - “Request Home Delivery” button
 - 45,000 items per month
 - 0.00056% loss rate (10-25 items)



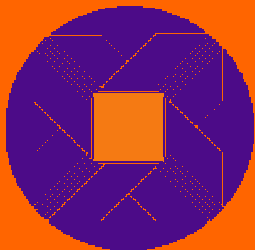
Electronic Delivery Technologies

- Ariel
- DocView/DocMorph
- OCLC ILLiad
- Prospero
- Relais
- Email attachments
- Secure web sites



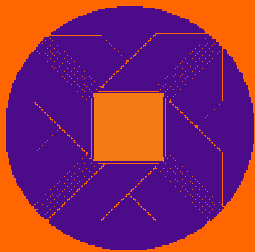
Explosion of Distance Education

- Challenge of providing access to local or remote materials to distant library users
 - Can we have lenders send books to users?
 - Should the individual use ILL from her nearby library not her home library?
 - Are the performance expectations higher?
 - Who pays?



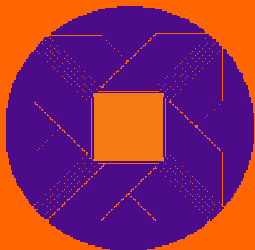
Globalization of ILL/DD

- OCLC's Global Sharing Program
 - 48 participants
- AAU/ARL Global Resources Program
 - GBVdirekt/NA with German libraries
 - GIF with Japanese libraries



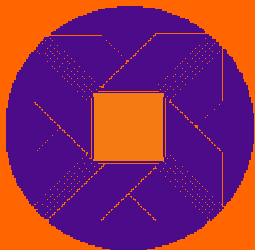
ILL Code Has Been Revised

- Supports user-initiated ILL
- Encourage loan of AV materials
- New definition of “due date”
 - Date item is due to be checked-in at lender
- Silent on locally owned material
- “Guidelines for Procedure” as an accompanying document



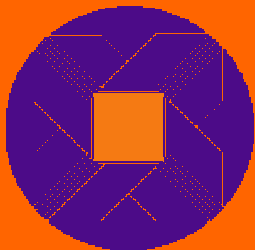
Intellectual Property (Copyright)

- UCITA
 - Uniform Computer Information Transactions Act
 - Will protect facts and ideas (not protected by current copyright law)
 - Create uniform approach to contracts



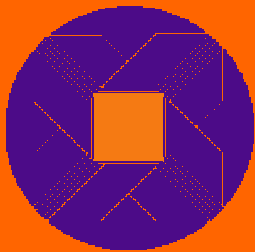
Intellectual Property (Copyright)

- Patriot Act
- Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism (USA PATRIOT ACT) Act of 2001.
- What records should be kept?
- <http://www.ala.org/washoff/patriot.html>



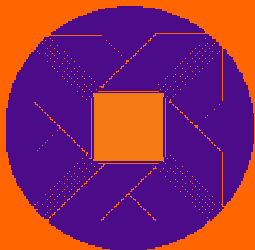
Job Security

- Will ILL managers work themselves out of their jobs?
 - Focus will change from doing the work to evaluating the performance
- Does that worry you?



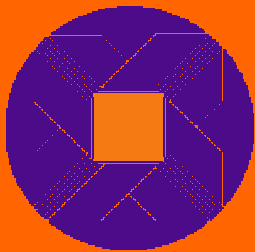
License Agreements

- Contract, not copyright, law
- Spells out terms and conditions
- ILL one of the “hot” issues
 - Print and mail or Ariel
 - Place burden on lender for tracking
- Some suggestion of licenses covering print resources



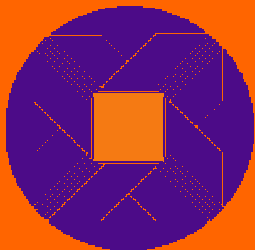
Management Technology

- Key to high-performing ILL operations
- Variety of products
 - Auto-Graphic's Impact/ISO ILL
 - Clio
 - Colorado State's WebZap
 - *epixtech's* RSS and URSA
 - Fretwell-Downing's VDX



Management Technology

- Products (cont.)
 - Innovative Interface's INNReach
 - OCLC's IFM, Direct Request, ILLiad
 - OnPoint's Total Library Computerization
 - QuickDOC
 - RLG's ILL Manager
 - The Library Corp.'s ILL.Request
 - ILL Wizard



Management Technology

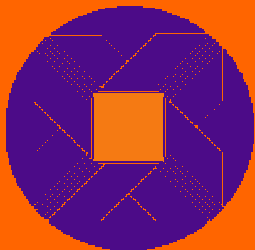
*Interlibrary Loan and Resource Sharing Projects:
An Overview of Current Features and Functionality*

Library Technology Reports

Volume 36, no. 6

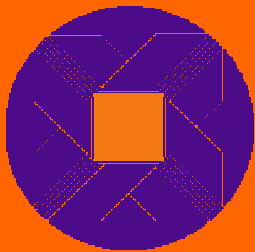
November - December 2000

www.techsource.ala.org



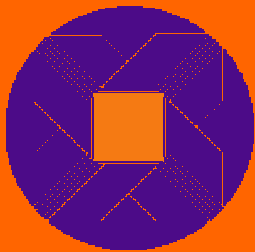
Metadata Harvesting Protocol

- Open Archives Initiative
- “MHP”
- 1999 Santa Fe meeting - Santa Fe Convention
- Herbert Van de Somple, U of Ghent
- Mechanism for data providers to expose metadata from repositories (archives)



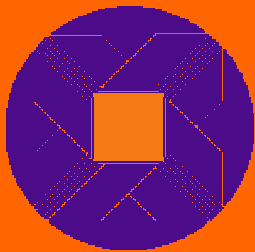
Metadata Harvesting Protocol

- Rejected distributed searching via Z39.50
- Servers provide metadata in bulk for retrieval by harvesting servers
- Metadata retrieved by federated search services or other repositories
 - “export on demand”



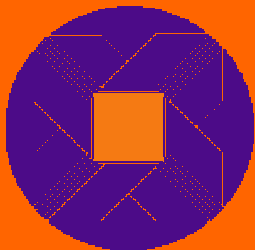
Metadata Harvesting Protocol

- HTTP-based request-response transaction
 - Search for records added or modified after specific date
 - Returns metadata elements in XML plus identifiers (URL) for described objects
 - Requires support unqualified Dublin Core
 - Other schemes can be supported
 - Authentication and access management not covered

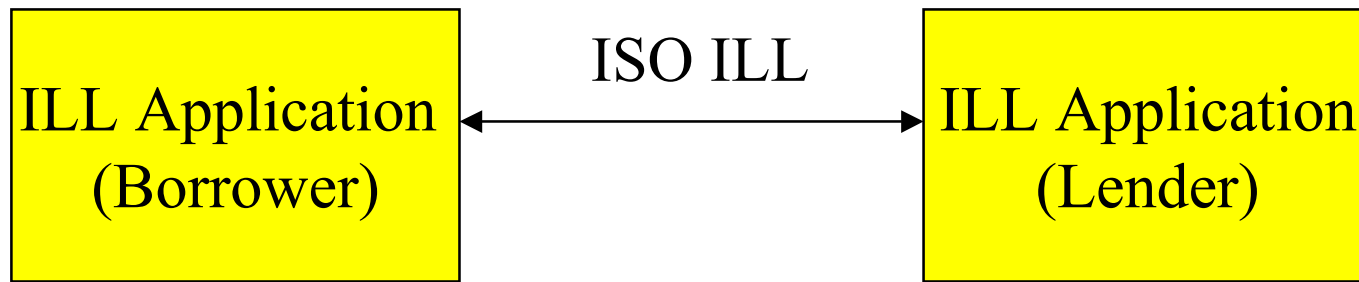


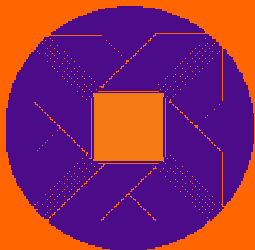
Applying These Innovations

- Let's pause and explore if any of the trends I mentioned will be implemented in your operation.
- Why, when, by whom?



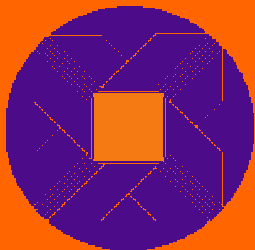
Peer-to-Peer ILL





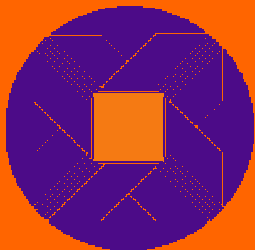
Peer-to-Peer ILL

- Distributed model of ILL
- Communication between two libraries
 - Think of an ALA ILL request form mailed directly to the lender
- Combines communication and management functions
- Permits use of a single Protocol-compliant product



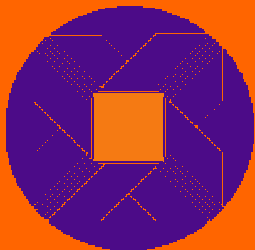
Peer-to-Peer ILL

- Requires use of the ISO ILL Protocol
 - 10160/61, version 2, 1997
 - ILL Protocol Implementors Group
 - *IPIG Profile for the ISO ILL Protocol*



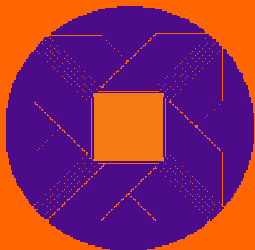
Peer-to-Peer ILL

- Enables choice of best lender, not the best lender on the messaging system being used
- Saves staff time in training, processing, interacting with patrons
- May greatly minimize or eliminate transaction-based charges of the bibliographic utilities



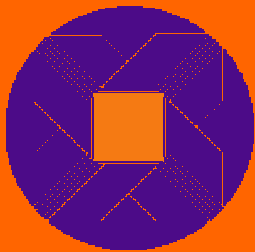
Peer-to-Peer ILL

- In the very early days of implementation and installation:
 - Vendors are bringing products to market
 - Libraries are testing and beginning to send requests
- Were you the first in your consortium to embrace fax or Ariel?



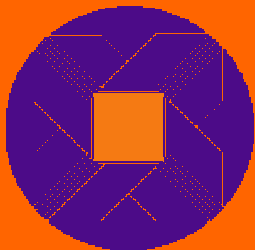
User-initiated Circulation

- Turns ILL loan requests into circulation transactions within a consortium
- Faster, lower unit cost, higher fill rates
 - Delivery component
 - High-volume reduces unit cost
 - Knowledge of circulation status



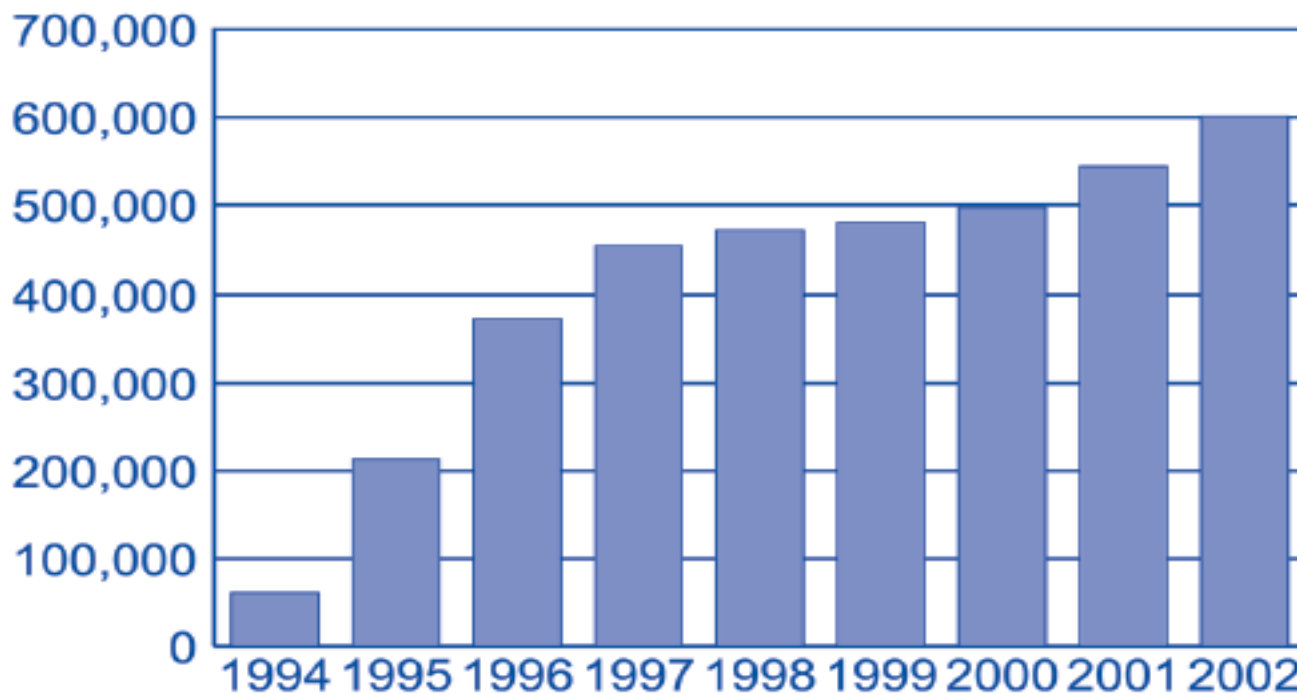
User-initiated Circulation

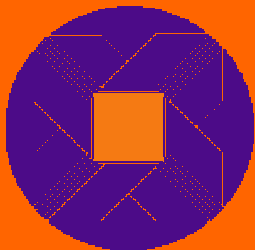
- Variety of implementations (using proprietary solutions)
 - ILLINET Online
 - OhioLINK
 - Orbis
 - BorrowDirect
 - Boston Library Consortium
 - Maryland's Sailor



OHIOLink

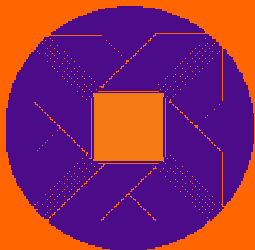
Filled Online Patron Borrowing Requests





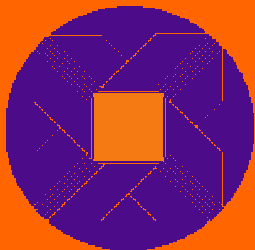
User-initiated Circulation

- NISO Circulation Interchange Protocol
 - NCIP (Z39.83)
 - Governs three areas:
 - Direct consortial borrowing (DCB)
 - Circulation- ILL interaction (CILL)
 - Self-service circulation (SS)
 - Approved in July 2002



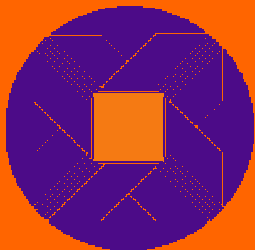
User-initiated Circulation

- NISO Circulation Interchange Protocol
 - Direct Consortial Borrowing (DCB)
 - Patron can go to library with book
 - Book can be sent to patron's library



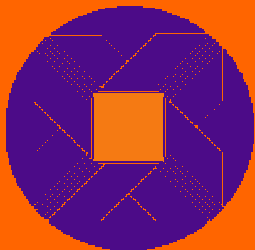
User-initiated Circulation

- NISO Circulation Interchange Protocol
 - Circulation-ILL interchange (CILL)
 - Lender can check out a book on a Circulation System and have the Circulation System notify the ILL System that the item has been “shipped”
 - Borrower can check out ILL book to local patron on the circulation system

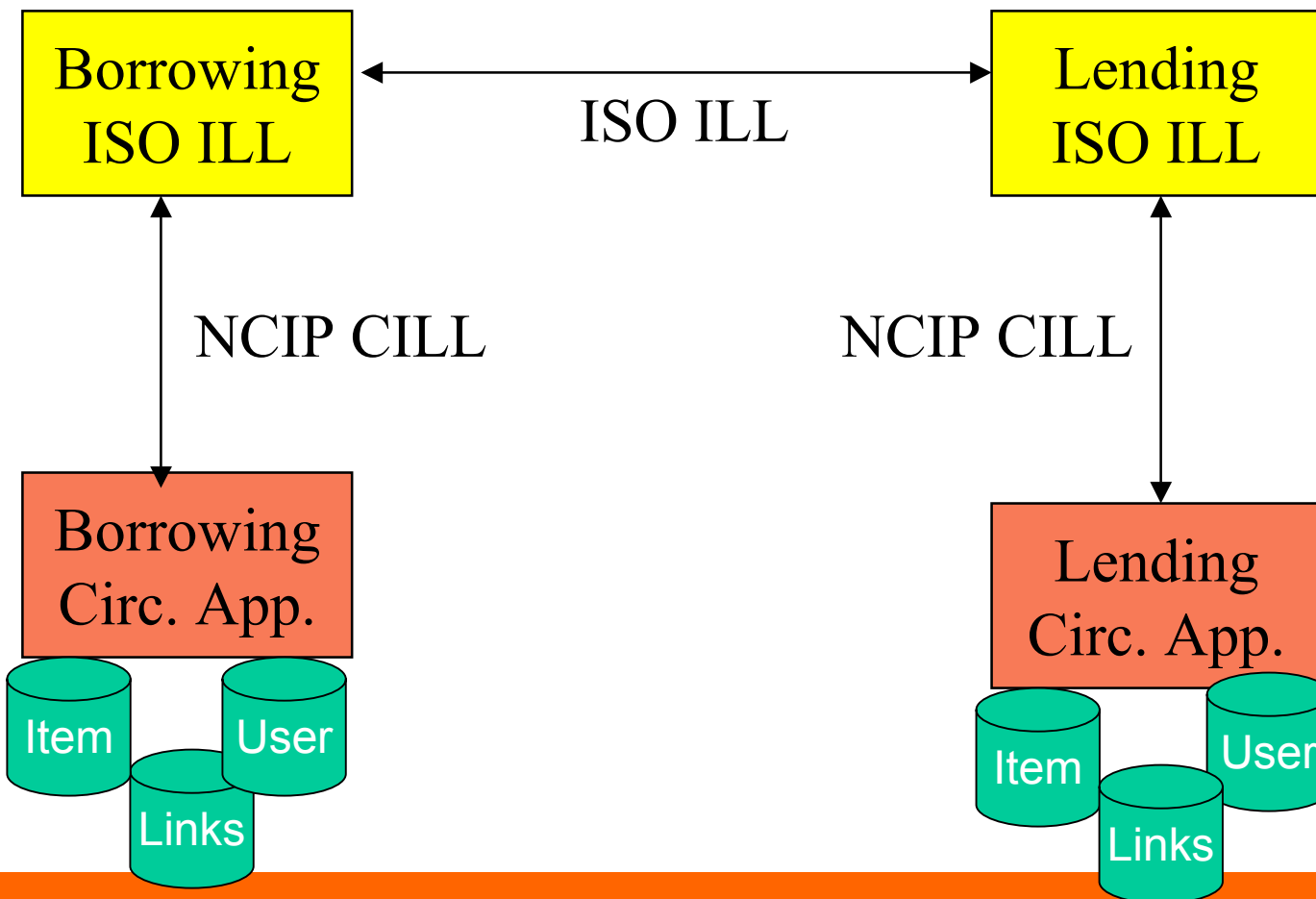


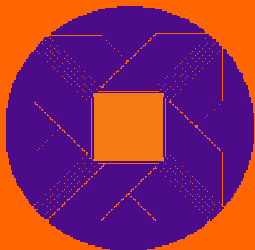
NCIP CILL Profile

- Borrower Profile
- Lender Profile
- Exchange messages between Circulation and ILL applications
- Defines the subset of NCIP messages required between Circulation and ILL

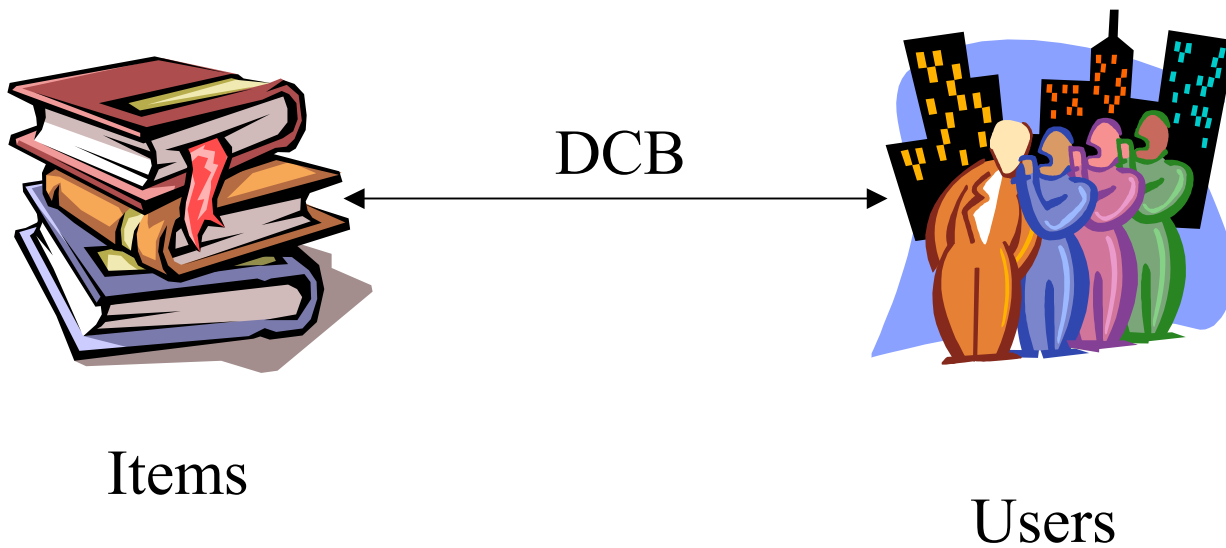


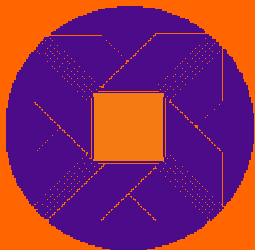
NCIP CILL Profile





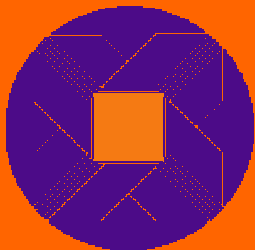
NCIP DCB





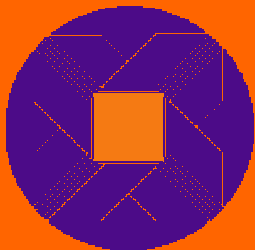
NCIP DCB

-
- Users of one Agency can request and borrow items from another Agency within a consortium.
 - Transfer of user and item data between disparate circulation applications, thereby allowing an agency to manage traffic for non-local patrons and/or provide local control of items belonging to another agency.

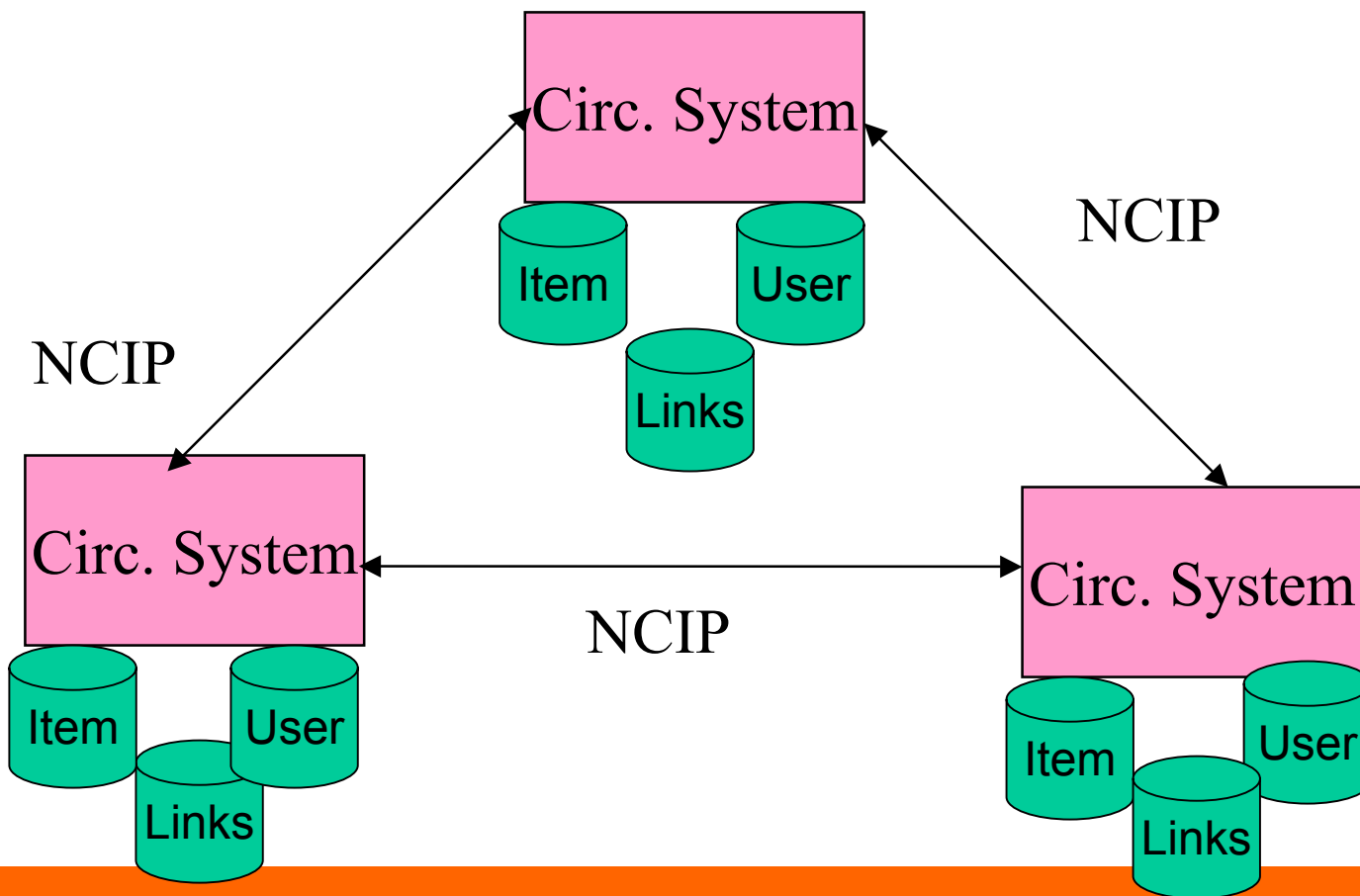


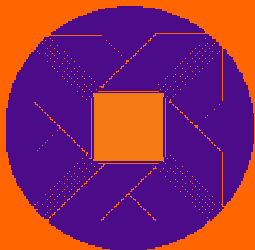
NCIP DCB Profiles

- Item Agency Manages Transaction
- User Agency Manages Transaction
- Broker Application Manages Transaction
- User Agency Manages Transactions with Proxy Checkout



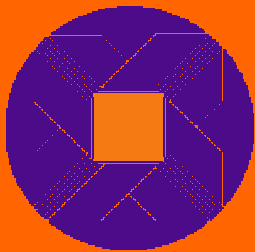
NCIP





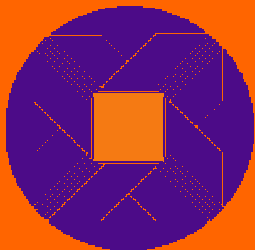
Open URL

- Standardizes the syntax for transmitting a **package of metadata** to a **link resolver**
- The structure and syntax for information attached to a Uniform Resource Locator (URL)



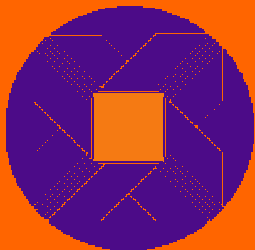
Open URL

- Transportable Metadata Format
 - Transportable
 - Between information services
 - Metadata
 - Current focus: bibliographic
 - Format
 - Embedded in HTTP GET or POST request



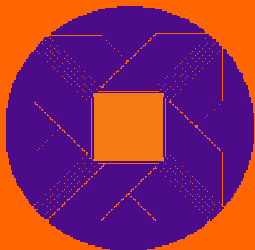
Open URL

- NISO Standards Committee AX
- OpenURL Specification
 - Standardizes the way the local resolver is addressed
 - Standardizes the way identifiers and metadata can be exchanged
 - Takes into account identity of the user when resolving the metadata into specific targets



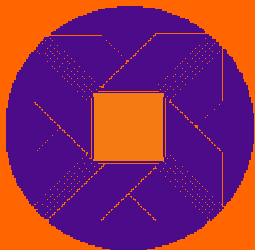
Open URL

- <http://serv.uni.edu?issn=1111-2222&date=2001&volume=56&issue=4&startingPage=67>
 - WHAT?
- serv.uni.edu = base URL of link resolver
- ISSN = 1111-2222
- Publication date = 2001
- Volume = 56
- Issue = 4
- Starting Page = 67



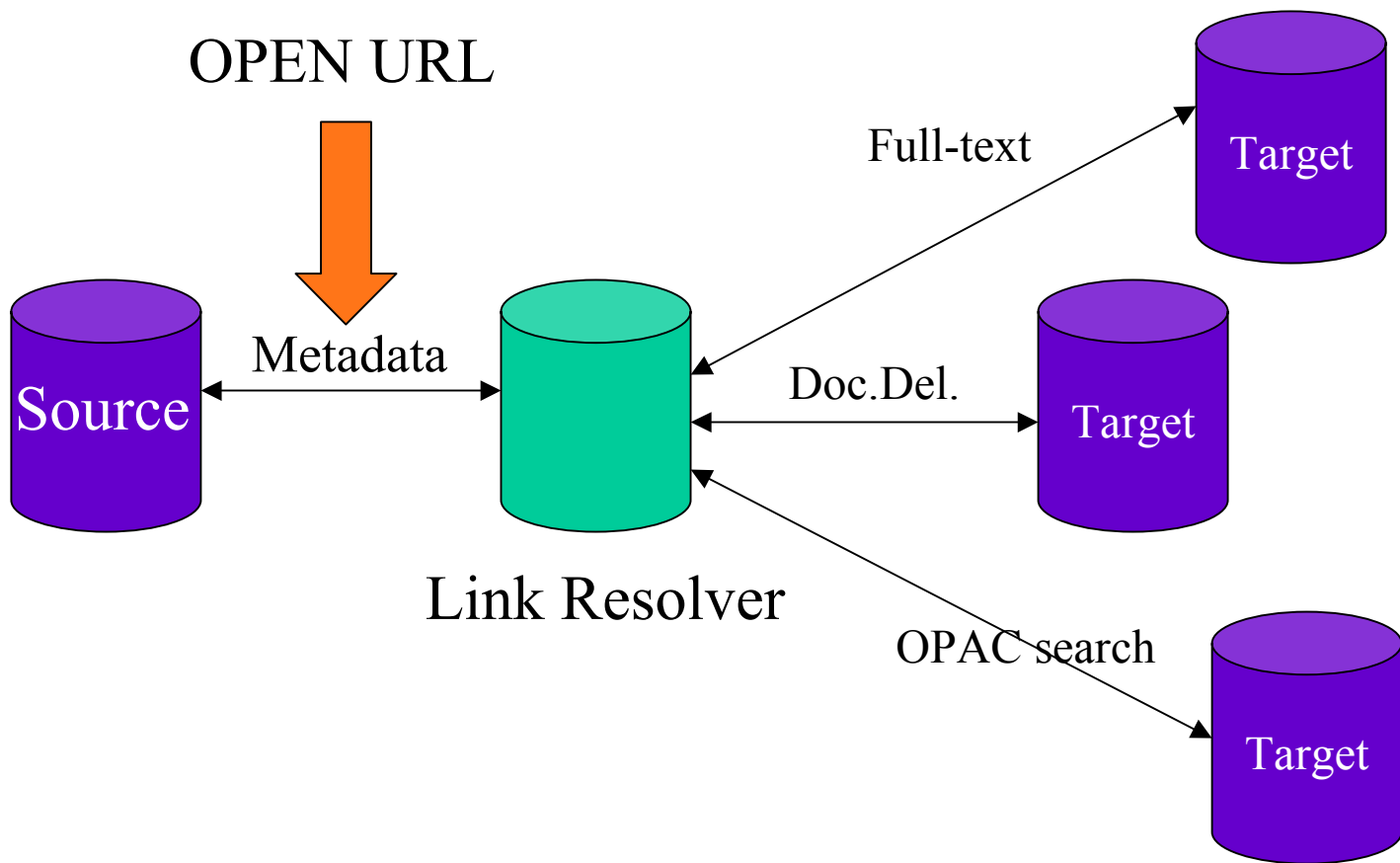
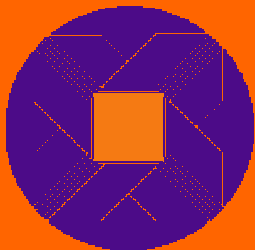
Open URL Link Resolver

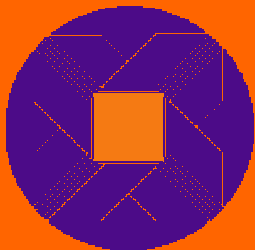
- A link resolver accepts metadata from a source and presents links based on logic and business rules administered locally
 - Is this patron type able to access this media type
- Solves “Appropriate copy problem”



Open URL Link Resolver

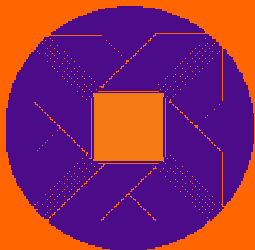
- Describes the context of the user (e.g., undergraduate)
- Offers a menu of applicable services
 - For example:
 - From journal-article citation to:
 - Full text
 - A&I service
 - Web search engine
 - From book citation to:
 - Book reviews
 - On-line bookstore





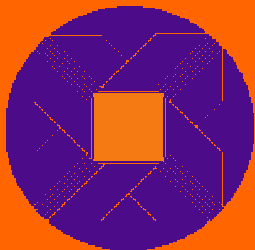
Open URL Link Resolver

- Examples of Current Implementations
 - ExLibris' SFX
 - Fretwell-Downing's Open Linking
 - Endeavor's LinkFinder*Plus*
 - Ill'sWebBridge



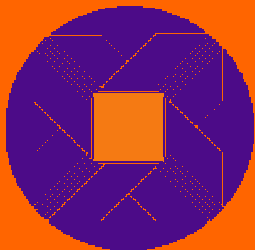
User Empowerment

- Explosion of patron-initiated ILL systems
- Will we make it easy for users to discover, order, and receive books and print or electronic articles?



Virtual Reference

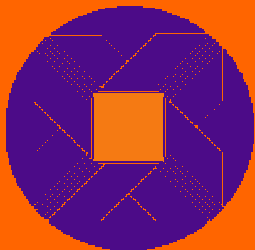
- “Live reference service on the Web”
- Patron asks and librarian answers electronically
- LC’s Collaborative Digital Reference Service
- OCLC’s QuestionPoint
- Virtual Reference Desk
- Internet Public Library
- LSSI’s Virtual Reference Service



Volume of ILL/DD

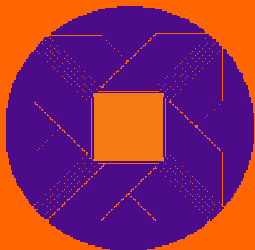
- Is your borrowing decreasing?
- Is your lending decreasing?
- ARL statistics
 - BORROWING - 21,601 in 2001
 - up 206% from 1986
 - 8.3% average annual increase

 - LENDING - 29,255 in 2001
 - up 81% from 1986
 - 4.3% average annual increase
 - Lending decreased in 1999 for one year



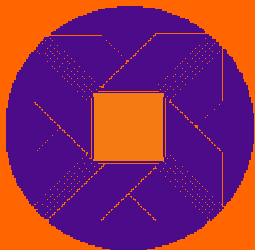
Z30.50 - 1995

- Information Retrieval
- Also ISO 23950
- 3rd edition
 - NEW: Maintenance revision approved in June 2002
- Client-server architecture for search and retrieve



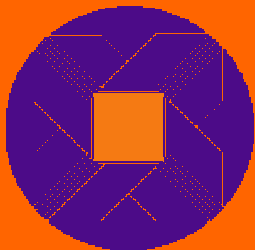
Z30.50 - 1995

- Initialization (Init)
 - Connecting to the remote target
- Search
 - Sending search to remote target
 - Bib-1 Attributes
- Retrieve
 - Present (or send back) results back to client in a defined record syntax



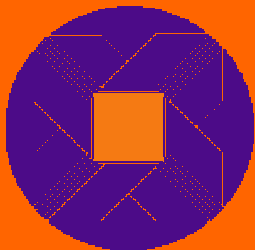
Z39.50 Benefits

- Eliminates need to learn multiple search languages
- Can merge and de-dupe records
- Supports more than bibliographic searching
- Supports Item Order



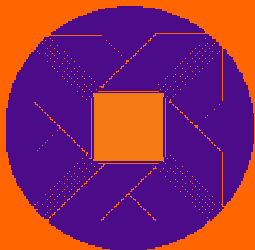
Z30.50 Profiles

- Reduce/solve problem of “Semantic Inconsistencies” or differing implementations
 - An author may be personal name, author, corporate name, joint authors, etc.
- Subset of specifications from a standard



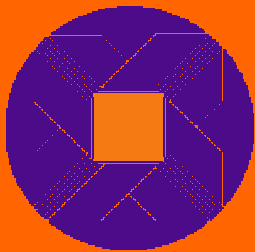
Z30.50 Profiles

- Z Texas Profile
 - Consensus on what Texas libraries need to increase effectiveness of Z39.50
- Bath Profile
 - Subset of Z39.50 required to increase interoperability
 - 3 functional areas: Basic Bib. Search, Bibl. Holdings Info. Search and Retrieve, Cross-Domain Search
 - 3 levels of conformance for each area



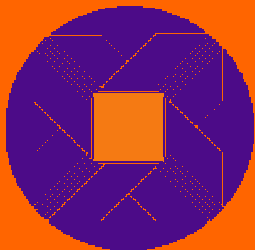
Z30.50 Profiles

- U.S. National Z39.50 Profile
 - 2 functional areas
 - Basic Bibliographic Search
 - Bibliographic Holdings Information Search and Retrieve
 - Ballot closed March 14, 2003



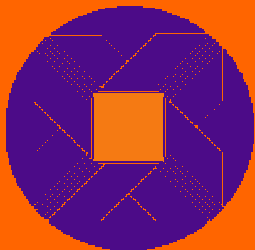
Applying These Innovations

- Let's pause and explore if any of the trends I mentioned will be implemented in your operation.
- Why, when, by whom?



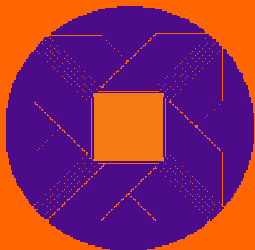
Exploring Barriers to Making Changes

- I will be out of a job
- My staff will resist change
- My work won't be as satisfying as it has been
- I won't be able to talk to patrons as much as I do now
- I don't have enough time to think about change



Exploring Barriers to Making Changes

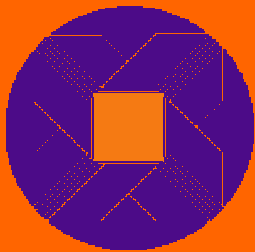
- The technology is too complicated
- The technology really doesn't work for my library
- I'm waiting for the technology to mature
- I will fail
- I won't get it right the first attempt
- Perfection is a minimum goal



Exploring Barriers to Making Changes

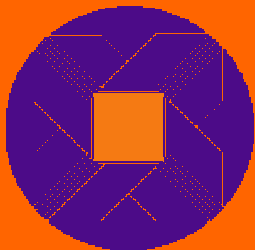
- My director won't support me
- My library doesn't have enough money to buy anything
- I don't think my operation needs to be improved

- What other worries do you have?



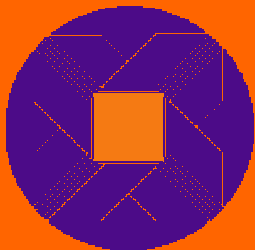
Looking Ahead: What's Next to Come

- More user-initiated circulation/ILL
- More standards-based ILL systems
- More options for obtaining materials
- More stress in providing timely delivery
- More challenges in trying to sort out the best



Looking Ahead: What's Next to Come

- What do you see in your crystal ball?



Selected Web Sites

- IPIG & IPIG Status of Testing Charts

<http://www.arl.org/access/naildd/ipig/ipig.shtml>

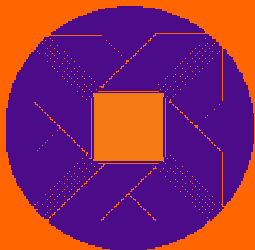
<http://www.arl.org/access/naildd/ipig/res/ipig9801-stat-test.shtml>

ISO ILL Protocol

<http://www.nlc-bnc.ca/iso/ill/>

- NCIP

<http://www.niso.org/commitat.html>



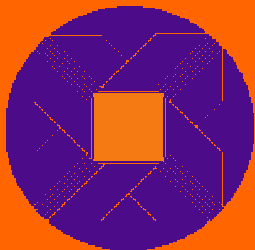
Selected Web Sites

- ILL Code

http://www.ala.org/rusa/stnd_Inc.html

- NAILDD Project

<http://www.arl.org/access/naildd/naildd.shtml>



Selected Web Sites

- Metadata Harvesting Protocol

<http://www.arl.org/newsltr/217/mhp.html>

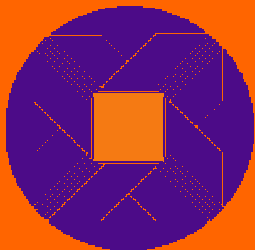
(ARL Bimonthly Report article by Cliff Lynch)

- NCIP

<http://www.niso.org/commitat.html>

- Open URL

<http://library.caltech.edu/openurl/>



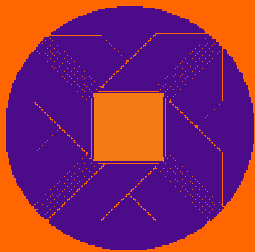
Selected Web Sites

- XML

<http://www.w3.org/XML>

- Z39.50

<http://www.niso.org/standards/>



Any Final Questions?

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