Discovery Tools
Knowledge Bases
&
Link Resolvers

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Main focus of the of the presentation

- What a Discovery Tool is

- How they work (are empowered) - Knowledge Bases and Link Resolvers

- Opinion - How & who should use them

Note: Discovery tools functionality is too technical and complicated... therefore the focus will be based on a summarised and simplified version of these concepts

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Examples of Discovery Tools & their Knowledge Bases & Link Resolvers

Discovery Tool	Knowledge Base	Link Resolver
Primo	SFX Global	SFX link resolver
OCLC WorldCat Local	WorldCat Knowledge Base	WorldShare License Manager
Summon	KnowledgeWorks	360 Link
EBSCO Discovery Service (EDS)	EBSCO Integrated Knowledge Base	LinkSource
Encore	CASE	WebBridge

Note: The presentation is NOT about any of these tools specifically, BUT is generally about the functioning of a discovery tool and its infrastructure

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A Discovery Tool

- A Discovery Tool is a new breed of **library search tool/interface** that provides a **simple unified keyword search** of the combined:

  - **Catalogue**

  - **Online resources** the library subscribes to (or offers its clients), such as:

    - Full text articles

    - Institutional repositories

    - Archives

    - Traditional bibliographic sources (journal articles, subject databases, course material, ETDs, etc.)

A Discovery Tool...

- A Discovery Tool operates in the same manner as **Google** by **indexing metadata from different library resources** into a **single searchable database or index**

- It also uses **facets** to further refine search results

- Therefore this means:

  - **Faster, more convenient** and **more accurate** results than the Library Catalogue alone

  - Increased **scope** and **depth** of the results

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Why a Discovery Tool

- Libraries need a discovery tool to:

  - Enable them to **compete** with Google; clients want a **single search box** for everything

  - Demonstrate to clients the **advantages** of using the Library services rather than Google

  - Ensure that the **catalogue** has a friendly interface for clients to use and access its excellent resources

  - Ensure that clients **do not** have to know the databases names, or to sift through long lists of resources to do their searches

  - Offer **increased opportunities** to get more out of the library resources

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The Current Library Electronic Resources Scenario

- The coverage of e-content packages is **constantly changing**, and it demands a systematic and collective approach - managing such data manually is **no longer feasible**

- The **increasing volume** of electronic resources and their changing nature makes it **difficult to provide access** to e-journals and their articles **via manually encoded links**

- Therefore, **to provide access to large electronic collections,** a library requires a **reliable** and **efficient** mechanism to **directly** link clients to individual resources**...**

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A Link Resolver & a Knowledge Base

- A Link Resolver and a Knowledge Base of e-resources' holdings are the essential **library infrastructure** required to **manage electronic resources** and to **facilitate client access** to those resources

- The Link Resolver and Knowledge Base **rely** on each other, and can be **integrated** with **a discovery tool**, **federated search**, **electronic resource management** and **other library automation products**

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A Link Resolver

- A Link resolver is an **information ecosystem** based on OpenURL, and its functions are to:

    - **Source OpenURL** links from database platforms

    - Efficiently **manage** linking in a **scalable** manner

    - **Interpret** OpenURLs and **calculate the best link** to connect the clients to full texts, or to other relevant resources

- Instead of using **hard-coded links**, OpenURL uses a **standardised structure** to present links to the resource metadata

A Knowledge Base

- A knowledge base is required in order to:

  - **Track contents of subscription packages** by describing specific materials that the library has access to

  - Describe and manage the **coverage dates** for each title

  - Describe and manage the **details relevant to linking** to specific electronic resources

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A Knowledge Base…

- There is **no freely available central database** that comprehensively describes the electronic holdings of a library's content package

- Instead, **various independent knowledge bases** have been **developed** to support resources discovery

- The **creation and maintenance** of a knowledge base requires:

  - An ongoing **comprehensive, consistent, and correct** automated and manual archival process

  - A **continual flow of updated information** from publishers

  - Library **staff's effort** to eliminate errors and to ensure its completeness

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Knowledge Base & Link Resolver Challenges

- There are **structural dependencies** between discovery services and their knowledge bases and link resolvers

- Even though it is **possible to mix and match link resolvers** and **knowledge bases** between **various discovery tools**, it comes with a heavy burden of **staff maintenance**

Knowledge Base & Link Resolver Challenges...

- Each knowledge base provider has access to **different source data** from **different content providers**

  - Therefore:

    - A **specific vendor's knowledge base might not be compatible** with other **discovery tools**

    - Using a **third-party knowledge base** might require **repetitive synchronisation** of the library's electronic holdings or **links** to resources

- The OpenURL linking process is **very fragile**, often resulting in **dead-end links** and other **end-user frustrations**

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The Solution

- The development and advancement of **KBart** - (**Knowledge Bases and related tools)** working group

- KBart is a **joint initiative** tasked with **exploring** data problems related to **OpenURL**

- KBart's **recommended practices** will ensure that:

  - Content providers make their **resources lists KBart compliant**

  - Content providers make **their resources lists available** to all Knowledge Bases producers

  - **Knowledge Bases** become **similar** in terms of the **quantity and quality** of their **coverage**

  - Each knowledge base provider is granted **access to similar source data** from **content providers**

Conclusion

- **Who should use Discovery Tools** (empowered by Knowledge Bases and Link Resolvers)?
- **How they function** (Discovery Tools, Knowledge Bases and Link Resolvers)
- **How they are integrated** (Discovery Tools, Knowledge Bases and Link Resolvers)

CLIENT TYPE

TYPE OF SEARCHES

PREFERRED CONTENT (CONTENT TYPE)

UNDERGRADUATE

GRADUATE

SEARCH

Explorative Search

BASIC

ADVANCED

Specific Search

THE KNOWLEDGE BASE

PROVIDE ACCESS INFORMATION FOR THE REQUESTED DATABASES & OTHER RESOURCES

LINK RESOLVER

PROVIDE CORRECT AND VALID LINKS TO ACCESS RESOURCES

RESULTS

Less filtering

GENERAL

Unlimited Content

More Filtering

SPECIFIC

Limited Content

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