
Enhancing Discoverability with Virtual Shelf Browse

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Emily Lynema
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NCSU Libraries
Code4Lib 2010
24 February 2010

Outline

- Motivation
- Demonstration
- Implementation
 - Back-end
 - Front-end
- Outcomes
- Future

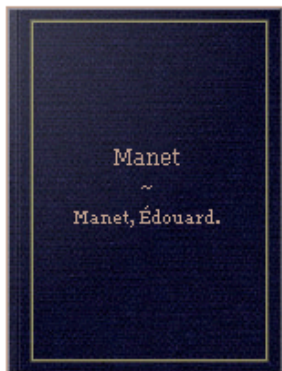
Why browse?

- Universal
 - We almost all browse shelves
 - The shelf is going away
 - Users like recommendations
- Local
 - No more OPAC
 - New ARS

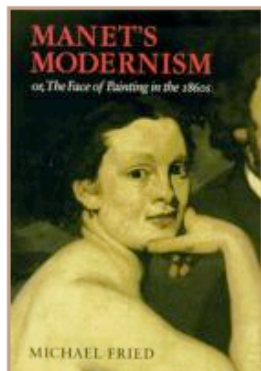
Browse Shelf

Close

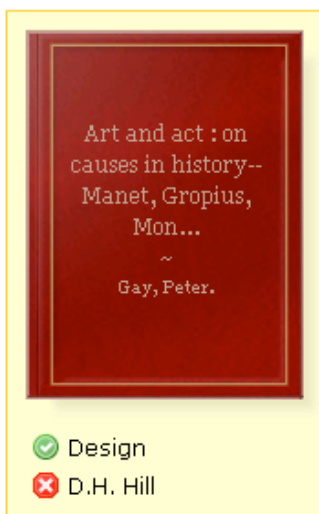
Cover View | [List View](#)



Design



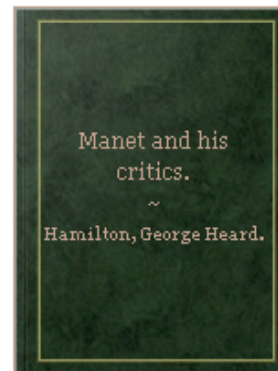
D.H. Hill



Design
 D.H. Hill



The last flowers of Manet (1986)
Gordon, Robert.
ND553 .M3 G67 1986



Satellite

Library Catalog

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[Ask Us
chat now](#)

Browse Shelf

[◀ Previous](#) | [Next ▶](#)[Cover View](#) | [List View](#)

Manet

Author: Manet, Édouard, 1832-1883

Published: 1947.

Call number: **ND553 .M3 F54**

Locations: Design Library: Available

Manet's modernism, or, the face of painting in the 1860s

Author: Fried, Michael.

Published: 1996.

Call number: **ND553 .M3 F75 1996**

Locations: D.H. Hill Library: Available

Art and act : on causes in history--Manet, Gropius, Mondrian

Author: Gay, Peter, 1923-

Published: c1976.

Call number: **ND553 .M3 G38 1976**

Locations: Design Library: Available
D.H. Hill Library: Unavailable

The last flowers of Manet

Author: Gordon, Robert, 1946-

Published: 1986.

Call number: **ND553 .M3 G67 1986**

Locations: D.H. Hill Library: Available

Manet and his critics.

Author: Hamilton, George Heard.

Published: 1954.

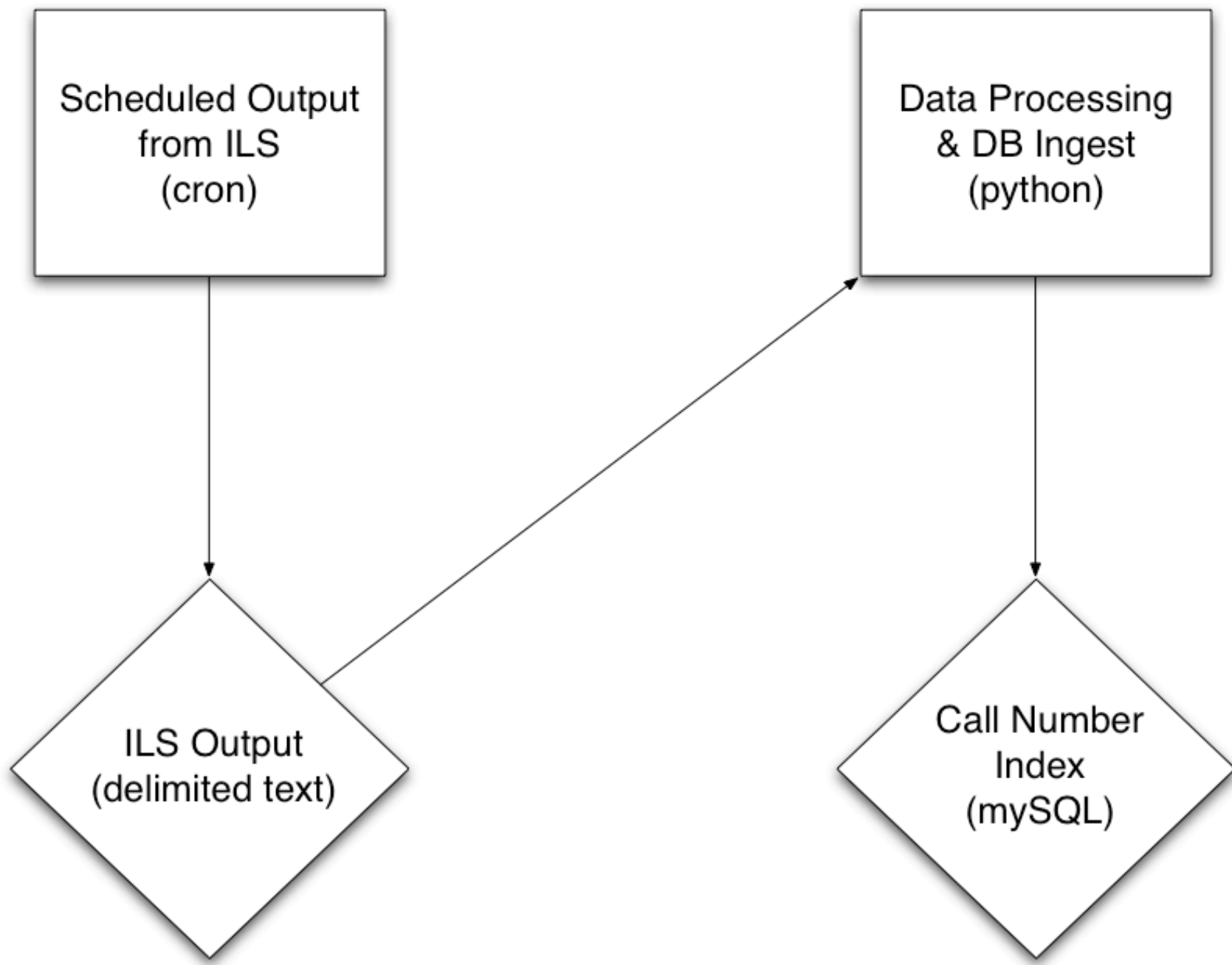
Call number: **ND553 .M3 H3**

Locations: Satellite Shelving Facility: Available

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Data Model: Goals

- Browse arbitrary number of titles around a known item in call number order
- Include online + all locations
- Support browse searching
 - Partial and non-matches
- Browse by title – NOT by item
- Forgiving call number searching



item_id	group_id	catalog_key	call_number	call_number_search	call_number_padded	classification
49070	19999	1505398	BD111 .S27 1995 e-book	BD111.S271995E-BOOK	BD 000111 .S27 1995 E-BOOK	LC
49071	20000	1941218	BD111 .S28 2005	BD111.S282005	BD 000111 .S28 2005	LC
49072	20001	592915	BD111 .S32 1983	BD111.S321983	BD 000111 .S32 1983	LC
49073	20002	711229	BD111 .S323 1988	BD111.S3231988	BD 000111 .S323 1988	LC
49074	20003	1417163	BD111 .S38 1955 v.1	BD111.S381955V.1	BD 000111 .S38 1955 V.000001	LC
49075	20003	1417163	BD111 .S38 1955 v.2	BD111.S381955V.2	BD 000111 .S38 1955 V.000002	LC

item_id	group_id	catalog_key	call_number	call_number_search	call_number_padded	classification
49070	19999	1505398	BD111 .S27 1995 e-book	BD111.S271995E-BOOK	BD 000111 .S27 1995 E-BOOK	LC
49071	20000	1941218	BD111 .S28 2005	BD111.S282005	BD 000111 .S28 2005	LC
49072	20001	592915	BD111 .S32 1983	BD111.S321983	BD 000111 .S32 1983	LC
49073	20002	711229	BD111 .S323 1988	BD111.S3231988	BD 000111 .S323 1988	LC
49074	20003	1417163	BD111 .S38 1955 v.1	BD111.S381955V.1	BD 000111 .S38 1955 V.000001	LC
49075	20003	1417163	BD111 .S38 1955 v.2	BD111.S381955V.2	BD 000111 .S38 1955 V.000002	LC



call_number
BD111 .S27 1995 e-book
BD111 .S28 2005
BD111 .S32 1983
BD111 .S323 1988
BD111 .S38 1955 v.1
BD111 .S38 1955 v.2

item_id	group_id	catalog_key	call_number	call_number_search	call_number_padded	classification
49070	19999	1505398	BD111 .S27 1995 e-book	BD111.S271995E-BOOK	BD 000111 .S27 1995 E-BOOK	LC
49071	20000	1941218	BD111 .S28 2005	BD111.S282005	BD 000111 .S28 2005	LC
49072	20001	592915	BD111 .S32 1983	BD111.S321983	BD 000111 .S32 1983	LC
49073	20002	711229	BD111 .S323 1988	BD111.S3231988	BD 000111 .S323 1988	LC
49074	20003	1417163	BD111 .S38 1955 v.1	BD111.S381955V.1	BD 000111 .S38 1955 V.000001	LC
49075	20003	1417163	BD111 .S38 1955 v.2	BD111.S381955V.2	BD 000111 .S38 1955 V.000002	LC


call_number_search
BD111.S271995E-BOOK
BD111.S282005
BD111.S321983
BD111.S3231988
BD111.S381955V.1
BD111.S381955V.2

item_id	group_id	catalog_key	call_number	call_number_search	call_number_padded	classification
49070	19999	1505398	BD111 .S27 1995 e-book	BD111.S271995E-BOOK	BD 000111 .S27 1995 E-BOOK	LC
49071	20000	1941218	BD111 .S28 2005	BD111.S282005	BD 000111 .S28 2005	LC
49072	20001	592915	BD111 .S32 1983	BD111.S321983	BD 000111 .S32 1983	LC
49073	20002	711229	BD111 .S323 1988	BD111.S3231988	BD 000111 .S323 1988	LC
49074	20003	1417163	BD111 .S38 1955 v.1	BD111.S381955V.1	BD 000111 .S38 1955 V.000001	LC
49075	20003	1417163	BD111 .S38 1955 v.2	BD111.S381955V.2	BD 000111 .S38 1955 V.000002	LC

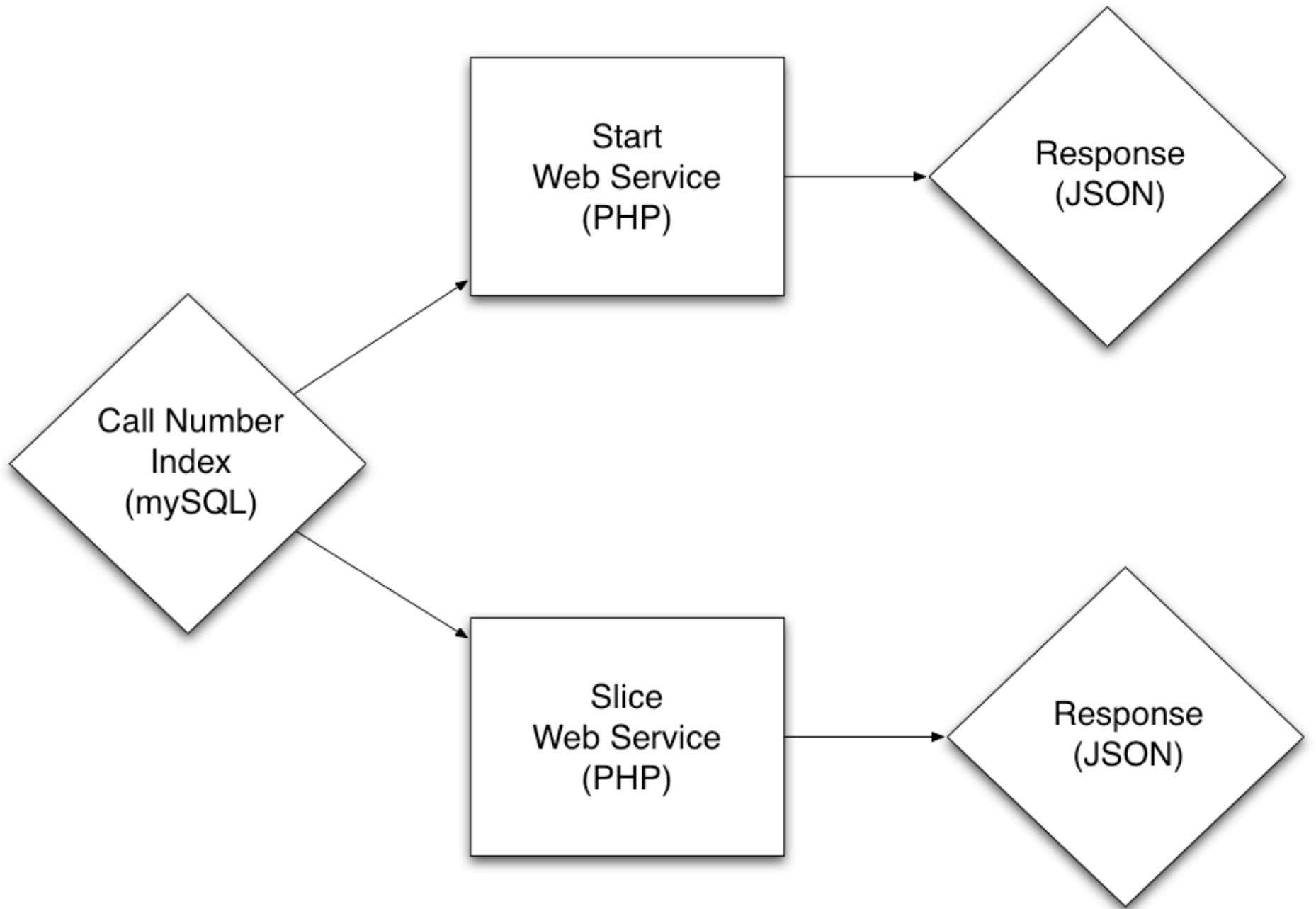
call_number_padded
BD 000111 .S27 1995 E-BOOK
BD 000111 .S28 2005
BD 000111 .S32 1983
BD 000111 .S323 1988
BD 000111 .S38 1955 V.000001
BD 000111 .S38 1955 V.000002



item_id	group_id	catalog_key	call_number	call_number_search	call_number_padded	classification
49070	19999	1505398	BD111 .S27 1995 e-book	BD111.S271995E-BOOK	BD 000111 .S27 1995 E-BOOK	LC
49071	20000	1941218	BD111 .S28 2005	BD111.S282005	BD 000111 .S28 2005	LC
49072	20001	592915	BD111 .S32 1983	BD111.S321983	BD 000111 .S32 1983	LC
49073	20002	711229	BD111 .S323 1988	BD111.S3231988	BD 000111 .S323 1988	LC
49074	20003	1417163	BD111 .S38 1955 v.1	BD111.S381955V.1	BD 000111 .S38 1955 V.000001	LC
49075	20003	1417163	BD111 .S38 1955 v.2	BD111.S381955V.2	BD 000111 .S38 1955 V.000002	LC



group_id	catalog_key
19999	1505398
20000	1941218
20001	592915
20002	711229
20003	1417163
20003	1417163



Start: Begins With

```
SELECT group_id  
FROM sorted_call_no_index  
WHERE call_number_search  
LIKE 'BD111.S30%'  
ORDER BY call_number_padded  
LIMIT 1
```

Start: Closest Match

```
SELECT group_id
FROM sorted_call_no_index
WHERE call_number_padded
> 'BD 000111 .S30'
AND classification = 'LC'
AND call_number_padded != ''
LIMIT 1;
```

Slice Web Service

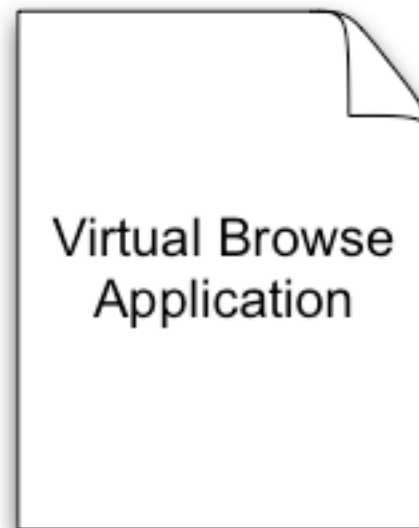
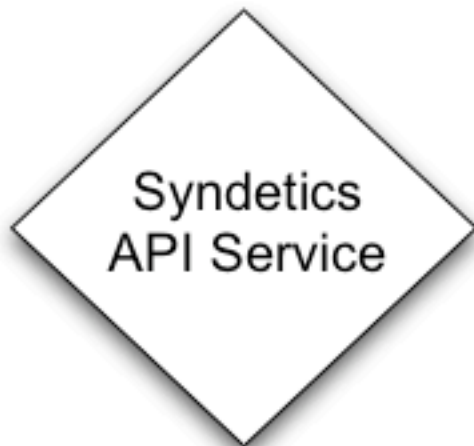
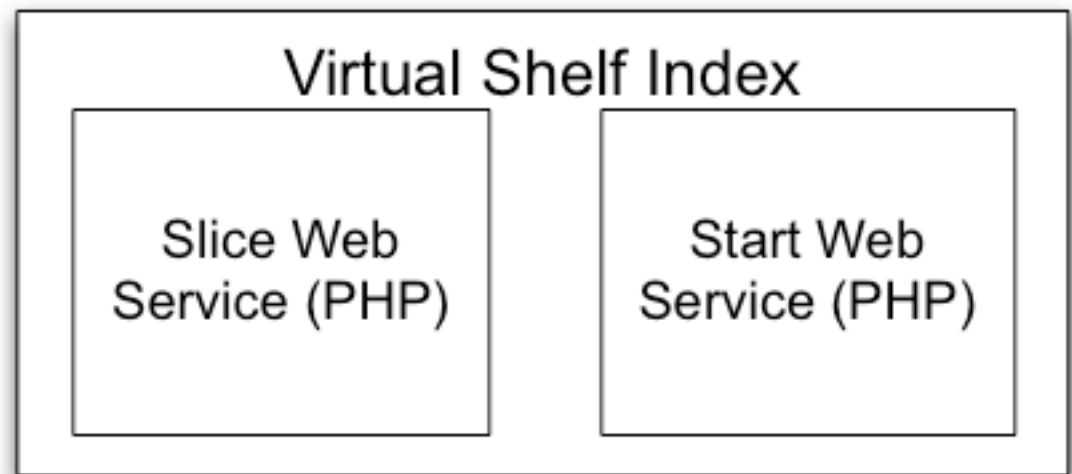
```
SELECT group_id, catalog_key, MIN(call_number)
FROM sorted_call_no_index
WHERE group_id
BETWEEN 20000 - 0
AND 20000 + 20
GROUP BY group_id;
```

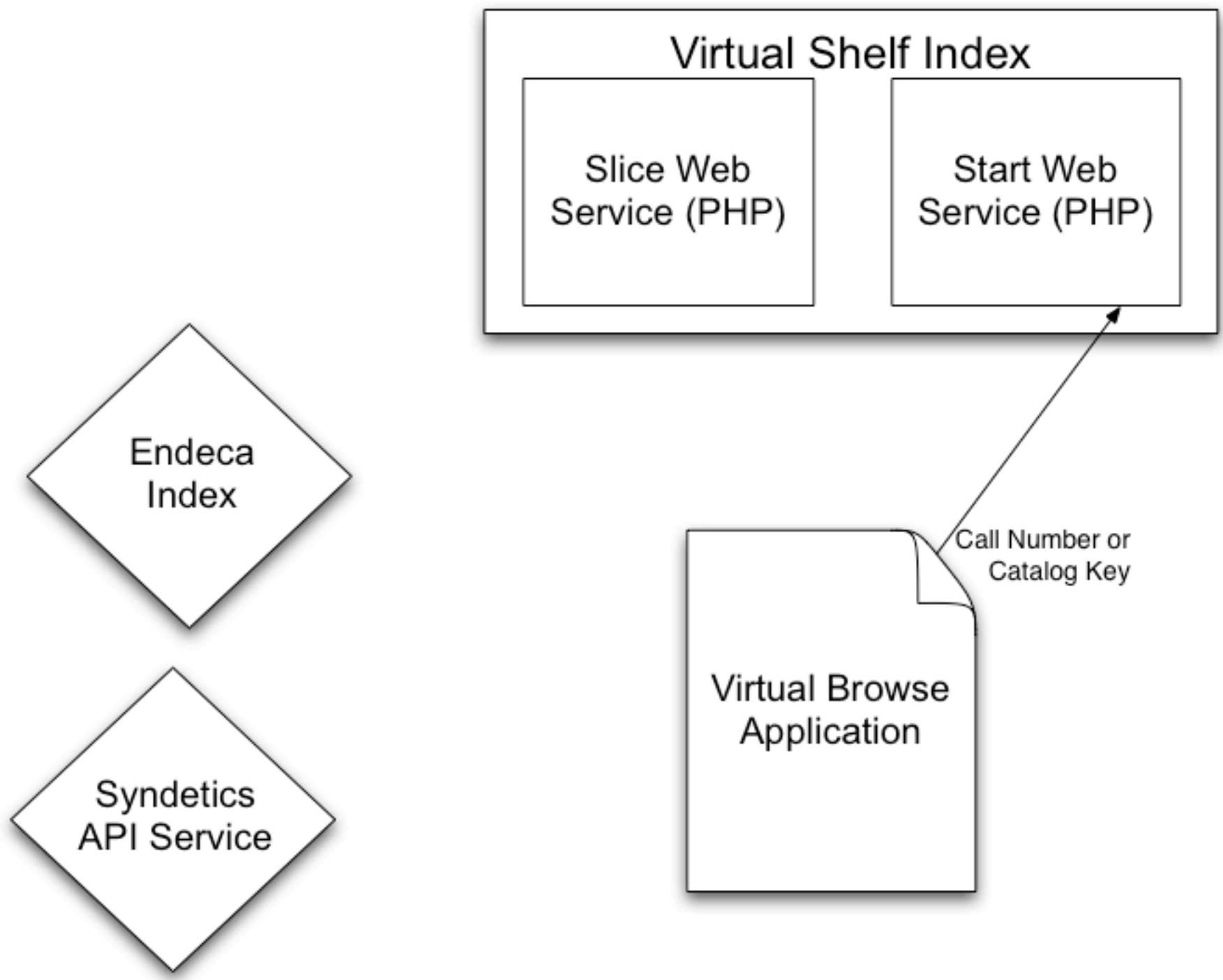

Slice Web Service

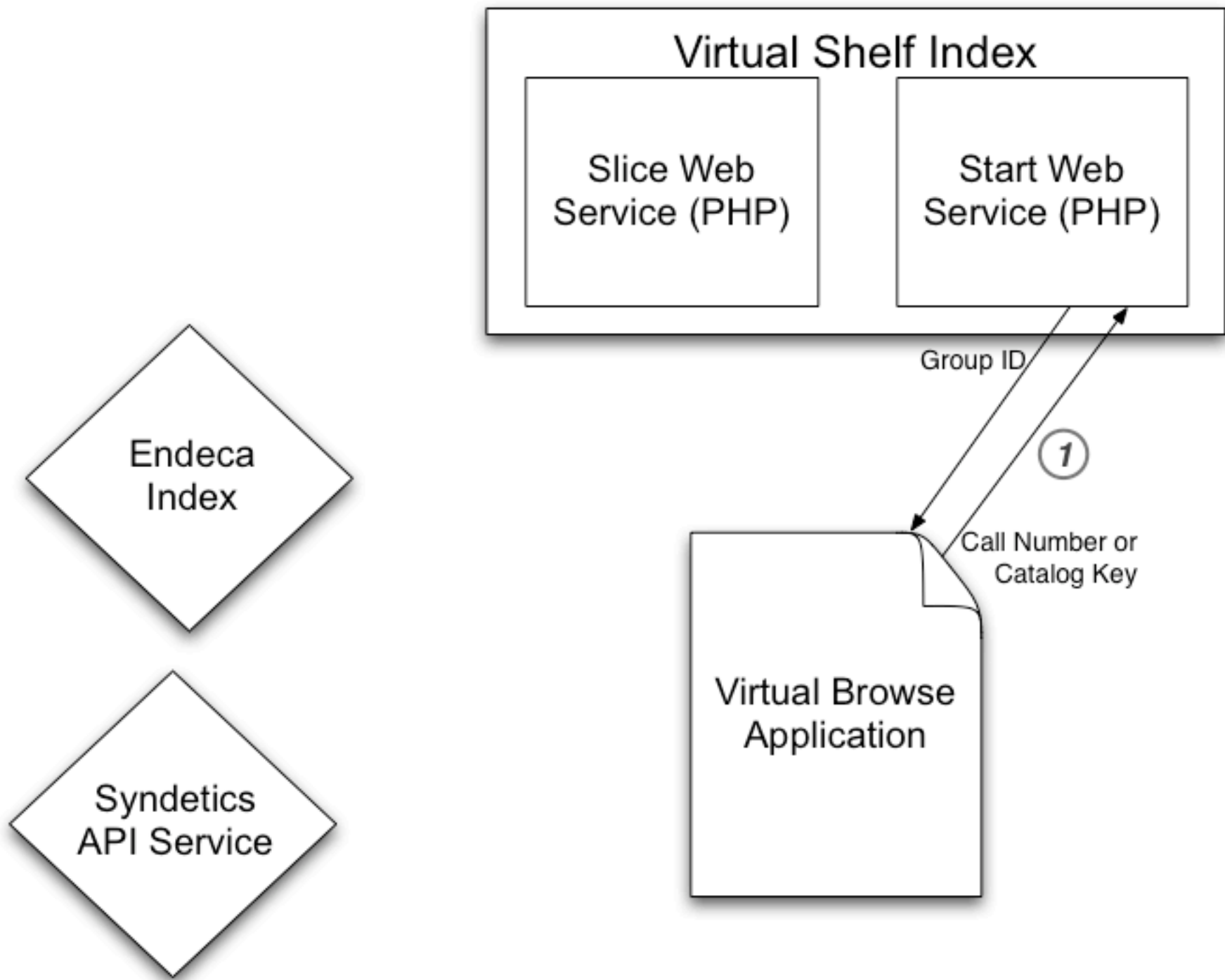
```
SELECT group_id, catalog_key, MIN(call_number)
FROM sorted_call_no_index
WHERE group_id
BETWEEN 20000 - 0
AND 20000 + 20
GROUP BY group_id;
```

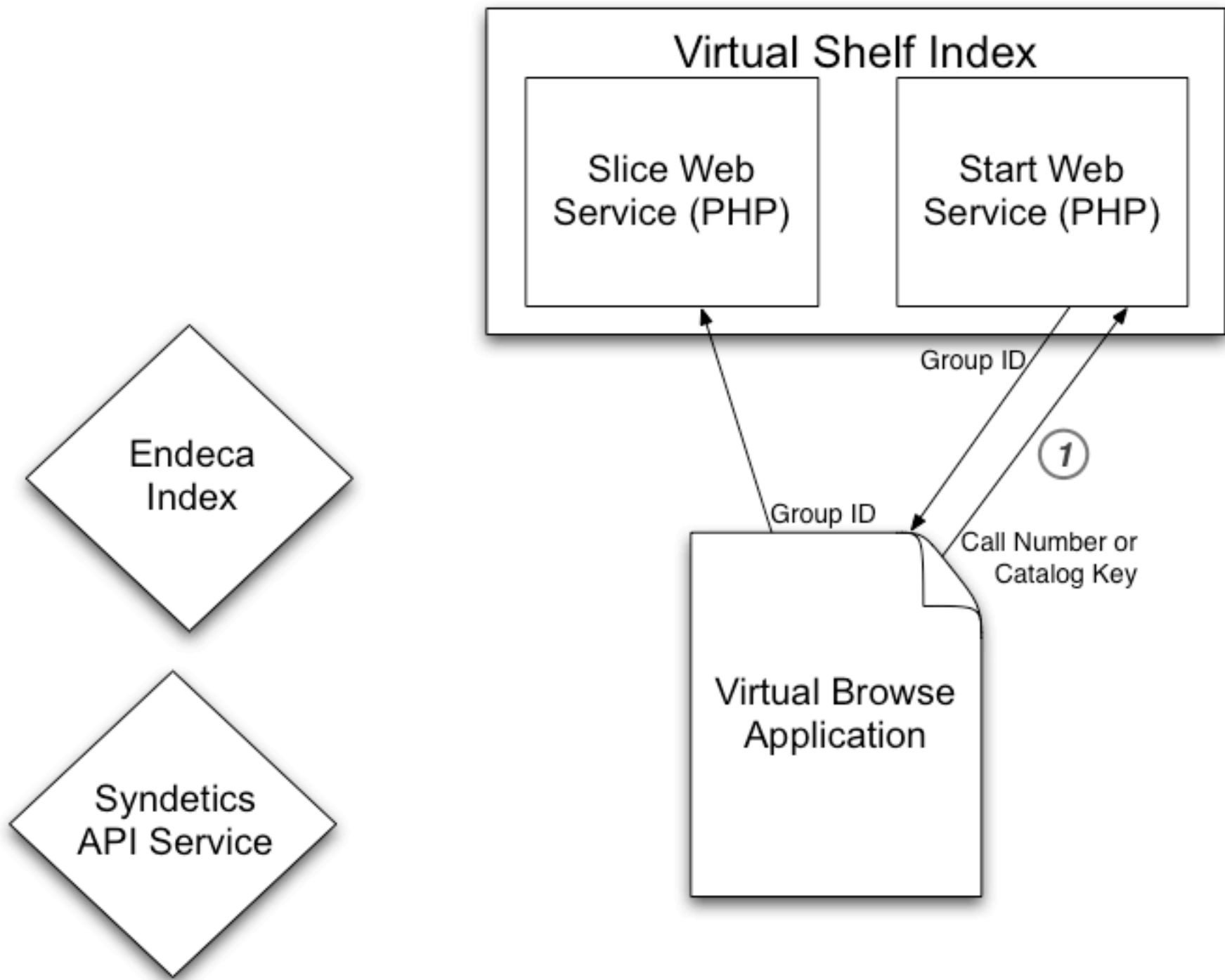
Front-end: Goals

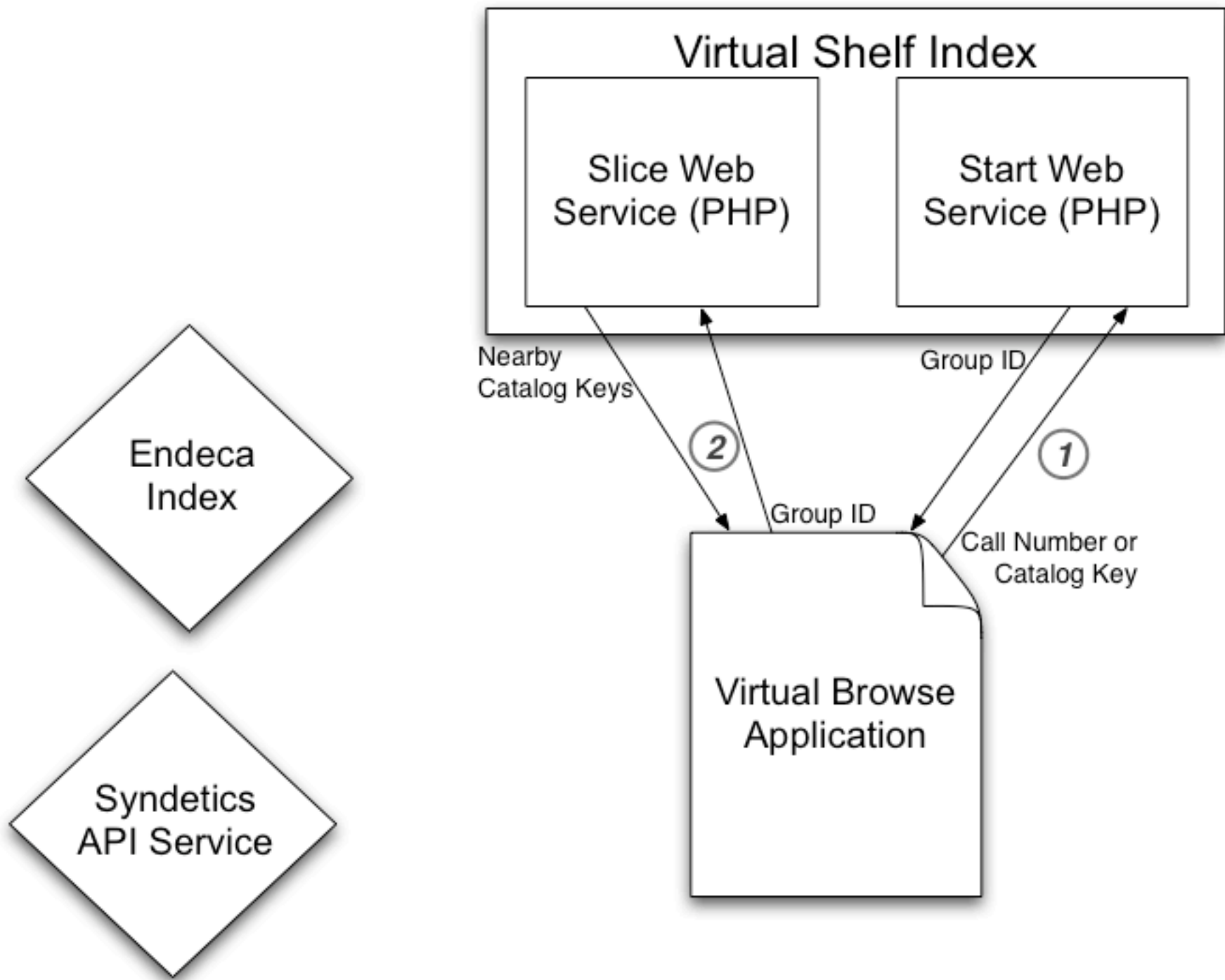
- Access to “infinite” shelf
- Interactive visual browsing experience
- Design cues from Google Books
- High performance
- Satisfy both patrons and staff

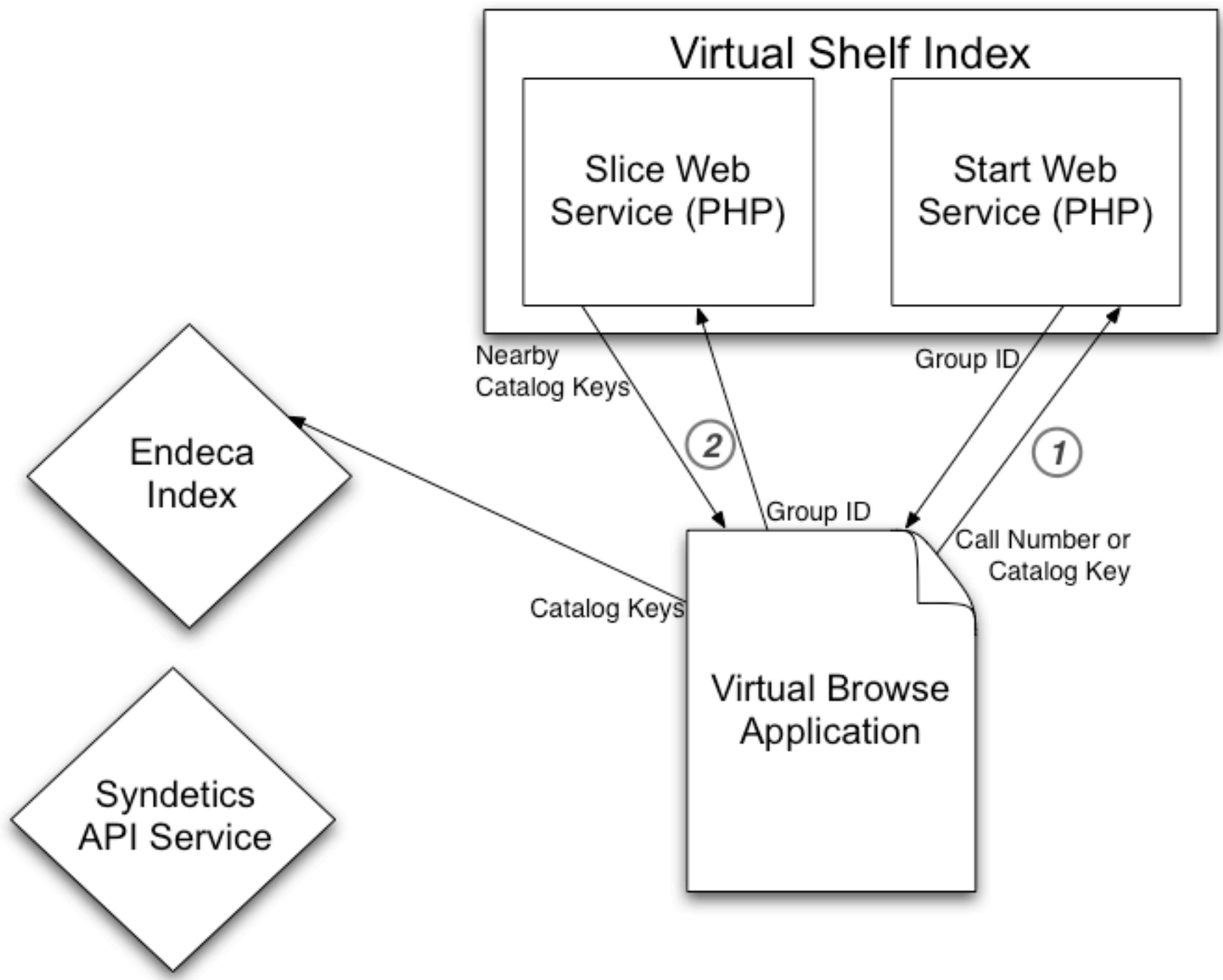


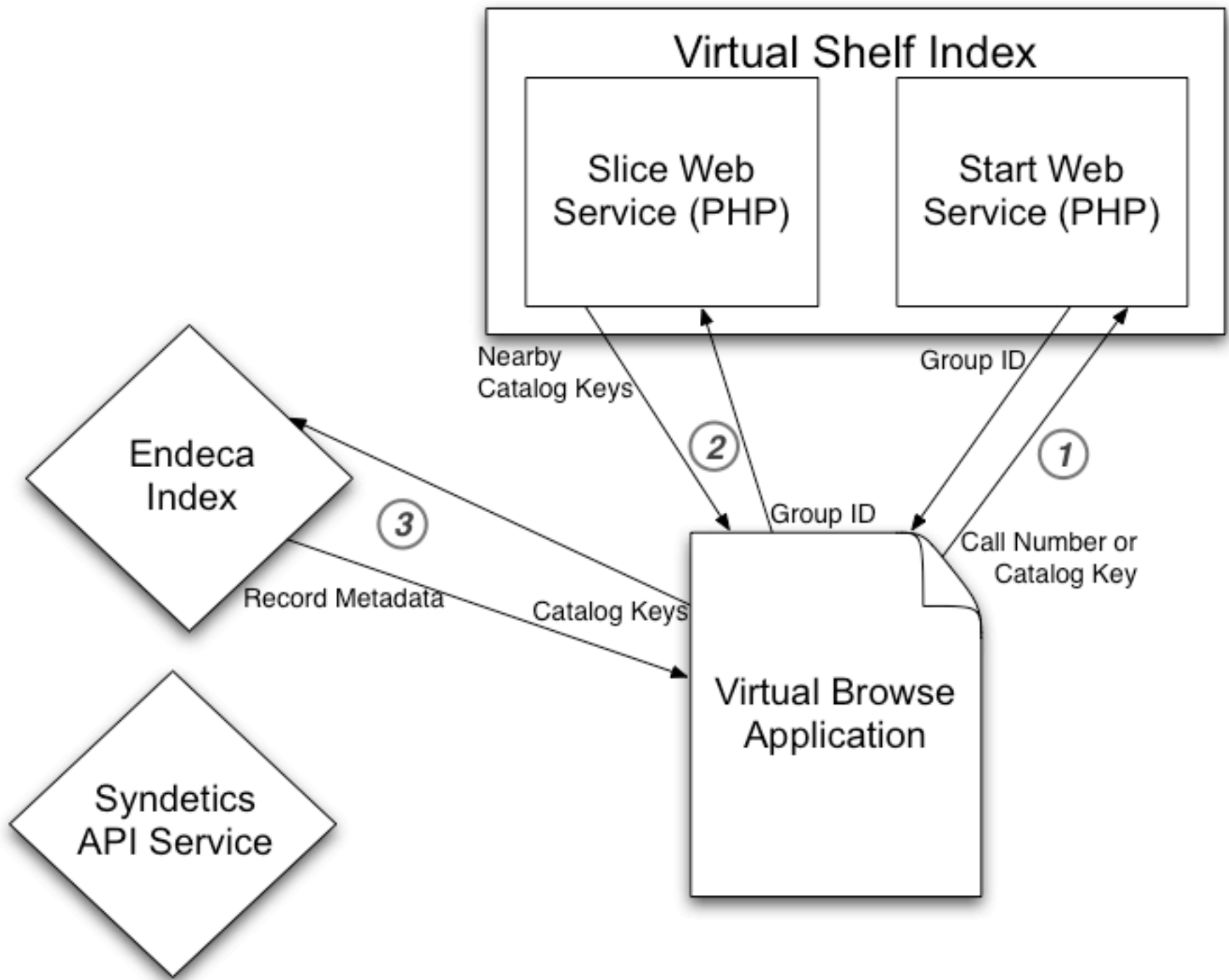


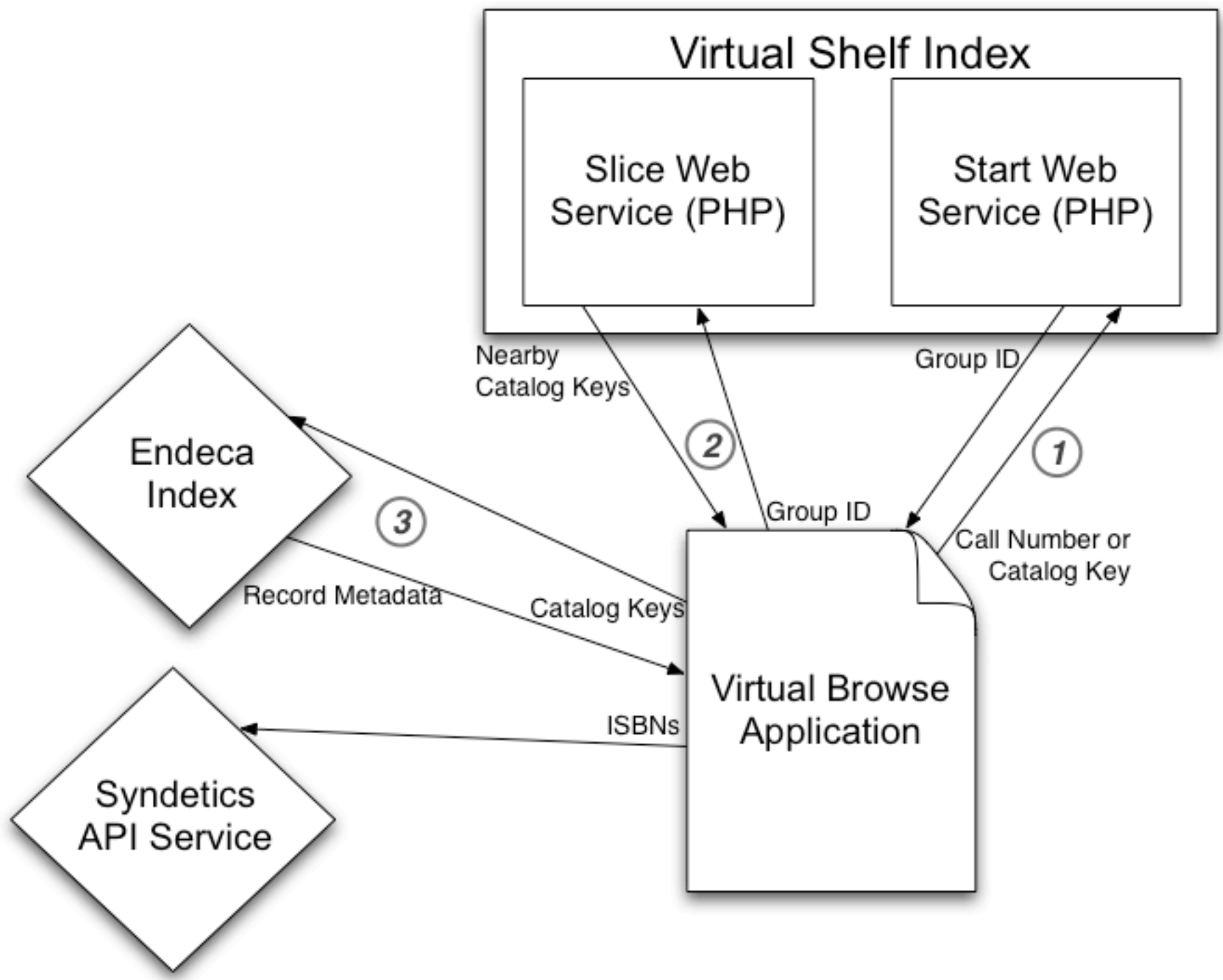


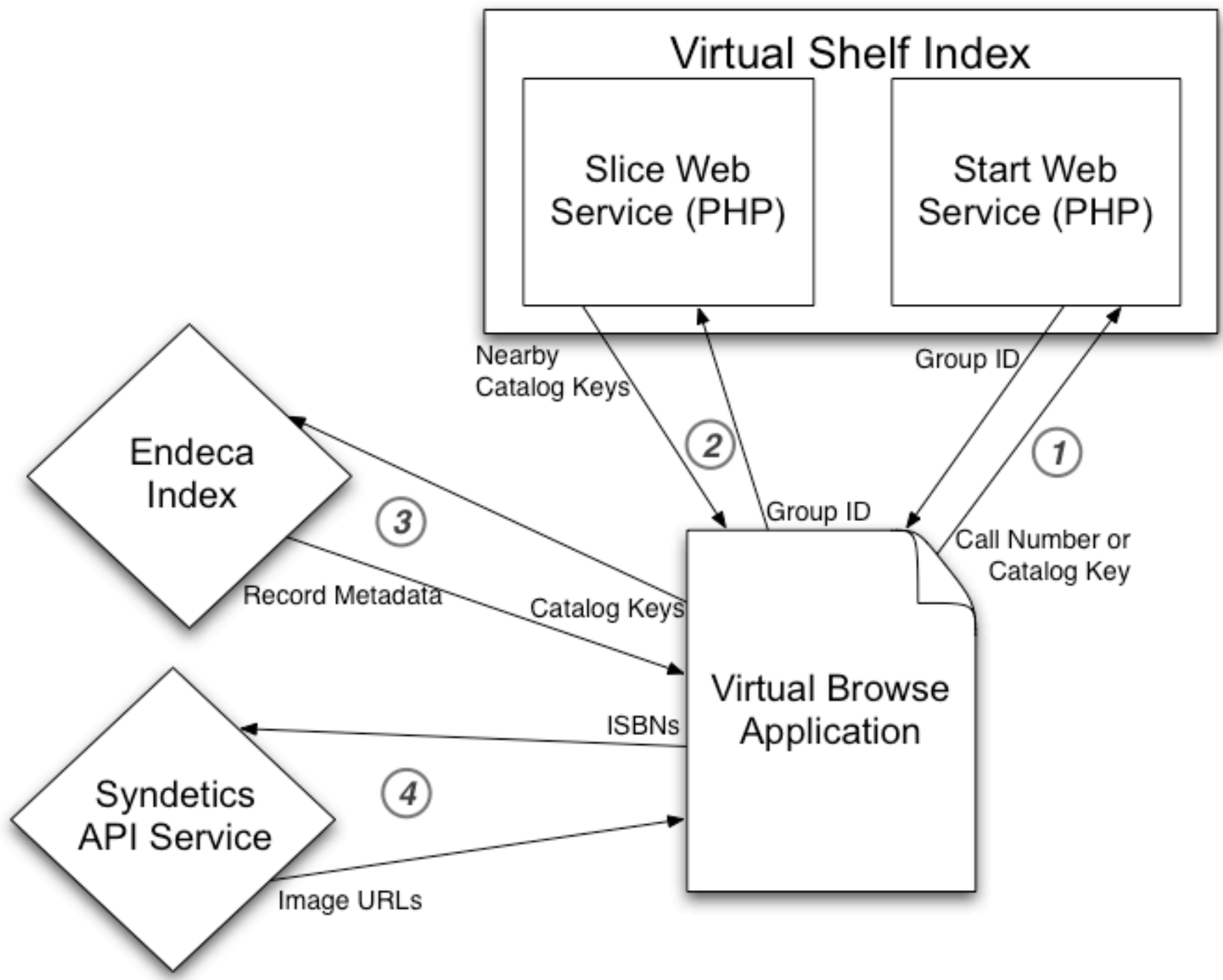












JQuery Plugins

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Art and act : on causes in history--Manet, Gropius, Mondrian
by Peter Gay.

Author: [Gay, Peter, 1923-](#)

Published: New York : Harper & Row, c1976.

Edition: 1st ed.

Description: xv, 265 p. : ill. ; 24 cm.

Format: Book

Expand Your Search

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- Search for this title at Libraries worldw

More Like This

- [Browse Shelf](#) NEW

Related Subjects

- [Manet, Édouard, - 1832-1883](#)
- [Gropius, Walter, - 1883-1969](#)
- [Mondrian, Piet, - 1872-1944](#)
- [History - Philosophy](#)

Location **Details** **Marc Record**

Location	Call Number	Status
D.H. Hill Library		
Stacks (5th floor)	ND553 .M3 G38 1976 (Browse shelf)	Material at the bindery
Design Library		
Stacks	ND553 .M3 G38 1976 (Browse shelf)	Available

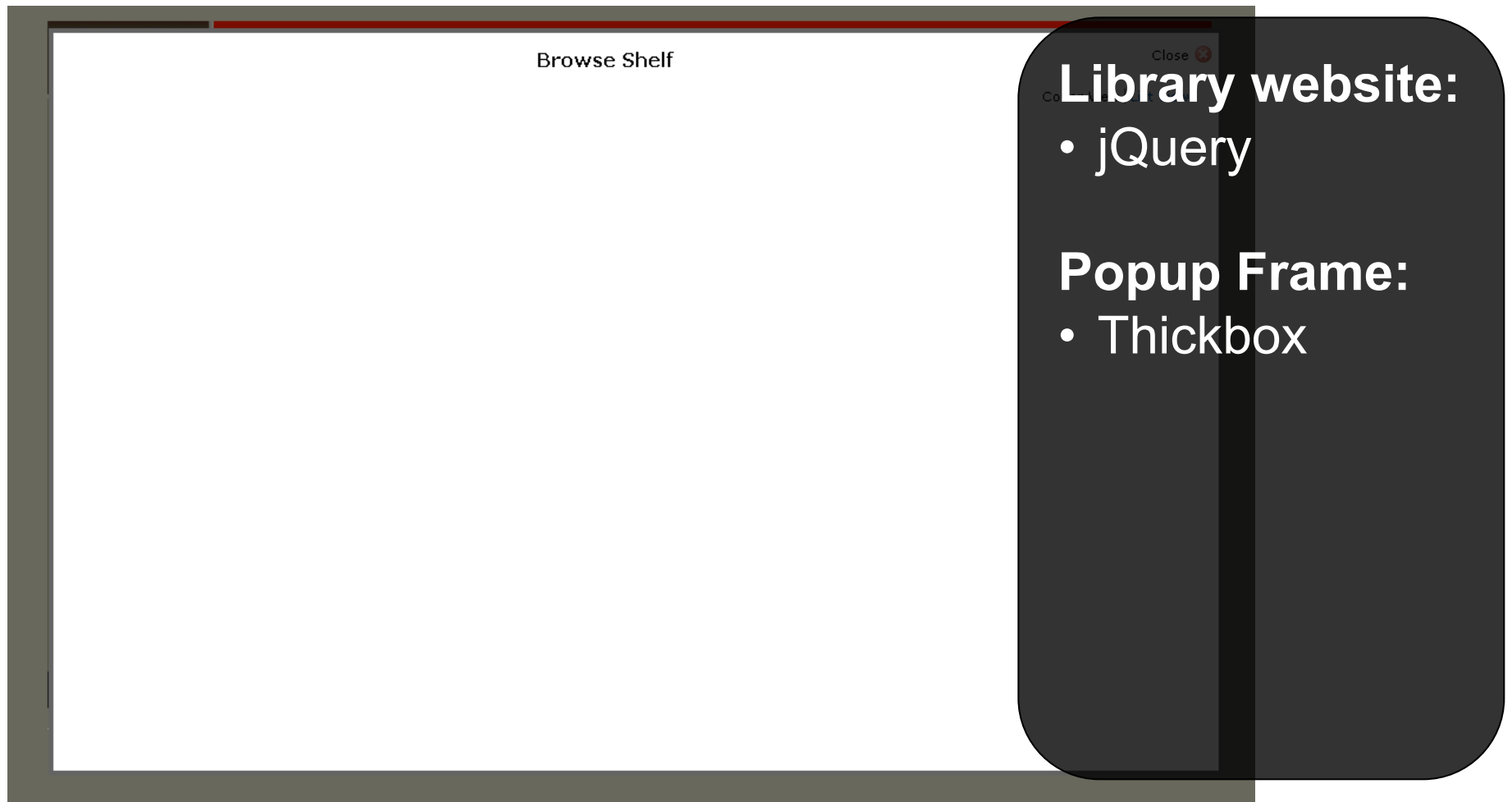
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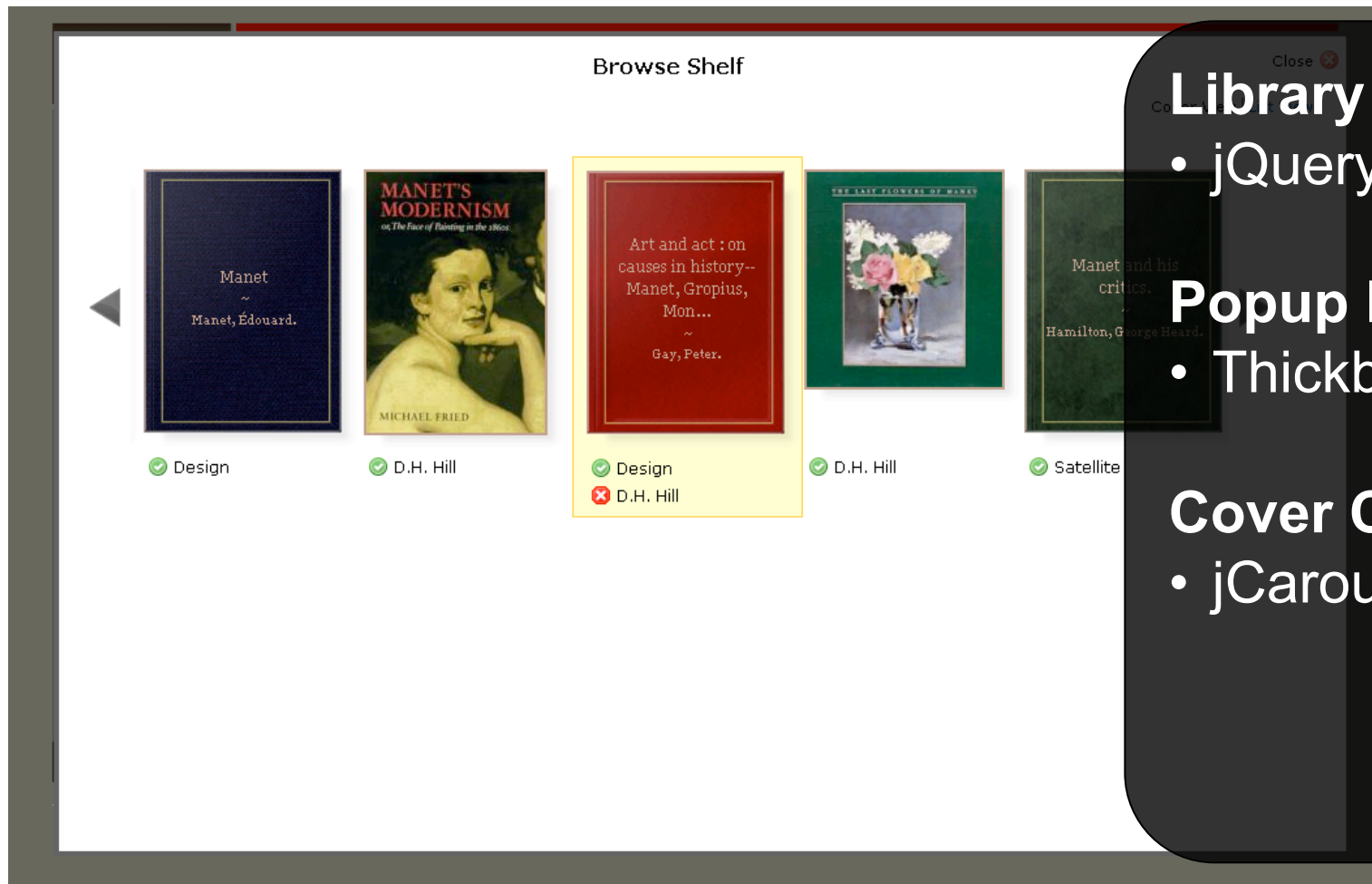
NC STATE UNIVERSITY

Library website:
• jQuery

JQuery Plugins

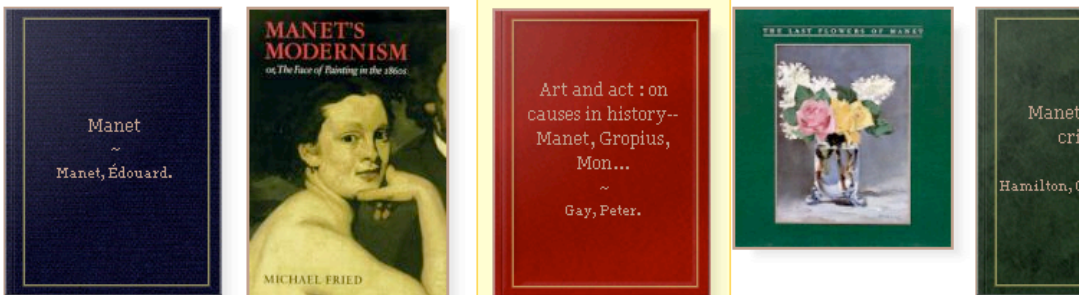


JQuery Plugins



JQuery Plugins

Browse Shelf



The image shows a horizontal carousel of five book covers. The third cover, 'Art and act : on causes in history-- Manet, Gropius, Mon... ~ Gay, Peter.', is highlighted with a yellow border and has a popup frame overlaid on it. The popup frame contains the text: 'The last flowers of Manet (1986) Gordon, Robert. ND553 .M3 G67 1986'. Below each cover is a small status bar with a green checkmark and a red X mark.

Manet
~
Manet, Edouard.

MANET'S MODERNISM
on, The Face of Painting in the 1860s
MICHAEL FRIED

Art and act : on causes in history--
Manet, Gropius, Mon...
~
Gay, Peter.

THE LAST FLOWERS OF MANET

Manet and his critics.
Hamilton, George Heard.

✓ Design
✓ D.H. Hill
✓ Design
✗ D.H. Hill
✓ Satellite

The last flowers of Manet (1986)
Gordon, Robert.
ND553 .M3 G67 1986

Library website:

- jQuery

Popup Frame:

- Thickbox

Cover Carousel:

- jCarousel

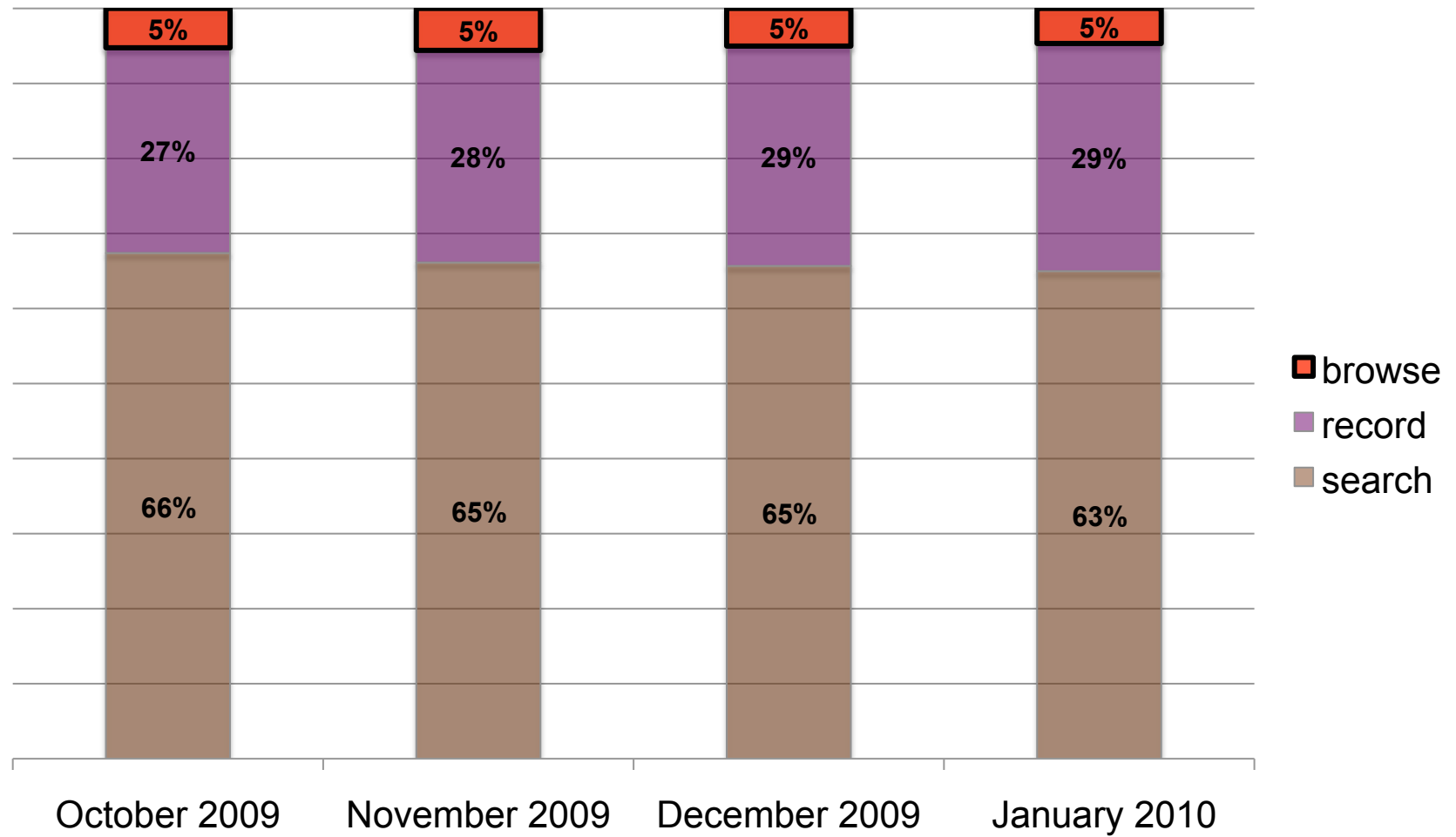
Mouseovers:

- SimpleTip

Front-end: Challenges

- DOM = SLOW
- Plugin + Plugin + Plugin = Headache
- Remote servers = Latency roulette
- Too much Ajax = Browser bottleneck
- IE != Your friend

Usage



Anecdotal Feedback

- very positive reaction
- where is “browse shelf”?
- “find more” resonates with current behavior
- open the book within browse context
- don't care about call number specifics

Future

- **TRLN consortial implementation**
 - Filtering across institution / location
- **Virtual Browse Project**
 - Find more along other dimensions of likeness
 - More integrated presentation of 3rd party supplemental content and licensed full text

Thanks!

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Cory Lown

NCSU Libraries Fellow

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More Information

Project Page:


<http://www.lib.ncsu.edu/dli/projects/virtualshelfindex/>

Web Service Docs:

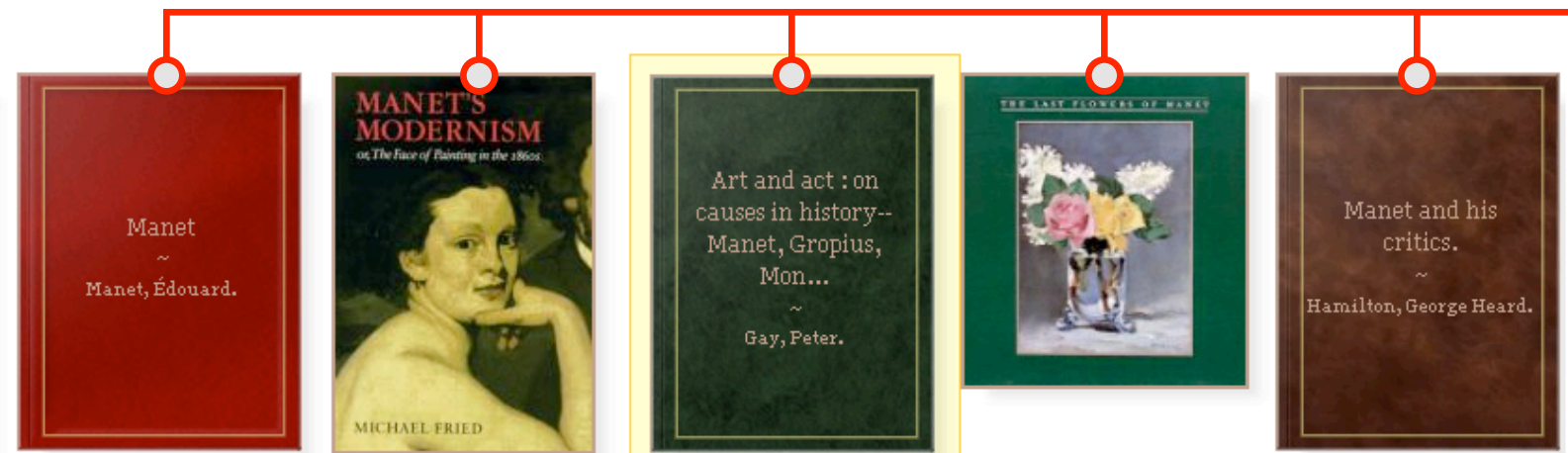
[http://www.lib.ncsu.edu/catalog/virtualshelfindex/
documentation.html](http://www.lib.ncsu.edu/catalog/virtualshelfindex/documentation.html)

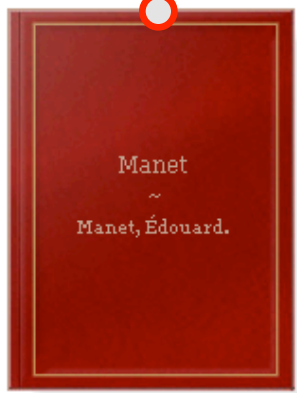
Try It:

[http://www2.lib.ncsu.edu/catalog/record/
NCSU1879640](http://www2.lib.ncsu.edu/catalog/record/NCSU1879640)

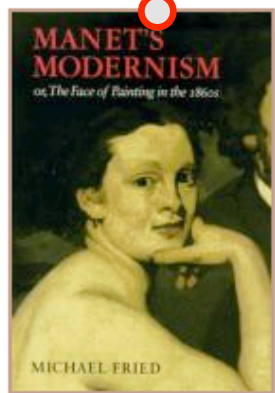
Browse Shelf Close 

Cover View | [List View](#)

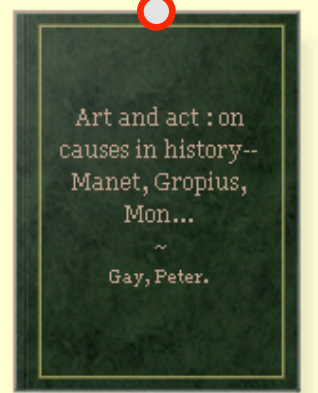





✔ Design



✔ D.H. Hill



✔ Design
✘ D.H. Hill



The last flowers of Manet (1986)
Gordon, Robert.
ND553 .M3 G67 1986



✔ Satellite


VIRTUAL SHELF INDEX

Given:

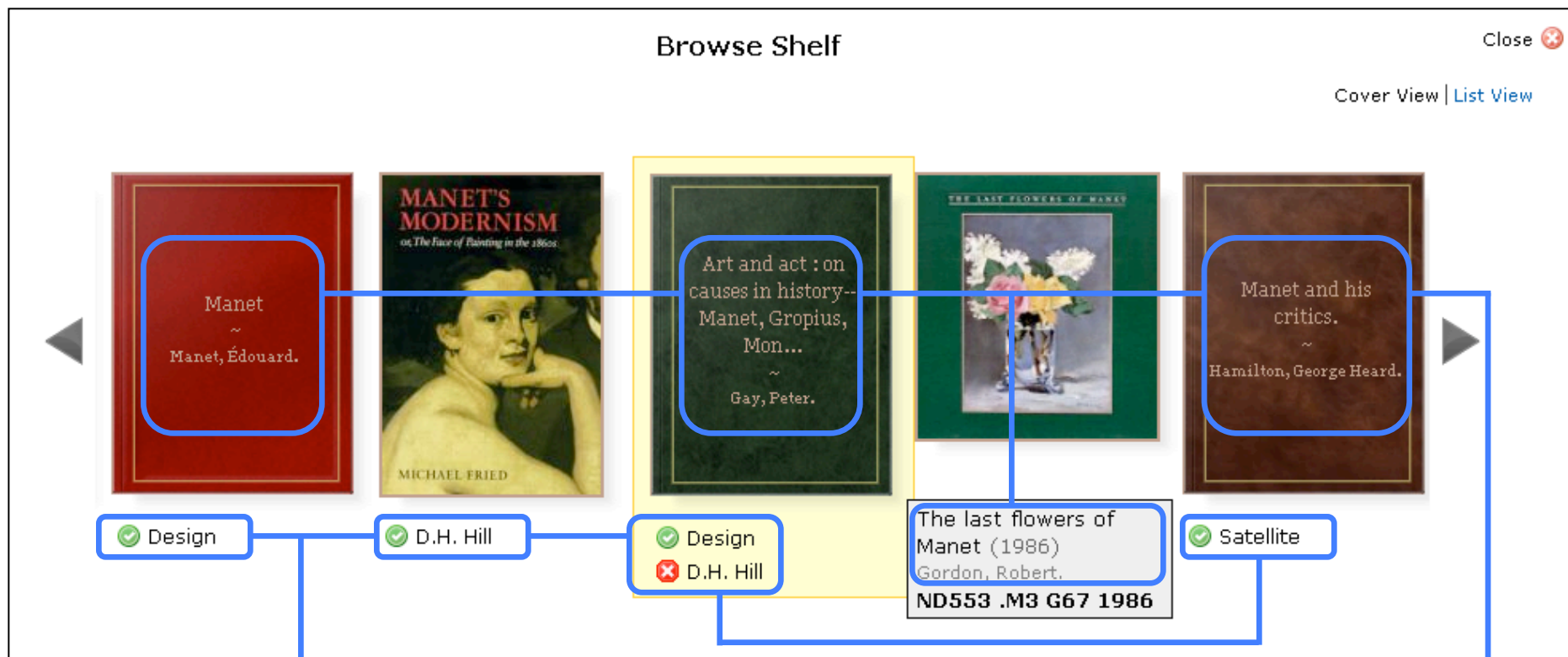
- Call number of starting item
(or)
- Bibliographic ID of starting item

Provides:

- Title ordering & selection

Browse Shelf Close 

Cover View | [List View](#)



The screenshot shows a 'Browse Shelf' with five book covers:

- 1. Red cover: "Manet ~ Manet, Édouard." with a "Design" status box (checkmark).
- 2. Green cover: "MANET'S MODERNISM on The Face of Painting in the 1860s" by Michael Fried with a "D.H. Hill" status box (checkmark).
- 3. Yellow highlight: "Art and act : on causes in history-- Manet, Gropius, Mon... ~ Gay, Peter." with a "Design" status box (checkmark) and a "D.H. Hill" status box (cross).
- 4. Green cover: "THE LAST FLOWERS OF MANET" with a metadata box: "The last flowers of Manet (1986) Gordon, Robert. ND553 .M3 G67 1986".
- 5. Brown cover: "Manet and his critics. ~ Hamilton, George Heard." with a "Satellite" status box (checkmark).

ENDECA INDEX

Given:

- Bibliographic IDs of displayed items

Provides:

- Bibliographic metadata
- Availability information

Browse Shelf Close 

Cover View | [List View](#)



✔ Design



✔ D.H. Hill



✔ Design
✘ D.H. Hill



The last flowers of Manet (1986)
Gordon, Robert.
ND553 .M3 G67 1986



✔ Satellite

THIRD-PARTY ENHANCED CONTENT PROVIDER

Given:

- ISBNs of displayed items

Provides:

- Cover images, as available