# Reducing Cognitive Load in Primo

Developers Day IGeLU 2016

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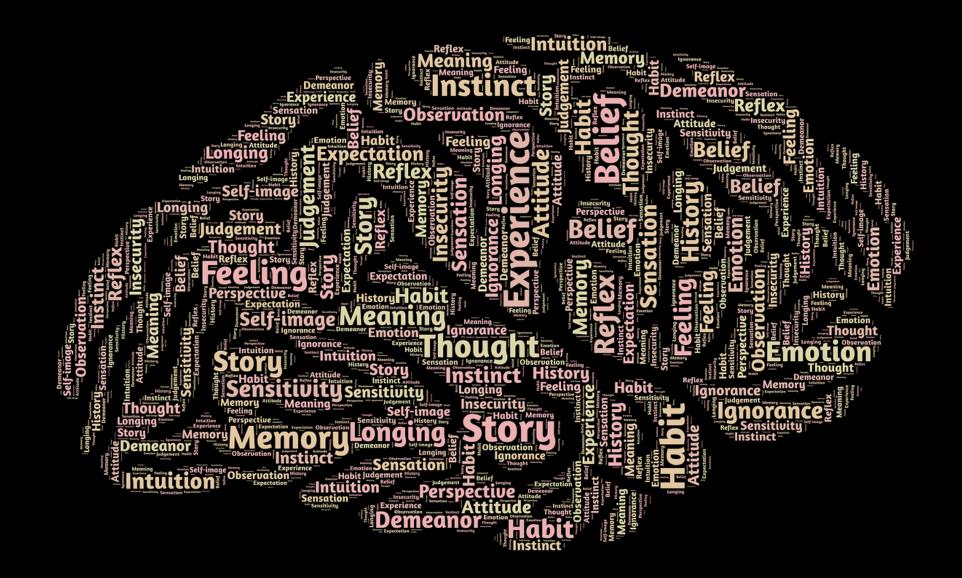


## Disclaimer

Legal and ethical issues

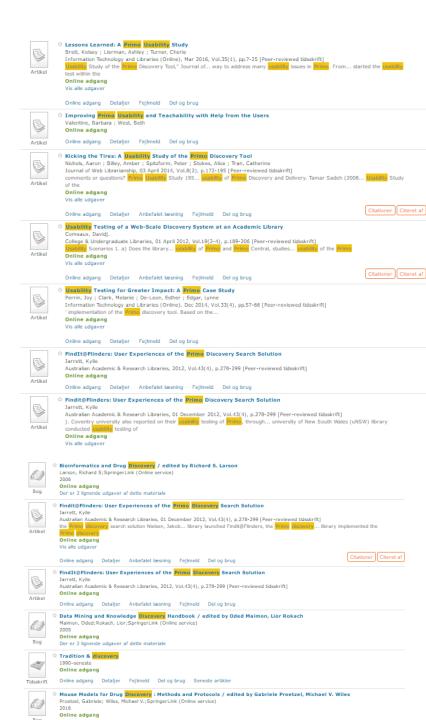
VS

Proof of concept



#### Problem

- Search results all look alike
  - Especially articles
- Users change search string looking for different records, but might find the same.
  - Forget the looooooooooooooooo OR
  - Time
- Mental question: "Have I seen this before?"
- Documentation: What did I see?
- No server side programming in Primo





# PersonalPrimo

#### Proces

1. Go / No go: Overcome small - but important - technical problem

2. Focus group x 2

3. Test implementation for proof of concept

4. Limbo: Waiting for new UI

#### **Technical**

- Embedded into Primo using client side scripting
  - jQuery + jQUERY.PRIMO

• Server side programming – on our servers!

Database

PDS+ API for confirmation

## 1st technical problem

Who is the user from a client side perspective

```
_ Object {institution: "AUB", baseUrl: "https://aub-primo.hosted.exlibrisgroup.com/pds", borInfo: Object, handle: '
 primo.hosted.exlibrisgroup.com/pds?fun...=AUB&pds_handle=
   baseUrl: "https://aub-primo.hosted.exlibrisgroup.com/pds"
 ▼ borInfo: Object
     email address: "kkh@aub.aau.dk"
     group: "STAFF"
   ▼id: Array[2]
                                              Easy to spoof
       0: "PID000093007"
      1: "Karsten Kryger Hansen"
      length: 2
     ▶ __proto__: Array[0]
     institute: "AUB"
     name: "Karsten Kryger Hansen"
   ▶ proto : Object
   handle: "1
   institution: "AUB"
   url: "https://aub-primo.hosted.exlibrisgroup.com/pds?func=bor-info&calling_system=primo&institute=AUB&pds_handle=^
```

url: "https://aub-

#### PDS+

- Self developed login system for Primo
- Supplements PDS on verifying users identity
- Uses PDS object for storing data

Easy to extend with API

```
func generate_pds_token($aleph_pid, $shared_key) {
    my $time = time();
    return sprintf("%08x", $time) . md5_hex( $time, $aleph_pid, $shared_key );
}
```

```
$response = '<bor_info>'
    .'<id>' . $xml->{z303}{'z303-id'} . '</id>'
    .'<institute>' . params->{INSTITUTE} . '</institute>'
    .'<group>' . $group . '</group>'
    .'<name>' . $name . '</name>'
    .'<email_address>' . $xml->{z304}{'z304-email-address'} . '</email_address>'
    .'<resource_status>' . *generate_pds_token(.$xml->{z303}{'z303-id'},.config->{primo}{shared_key}.)...'</resource_status>'
    .'</bor_info>';
}
else {
    $response = '<bor-info><error>Unable to authenticate application for bor-info retrieval</error></bor-info>';
}
```

#### PDS+

- Empty field in the PDS-object: Resource-status
- Autogenerated, easy verifyable, unique key for the user session

```
_ Object {institution: "AUB", baseUrl: "https://aub-primo.hosted.exlibrisgroup.com/pds", borInfo: Object, handle: '
                                                                                                                                                   ", url: "https://aub-
 primo.hosted.exlibrisgroup.com/pds?fun...=AUB&pds_handle=
   baseUrl: "https://aub-primo.hosted.exlibrisgroup.com/pds"
 ▼ borInfo: Object
     email_address: "kkh@aub.aau.dk"
     group: "STAFF"
   ▼id: Array[2]
       0: "PID000093007"
      1: "Karsten Kryger Hansen"
      length: 2
     ▶ __proto__: Array[0]
     institute: "AUB"
      resource-status: "57c470456c633d10fca3c382cf5e7eab4cc809e1"
   ▶ __proto__: Object
   handle: "1
   institution: "AUB"
   url: "https://aub-primo.hosted.exlibrisgroup.com/pds?func=bor-info&calling_system=primo&institute=AUB&pds_handle=
```

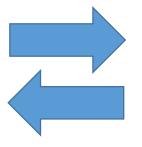
#### Primo / PDS











PDS+



PersonalPrimo

### Demo

## Code client side

#### Code server side

- Validate user
  - Call PDS+
- Save record to databasae

Return (previous) state of the record – if any

#### Database structure

#### Search

| id | ₩. | userid       | sessionid                        | projectid | datetime            |
|----|----|--------------|----------------------------------|-----------|---------------------|
|    | 3  | PID000093007 | 5CA249F4BE9F61AC4744AD6B5B6FF86D | 0         | 2016-08-29 20:25:14 |
|    | 2  | PID000093007 | 5CA249F4BE9F61AC4744AD6B5B6FF86D | 0         | 2016-08-29 20:24:36 |
|    | 1  | PID000093007 | 5CA249F4BE9F61AC4744AD6B5B6FF86D | 0         | 2016-08-29 20:24:09 |

#### **Search > FacetElement**

| id | searchid | indexname    | precisiontype | term              | operator | exclude |
|----|----------|--------------|---------------|-------------------|----------|---------|
| 1  | 4        | facet_tlevel | exact         | aub_physical_item | AND      | 0       |

#### **Search > QueryElement**

| id | searchid 🔻 | indexname | precisiontype | term                       | operator | exclude |
|----|------------|-----------|---------------|----------------------------|----------|---------|
| 4  | 4          | any       | contains      | Discovery Tool Preferences | AND      | 0       |
| 3  | 3          | any       | contains      | Discovery+Tool+Preferences | AND      | 0       |
| 2  | 2          | any       | contains      | primo+discovery+usability  | AND      | 0       |
| 1  | 1          | any       | contains      | primo+usability            | AND      | 0       |

#### **Search > RecordInteraction**

|   | id | searchId | recordid                                  | interactionlevel |
|---|----|----------|---|------------------|
| 1 | 1  | 1        | TN_proquest1786779516                     | 0                |
|   | 2  | 1        | AUB01_ALEPH001793607                      | 0                |
| 1 | 3  | 1        | TN_crossref10.1080/19322909.2016.1190678  | 0                |
|   | 4  | 1        | TN_tayfranc10.1080/10691316.2012.695671   | 0                |
| 1 | 5  | 1        | TN_proquest1640762715                     | 0                |
|   | 6  | 1        | TN_tayfranc10.1080/19322909.2014.903133   | 0                |
| 1 | 7  | 1        | TN_ericEJ992090                           | 0                |
|   | 8  | 1        | TN_tayfranc10.1080/00048623.2012.10722288 | 0                |
| 1 | 9  | 2        | TN_tayfranc10.1080/19322909.2014.903133   | 0                |

#### Issues

- No facet'ing
- FRBR and DEDUP
- Stable record ids
- Records deleted
- Speed:
  - 2015: 12,5 million records shown but a lot of users are not signed in

#### Potential

- User's overall search history or per record
- User's personal settings

• Interation level; seen, details, visited ...

- Search organized in projects
- Facilitate group work

## Thank you

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