

# IBM Commerce

## *Integrating Search into IBM Digital Experience*

Andreas Prokoph - DX Development - Search Architect, SME for Search, SEO



**Digital Experience  
Meet the lab**

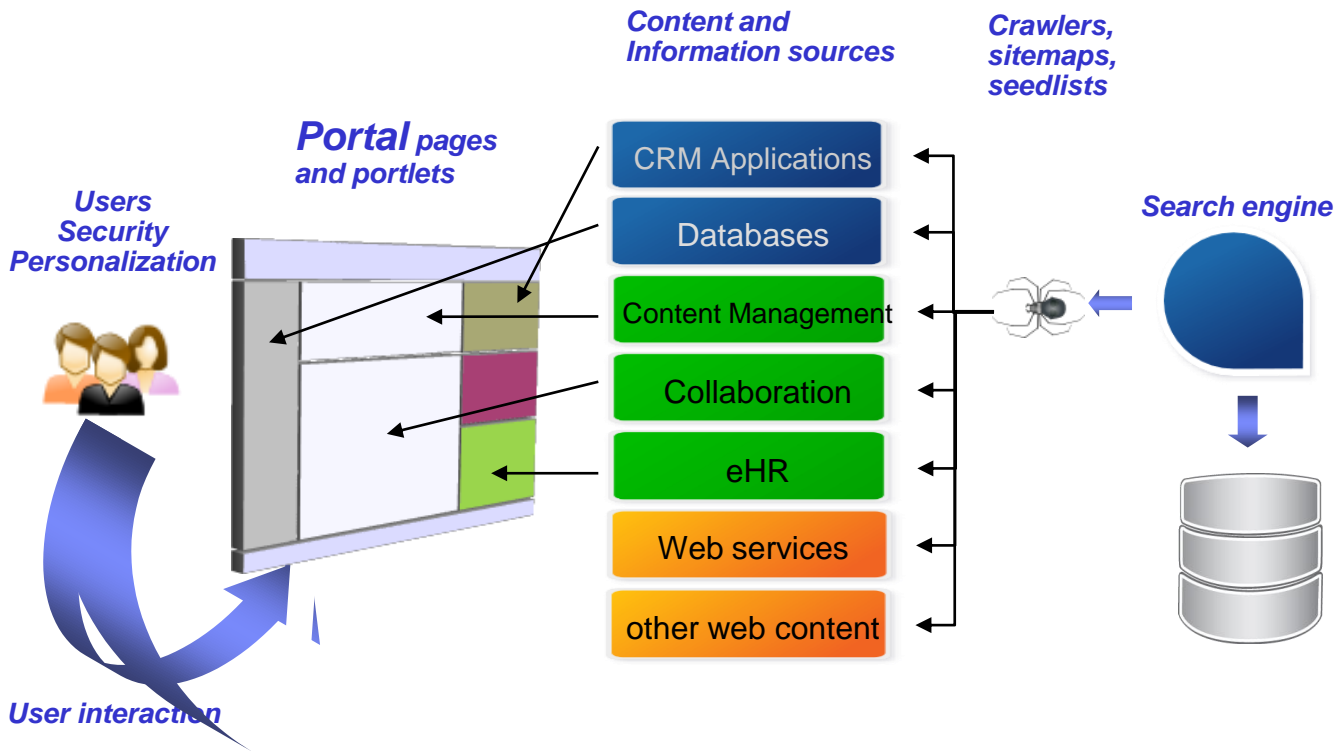
14.-15. Juni 2016

## Agenda

- Overview
- Search integration frameworks
- Portal Search
- Watson Content Analytics 3.5 / Watson Explorer V10, V11
- Summary

# Overview

# “Just crawl Portal and we're done” ... not exactly ...



## WebSphere Portal and search engine integration

- **Q:** Can I integrate 'My' search engine with Portal?
- **A:** In theory: Yes. However some requirements should be met.
  - Portal provides frameworks to allow to integrate search engines:
    - **IBM Seedlists** – consume/crawl repositories efficiently
    - **Security** service – Puma REST APIs
    - Portlets for end user facing search experience
- Thus: '*In theory*' refers to whether or not that search engine in questions supports those frameworks. Like:
  - Consume IBM Seedlist to capture and process Portal and the like artifacts
  - Provide web interface to query the search service and return results as RSS or Atom feeds
- If your search engine of choice is Portal Search or IBM Watson Content Analytics - then all requirements are already met

# Search integration frameworks

## What do we need?

- Access to Portal and web content repositories
- Security support
- Show items in the correct context of the Portal
- Search page and portlet(s)

## Access to Portal and web content repositories

- IBM Seedlists

- XML datastream
- Supports pagination
- incremental indexing – *list only changes since last visit*
- metadata and security information
- 'Actions' – add / update / **delete**
- URLs - distinguishing between *fetch by crawler* and *display for end user*



## Show items in the correct context of the Portal

```

<atom:entry>
  <atom:id>15e0da37-0cdf-4dbb-a0a5-c367cf49cd7d</atom:id>
  <atom:link href="/wps/mydoc/!ut/p/!g/!i/!k/!l/!m/!n/!o/!p/!q/!r/!s/!t/!u/!v/!w/!x/!y/!z/!aa/!ab/!ac/!ad/!ae/!af/!ag/!ah/!ai/!aj/!ak/!al/!am/!an/!ao/!ap/!aq/!ar/!as/!at/!au/!av/!aw/!ax/!ay/!az/!ba/!bb/!bc/!bd/!be/!bf/!bg/!bh/!bi/!bj/!bk/!bl/!bm/!bn/!bo/!bp/!bq/!br/!bs/!bt/!bu/!bv/!bw/!bx/!by/!bz/!ca/!cb/!cc/!cd/!ce/!cf/!cg/!ch/!ci/!cj/!ck/!cl/!cm/!cn/!co/!cp/!cq/!cr/!cs/!ct/!cu/!cv/!cw/!cx/!cy/!cz/!da/!db/!dc/!dd/!de/!df/!dg/!dh/!di/!dj/!dk/!dl/!dm/!dn/!do/!dp/!dq/!dr/!ds/!dt/!du/!dv/!dw/!dx/!dy/!dz/!ea/!eb/!ec/!ed/!ee/!ef/!eg/!eh/!ei/!ej/!ek/!el/!em/!en/!eo/!ep/!eq/!er/!es/!et/!eu/!ev/!ew/!ex/!ey/!ez/!fa/!fb/!fc/!fd/!fe/!ff/!fg/!fh/!fi/!fj/!fk/!fl/!fm/!fn/!fo/!fp/!fq/!fr/!fs/!ft/!fu/!fv/!fw/!fx/!fy/!fz/!ga/!gb/!gc/!gd/!ge/!gf/!gg/!gh/!gi/!gj/!gk/!gl/!gm/!gn/!go/!gp/!gq/!gr/!gs/!gt/!gu/!gv/!gw/!gx/!gy/!gz/!ha/!hb/!hc/!hd/!he/!hf/!hg/!hh/!hi/!hj/!hk/!hl/!hm/!hn/!ho/!hp/!hq/!hr/!hs/!ht/!hu/!hv/!hw/!hx/!hy/!hz/!ia/!ib/!ic/!id/!ie/!if/!ig/!ih/!ii/!ij/!ik/!il/!im/!in/!io/!ip/!iq/!ir/!is/!it/!iu/!iv/!iw/!ix/!iy/!iz/!ja/!jb/!jc/!jd/!je/!jf/!jg/!jh/!ji/!jj/!jk/!jl/!jm/!jn/!jo/!jp/!jq/!jr/!js/!jt/!ju/!jv/!jw/!jx/!jy/!jz/!ka/!kb/!kc/!kd/!ke/!kf/!kg/!kh/!ki/!kj/!kk/!kl/!km/!kn/!ko/!kp/!kq/!kr/!ks/!kt/!ku/!kv/!kw/!kx/!ky/!kz/!la/!lb/!lc/!ld/!le/!lf/!lg/!lh/!li/!lj/!lk/!ll/!lm/!ln/!lo/!lp/!lq/!lr/!ls/!lt/!lu/!lv/!lw/!lx/!ly/!lz/!ma/!mb/!mc/!md/!me/!mf/!mg/!mh/!mi/!mj/!mk/!ml/!mm/!mn/!mo/!mp/!mq/!mr/!ms/!mt/!mu/!mv/!mw/!mx/!my/!mz/!na/!nb/!nc/!nd/!ne/!nf/!ng/!nh/!ni/!nj/!nk/!nl/!nm/!nn/!no/!np/!nq/!nr/!ns/!nt/!nu/!nv/!nw/!nx/!ny/!nz/!oa/!ob/!oc/!od/!oe/!of/!og/!oh/!oi/!oj/!ok/!ol/!om/!on/!oo/!op/!oq/!or/!os/!ot/!ou/!ov/!ow/!ox/!oy/!oz/!pa/!pb/!pc/!pd/!pe/!pf/!pg/!ph/!pi/!pj/!pk/!pl/!pm/!pn/!po/!pp/!pq/!pr/!ps/!pt/!pu/!pv/!pw/!px/!py/!pz/!qa/!qb/!qc/!qd/!qe/!qf/!qg/!qh/!qi/!qj/!qk/!ql/!qm/!qn/!qo/!qp/!qq/!qr/!qs/!qt/!qu/!qv/!qw/!qx/!qy/!qz/!ra/!rb/!rc/!rd/!re/!rf/!rg/!rh/!ri/!rj/!rk/!rl/!rm/!rn/!ro/!rp/!rq/!rr/!rs/!rt/!ru/!rv/!rw/!rx/!ry/!rz/!sa/!sb/!sc/!sd/!se/!sf/!sg/!sh/!si/!sj/!sk/!sl/!sm/!sn/!so/!sp/!sq/!sr/!ss/!st/!su/!sv/!sw/!sx/!sy/!sz/!ta/!tb/!tc/!td/!te/!tf/!tg/!th/!ti/!tj/!tk/!tl/!tm/!tn/!to/!tp/!tq/!tr/!ts/!tt/!tu/!tv/!tw/!tx/!ty/!tz/!ua/!ub/!uc/!ud/!ue/!uf/!ug/!uh/!ui/!uj/!uk/!ul/!um/!un/!uo/!up/!uq/!ur/!us/!ut/!uu/!uv/!uw/!ux/!uy/!uz/!va/!vb/!vc/!vd/!ve/!vf/!vg/!vh/!vi/!vj/!vk/!vl/!vm/!vn/!vo/!vp/!vq/!vr/!vs/!vt/!vu/!vv/!vw/!vx/!vy/!vz/!wa/!wb/!wc/!wd/!we/!wf/!wg/!wh/!wi/!wj/!wk/!wl/!wm/!wn/!wo/!wp/!wq/!wr/!ws/!wt/!wu/!wv/!ww/!wx/!wy/!wz/!xa/!xb/!xc/!xd/!xe/!xf/!xg/!xh/!xi/!xj/!xk/!xl/!xm/!xn/!xo/!xp/!xq/!xr/!xs/!xt/!xu/!xv/!xw/!xx/!xy/!xz/!ya/!yb/!yc/!yd/!ye/!yf/!yg/!yh/!yi/!yj/!yk/!yl/!ym/!yn/!yo/!yp/!yq/!yr/!ys/!yt/!yu/!yv/!yw/!yx/!yz/!za/!zb/!zc/!zd/!ze/!zf/!zg/!zh/!zi/!zj/!zk/!zl/!zm/!zn/!zo/!zp/!zq/!zr/!zs/!zt/!zu/!zv/!zw/!zx/!zy/!zz/!
  <atom:link href="/wps/mydoc/!ut/p/!g/!i/!k/!l/!m/!n/!o/!p/!q/!r/!s/!t/!u/!v/!w/!x/!y/!z/!aa/!ab/!ac/!ad/!ae/!af/!ag/!ah/!ai/!aj/!ak/!al/!am/!an/!ao/!ap/!aq/!ar/!as/!at/!au/!av/!aw/!ax/!ay/!az/!ba/!bb/!bc/!bd/!be/!bf/!bg/!bh/!bi/!bj/!bk/!bl/!bm/!bn/!bo/!bp/!bq/!br/!bs/!bt/!bu/!bv/!bw/!bx/!by/!bz/!ca/!cb/!cc/!cd/!ce/!cf/!cg/!ch/!ci/!cj/!ck/!cl/!cm/!cn/!co/!cp/!cq/!cr/!cs/!ct/!cu/!cv/!cw/!cx/!cy/!cz/!da/!db/!dc/!dd/!de/!df/!dg/!dh/!di/!dj/!dk/!dl/!dm/!dn/!do/!dp/!dq/!dr/!ds/!dt/!du/!dv/!dw/!dx/!dy/!dz/!ea/!eb/!ec/!ed/!ee/!ef/!eg/!eh/!ei/!ej/!ek/!el/!em/!en/!eo/!ep/!eq/!er/!es/!et/!eu/!ev/!ew/!ex/!ey/!ez/!fa/!fb/!fc/!fd/!fe/!ff/!fg/!fh/!fi/!fj/!fk/!fl/!fm/!fn/!fo/!fp/!fq/!fr/!fs/!ft/!fu/!fv/!fw/!fx/!fy/!fz/!ga/!gb/!gc/!gd/!ge/!gf/!gg/!gh/!gi/!gj/!gk/!gl/!gm/!gn/!go/!gp/!gq/!gr/!gs/!gt/!gu/!gv/!gw/!gx/!gy/!gz/!ha/!hb/!hc/!hd/!he/!hf/!hg/!hh/!hi/!hj/!hk/!hl/!hm/!hn/!ho/!hp/!hq/!hr/!hs/!ht/!hu/!hv/!hw/!hx/!hy/!hz/!ia/!ib/!ic/!id/!ie/!if/!ig/!ih/!ii/!ij/!ik/!il/!im/!in/!io/!ip/!iq/!ir/!is/!it/!iu/!iv/!iw/!ix/!iy/!iz/!ja/!jb/!jc/!jd/!je/!jf/!jg/!jh/!ji/!jj/!jk/!jl/!jm/!jn/!jo/!jp/!jq/!jr/!js/!jt/!ju/!jv/!jw/!jx/!jy/!jz/!ka/!kb/!kc/!kd/!ke/!kf/!kg/!kh/!ki/!kj/!kk/!kl/!km/!kn/!ko/!kp/!kq/!kr/!ks/!kt/!ku/!kv/!kw/!kx/!ky/!kz/!la/!lb/!lc/!ld/!le/!lf/!lg/!lh/!li/!lj/!lk/!ll/!lm/!ln/!lo/!lp/!lq/!lr/!ls/!lt/!lu/!lv/!lw/!lx/!ly/!lz/!ma/!mb/!mc/!md/!me/!mf/!mg/!mh/!mi/!mj/!mk/!ml/!mm/!mn/!mo/!mp/!mq/!mr/!ms/!mt/!mu/!mv/!mw/!mx/!my/!mz/!na/!nb/!nc/!nd/!ne/!nf/!ng/!nh/!ni/!nj/!nk/!nl/!nm/!nn/!no/!np/!nq/!nr/!ns/!nt/!nu/!nv/!nw/!nx/!ny/!nz/!oa/!ob/!oc/!od/!oe/!of/!og/!oh/!oi/!oj/!ok/!ol/!om/!on/!oo/!op/!oq/!or/!os/!ot/!ou/!ov/!ow/!ox/!oy/!oz/!pa/!pb/!pc/!pd/!pe/!pf/!pg/!ph/!pi/!pj/!pk/!pl/!pm/!pn/!po/!pp/!pq/!pr/!ps/!pt/!pu/!pv/!pw/!px/!py/!pz/!qa/!qb/!qc/!qd/!qe/!qf/!qg/!qh/!qi/!qj/!qk/!ql/!qm/!qn/!qo/!qp/!qq/!qr/!qs/!qt/!qu/!qv/!qw/!qx/!qy/!qz/!ra/!rb/!rc/!rd/!re/!rf/!rg/!rh/!ri/!rj/!rk/!rl/!rm/!rn/!ro/!rp/!rq/!rr/!rs/!rt/!ru/!rv/!rw/!rx/!ry/!rz/!sa/!sb/!sc/!sd/!se/!sf/!sg/!sh/!si/!sj/!sk/!sl/!sm/!sn/!so/!sp/!sq/!sr/!ss/!st/!su/!sv/!sw/!sx/!sy/!sz/!ta/!tb/!tc/!td/!te/!tf/!tg/!th/!ti/!tj/!tk/!tl/!tm/!tn/!to/!tp/!tq/!tr/!ts/!tt/!tu/!tv/!tw/!tx/!ty/!tz/!ua/!ub/!uc/!ud/!ue/!uf/!ug/!uh/!ui/!uj/!uk/!ul/!um/!un/!uo/!up/!uq/!ur/!us/!ut/!uu/!uv/!uw/!ux/!uy/!uz/!va/!vb/!vc/!vd/!ve/!vf/!vg/!vh/!vi/!vj/!vk/!vl/!vm/!vn/!vo/!vp/!vq/!vr/!vs/!vt/!vu/!vv/!vw/!vx/!vy/!vz/!wa/!wb/!wc/!wd/!we/!wf/!wg/!wh/!wi/!wj/!wk/!wl/!wm/!wn/!wo/!wp/!wq/!wr/!ws/!wt/!wu/!wv/!ww/!wx/!wy/!wz/!xa/!xb/!xc/!xd/!xe/!xf/!xg/!xh/!xi/!xj/!xk/!xl/!xm/!xn/!xo/!xp/!xq/!xr/!xs/!xt/!xu/!xv/!xw/!xx/!xy/!xz/!ya/!yb/!yc/!yd/!ye/!yf/!yg/!yh/!yi/!yj/!yk/!yl/!ym/!yn/!yo/!yp/!yq/!yr/!ys/!yt/!yu/!yv/!yw/!yx/!yz/!za/!zb/!zc/!zd/!ze/!zf/!zg/!zh/!zi/!zj/!zk/!zl/!zm/!zn/!zo/!zp/!zq/!zr/!zs/!zt/!zu/!zv/!zw/!zx/!zy/!zz/!
  <atom:content src="/wps/wcm/myconnect/Template%20Page%20Content/Articles/List of Articles">
  <atom:title>List of Articles</atom:title>
  <atom:updated>2011-08-08T04:14:21+02:00</atom:updated>
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  <wplc:field id="ContentPath">/Template Page Content/Articles/List of Articles</wplc:field>
  <wplc:field id="AuthoringTemplate">List</wplc:field>
  <wplc:field id="Modifier">uid=wpsadmin,o=defaultWIMFileBasedRealm</wplc:field>
  <wplc:field id="ExpirationDate">Jan 31 2010 14:00:00 CET</wplc:field>
  <wplc:field id="EffectiveDate">Feb 09 2011 05:34:02 CET</wplc:field>
  <atom:published>2011-02-09T05:27:03+01:00</atom:published>
  <atom:summary>This list enumerates all articles created in context of this page.</atom:summary>
</atom:entry>

```

**“display URL”**  
for the end user  
(handled by  
'contenthandler')

**“crawler URL”**  
Allows the crawler to  
focus on that  
resource only

*Example content item entry from a WCM Seedlist*

# Security support

- Seedlist contains references which user (group) is entitled to access that resource
- “acls” entries contain unique IDs managed by Portal Access control
  - or: managed by IBM Connections (community memberships)
- Search engine may use *Puma REST service* calls to retrieve requesting user's entitlements and map those against the information stored in search collection

# Brief overview - Portal Search

## Built-in Portal Search

- **Search Features**

- Delivers [federated search](#) across Portal content sources and any linked sites
- Search honors portal [security](#)
- [Relevance](#) ranking
- Custom [search scopes](#) for filtering
- [Summaries](#) and [Meta Data support](#)
- [Quality tuning](#)
- [Suggested Links](#)
- Integration of [Tagging and Rating](#)
- [Document formats](#) (more than 250)

- **Administration**

- Crawl & Index: Portal and WCM content, IBM Connections, standard web sites
- Search Seedlist support optimizes source indexing
- Programmatic access for Portal search through REST Services
- Pre-configured search collections and crawlers OOTB (Portal, WCM, WCM Authoring)

# Search experience – not ootb, but fairly easy to setup

Welcome
MySearch page
Site Map

wpsadmin
Actions
Log Out

**You might be interested in**

[Search Administration - Information Portlet](#)  
**Keywords:** search  
[Edit](#)

All Sources

More than **10** results found in **All Sources** for **search**

**IBM Intranet | Enterprise search results**  
**Summary:** Skip to main content. Skip to search filters. Skip to search box.  
 Date: 2012-08-09T11:20:50.866Z  
[Edit keywords for Suggested Links](#)

**LegalFlow Software for Text Searching. Legal Document Management.**  
**Summary:** LegalFlow Software for Text Searching. Legal Document Management. Take Care of Business: Selected e-Forms allow for both manual and automatic addition and auto-population of data, such as legal information, from multiple and simultaneous sources.  
 Date: 2012-09-27T07:54:00.062Z  
[Edit keywords for Suggested Links](#)

**MySearch page - Search Center**  
**Summary:** This portlet allows performing a scoped search and viewing Portal search results  
 Tags: Search\_center,  
 Date: 2012-10-08T11:23:05.000Z  
[Edit keywords for Suggested Links](#)

**w3 Directory | Organization | Corporate Headquarters**  
**Summary:** Skip to main content. The access keys for this page are:. Additional accessibility information for w3.ibm.com can be found on the w3 Accessibility Statement page.  
 Date: 2012-08-09T11:20:08.239Z

## Tags

### All tags

- [App\\_overview](#)
- [Collaboration\\_ST](#)
- [Collaboration\\_welcome](#)
- [Content\\_authoring](#)
- [Content\\_preview](#)
- [Content\\_welcome](#)
- [Getting\\_started](#)
- [Homepage](#)
- [Library\\_explorer](#)
- [Messaging](#)
- [Personalization\\_business\\_rules](#)
- [Search\\_center](#)
- [Sitemap](#)
- [Tag\\_center](#)
- [Unified\\_task\\_list](#)
- [UTL](#)
- [WCM](#)

View as [cloud](#) | [list](#)

## Experts



**Hahn, Roberta J.**  
 IBM Certified Executive Project Manager - GWWPE - Search PDL  
 IBM CHQ, BT/IT CIO  
 CHICAGO  
 IL  
 United States



**Prokoph, Andreas**  
 WebSphere Portal - Search Architect for Portal and WCM, SME for Search  
 IBM Software Group, IBM Collaboration Solutions  
 BOEHLINGEN  
 Germany



**Meyer, Brian C.**  
 Executive Architect - Global Workforce & Web Process Enablement (GWWPE)  
 IBM CHQ, BT/IT CIO  
 BOULDER  
 CO  
 United States

*Exploit use of 'External Results' portlet to show results from Connections Profiles.*

# Tagging-like UI to define Suggested Links

Trivia:  
Implementation leverages Portal's Tagging  
and Rating Infrastructure

**Edit keywords for Suggested Links**

Assigned keywords for "Latest Technology":  
Technology

Add the following tag(s):

News

Published Site  
Viewing published content

wpsadmin | Actions | Log Out

Relevance	Title	Person	Date
4	<a href="#">Latest Technology</a> Summary: Latest Technology <a href="#">Edit keywords for Suggested Links</a>	wpsadmin	4/19/12 9:05 AM
4	<a href="#">Technology News</a> Summary: Technology News <a href="#">Edit keywords for Suggested Links</a>   Tags: News, Technology,		4/23/12 4:47 PM
4	<a href="#">Technology News - Information Portlet</a> Summary: Display an information message contained in a JSR286 .JSP file <a href="#">Edit keywords for Suggested Links</a>   Tags: Technology, News,		4/17/12 6:23 AM
4	<a href="#">Social Business is done with a Social Portal</a> Summary: Social Business is done with a Social Portal <a href="#">Edit keywords for Suggested Links</a>	wpsadmin	4/18/12 1:05 PM
4	<a href="#">Breaking News</a> <a href="#">Edit keywords for Suggested Links</a>	wpsadmin	4/18/12 2:35 PM

**Recommended links for: Technology**

[Latest Technology](#)  
Keywords: Technology  
[Edit](#)

# Portal Search – neat features in V8.5

- *Crawl Portal and WCM – **filtering** available*
  - *Mark portlets/WCM content to be searchable or not*
  - *Specify if attachments in WCM should be crawled, or selectively exclude based on their type*
- **Customize** Search Center and search page
- Search **quality** tuning options
  - *Change the default behavior – AND versus OR*
  - *Field level boosting – a match of a keyword in the 'title' is more worth than in the body text*
- **Faceted** search
- **Multi-language** search
- **Date range** constraints

these are the 'basics'  
.... need more?



## Do I need Enterprise Search?

- Three main reasons to settle for an Enterprise Search service
  1. Need for support of a larger range of **backend services and repositories**
  2. Higher **scaling** and better **performance** for both indexing and search
  3. **Failover** and **high availability**

# Watson Content Analytics 3.5

## Watson Explorer 10 / 11

## Some clarification first

- The Watson Explorer team has announced revisions to their Explorer, and Content Analytics with Enterprise Search offerings, effective April 15, 2015. See software announcement issued January 13, 2015: ZP15-0016: [http://www-01.ibm.com/common/ssi/printableversion.wss?docURL=/common/ssi/rep\\_ca/6/877/ENUSZP15-0016/index.html](http://www-01.ibm.com/common/ssi/printableversion.wss?docURL=/common/ssi/rep_ca/6/877/ENUSZP15-0016/index.html)
- **For Portal customers:**
  - "The **WebSphere Portal 8.5 offerings that include a limited entitlement to WCA with Enterprise Search** today (this includes Content Accelerator) will continue to include limited entitlements to the Enterprise Search services of Watson Content Analytics with Enterprise Search, **limited to 280 PVU's per Enterprise** and to use Search services only as outlined in the Portal 8.5 offerings licenses (that include the limited entitlements to WCA with Enterprise Search). **There will be no change in support or ability to proceed to use the Enterprise Search services** included with select WebSphere Portal 8.5 offerings – before and after (in the Portal licenses, the the 280 PVU entitlement will remain effective)."
  - → Customers who wish to purchase additional entitlements of WCA/ES to match their deployment requirements would need to purchase Watson Explorer Advanced
- **About Watson Explorer 10 and 11**
  - Standard and Enterprise Edition
    - “Vivisimo” based search engine
  - **Advanced Edition**
    - Adds through the Content Analytics component WCA Enterprise Search

# Enterprise-Wide Content Reach

## Collaboration

- IBM Case Manager V5.0
- IBM Lotus Connections 2.5.0.1 and 2.5.0.2
- IBM Lotus Domino DM 6.5.1, 7.0,
- IBM Lotus Domino R7, R8 and R8.5
- IBM Lotus Quickr (NSF & J2EE), 8.1, 8.2 and 8.5
- Lotus Web Content Management 6.1, 6.1.5
- IBM WebSphere Portal 6.1 and 6.1.5

## Content Management

- IBM Case Manager V5.0
- IBM Content Manager Enterprise Edition 8.4, 8.4.1, 8.4.2
- FileNet Content Services 5.4, 5.5
- FileNet P8 Content Manager 4.0, 4.5, 4.5.1 and 5.0
- Hummingbird DM 5.1.0.5 with SR6 and 6.0.4
- EMC/Documentum 6.0 and 6.5
- CA-Datcom 10
- Open Text Livelink Enterprise Server 9.6, 9.7 and 9.7.1

## Data Management

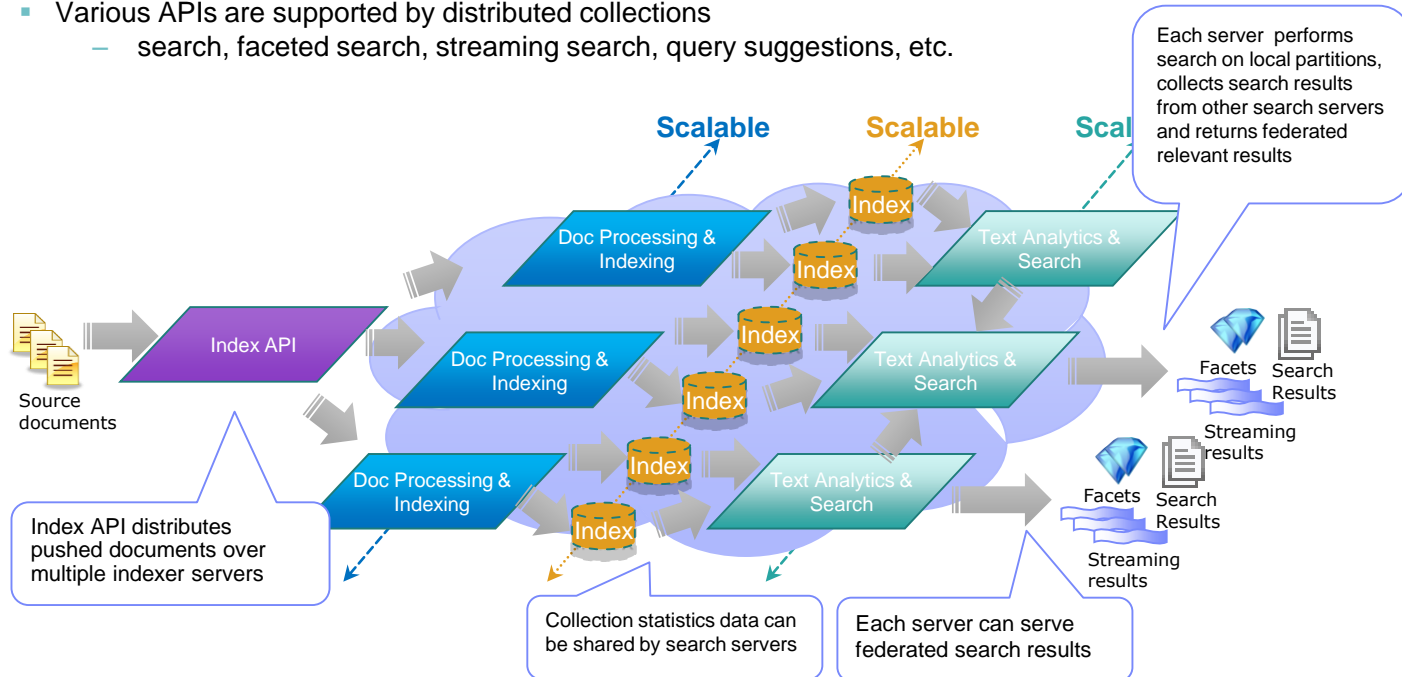
- DB2 for iSeries 5.4 and 6.1
- DB2 UDB for Linux, UNIX, Windows 9.1, 9.5 and 9.7
- DB2 for z/OS 8.1, 9.1
- IMS 10.0 and 11.0.1
- Informix Dynamic Server 11.10 and 11.50
- Microsoft SQL Server 2005, 2008
- MySQL 5.0
- Oracle 10g and 11g
- Software AG Adabas 11.0
- Sybase 11.9.2, 12.0

## Miscellaneous

- Microsoft Exchange Server 2003
- Microsoft Windows SharePoint Services 3.0
- SharePoint Server 2003 SP2, 2007, 2010 Farm Support
- Windows file systems: 2003 and 2008 servers
- Network News Protocol Newsgroup
- UNIX file systems
- VSAM for z/OS 1.4
- Web (HTTP or HTTPS)

## High Scalable Distributed Indexing and Search architecture

- Flexible configuration
  - Number of partitions, number of indexing servers and number of search servers
  - An indexer or search server can own one or more partitions as part of a collection
- Each distributed search server processes search requests over multiple servers and federates search results from other partitions for high scalability
- Various APIs are supported by distributed collections
  - search, faceted search, streaming search, query suggestions, etc.



# Improved search experience

- **Enhanced End-User Experience**
  - High-performance faceted navigation
  - Saved searches
  - Search profiles
  - Document previews
  - And more...
- **Enhanced Administrative Experience**
  - Scalability improvements
  - Incremental indexing support
  - Reduced resource requirements
  - More flexible scale-out & HA
  - New relevancy tuning options
  - And more...

The screenshot displays the IBM Search Center interface. At the top, there's a navigation bar with 'WebSphere Portal' and various menu items like 'Home', 'Administration', 'Applications', 'Search Center', 'Enterprise Search', 'Tag Center', 'wpsadmin', 'Actions', 'Help', and 'Log Out'. Below this, a search bar contains the query 'ibm search analytics'. A dropdown menu is open, showing suggestions: 'state', 'state street', 'stated', and 'state department'. A blue box highlights this dropdown, and an arrow points to a callout box containing the following text:

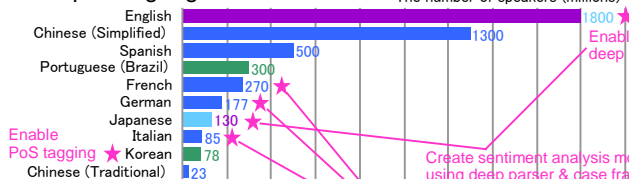
- **Type ahead search:**
- Suggests queries based on index content and past queries
- Shows estimated results count as part of suggestion
- Customizable by Search Administrators

The main search results area shows 'Results 1-9 of 9 (9 results matched)'. It includes a 'Narrow Your Results' section with a 'Facet Tree' showing filters for 'date' (2009(9), 2008(9), 2007(9), 2006(9)) and 'New search' options. The results list includes items like 'OmniFind TalkinTech 102704 ppt' and 'IBM ECM OmniFind Portfolio DS.pdf'. A 'Dynamic Facet Chart' is also visible on the left side of the results area.

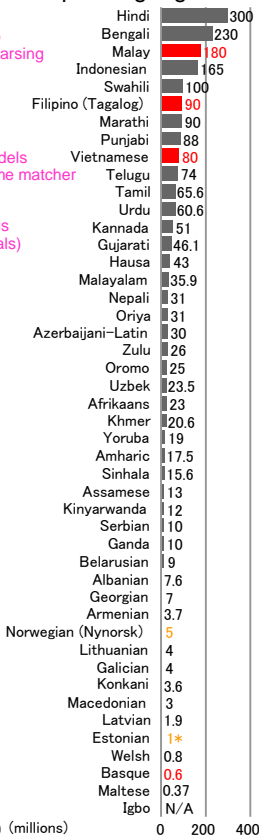


# Supported Languages/Speaker Populations

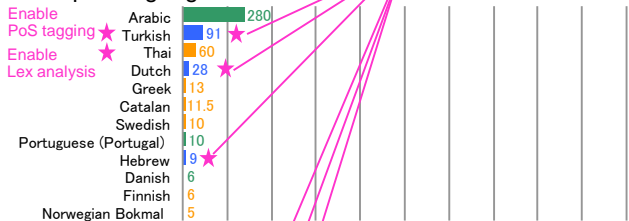
Group 1 languages



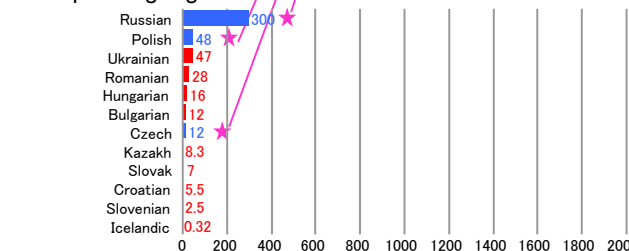
Group 4 languages



Group 2 languages



Group 3 languages



★ "What's New" in LanguageWare V8.5 / WCA V3.5

**V3.5 NEW**

**Lexical Analysis**

- Korean (PoS tagging)
- Turkish (PoS tagging)
- Thai (Tokenization)

**Deep Parsing**

- English

**Sentiment Analysis (Shallow) – Some of them are service assets**

- Catalan
- Chinese
- Czech
- Dutch
- French
- German
- Hebrew
- Italian
- Polish
- Russian
- Spanish
- Turkish

**Sentiment Analysis (Deep)**

- English
- Japanese

- No support
- Language identification
- Lexical analysis (Sentence segmentation, Tokenization)
- Lexical analysis (Part-of-Speech tagging, Lemmatization)
- Shallow parsing (Named Entity Recognition, Sentiment, etc.)
- Deep parsing (Syntactic Dependency Parsing)

\* Using resources developed by 3<sup>rd</sup> parties, or other SWG teams

1) Population numbers are according to Wikipedia

2) Language groups are defined by IBM "Globalization White Paper"



### IBM's Watson Explorer and Content Analytics ...

- Ingests all types of enterprise content from a wide diversity of information sources
- Enables search, discovery, and analytics on unstructured data, similar to what can be done with structured data
- Exposes valuable business insight from unstructured data (textual, graphical, audio, video, etc.)
- Integrates with a growing array of cognitive services for an easy transition towards the next wave of computing
- Enables processing expansive volumes of unstructured data not previously obtainable
- Supports several flexible options for integration with a Portal solution



- **IBM Digital Experience Solutions**  
<http://www-01.ibm.com/software/collaboration/digitalexperience>
- **WebSphere Portal and IBM Web Content Manager Information Center Wiki**  
<http://www-10.lotus.com/ldd/portalwiki.nsf/>
- **IBM Digital Experience Demonstrations:**  
<http://www.youtube.com/user/IBMXWebX>
- **IBM Digital Experience Developer**  
<http://developer.ibm.com/digexp>
- **IBM Software Business Solutions Catalog**  
<https://greenhouse.lotus.com/catalog/>

# Vielen Dank

