

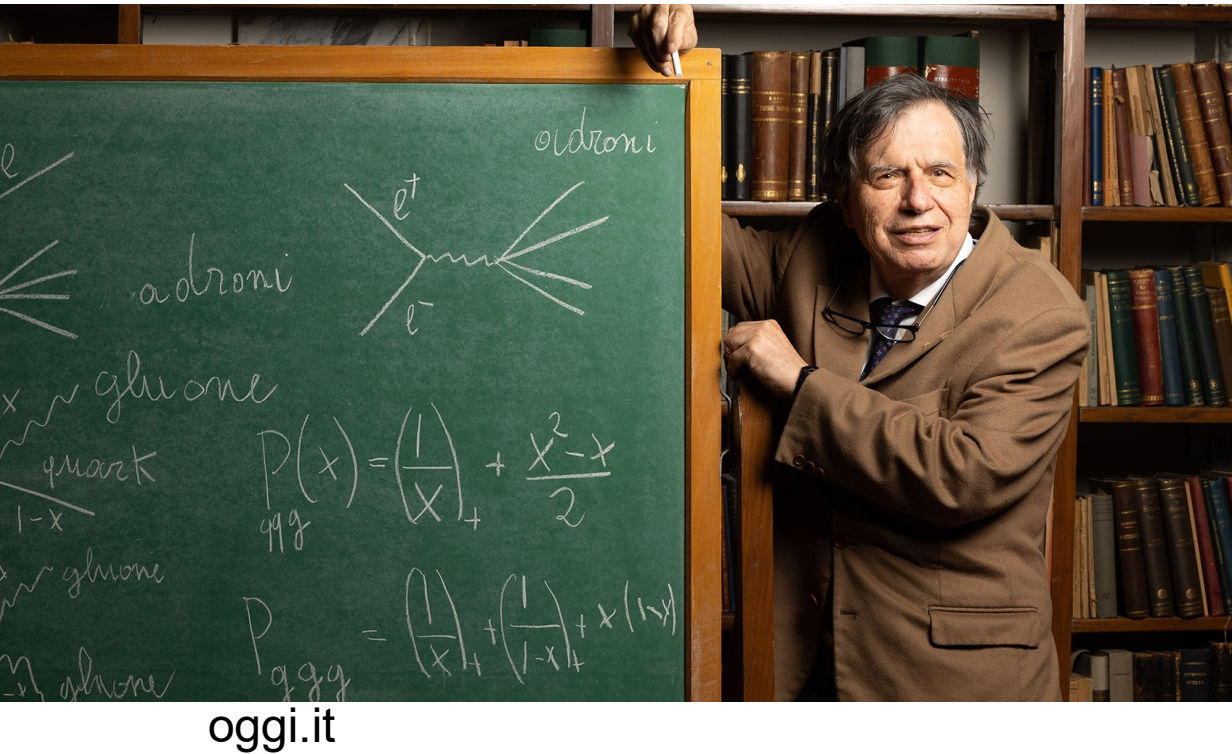


Simpler search in a complex world

Browsing ethnographic videos
by freely faceted classmarks

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(ILC research project & Io Stivale che Balla)*

Complexity and KO



“not reducing any
knowledge object
to a single
level of description”

→ interdisciplinarity!

Giorgio Parisi,
2021 Nobel Prize for Physics

Interdisciplinary, sophisticated KOSs

- To express e.g.
the benefit of **a certain dosage** of a chemical
to **a certain combination** of condition, severity, age and sex,
- a powerful syntax is needed,
as “the world is not built of triples”...

(Soergel 2021).



Faceted classifications

- “a way to represent and to organize, in a predictable manner, the increasingly **complex** content in documents”

(Broughton 2023)

The screenshot displays the journal's interface. At the top, the journal title 'Cataloging & Classification Quarterly' is shown next to a cover image. Below the title are links for 'Latest Articles', 'Submit an article', and 'Journal homepage'. A statistics sidebar on the left shows 1,046 views, 0 CrossRef citations, and 5 Altmetric mentions. The main article section features the title 'Facet Analysis: The Evolution of an Idea' by Vanda Broughton, with a 'Listen' button and a 'Check for updates' button. The article's DOI and publication date are also visible.

Cataloging & Classification Quarterly >
Latest Articles

Submit an article Journal homepage

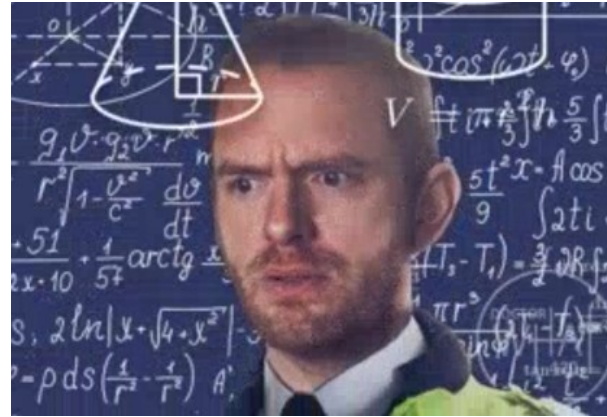
1,046 Views
0 CrossRef citations to date
5 Altmetric

Research Article
Facet Analysis: The Evolution of an Idea
Vanda Broughton ✉
Received 07 Feb 2023, Accepted 22 Mar 2023, Published online: 05 Apr 2023

Download citation <https://doi.org/10.1080/01639374.2023.2196291> Check for updates

Faceted classifications

- Too demanding for indexers?
Too demanding for users?
(Maniez 1990)
- Often not exploited in retrieval interfaces
(cfr. Haynes in this conference
on ISKO STAC Metadata WG)



Integrative Levels Classification (ILC) dev. vers.

<i>a</i>	forms	<i>o</i>	agency
<i>b</i>	quantum fields	<i>p</i>	consciousness
<i>c</i>	spacetime	<i>q</i>	language
<i>d</i>	particles	<i>r</i>	production
<i>e</i>	atoms	<i>s</i>	services
<i>f</i>	molecules	<i>t</i>	communities
<i>g</i>	continuum bodies	<i>u</i>	polities
<i>h</i>	celestial bodies	<i>v</i>	legal entities
<i>i</i>	rocks	<i>w</i>	customs
<i>j</i>	land	<i>x</i>	creative arts
<i>k</i>	genes	<i>y</i>	scholarship
<i>l</i>	cells		
<i>m</i>	organisms		
<i>n</i>	populations		

ILC facet kinds

- free: *wlge50xb* “Easter feasts, through sculpture” ← *xb*
- parallel: *wlge92ff* “Easter feasts, typical of Lombardy” ← *uUff*
- bound: *wlge5c* “Easter feasts, procession” ← *w5c*

wlge92ff5c50xb

“Easter feasts, of Lombardy, procession, through sculpture”

ILC as SKOS

- 0-9 categories as subproperties of *skos:related*
- facets as subclasses of *rdf:Property*
- faceted compounds not included

JD
77,4

926

Received 6 October 2020
Revised 6 January 2021
Accepted 17 January 2021

Migrating a complex classification scheme to the semantic web: expressing the Integrative Levels Classification using SKOS RDF

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Douglas Tudhope





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Need for friendly applications

- Show the potential of freely faceted classification
- by demos on intuitive, popular domains (e.g. movies, fiction...)
- through easy-to-use interfaces
- publicly available on the Internet

imdb.com

Known for:

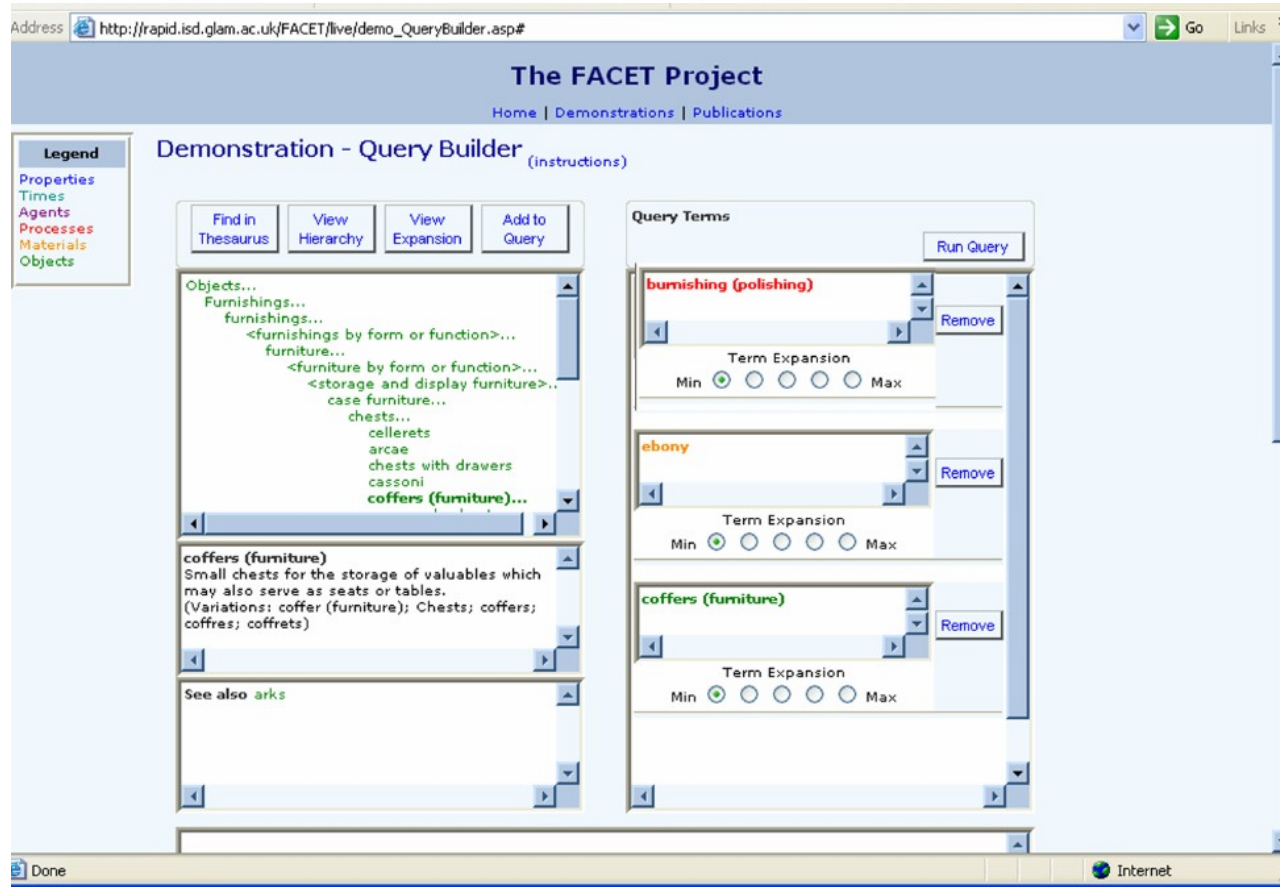
 Manhattan ★ 7.8 Writer 1979	 Annie Hall ★ 8.0 Writer 1977
 Deconstructing Harry ★ 7.3 Writer 1997	 Hannah and Her Sisters ★ 7.8 Writer 1986

Credits Edit

Writer · 82 Director · 57 Actor · 48 Soundtrack · 6 Music Department · 2 Additi

Expand below

Faceted demonstrator, 2004



Hypermedia
Research Group,
University of South Wales

ILC1-based interface, 2006



the BioAcoustic Reference Database

by [CIBRA: Centro interdisciplinare di Bioacustica e ricerche ambientali](#)
at the University of Pavia, in collaboration with [ISKO Italia](#)

Freely faceted search interface

choose **facets**: [only part of the records are classified!]

taxon: (☒ anyone)

☐ insects ☐ other invertebrates

☐ ray-finned fish ☐ amphibians ☐ reptiles ☐ birds

☐ mammals

☐ cetaceans ☐ marine mammals

☐ rodents ☐ bats ☐ elephants

☐ primates ☐ humans

function: (☒ anyone)

☐ alarm ☐ threat ☐ localization

☐ courtship ☐ individual recognition ☐ social contact

signals: (☒ anyone) ☐ structure analyzed

☐ vibrational ☐ infrasounds ☐ ultrasounds

related topics: (☒ anyone)

☐ behaviour ☐ echolocation

☐ population abundance and distribution

...and/or type the surname of an **author**:

...and/or a word/phrase in the **title**:

...and limit to publication dates

between and

...then

and wait some seconds

The bibliographic database currently consists of **3837** records. It covers bioacoustics mainly of whales and dolphins (plus other taxa until year 2000).

* in memory of
Gianni Pavan



ILC-3 based interface, 2023



Traditional Europe

A selected videography indexed by ILC

Click on one, two or three entries, following the top-down order, then on the "search" button:

🕒 **customs:** games · initiation · marriage · Carniva · Easter · May Day · Christmas

🏰 **region:** Britain · Ireland · Germany · Benelux · France · Spain · Portugal · Italy

🌿 **symbols:** clothes · effigies · flags · plant parts · animals

🎭 **rites:** dressing up · procession · itinerant begging · bonfire · meal

🎵 **instruments:** song · percussion · drums · stringed · wind

wlge%92f%|

search

resume



This is an experimental demonstrator of the [Integrative Levels Classification](#) research project in collaboration with [Lo Stivale che Balla](#)

truncation added
so "Italy" finds
"Lombardy" and
more facets can
be interposed



Results

← → ↺ 🏠 | iskoi.org/ilc/tradeu/video.php?cl=w1ge%2592f%25

Traditional Europe

Results

Out of 62 audiovisual documents in the directory, 2 (sorted by classmark) include the chosen combination.



w1ge92ff5d53a

Easter,
typical of Lombardia,
itinerant begging,
by voice

w1ge92fq75vo6ee5c5e5h50xf50xb53a53c53d

Easter,
typical of Campania,
birds,
invoking mother goddess,
procession,
offering,
ritual meal,

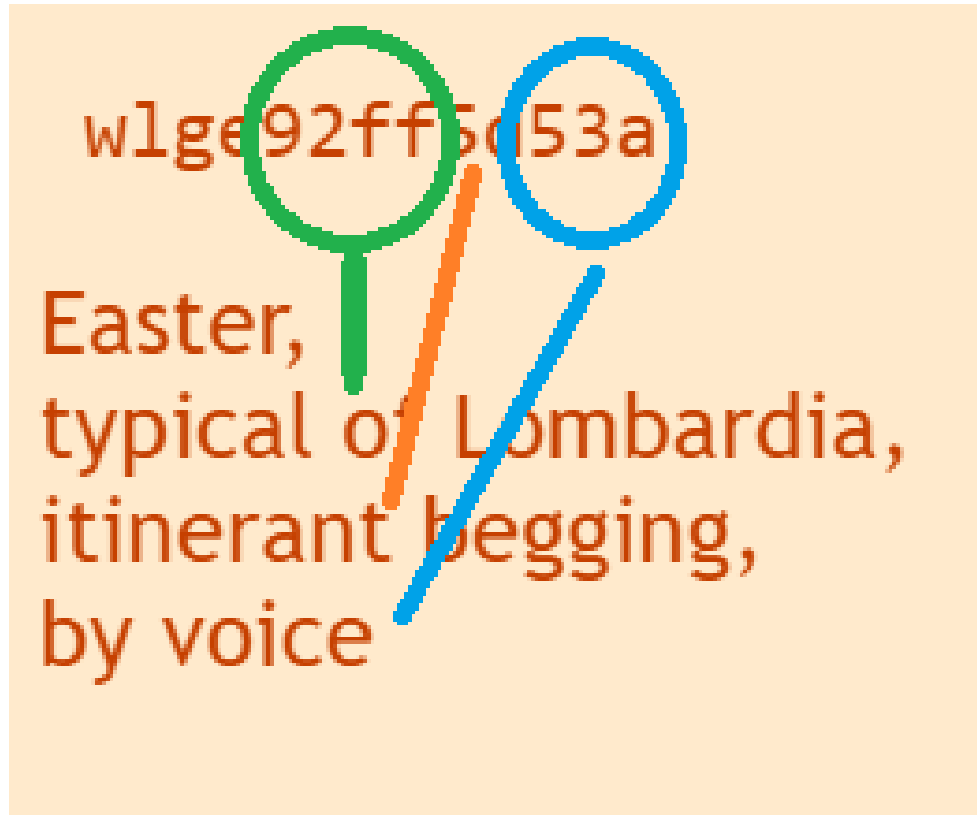
automatic display
of faceted captions



sorting by
classmark



Display of faceted captions



PHP code manages
parsing of classmarks
and display of
appropriate meanings

Display of faceted captions

If facet indicator ends by -0

→ **free facet**, focus taken from a-z

else, if facet indicator ends by -9 or is just one digit

→ **bound facet**, focus taken from main class itself

else

→ **parallel facet**, focus taken from class specified in schedules

```
if (substr($indicator,-1) == '0') // free facet
{
    $sqlfocus = "SELECT verbal FROM ilc WHERE notation = '". $focus. "' " ;
    $rsfocus = mysql_query($sqlfocus, $db);
    while ($rowfocus = mysql_fetch_array($rsfocus))
    { echo " ". $rowfocus['verbal']; }
}
```

Very complex subjects



wlge92fq75vo6ee5c5e5h50xf50xb53a53c53d

Easter,
typical of Campania,
birds,
invoking mother goddess,
procession,
offering,
ritual meal,
paintings,
sculptures,
by voice,
by idiophones,
by membranophones

- concepts from different classes: birds, instruments, sculptures...
- which *particular themes* are relevant?

<http://www.iskoi.org/ilc/tradeu/video.php?cl=wlge%2592f%25>

Zero-match problem

Many possible combinations
→ likely no match

Instructions to select max 3 facets

If <2 results,
facets are automatically dropped
(better: generalized)
as a form of query expansion

← → ↺ 🏠 ⚠ Non sicuro | iskoi.org/ilc/tradeu/video.php?cl=wlge%2592f%2575%25

Traditional Europe

Results

Out of 62 audiovisual documents in the directory, 1 (sorted by classmark) include the chosen combination.
Partially matching documents are also shown (shortened query: wlge)



wlge92ezpd715b5fe53d53n50xr

Easter,
typical of Northern Portugal,
light sources,
dressing up,
effigy burning,
by membranophones,
by aerophones,
theatre plays



wlge92ff5d53a

Easter,
typical of Lombardia,
itinerant begging,
by voice

Fully faceted classification

- Not the same as “faceted” navigation interfaces
- Not the only use of ILC: “tag-style” free classification is also possible
- Useful for specialized subjects



w1dc92ep7f5b50xn53n

Carnival,
typical of Navarre,
effigies,
dressing up,
dances,
by aerophones



w1dc92fd5b50xn

Carnival,
typical of Piemonte,
dressing up,
dances

Future work

- Index more videos
- Write code for subfacets
- Allow expansion by individual facets (automatic or by navigation)
- Online classmark builder based on same algorithm

Conclusion

Find the right degree of complexity
you need

...Thanks for your attention!

