

# How We Killed Our Most-Loved Service and No One Batted an Eye

Matias Frosterus and Mikko Lappalainen

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# Replacing a well-loved service

- First, we did it the wrong way
  - Don't do it like we did!
- Then, we did it the right way
  - Do it like we did it!

# The General Finnish Thesaurus YSA

- National Library's General Finnish thesaurus YSA was/is the most used thesaurus in Finland
  - Developed originally in the 1980's mainly for book indexing
    - Used in the indexing of the national bibliography
  - Monolingual, has a swedish equivalent Allärs
  - Structure tied to MARC21-format, for example use of MARC-subdivisions

# VESA

- A dedicated site for browsing YSA and its Swedish-language counterpart Allärs
  - Also included the music domain thesaurus MUSA/Cilla

# VESA

[Aakkosellinen hakemisto](#)  
[Alanmukainen hakemisto](#)  
[Maantieteellinen hakemisto](#)  
[Vapaan indeksoinnin sanaryhmät](#)  
[Liitetaulukot](#)  
[Opastus](#)  
[YSA - Hakusivu](#)  
[VESA - Etusivu](#)  
[YSA ONKI-palvelimella](#)

## YSA - Yleinen suomalainen asiasanasto

Haettava asiasana:

**Huom:** Hakusanan voi katkaista \*:llä

## A

a priori tieto

käytä: [apriorinen tieto](#)

[A\(H1N1\)-virus](#)

[A\(H5N1\)-virus](#)

[A-klinikat](#)

[A-vitamiini](#)

[AA-liike](#)

AAC-menetelmät

käytä: [puhetta tukeva ja korvaava kommunikaatio](#)

[Aachen](#)

[Aakenustunturi](#)

[aakkoset](#)

### Hakutulos: (YSA)

Käytettävä asiasana: [koralliriutat](#)

Rinnakkaistermit: [laguunit](#)

Korvaa termit: atollit

Kuuluu ryhmiin: [\[11\] Maantiede. Kartografia. Kartoitus. Geodesia. Geologia. Paleontologia](#)  
[\[13\] Hydrologia](#)

Ruotsinkielinen asiasana: [korallrev](#)

# VESA

- Built in the 90s
  - Users were very used to it
- Single-purpose
  - Very functional design
  - Very fast
- Consistently our most-loved service in user surveys
  - No improvements needed!

# VESA

- Started in 1999
  - Users were very used to it
- Single-purpose
  - Very functional design
  - Very fast
- Consistently our most-loved service in user surveys
  - No improvements needed!
    - Except that there was no proper support for linked data, no APIs in order to integrate the vocabularies into other systems, and the ancient software was more and more difficult to maintain

# ONKI

- A general thesaurus and ontology service
  - Developed in the FinnONTO research project
    - Aalto University and University of Helsinki
- Several aims
  - Ability to handle moderately complex OWL ontologies as well as thesauri and classifications
  - APIs to allow integration into annotation and search systems
  - Part of the larger national linked data infrastructure
- From YSA to YSO (General Finnish Ontology)
  - From terms to concepts (identified with URIs)
  - A complete is-a hierarchy
  - Multilingual (Finnish, Swedish, English)
  - Machine-understandable semantics



# ONKI1 - 2008

## YSO - The Finnish General Upper Ontology

Ontology Server ONKI



Ontology browser

Information about the ontology

Language English

About ONKI

### Concept Search

Type of the concept:

YSO Concept

0-9 A B C D E F G H I J K L M N O P Q R S T U V  
W X Y Z Å Ä Ö [All]

[a posteriori](#)  
[a priori knowledge](#)  
[a-clinics](#)  
[A\(H5N1\) virus](#)  
[aapa mires](#)  
[aardvark](#)  
abandoned farms → [deserted farms](#)  
[abandoned houses](#)  
[abandonment](#)  
[abandonment](#)  
abandonment of action → [waiver of measures](#)  
[ABAQUS](#)  
abatement of debts  
→ [debt provable in bankruptcy](#)  
[abbreviations](#)  
[abdomen](#)  
[abdominal massage](#)  
[abduction](#)  
[abductions](#)  
[ability](#)  
[ability to study](#)  
[ability to work](#)  
[ability to write](#)  
[abnormality](#)  
[Aboriginals](#)  
[abortion](#)

### abstract art

URI: <http://www.yso.fi/onto/yso/p13274>

#### Context

[yso-käsitteet](#)  
└ [endurant](#)  
└ [phenomena](#)  
└ [cultural phenomena](#)  
└ [styles](#)  
└ **abstract art** [Hide coordinate concepts](#)  
└ [abstrakti ekspressionismi](#)  
└ [absurdism](#)  
└ [aegean art](#)  
└ [akmeismi](#)  
└ [anti-formalism](#)  
└ [art brut](#)  
└ [art deco](#)  
└ [arte povera](#)  
└ [asiatyyli](#)  
└ [avant-garde](#)  
└ [baroque](#)  
└ [biedermeier](#)  
└ [burlesque](#)  
└ [Byzantine art](#)  
└ [carnavalesque](#)  
└ [carolingian art](#)  
└ [celtic art](#)  
└ [Chippendale](#)  
└ [classicism](#)  
└ [comic art](#)  
└ [concretism](#)  
└ [contemporary art](#)  
└ [cubism](#)  
└ [dadaism](#)  
└ [dandyism](#)  
└ [elevated style](#)

#### Properties

Label (en): [abstract art](#)  
Alternative label (fi): [nonfiguraatiivinen taide](#)  
Label (fi): [abstrakti taide](#)  
Alternative label (sv): [nonfigurativ konst](#)  
Label (sv): [abstrakt konst](#)  
Matching concept: [Y14900\\*](#)  
[Y94509\\*](#)  
Related concept: [figurative art](#)  
[informalism](#)  
[suprematism](#)  
Type: [YSO Concept](#)  
[Hide additional properties](#)  
Superordinate concept: [styles](#)

# ONKI2 - 2010

ONKI2 :: Search :: The United Nations Standard Products and Services Code - UNSPSC - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://www.yso.fi/onki2/search?o=http%3A%2F%2Fwww.yso.fi%2Fonto%2Funspsc&l=en&q=ap&q\_langs=en Google

ONKI2 :: Search :: The United Na... +

**ONKI** Finnish Ontology Library Service ONKI  
Ontologies and vocabularies | Publishers | Instructions | About | Feedback | yso.fi frontpage | ONKI@Twitter

suomeksi | på svenska | in English

Ontologies and vocabularies > The United Nations Standard Products and Services Code - UNSPSC > Search

## The United Nations Standard Products and Services Code - UNSPSC

Search (info):

**Subconcept restriction:**  Services

Results / page:  20  50  100  
The way property values are displayed:  value/row  values side by side

**Results (7 hits, showing 1-20):**  
[\[expand all\]](#)

[+] Apartment construction

[-] Apiculture

Broader terms: [UNSPSC](#)  
    L [Services](#)  
        L [Farming and Fishing and Forestry and Wildlife Contracting Services](#)  
            L [Livestock services](#)  
                L [Livestock industry](#)

Coordinate terms: [Animal husbandry](#)  
[Bovine production services](#)  
[Farm rearing systems](#)  
[Livestock breeding](#)  
[Livestock genetics services](#)  
[Poultry production services](#)  
[Sericulture](#)  
[Small animal breeding services](#)

URI: <http://www.yso.fi/onto/unspsc/C70121610>  
Mehiläishoito (fi)

[+] Appeals process or judicial review

[+] Appellate procedure services

[+] Application implementation services

Done

# ONKI3 - 2011

The screenshot displays the ONKI3 web application interface. At the top, there is a navigation bar with the ONKI logo and links for 'Ontologies and vocabularies', 'Instructions', 'About', and 'Feedback'. Language options 'suomeksi', 'på svenska', and 'in English' are also present. The main header indicates the current ontology: 'Finnish General Upper Ontology - YSO/ALLSO'. Below this, there are three main sections: 'New features' with a 'Pilota tieto' button, 'Shortcuts' with a 'Kirjanmerkit' (Bookmarks) section showing 'vaahtera', and a search bar with 'Search for concept...', 'Language: en', and 'Select ontologies and vocabularies'.

The main content area is divided into two tabs: 'Browser' and 'Alphabetical directory'. The 'Alphabetical directory' tab is active, showing a search for 'cat'. On the left, there is a 'Concept type:' dropdown set to 'All types', a 'Search language:' dropdown set to 'en', and a 'Show relations:' section with radio buttons for 'separately' (selected) and 'in hierarchy'. Below these is a 'Search for concept:' input field containing 'cat' and a list of search results, with 'cat' selected.

The main content area displays the details for the 'cat' concept, marked with a star. It includes a hierarchical tree of 'Superordinate concepts' (yso-käsitteet) leading to 'cat', a list of 'Subordinate concepts' (birman, Burmese (cat), etc.), 'Related concept:' (kulkukissat, pets), 'Type:' (YSO Concept), and 'Coordinate concepts:' (cheetah, forest cat, jaguar, leopard).

# ONKI – weak points

- Designed by engineers for engineers
  - The design was refined over the versions to more accommodate the needs of the annotators
- A research prototype
  - Proof of concept
  - Not very reliable
    - Reliability isn't important for research
- Slated to replace VESA in 2011
  - Pulled back because of user feedback

# Finto

- A project to build a production version of ONKI
  - 2013 ->
  - National Library of Finland
  - Funded by the Ministry of Finance and the Ministry of Culture and Education

# Finto - 2013

## YSO - General Finnish ontology

Content language English | Search

A-Z Hierarchy Groups New

- events and action
- objects
  - abstract objects
  - physical objects
  - physical whole
- place
  - areas and regions
  - other places
  - places created by nature
    - coral reefs**
    - craters
    - natural sites
    - potholes
  - places defined by humans
- systems
- properties

objects > place > places created by nature > coral reefs

PREFERRED TERM

### coral reefs

TYPE

General concept

BROADER CONCEPT

places created by nature

RELATED CONCEPTS

lagoons

BELONGS TO GROUP

11 Geography. Cartography. Geodesy. Geology. Palaeontology  
13 Hydrology

IN OTHER LANGUAGES

<b>koralliriutat</b>	Finnish
<i>atollit</i>	
<b>korallrev</b>	Swedish
<i>atoller</i>	

URI

<http://www.yso.fi/onto/yso/p14886>

Download this concept:

RDF/XML TURTLE JSON-LD Last modified 10/7/16

CLOSELY MATCHING CONCEPT

Coral reefs and islands	Library of Congress Subject Headings
koralliriutat (fi)	YSA - General Finnish thesaurus
korallrev (sv)	Allärs - Allmän tesaurus på svenska

Images indexed with the term in Finna 6

Image



Postikorttipainanteinen lähivalokuva värikkään keltasinisestä ...



Postikorttipainanteinen ilmakehu Cairnsin kaupungeista Austra ...



Postikorttipainanteinen valokuva Australian suuren koralliri ...



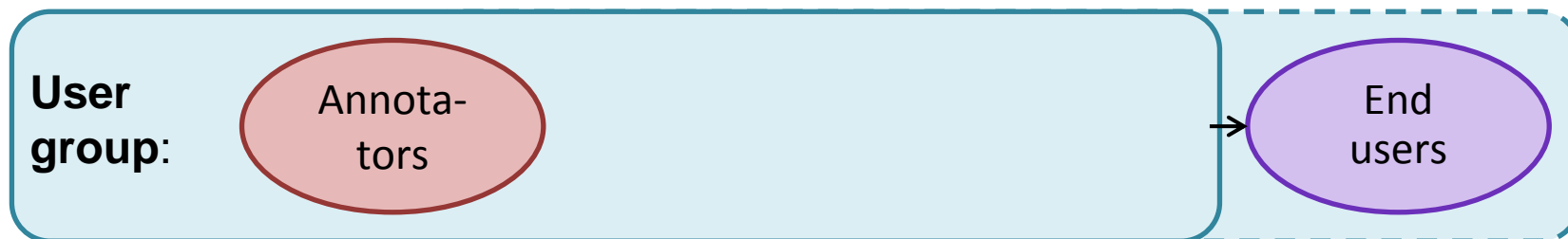
Postikorttipainanteinen valokuva Australian Green Islandista ...



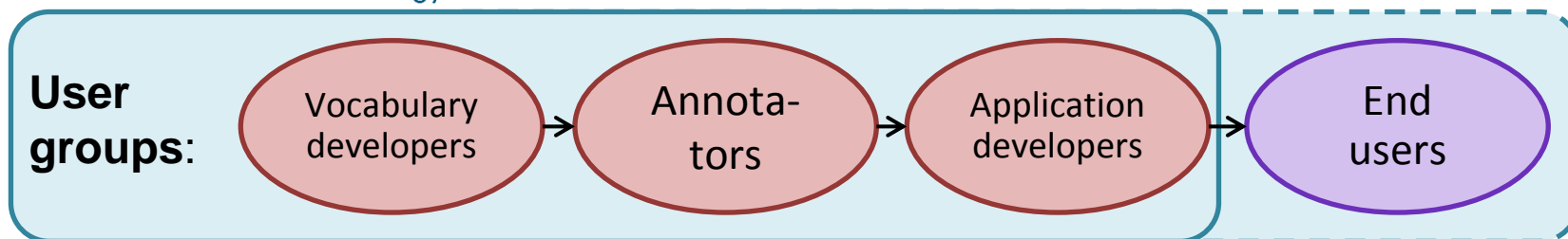
Postikorttipainanteinen valokuva Australian Green Islandin r ...

# User groups

## VESA - verkkosanasto/webbtesaurus



**finto** Finnish Thesaurus and Ontology Service



# Design principles

- Finto must be reliable and fast
- No extra workload for the annotators
- A lot of emphasis on usability
  - Tests with professionals
- Deep collaboration with people with real annotation experience
  - Several people in the project group
  - Active participation in the design
- Dug up information based on the VESA logs
  - An example finding: many users search for terms with the singular



# User testing

- A limited pool of possible test subjects
  - Professional annotators are not very common
    - Various sub-categories
      - Books vs museum artefacts vs health documents
      - Finnish vs Swedish vs both
      - Annotation as main work vs annotation as auxiliary work
- Thorough planning
  - When to test?
  - Who to test with?

# Test set ups

- Tests done on the test subject's own computer in their own office
- Tasks
  - An ordinary annotation task
    - Using their usual set-up
    - Using Finto
  - A specifically set up annotating a book with key concepts that are not present in the annotation vocabulary as is but that require the use of the search interface
    - Using Finto
- Recorded
  - Observations
  - Questionnaire
  - General interview

# System Usability Scale

- The System Usability Scale (SUS) provides a light-weight tool for measuring usability
  - Ten questions
    - I think that I would like to use this system frequently.
    - I found the system unnecessarily complex.
    - Etc.
  - Score of 1-100 with 68 being average

# Results

<b>System</b>	<b>ONKI3</b>	<b>Finto test 1</b>	<b>Finto test 2</b>	<b>Finto test 3</b>
<b>Average</b>	48	80	80	76

# Patient long-term communication

- Presentations in various forums
- Emphasizing the fact that the user should get no extra workload
- New possibilities and general interoperability with systems outside of the library domain
- Full support for multilinguality
- A long countdown to the end
  - Once we were absolutely sure of Finto's performance

# New features

- Modular design allows for additional features
  - Integration into the Finna search and access service to museum, archive, and library materials
- Suggestions system for new concepts and changes to existing ones
  - Originally done through email

# Suggestions system

## Uuden käsitteen ehdottaminen

YSA:n ja YSO:n käsite-ehdotuslomake

suomeksi

på svenska

Selaa ehdotuksia

Ehdota uutta käsitettä

Ehdota muutosta käsitteeseen

\* merkityt kohdat ovat pakollisia.

Näytä ohje

Tyyppi:

Käsite

Päätermi/asiasana: \*

Termi ruotsiksi

Termi englanniksi:

Vaihtoehdotiset termit ja ilmaisut:

Yläkäsite YSOssa (LT):

Alakäsitteet (ST):

Assosiatiiviset (RT):

YSA/YSO temaattinen ryhmä: \*

Hae käsitettä

Hae käsitettä

Hae käsitettä

Valitse ryhmä(t) listalta

# Suggestions system

- A simple web form codifying the necessary fields
  - A star rating for the suggestions – more fields filled, more stars
- Each suggestion opens an issue in GitHub
  - Allows for commenting on the suggestions
  - Powerful search tools
- Suggestions also go into a "suggestions vocabulary" in Finto where you can use them straight away
  - If the suggestion is accepted into the vocabulary, the URI stays
  - If it is not accepted, the URI is given a `dct:isReplacedBy` relation to a suitable other concept



# Suggestions system

- Makes the work transparent
- Makes the suggestions easier to process but also makes sending them more streamlined
- Loved by the developers

# The death of VESA

- VESA was finally unplugged in the beginning of 2016
  - Zero negative feedback



# Thank you! Questions?

[matias.frosterus@helsinki.fi](mailto:matias.frosterus@helsinki.fi)

[finto-posti@helsinki.fi](mailto:finto-posti@helsinki.fi)

<http://finto.fi>

<http://skosmos.org>