

EnvoScholar v3.0

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The Problem

- No field-specific search engine.
- CREST has articles stored in the database, no front end to access them.
- Learn about concepts related to environmental sciences.

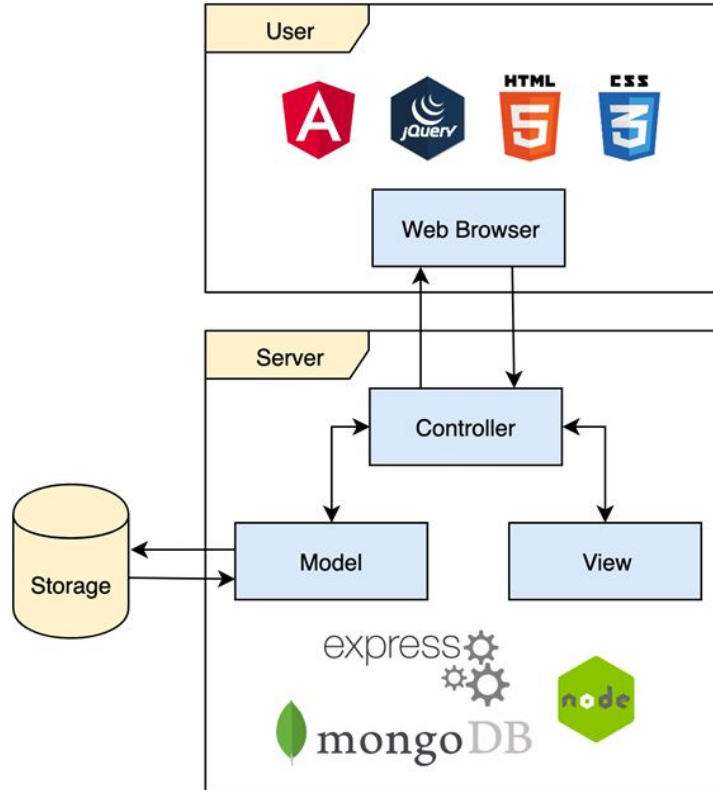
The Solution

- Create a front-end to browse through the peer-reviewed articles.
- Visualization of ontologies.
- Features that make it easier to retrieve relevant information.

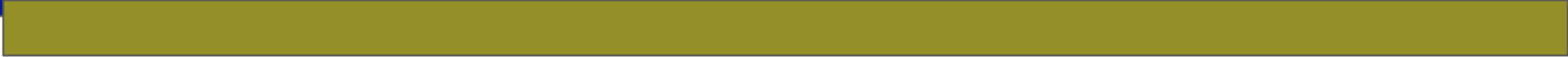
Goals for this Semester

- Deploy current system to website in a packaged manner.
- User-accessible Developer Statistics that are useful for Search Engine Optimization and are exportable as a file.
- Dynamic Ontology Visualization allowing users to easily understand and view ontologies.
- Server-Side Pagination and Filtering for Optimized and bigger result loading.
- Improve general mobile experience.
- Overhaul of user profile page to improve user experience.

System Design



Main Features Added



Website Deployment and Configuration

- The website was deployed into a remote private server.



The Best Search Engine for
Environmental Peer Reviewed Articles

- Configuration of Deployment by implementing “Developer” running methods and “Production” Hosting method.

Developer Statistics

Query Information

- Helps determine the popularity of a query and interactions achieved in that query.

Query Name	Amount of Query Searches	Amount of Article Clicks	Amount of Relevant Articles
drugs	214	13	12
water	114	17	57
immaterial entity	39	3	6
sensitivity analysis	34	1	3

Query History

- Allows developers to view at what time a query was searched and the state of the article interactions.

Query	Time	Article Clicks	Articles Marked as Relevant
drugs	December 4, 2019, 4:09:54 PM	13	12
drugs	December 4, 2019, 10:32:46 AM	13	12
water	December 3, 2019, 1:27:11 PM	17	57

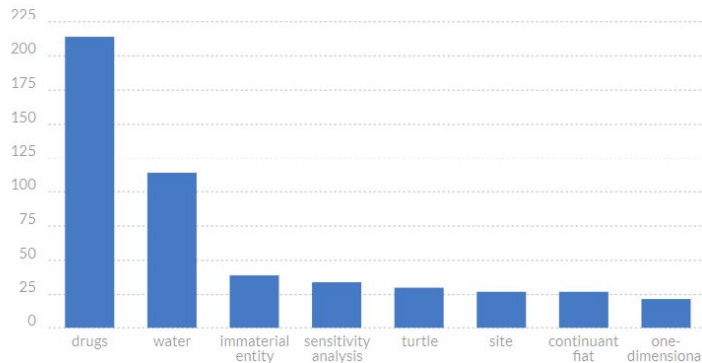
Developer Statistics (Part 2)

Article Information

Article Title	Query Name	Relevance Count	Article Clicks
Decomposition of drug mixture in Fenton and photo-Fenton processes: Comparison to singly treatment, evolution of inorganic ions and toxicity assay	drugs	4	5
Occurrence of PAHs, PCBs and organochlorine pesticides in the Tonghui River of Beijing, China	water	3	4
Measurement of pyrene in the gills of exposed fish using synchronous fluorescence spectroscopy	immaterial entity	0	3

Graph with statistical summary

Top 8 Query Searches



Server-Side Filtering

Dynamic Filtering of Arguments completely occurs on the server

- Search query Argument
- Page Argument
- Dates Argument
- Sorting method argument

envoscholar.cs.fiu.edu/displayresults?search=drugs&page=18&sortby=most_recent&dates=1900-2019

This allows for substantially decreased
loading times and significantly less
strain on the user's internet bandwidth.

Server-Side Pagination

Pagination of results occurs in an optimized manner on the server-side

- Only one page is loaded at a specific time, allowing for optimized loading performance of results displayed.
- A theoretically infinite number of pages can now be loaded, only limited by the API call (previous limit was only 10 pages).
- Page loading times are significantly decreased, as the processing and API calling no longer occurs on the frontend. (5ms average when compared to 3 second average).

Distribution and seasonal occurrence of UV filters in rivers and wastewater treatment plants in Korea

Un-Jung Kim-Sung-Hee O-Hee-Young Kim-2016-01-15

The occurrence and distribution of eight UV filters benzophenone (BP), benzophenone (BP-3), ethylhexyl methoxy cinnamate (EHMC), 4-methylbenzylidene camphor (4-methylbenzylidene camphor), 2-ethylhexyl 4-dimethylaminobenz...

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« Previous **1** 2 3 4 5 ... 990 Next »

Loaded 9900 results in 4 milliseconds

Is there evidence for man-made nanoparticles in the Dutch environment?

Patrick S. B  uerlein-Erik Emke-Peter Tromp-2017-01-15

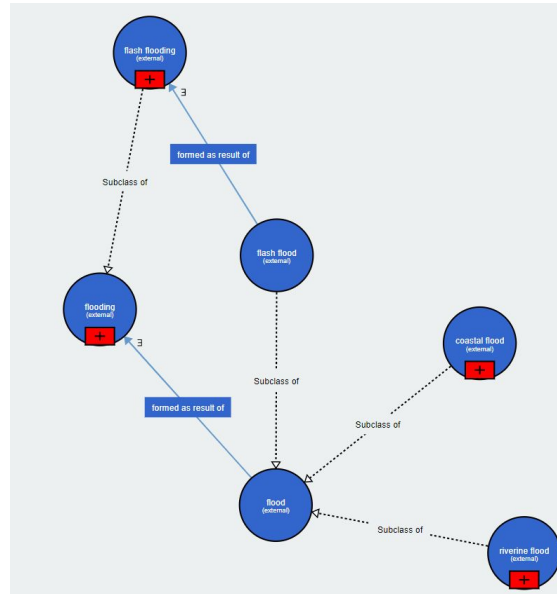
Only very limited information is available on measured environmental concentrations of nanoparticles. In this study, several environmental compartments in The Netherlands were probed for the presence ...

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Dynamic Ontology Visualization

Dynamic node expansion

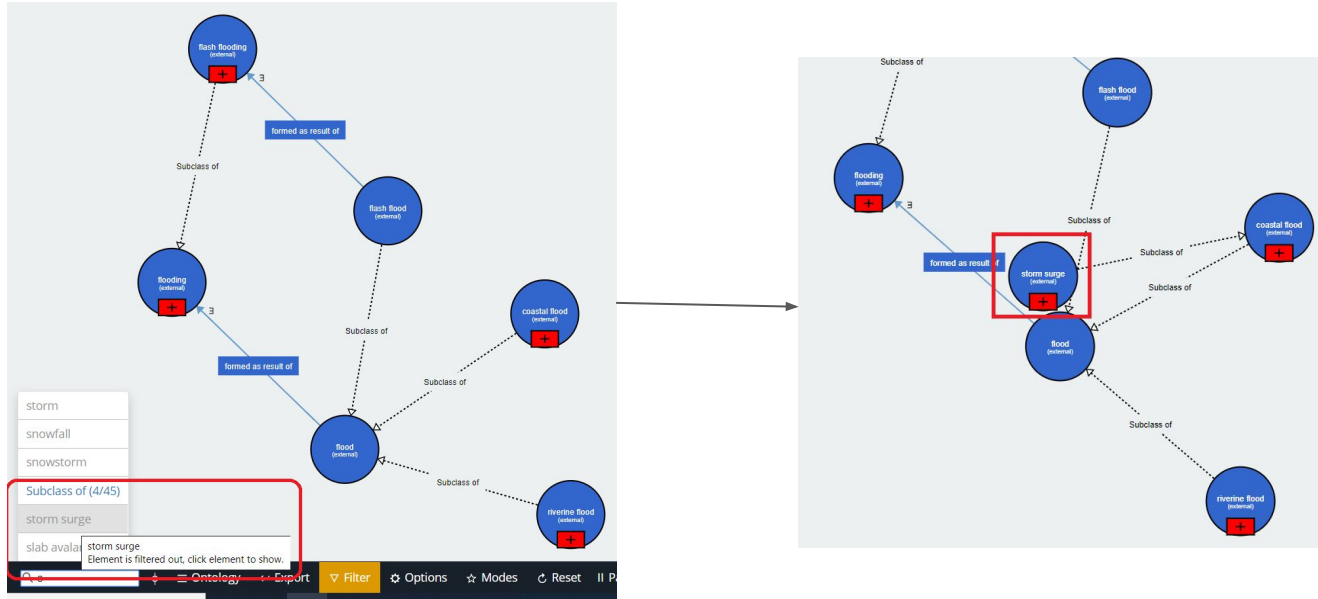
- Helps the user easily visualize the ontology and easily view neighbors of each node.
- Nodes are interactable, and expand to show the neighboring nodes in the graph when clicked.



Dynamic Ontology Visualization

Interactive Node Inclusion

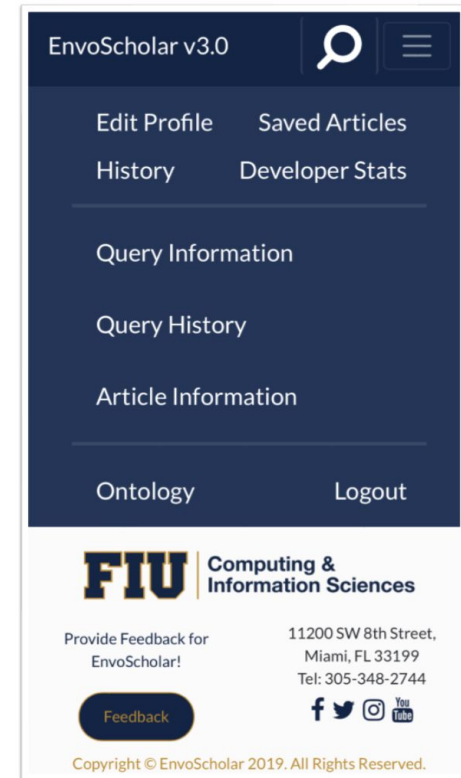
- Allows the user to easily add nodes to a current view, based on their name



Mobile Experience



- Main pages are now designed with mobile devices in mind.
- The Website is now entirely navigable using a Sandwich menu with a dropdown and respective routes to each page.



Overhauled User Profile Page

Ability to Edit Profile

Full Name:

Jorge Euceda

Email:

jeuce004@fiu.edu

Password:

.....

New Password:

.....

[SAVE CHANGES](#)

Saved Articles can now be saved and unsaved in Profile

Jorge Euceda's Saved Articles

[Occurrence patterns of pharmaceutical residues in wastewater, surface water and ; Kisumu city, Kenya](#)

K.O. K'oreje-L. Vergeynst-D. Ombaka-2016-04-30

Emerging organic contaminants have not received a lot of attention in developing countries, particularly water quantity and quality are often even more severe than ...

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[Is there evidence for man-made nanoparticles in the Dutch environment?](#)

Patrick S. Bäuerlein-Erik Emke-Peter Tromp-2017-01-15

Only very limited information is available on measured environmental concentrations of nanoparticles. compartments in The Netherlands were probed for the presence ...

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Saved successfully

Additional Features

- Search bar that retains the state of the current search is now included in the navigation bar
- Enhanced tabbing mechanism for new ontology node graph visualization



- Improved project structure, components are now organized into categories.
- Overhauled display results components to enhance user experience and interactions.

↑
Lichen, moss and soil in resolving the occurrence compounds on the southeastern Tibetan Plateau,

Yan Gao-Jianjie Fu-Thanh Wang-2015-06-15

This study investigated a wide range of semi-volatile organic compounds including 28 persistent organochlorine pesticides (OCPs), 18 polycyclic aromatic hydrocarbons (PAHs), 13 polybrominated diphenyl ethers (PBDEs), and 13 polychlorinated biphenyls (PCBs).

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Loaded 9900 results in 3 milliseconds

Is there evidence for man-made nanoparticles in the Dutch environment?

Patrick S. B  uerlein-Erik Emke-Peter Tromp-2017-01-15

Only very limited information is available on measured environmental concentrations of nanoparticles. In this study, several environmental compartments in The Netherlands were probed for the presence of nanoparticles.

View PDF Cite Save Share Relevance Similar Articles

Shortcomings/Wishlist

- Produce a welcome or onboarding experience that is built into the Profile Page.
- Optimize the search engine based on the data gathered by using the pages related to Developer Statistics.
- Implement Anonymous Session Tracking that provides even more insightful data.
- Work on the “Popular Concepts” feature that uses our Developer Statistics to determine what are concepts related to the current query (this will involve session tracking inside of the developer statistics).
- Provide a definition for the query that has been searched in the results page if available, and include this feature in the API.
- Improve frontend UI components (add animations, create a Program Design Guideline).