Von Forschenden oft unterschätzt: Erfolgreicher Forschen mit Informationskompetenz

Dr. Oliver Renn, Raum KOL-F-101

Wo wir sind und für wen wir arbeiten

Informationszentrum Chemie | Biologie | Pharmazie

Offiziell für die Departemente

- **Chemie (mit Pharmazie)**
- **Biologie**
- **Materialwissenschaft**

Was ist Informationskompetenz?

Schweizer Standards
der Informationskompetenz

Ausarbeitung der Schweizer Standards

In den vergangenen Jahrzehnten wurden diverse unterschiedliche Definitionen von Informationskompetenz entwickelt und diskutiert. Eine heute weitaus akzeptierte Definition stammt von der UNESCO: «Information Literacy is the capacity of people to: Recognise their information needs; locate and evaluate the quality of information; store and retrieve information; make effective and ethical use of information; and apply information to create and communicate knowledge.» (Catts & Lau 2008).
Damit wird dargestellt, dass Informationskompetenz als ein Zusammenspiel verschiedener Teilkompetenzen verstanden werden kann. Diverse Modelle der Informationskompetenz betonen diesen Aspekt durch die Darstellung einer prozeduralen Abfolge der Teilkompetenzen. Trotz einiger heute weit verbreiteten Definitionen gibt es jedoch kein allgemeingültiges Verständnis von Informationskompetenz. Gründe dafür sind die Interdisziplinarität der vermittelten Kompetenzen sowie starke Berührungspunkte zu benachbarten überfachlichen Kompetenzen wie beispielsweise Medienkompetenz.

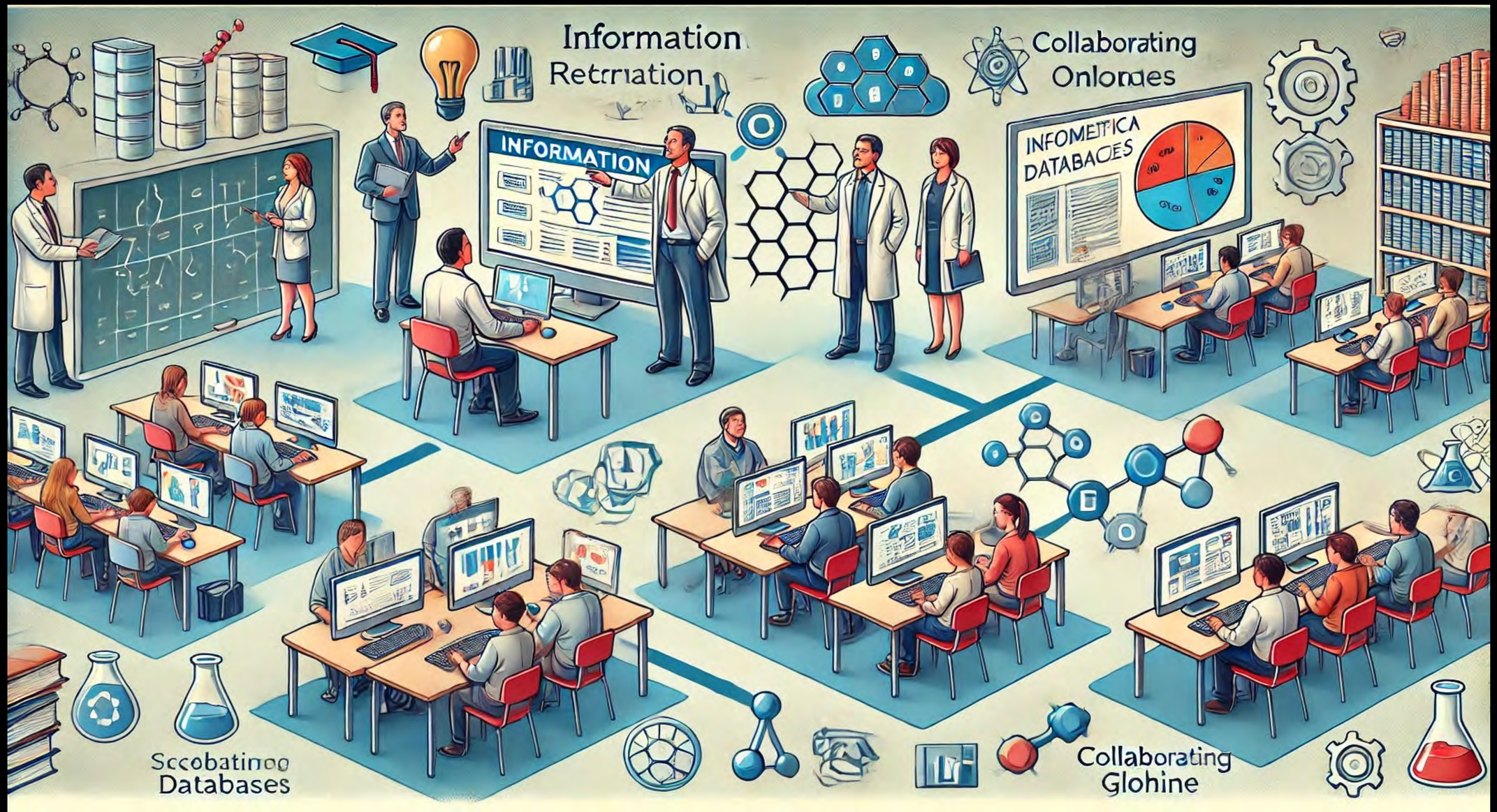
Ausgehend von der Definition der UNESCO wurden als Grundlage für die Erarbeitung der Schweizer Standards das «Australian and New Zealand Information Literacy Framework» des Australian and New Zealand Institute for Information Literacy ANZIIL (Bundy 2004) und die international etablierten «Information Literacy Competency Standards for Higher Education» der amerikanischen Association of College and Research Libraries (ACRL 2000) verwendet.

Neuere Studien der letzten Jahre haben gezeigt, dass Informationskompetenz umfassend verstanden werden muss und nicht auf die Anwendung von Werkzeugen der Bibliotheken beschränkt bleiben darf (Leibniz-Informationszentrum Wirtschaft 2011, Madray 2007). Speziell die Aspekte «Weiterverwendung von Information» und «Verantwortung gegenüber Information» sind in der Praxis in den Vordergrund gerückt und gewinnen an den Hochschulen an Bedeutung.

Standard Eins	Die informationskompetente Person erkennt den Bedarf an Information und bestimmt die Art und das Ausmass des Informationsbedarfs
Standard Zwei	Die informationskompetente Person findet die benötigten Informationen effektiv und effizient
Standard Drei	Die informationskompetente Person bewertet die Informationen und das Vorgehen zur Informationsbeschaffung kritisch
Standard Vier	Die informationskompetente Person verwaltet die gesammelten oder erzeugten Informationen und lässt andere daran teilhaben
Standard Fünf	Die informationskompetente Person verwendet bestehende und neue Informationen um ein spezifisches Ziel zu erreichen
Standard Sechs	Die informationskompetente Person handelt als verantwortungsbewusstes Mitglied der Informationsgesellschaft

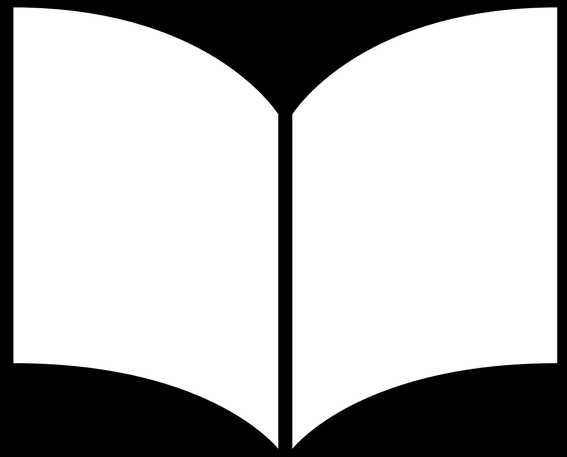
Die Ausbildung in der Chemie

Die Ausbildung von informationskompetenten Forschern



Die Bibliothek gestern und heute

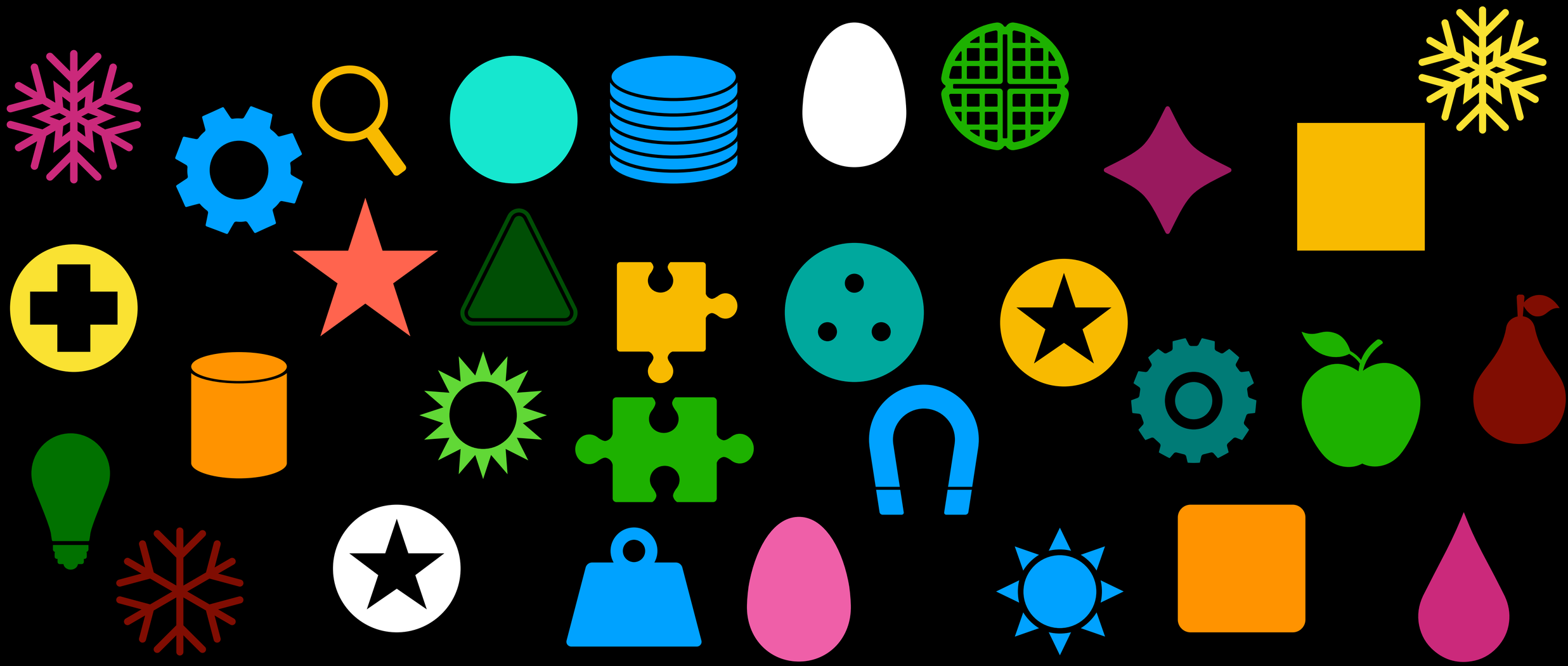
Forschungsinformation gestern und heute



Kompetenzen der Vergangenheit

Blättern und im Katalog suchen

Forschungsinformation heute



Kompetenzen von heute

Information and Communication Technology Skills

Standard Eins	Die informationskompetente Person erkennt den Bedarf an Information und bestimmt die Art und das Ausmass des Informationsbedarfs
Standard Zwei	Die informationskompetente Person findet die benötigten Informationen effektiv und effizient
Standard Drei	Die informationskompetente Person bewertet die Informationen und das Vorgehen zur Informationsbeschaffung kritisch
Standard Vier	Die informationskompetente Person verwaltet die gesammelten oder erzeugten Informationen und lässt andere daran teilhaben
Standard Fünf	Die informationskompetente Person verwendet bestehende und neue Informationen um ein spezifisches Ziel zu erreichen
Standard Sechs	Die informationskompetente Person handelt als verantwortungsbewusstes Mitglied der Informationsgesellschaft

Universitäten und Unternehmen weltweit gaben Milliarden für Informationsressourcen

Geldverschwendung

Zeitverschwendung

Das Rad neu erfinden

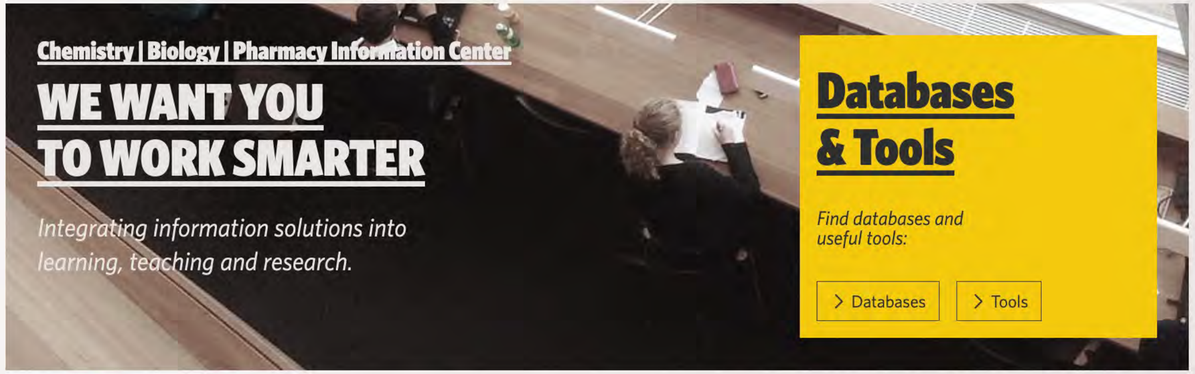
Mangelnde Effizienz

Fehlende Wirksamkeit

Semiprofessionelle Professionals

Die neue Bibliothek

The Information Center acts as a scientific information skill center, supporting the diverse teaching and research environment of ETH Zurich.
Teaching is one of our most important tasks.
The Information Center has developed a curriculum that ensures that students acquire the necessary skills in information management and retrieval as part of their education in chemistry, life sciences, and materials science.
This includes the ability to judge the relevance of scientific information as well as the development of knowledge management expertise.



In addition, our information consultants, who are chemists, biologists, or pharmacists as well as information scientists, support researchers and lecturers.

They also scout and evaluate new information solutions. A team of library professionals complements their work.

And last but not least, the Information Center is also a place to learn and study, and a library with tailored subject-specific services.

News

Overview

The 32nd series of Coffee Lectures is now on YouTube

Published: *12.06.2024*

In case you missed the Coffee Lectures from the last series: You can now find the videos of all nine Coffee Lectures on YouTube.

Newsletter Infozine: Subscribe for free

Your e-mail address subscribe

Selection of newly acquired books July - August 2024

Published: *01.07.2024*

Events

Overview

Tu, 17. Sep

Information on Polymers and Materials

Type of Event: *Introduction*
Language: *German*
Time: *12:00–15:00*
Place: *HCI D 451*

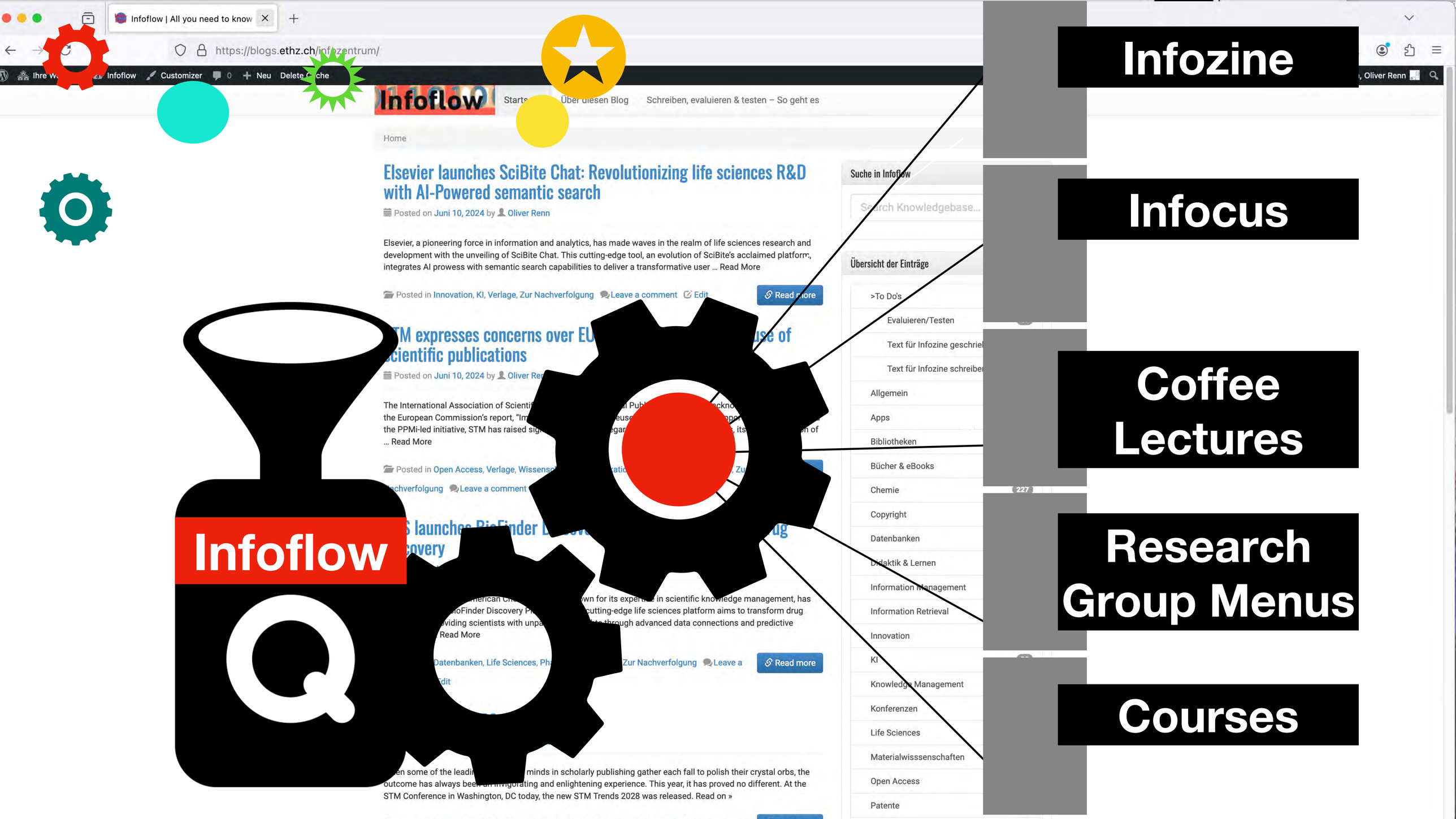
Database searches as a part of the Chemiepraktikum III für Materialwissenschaftler

Tu, 17. Sep

Introduction to working with pharmaceutical information resources

Type of Event: *Introduction*
Language: *German*
Time: *12:45–14:30*
Place: *to be announced*

Introduction to working with scientific literature in the context of the lab courses in pharmaceutical sciences' fifth semester.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Home
Elsevier launches SciBite Chat: Revolutionizing life sciences R&D with AI-Powered semantic search
Posted on Juni 10, 2024 by Oliver Renn
Elsevier, a pioneering force in information and analytics, has made waves in the realm of life sciences research and development with the unveiling of SciBite Chat. This cutting-edge tool, an evolution of SciBite's acclaimed platform, integrates AI prowess with semantic search capabilities to deliver a transformative user ... Read More
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>To Do's
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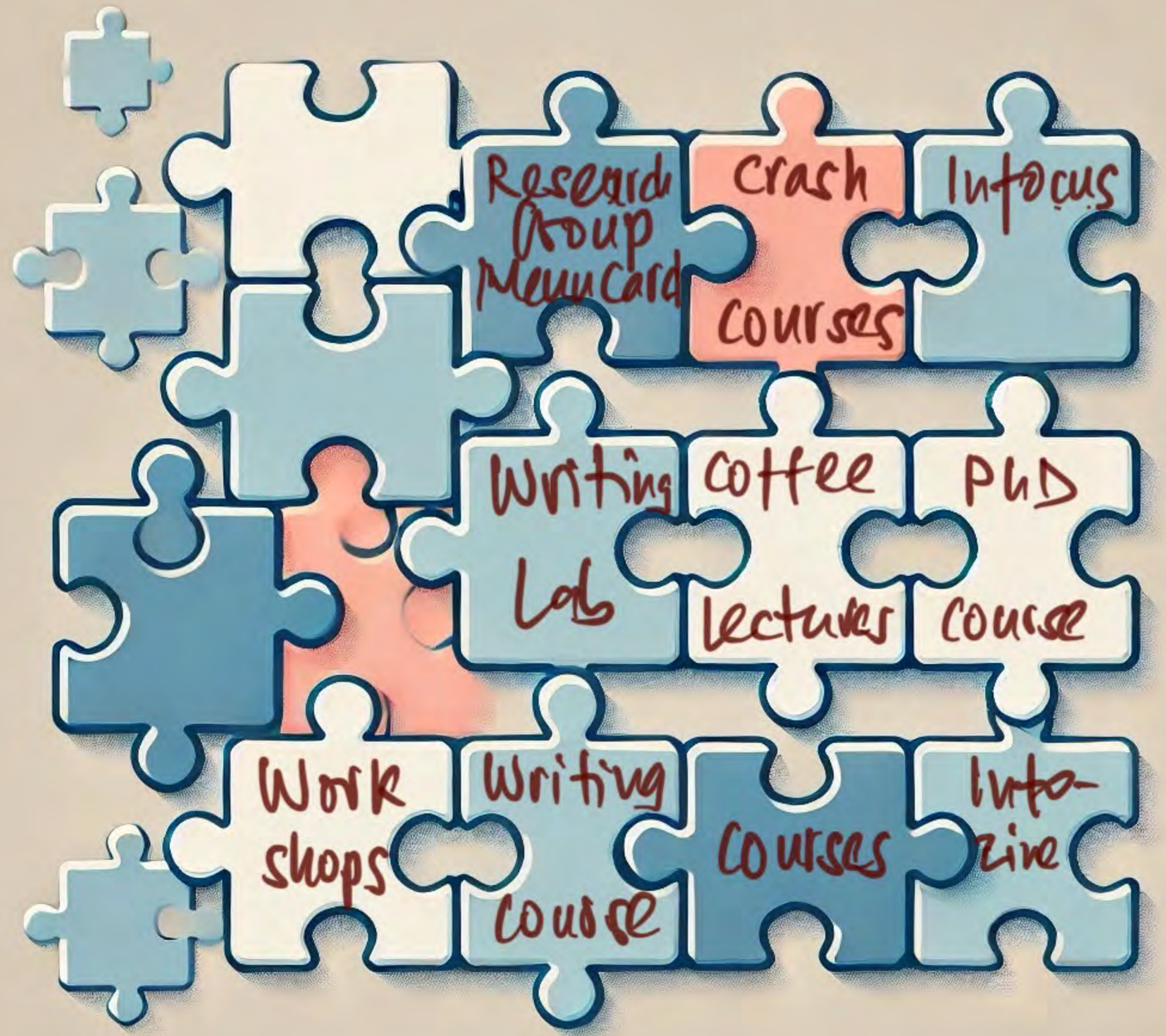
Text für Infozine geschrie
Text für Infozine schreibe
Allgemein
Apps
Bibliotheken
Bücher & eBooks
Chemie
227
Copyright
Datenbanken
Didaktik & Lernen
Information Management
Information Retrieval
Innovation
KI
Knowledge Management
Konferenzen
Life Sciences
Materialwisssenschaften
Open Access
Patente
Infoflow
Infozine
Infocus
Coffee Lectures
Research Group Menus
Courses


Research
Group
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Thirsty for coffee? Thirsty for knowledge? Get both. For free.

Tuesdays, Wednesdays and Thursdays

HCI G2 | 13:00 - 13:10 | 10 minutes only

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Coffee Lectures: The 32nd Series

Tue, Wed, Thu 13:00–13:10, live in HCI G2 and online via Zoom

https://ethz.zoom.us/j/63020946312

Tuesday, 14.5.24

Generating Word Clouds (No. 28)

Would you like to visualize the contents of lengthy texts? We will show you how to easily create word clouds.
Presenter: Dr. Gina Cannarozzi

Wednesday, 15.5.24

Copyright and Open Access (No. 24)

What is the difference between Green, Golden, Diamond, or Platinum Access? And between CC0 and CC BY-NC-ND?
Presenter: Dr. Oliver Renn

Thursday, 16.5.24

KNIME Analytics Platform (No. 11)

KNIME Analytics Platform is a free and open-source tool with a graphical user interface that allows you to create workflows by connecting nodes that perform specific actions on data, such as transforming, merging, analyzing, modeling and visualizing. No or very little programming is required.
Presenter: Dr. Jozica Dolenc

Tuesday, 21.5.24

WebCSD – the portal to the Cambridge Structural Database (No. 22)

The Cambridge Structural Database is the world's repository for over a million small organic molecules and metal-organic crystal structures. Learn what options WebCSD offers for searching & finding.
Presenter: Dr. Jozica Dolenc

Wednesday, 22.5.24

(Chemistry) Learning Apps (No. 57)

Chemistry by Design is an app for training the skills for multistep syntheses. Anki, on the other hand, is a very flexible app – for chemistry flashcards, too. We will provide a quick demo on both.
Presenter: Dr. Leo Betschart

Complete and expand your collection of Coffee Lecture cards.

Thursday, 23.05.24

Google Workspace (No. 7)

Google Workspace is a suite of productivity apps offered by Google that provides both free and licensed versions. Here, we show Google Workspace and the services provided by ETH Zurich's license.
Presenter: Dr. Gina Cannarozzi

Tuesday, 28.5.24

Basics in design in just 10 minutes (No. 25)

There are many ways to communicate textual and visual information. However, if you stick with the basic principles of typography and design, your text, brochure, flyer, or poster will not only get noticed more than others but will also be more easily read.
Presenter: Dr. Oliver Renn

Wednesday, 29.5.24

DrugBasePlus – a hub for pharmacists (No. 21)

DrugBasePlus provides access to many resources: Fiedler's Excipients, Handbook of Injectable Drugs, Hager's Encyclopedia of Drugs, and Index Nominum. We give you a quick tour of these information resources for pharmaceutical sciences and show a couple of use cases.
Presenter: Dr. Leo Betschart

Thursday, 30.5.24

Dimensions – another literature database (No. 63)

Dimensions is a literature database that can be used as an alternative or in addition to Scopus and Web of Science. It stands out for its diverse search options and an extensive analysis module.
Presenter: Dr. Jozica Dolenc

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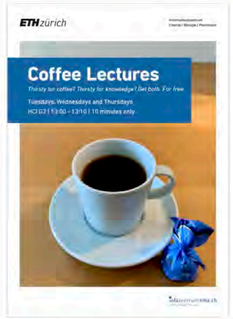
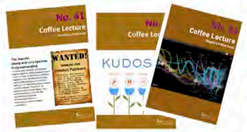
Coffee Lectures: The 31st Series

Tue, Wed, Thu 13:00–13:10, live in HCI G2 and online via Zoom
https://ethz.zoom.us/j/63020946312



Tuesday, 27.02.24
PubPharm (No. 11)
PubPharm lets you perform searches PubMed cannot do: Create drug-target-disease networks and use semantic search to find relations or unknown terms ... useful for chemists and biologists, too.
Speaker: Dr. Leo Betschart

Wednesday, 28.02.24
3D images with PyMOL (No. 54)
With PyMOL, you can create stunning 3D images of bio-molecules. We show you how to make these graphics in no time and how to export them for your publications, posters, and presentations.
Speaker: Dr. Gina Cannarozzi



Complete and expand your collection of Coffee Lecture cards.

Thursday, 29.02.24
Learn new skills with LinkedIn Learning (No. 62)
Are you interested in Photo-shop or InDesign? Or do you need the basics of Python in a crash course tonight? LinkedIn Learning offers thousands of video tutorials on business, technology and creative skills. Available through the ETHZ IT Shop.
Speaker: Dr. Jozica Dolenc

Tuesday, 5.03.24
ChemSpider (No. 26)
There is more than just Reaxys and SciFinder^n: ChemSpider is a freely available database with over 129 million structures, provided by the British Royal Society of Chemistry. Via an API, automated queries are possible.
Speaker: Dr. Leo Betschart

Wednesday, 6.03.24
Kudos (No. 43)
Do you want to spread the word about your paper not only through the journal in which you have published? Kudos helps researchers explain, enrich and share their publications for greater research impact.
Speaker: Dr. Oliver Renn

Thursday, 7.03.24
EndNote: The most important functionalities (No. 10)
Using reference management software saves a lot of time. Literature management with EndNote is much more than just inserting references into a text. Get to know the latest version, EndNote 21.
Speaker: Dr. Jozica Dolenc

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Tuesday, 12.03.24
NMRium: process spectra directly in your browser (No. 29)
Why bother with installing an application to teach structural analysis or process your NMR spectra? With our online platform, all of this can be done easily with just a simple drag and drop. You can even superimpose over 50 spectra effortlessly or load a reference database containing several thousand NMR spectra.
Speaker: Dr. Luc Patiny

Wednesday, 13.03.24
AlphaFold (No. 61)
AlphaFold, an AI system for predicting protein structure, has had unprecedented success. We present an overview of the software and the database of structures it has predicted, both of which are open access.
Speaker: Dr. Gina Cannarozzi

Thursday, 14.03.24
OpenAlex (No. 53)
An open alternative to literature search platforms such as Scopus and Web of Science? We give you a quick overview on what you can do with the web interface and API.
Speaker: Dr. Leo Betschart

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Coffee Lectures: The 30th Series

Tue, Wed, Thu 13:00–13:10, live in HCI G2 and online via Zoom
https://ethz.zoom.us/j/63020946312

Tuesday, 17.10.23
ACD/Name – a nomenclature tool (No. 32)
Draw a chemical structure, click the button, and get the correct IUPAC name including stereodescriptors, even for complex inorganic and organometallic structures!
Speaker: Dr. Jozica Dolenc

Wednesday, 18.10.23
Zotero – easily store and cite your references (No. 70)
Zotero is an open-source alter-native to reference manage-ment systems like EndNote or Mendeley. Use its browser plug-in and PDF editor to effi-ciently store, retrieve, edit, and cite your documents. Share your reference collection and collaborate with others. ETH users enjoy free unlimited cloud storage!
Speaker: Andrej Kilian

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Thursday, 19.10.23
ICSD – Inorganic Crystal Structure Database (No. 58)
ICSD is the world's largest database of inorganic crystal structures. Learn how to access the crystallographic, chemical, and physical property data for more than 280,000 crystal structures using ICSD Web.
Speaker: Dr. Jozica Dolenc

Tuesday, 24.10.23
GrammarlyGO (No. 27)
Grammarly is a tool that helps improve the grammar, tone, and clarity of written text. Here we compare the free and paid versions and take a look at its AI-powered writing feature.
Speaker: Dr. Gina Cannarozzi

Complete and expand your collection of Coffee Lecture cards.

Wednesday, 25.10.23
SoS for (in)organic chemists (No. 23)
Science of Synthesis (SoS) is a unique chemistry database that provides an overview of syn-thetic methods for functional groups and their applications. Learn more about the usage philosophy, which is quite distinct from Reaxys or SciFinder.
Speaker: Dr. Leo Betschart

Thursday, 26.10.23
Knowledge management with Obsidian (No. 72)
Organize, tag, archive and process pieces of information, ideas and thoughts with this markdown-based software. Find them again later via search or knowledge graph.
Speaker: Dr. Leo Betschart

Tuesday, 31.10.23
LinkedIn for Students and Scientists (No. 29)
Are you not yet on LinkedIn? In this Coffee Lecture you will learn what you need to know about LinkedIn.
Speaker: Dr. Gina Cannarozzi

Wednesday, 1.11.23
Use the full power of Scopus (No. 17)
Scopus offers many ways to extend, refine, and analyze your literature searches. In addition to finding specific literature, you can analyze and track authors, journals, funding agencies, and research topics.
Speaker: Andrej Kilian

Thursday, 2.11.23
Preprints: Publishing prior to peer-review (No. 69)
Preprint servers such as bioRxiv and ChemRxiv allow you to cite your work and share it with the scientific community before it is peer-reviewed. We give you a quick overview.
Speaker: Dr. Oliver Renn


imaging
using electrochemical
nanoparticles
metal
single
synthesis
molecules
study
NMR
nanocrystals
catalysis
perovskite
solid-state
spectroscopy
protein
analysis
structural
complex
synthesis


No. 24
Coffee Lecture
Copyright vs. Open Access
No. 16
Coffee Lecture
MedicinesComplete: A database hub for pharma
MedicinesComplete
All Publications
Search drug name or interaction
Dashboard
Publications
No. 5
Coffee Lecture
Downloading PDFs with reasonable naming
Scopus Document Download Manager
Scopus Document Download Manager - powered by QUOSA
Begin Download
No. 8
Coffee Lecture
Mendeley for managing citations and PDF files
No. 40
Coffee Lecture
Altmetric
ETH zürich D CHAB
766
Picked up by 51 news outlets
Blogged by 17
Tweeted by 234
On 25 Facebook pages
Referenced in 1 Wikipedia pages
Mentioned in 38 Google+ posts
Reddited by 1
On 1 videos
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No. 32
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ACD/Name – a nomenclature tool
No. 50
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Perinorm – the world's leading database of standards
Coffee L
Get to
KnowItAll AnyWare
Spectral Searching Made Easy
Search
MS Spectrum
Structure
Caffeine
Search Method
Correlation
Spectrum Technique
MS
Include Ranges
Exclude Ranges
Remove from search
Search all fields
Compound name
Molecular formula
Molecular Weight
Peak Search
Melting Point
Boiling Point
CAS Registry No.
Exact Match
Reset
Search
No. 28
Coffee Lecture
Generating word clouds
VERBINDUNGEN
ELEMENTE
CHEMIE
ELEKTRONEN
GRUPPE
ABB
EIGENSCHAFTEN
WASSER
SÄUREN

No. 62
Coffee Lecture
Learn new skills with LinkedIn Learning

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Tool **Education**

Product Name	LinkedIn Learning
URL	https://ch.linkedin.com/learning
Access	within ETH Zurich network
Launch Date	2016
Contact	Dr. Jozica Dolenc (dolenc@chem.ethz.ch)

What it is
LinkedIn Learning is a leading online educational platform and the successor of Lynda. The courses are taught by recognized experts and range from beginner basics to advanced techniques, with new courses being added each week. Videos can also be downloaded and watched offline.

Examples of learning topics:

- **Creativity:** 2D and 3D graphic design, photography, web design, music lessons, animation and illustration, ...
- **Technology:** programming languages (e.g., Python, C++, R, Java), data science, cloud computing, APIs, network and system administration, web development, IT security, ...
- **Business:** Finance and accounting, marketing, project management, communication, career development, ...

LinkedIn Learning is available at the ETH Zurich through the IT Shop.

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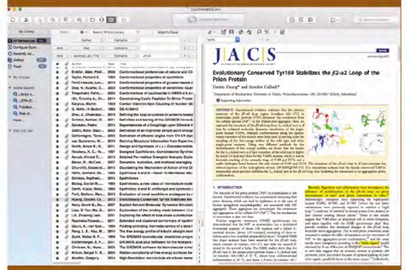
No. 10
Coffee Lecture
EndNote – the most important features



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Tool **Science**

Product Name	EndNote
URL	http://endnote.com/a
Access	available through ETH Zurich's IT Shop
Launch Date	around 1990
Contact	Dr. Jozica Dolenc (dolenc@chem.ethz.ch)

What it is:
Endnote is a reference management software that provides connections to many databases and library catalogues, can be used with various text editors, and is particularly integrated with Word. It downloads journal PDFs automatically that can be edited electronically. Windows and Mac.
Find
External databases and library catalogues can be searched directly from EndNote enabling easy transfer.
Organize
References can be organized in groups and smart groups where the latter are populated automatically according to specified criteria. Alternatively, keywords can be used.
Read
Automatic download of journal PDF files and tools for highlighting and annotating text electronically.
Cite
Use thousands of style files for scientific journals as well as generic styles that can be altered. A large collection of journal abbreviations is provided for usage in citation styles.

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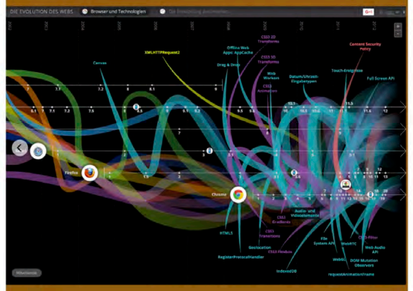
No. 34
Coffee Lecture
Google's hidden tools



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Tool **Science**

Product Name	Miscellaneous Google Tools
Access	Free
Contact	Dr. Oliver Renn (renn@chem.ethz.ch)

Google Scholar	https://scholar.google.ch
Google Books	https://books.google.ch
Google Patents	https://patents.google.com
Google Images	https://images.google.ch
Google Maps	https://www.google.ch/maps
Google News	https://news.google.ch
Google Translate	https://translate.google.ch
Google Earth	http://www.google.ch/intl/en/earth/
Google Sky	https://www.google.com/sky/
Google Trends	http://www.google.ch/trends/
Trends Visualizer	www.google.com/trends/hottrends/visualize
Google Flights	https://www.google.ch/flights
Google Fonts:	http://www.google.com/fonts
Data Explorer	http://www.google.com/publicdata/explore
Ngram Viewer	https://books.google.com/ngrams
Daily DDoS attacks	http://www.digitalattackmap.com
Google Art Project	https://www.google.com/culturalinstitute/
Web Evoluation	http://www.evolutionoftheweb.com
Google Quick Draw	https://quickdraw.withgoogle.com/
AutoDraw	https://www.autodraw.com/
Solitaire	Type "solitaire" into Google Search and hit enter
Flip a coin	Type "flip a coin"
Timer	Type e.g. "three minutes timer"
Snake	Type "Google snake Game"

3-2020

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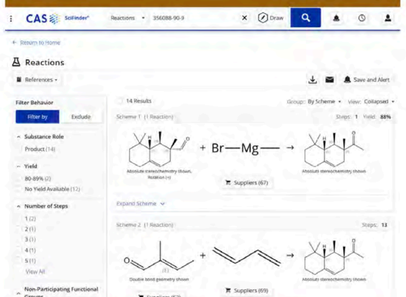
No. 44
Coffee Lecture
SciFinder^n



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Database **Chemistry**

Product Name	SciFinder^n
URL	https://scifinder-n.cas.org/
Access	Licensed by ETH Zurich
Launch Date	2017
Contact	Dr. Leo Betschart (leo.betschart@chem.ethz.ch)

What it is
The web interface SciFinder^n allows you to search the CAS databases for structures, reactions, references and biosequences (BLAST, CDR, Motif). From there on you can retrieve property data, spectra and much more. SciFinder's greatest power lies in the combination of different types of search queries such as (sub-)structures and keywords or concepts.

Powerful filtering options allow you to reduce the results to a small number of highly relevant hits. They include criteria of inclusion and exclusion, e.g., non-participating functional groups in a reaction.

Tools like PatentPak, Markush search or Chemscape Analysis facilitate the exploration of the patent landscape of substances and their applications.

Customizable alerts based on successful searches make sure you always stay up-to-date with the latest developments.

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No. 20
Coffee Lecture
Easily find journal title abbreviations with CASSI

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Tool **Science**

Product Names	CASSI, Swisscovery & Electronic Journals Library
URLs	see below
Access	free or licensed by ETH Zürich
Launch Date	1907 (CASSI), 1997 (EJL), 2020 (Swisscovery)
Contact	Dr. Leo Betschart (leo.betschart@chem.ethz.ch)

What it is
CASSI (Chemical Abstracts Service Source Index) is a free resource that can be used to quickly search for publication information. The CASSI database contains a listing of publications indexed by CAS since 1907, including serial and non-serial scientific and technical publications. You can search by title, abbreviation, CODEN, ISBN, or ISSN.
https://cassi.cas.org/

If you cannot find an article as a PDF, chances are that it is not available as an e-version, but that ETH might have a print copy. Search for the full journal title in Swisscovery. If you have page numbers, you can order scans, otherwise the whole volume to find your desired article.
https://eth.swisscovery.slsp.ch

University of Regensburg's Electronic Journals Library (EJL) is a great place to look for journals you cannot find otherwise.
http://rzblx1.uni-regensburg.de/ezeit/

www.infozentrum.ethz.ch

ETH zürich

ETH zürich

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Chemie | Biologie | Pharmazie

's

Coffee Lecture Card Album

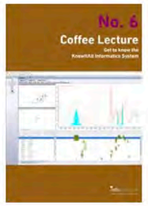
☐ No. 1
Stay tuned with topic alerts

☐ No. 2
Full text search in Google Books

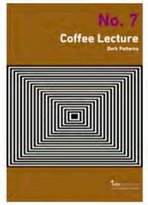
☐ No. 3
What's your h-index and other personal metrics?

☐ No. 4
Stay up-to-date with journal eTocs and Google Alerts

☐ No. 5
Downloading PDFs with reasonable naming



☐ No. 6
KnowItAll: The largest spectroscopy database



☐ No. 7
Dark Patterns – and how to avoid them

☐ No. 8
Mendeley for alerts, managing citations and PDFs

☐ No. 9
Trend analysis with Google Trends

☐ No. 10
EndNote – the most important features

☐ No. 11
What are Anti-Patterns?

☐ No. 12
NIST Chemistry Databases

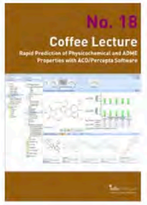
☐ No. 13
LibKey Nomad – one click to a paper PDF

☐ No. 14
Scholarcy: An AI-based article summarizer tool

☐ No. 15
WordPress for blogs and journal clubs

☐ No. 16
MedicinesComplete: A database hub for pharma

☐ No. 17
Use the full power of Scopus



☐ No. 18
Predict physico-chemical properties: ACD/Percepta

☐ No. 19
Cool new features in Reaxys

☐ No. 20
Easily find journal title abbreviations with CASSI

☐ No. 21
DrugBase: A database hub for pharma

☐ No. 22
WebCSD – Cambridge Structural Database

☐ No. 23
Science of Synthesis: A reference for bench chemists

☐ No. 24
Copyright vs. Open Access: What you need to know

☐ **No. 25**
Basics in design for papers, posters, visuals

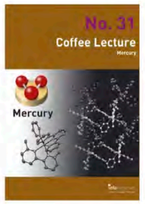
☐ **No. 26**
ChemSpider: A free resource from the RSC

☐ **No. 27**
Grammarly – an online Writing Assistant

☐ **No. 28**
Generating word clouds from text

☐ **No. 29**
LinkedIn for students and scientists

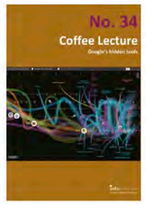
☐ **No. 30**
Beyond Data: SpringerMaterials



☐ **No. 31**
Mercury: Analyze and visualize X-Ray structures

☐ **No. 32**
ACD/Name – a nomenclature tool

☐ **No. 33**
Browzine and Researcher: Mobile libraries



☐ **No. 34**
Google's hidden tools you might not know

☐ **No. 35**
SDBS – a free spectral database for organics

☐ **No. 36**
swisscovery und SWITCH edu-ID: Why you need it

☐ **No. 37**
Manchester Academic Phrasebank

☐ **No. 38**
AccessEngineering solves engineering problems

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Elsevier's Researcher Academy

☐ **No. 40**
Altmetric: Alternative metrics for impact of science

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Be aware: Predatory Publishers

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Generate Text with ChatGPT

☐ **No. 43**
Kudos: Raise awareness for your research

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News from SciFinder^n

☐ **No. 45**
All about the ETH Research Collection

☐ **No. 46**
Finding trends with Google's Ngram Viewer

☐ **No. 47**
RDKit – the Open Source chemo-informatics tool kit

☐ **No. 48**
What are Markush Structures & why should you care?

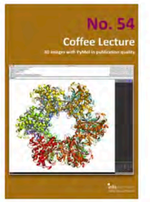
☐ **No. 49**
ChemDraw tips and tricks

☐ **No. 50**
Get standards like DIN Normen via norm-I

☐ **No. 51**
ISSUU: Get your publications online – free!

☐ **No. 52**
Navigating your way through EMBL-EBI

☐ **No. 53**
Doodle with Doodle Pro at ETH Zurich



☐ **No. 54**
3D images with PyMol in publication quality

☐ **No. 55**
What can I do with my ORCID?

☐ **No. 56**
The Impact Factor and other journal citation scores

☐ **No. 57**
Apps for learning organic reactions

☐ **No. 58**
ICSD – Inorganic Crystal Structure Database

☐ **No. 59**
Twitter for science: How researchers benefit

☐ **No. 60**
Scite: See if an article has been supported or not

☐ **No. 61**
AlphaFold: Predicting protein structures with AI

☐ **No. 62**
Learn new skills with LinkedIn Learning

☐ **No. 63**
Dimensions – another literature database

☐ **No. 64**
DETHERM for thermophysical properties

☐ **No. 65**
Cytoscape: Analyze and visualize networks

☐ **No. 66**
VOSviewer – visualizing bibliographic networks

☐ **No. 67**
Drug discovery in literature with EMBASE

☐ **No. 68**
Overleaf – A collaborative LaTeX editor

☐ **No. 69**
Preprints – the paper before the paper

☐ **No. 70**
Zotero – open-source reference management

☐ **No. 71**
Genome Analysis with CoGe

☐ **No. 72**
Information Management with Obsidian

22.8.2023

Übersicht Videos Playlists

Coffee Lectures: The 31st Series

▶ Alle wiedergeben

The Coffee Lectures have been held at ETH Zurich since 2013. The 31st series of Coffee Lectures started in February 2024. The presentations will introduce you to databases, tools, and concepts...

PubPharm (Coffee Lecture no. 11)

ICBP ETH Zurich
20 Aufrufe • vor 5 Monaten

PyMol (Coffee Lecture no. 54)

ICBP ETH Zurich
31 Aufrufe • vor 5 Monaten

LinkedIn Learning (Coffee Lecture no. 62)

ICBP ETH Zurich
17 Aufrufe • vor 5 Monaten

ChemSpider (Coffee Lecture no. 26)

ICBP ETH Zurich
20 Aufrufe • vor 5 Monaten

Kudos (Coffee Lecture no. 43)

ICBP ETH Zurich
15 Aufrufe • vor 5 Monaten

EndNote: The most important functionalities (Coffee...

ICBP ETH Zurich
27 Aufrufe • vor 5 Monaten

Coffee Lectures: The 30th Series

▶ Alle wiedergeben

The Coffee Lectures have been held at ETH Zurich since 2013. The 30th series of Coffee Lectures started in October 2023. The presentations will introduce you to databases, tools, and concepts...

ACD/Name – A Nomenclature Tool (Coffee...

ICBP ETH Zurich
60 Aufrufe • vor 9 Monaten
Untertitel

Zotero – Easily Store and Cite Your References (Coffee...

ICBP ETH Zurich
99 Aufrufe • vor 9 Monaten
Untertitel

ICSD – Inorganic Crystal Structure Database (Coffee...

ICBP ETH Zurich
164 Aufrufe • vor 9 Monaten
Untertitel

GrammarlyGo (Coffee Lecture no. 27)

ICBP ETH Zurich
35 Aufrufe • vor 9 Monaten
Untertitel

Science of Synthesis (Coffee Lecture no. 23)

ICBP ETH Zurich
42 Aufrufe • vor 9 Monaten
Untertitel

Knowledge Management with Obsidian (Coffee Lecture no...

ICBP ETH Zurich
103 Aufrufe • vor 9 Monaten
Untertitel

Coffee Lecture User Group

2nd User Meeting: November 2022 in Hannover

Do you need advice or help with coffee lectures?

05.11.2019 General Edit

You may use the comment feature to get in touch with the community, ask questions or give answers and recommendations. There is no need to register. Just provide an e-mail address, which will be not visible to the public. Would you like to open a thread to discuss a new topic? We are happy to provide you with one: please send an informal e-mail to renn@chem.ethz.ch.

Leave a comment

New Institutions with Coffee Lectures

05.11.2019 General Edit

Follow this thread to see which institutions are have recently added Coffee Lectures to their event schedule. Find the full list of institutions here.

View all 28 comments

New publications about Coffee Lectures

95. Universitätsbibliothek Mannheim (as "zwoldreissig")
96. Universitätsbibliothek Marburg
97. Bayerische Staatsbibliothek, Munich
98. Library of Deutsches Museum, Munich
99. Hochschule für angewandte Wissenschaften, Munich, Teilbibliothek Pasing
100. Münchner Stadtbibliothek
101. University Library of LMU Munich
102. Research funding department of FH Münster
103. Universitäts- und Landesbibliothek, Münster
104. Radboud University Library, Nijmegen, The Netherlands
105. Deutsches Historisches Institut Paris
106. Universitätsbibliothek Passau (as Bibtipps)
107. Bibliothek des Wissenschaftsparks Albert Einstein, Geoforschungszentrum Potsdam
108. Bibliothek des Max-Planck-Instituts für Kolloid- und Grenzflächenforschung, Potsdam
109. Health and Medical University Potsdam
110. Universität Potsdam
111. Universum College, Prishtina, Albania
112. OST Ostschweizer Fachhochschule, Rapperswil-Jona/Buchs/St. Gallen
113. Leibniz Institute for East and Southeast European Studies, Regensburg (Kaffeestunde)
114. Hochschule Reutlingen
115. Universitätsbibliothek Rostock
116. NTMN Campus-Bibliothek Saarbrücken
117. Stadtbücherei Schwalbach
118. Paiknam Library & Academic Information Center, Seoul, Korea
119. Bibliothek der Hochschule St. Gallen
120. Universitätsbibliothek Stuttgart
121. Bibliothek der Universität Ulm
122. Lustro Bibliotheki, Warsaw, Poland
123. Bibliothek Veterinärmedizinische Universität Wien
124. Universitätsbibliothek Wien
125. Universität für Musik und darstellende Kunst Wien
126. Hochschul- und Landesbibliothek RheinMain, Wiesbaden und Rüsselsheim
127. Bibliothek des statistischen Bundesamtes Wiesbaden
128. Bibliothek der TH Wildau
129. Jade Hochschule Wilhelmshafen Oldenburg Elsfleth
130. Universitätsbibliothek Wuppertal
131. Würzburg University Library
132. Bibliothek der Eidgenössischen Hochschule für Berufsbildung, Zollikofen (as «WorkSmart»)
133. Hauptbibliothek der Universität Zürich
134. Pädagogische Hochschule Zürich
135. ETH-Bibliothek Zürich
136. Informationszentrum Chemie | Biologie | Pharmazie der ETH Zürich
137. Zentralbibliothek Zürich
138. Medien- und Informationszentrum der Zürcher Hochschule der Künste, Zürich

You are not on the list but would like to be included as an institution giving Coffee Lectures?

Please send an e-mail to Oliver Renn (renn@chem.ethz.ch) with the URL of your institution.

ETH zürich

infozentrum.ethz.ch
Chemie | Biologie | Pharmazie

Chemistry | Biology | Pharmacy Information Center's

Research Group Seminar Menu Card 2023

Chefs de Cuisine
Dr. Leo Betschart
Dr. Gina Cannarozzi
Dr. Jozica Dolenc
Andrej Kilian
Dr. Oliver Renn

For orders contact renn@chem.ethz.ch

Starters

Mix and match: Choose at least one of the following 10-min starters.
Some starters can also be upgraded to a main course upon request.

Be alerted! Stay up-to-date in your field using e-notifications
Sign up for eTOCs of your favorite journals and create specific alerts in Scopus and others

Browser Plug-ins that make information retrieval and management easy
Get to know Scite, Unpaywall, LibKey Nomad, and others

Research metrics. For better or worse?
Would you like to know your h-index (Scopus), your altmetrics scores (Altmetric), or find information about peer-review (Publons)?

Join the CIRCOS!
Learn how to use CIRCOS, the software for visualizing data and information in a circular layout

Know it all with KnowItAll: A database with over 2 million spectra
How to access various spectra of organic and inorganic compounds and polymers

Get certificates from the Elsevier Researcher Academy
Free interactive, self-paced e-learning for each step of your research process, from writing to outreach

Browzine – your journal library on your device
Easily catch up with new articles published in your favorite journals

Dimensions Analytics
The latest addition to ETH Zurich's portfolio of Abstract & Indexing Databases – connected to Altmetric Explorer

Organic hors-d'oeuvre with Science of Synthesis and eEROS
Explore reactions by structural motif, methodology or reagents/catalysts used

Where to look up or confirm journal titles and abbreviations
Use CASSI and other resources to quickly search for publication information

Searching crystal structures of small molecules
Learn how to search for organic, metal-organic and inorganic crystal structures in Cambridge Structural Database and in Inorganic Crystal Structure Database Web

Preprint servers
Learn about preprint servers, how to use them, and what you can do with them (BioRxiv, ChemRxiv, MedRxiv & arXiv)

DrugBase & MedicinesComplete – two portals for pharmaceutical information
Get a quick overview on what you can retrieve using these database portals

We want you to work smarter!

Main Courses

Mix and match: Choose among the topics – with any combination of starters.

Tips & tricks in academic writing
From structuring to publishing a manuscript

Reaxys – the chemistry information solution, for advanced users
Special topics training based on your request

SciFinder – the comprehensive chemistry database, for advanced users
Special topics training based on your request

SpringerMaterials
The world's largest resource of curated data from materials science, physics, chemistry, and engineering, including enhanced data visualization functionalities

Basics in protein structure
A demonstration on where to obtain structural information about proteins

Using the full power of Scopus
Scopus is much more than the largest literature database; it has many features for analysis, visualization, information extraction and alerting.
We will show you when making the additional clicks is worth it.

The parallel universe of patents
There is a lot of information in patent application and files – and we show you how to find them (Espacenet, USPTO, Google Patents)

Embase versus PubMed
Use the MeSH and Emtree thesauri to find precise and relevant information in life sciences

Crash course in genomics tools
Sequencing, annotation, visualization and analysis

Gene family-based analyses
Sequence searching, multiple sequence alignment, phylogeny, primer design

Comparative Genomics with CoGe
Quickly and easily compare your genome to over 50,000 others; it works for genes too!

Physical and chemical data from NIST databases
NIST provides 49 free and 41 fee-based databases with reviewed data from chemistry, physics, engineering and material sciences

DETHERM
Learn about this continuously growing database containing experimental thermophysical property data for over 60'000 pure compounds and 160'000 mixtures

Our Specials

Specials are topics you cannot find elsewhere or are tailored to ETH Zurich needs.

Knowledge Organization: How to easily build a journal club from available ETH Resources
With ETH Zurich's free WordPress hosting you can set up journal clubs or other internal and external information exchange platforms easily

CLICAPS, swisscovery, ETH swisscovery: What is the difference?
How not to get lost in too many library catalogues and why you need a SWITCH edu-ID

Cortellis Drug Discovery Intelligence – a pipeline database for drug discovery
Pipeline databases are crucial for researchers in the pharmaceutical industry – at ETH Zurich you have access to such a database!

Increase the outreach of your paper with Kudos
Use the Kudos platform to spread the word about your published research

Open Access, Open Science, research data management and copyright
Learn about the future of scholarly communications and get your copyright-related questions answered

Desserts

Although science is supposed to be very serious, we also offer some short lectures that are particularly entertaining and light.

Basics in design
What you need to know to create appealing posters, flyers, and brochures

Trends analyses with Google and Scopus
Would you like to know what others are interested in, what is a trend or what could become one?

Fun fact: Generating fake papers within seconds
We show you our secret PaperGenerator based on famous MIT's SciGen

Predatory publishers and conferences
Were you just invited to give a keynote lecture at a "famous" conference or was this just a scam? And is this new journal that wants your article for a reasonable open access fee legit?

Protein secondary structure predication
Do you know how to do it without a computer?

Can't find your favorite topic? Just let us know when we discuss your menu with you.

Lehre

Unsere Vorlesungen sind meist in Laborpraktika integriert

4 Vorlesungsstunden im Frühlingssemester

80 Vorlesungsstunden im Herbstsemester

ETH zürich

infozentrum
Chemie | Biologie | Pharmazie

Want fewer hours in the lab?
Enroll in the course with the longest title!

Scientific Information Retrieval & Management in Life Sciences and Chemistry (529-0195-00L)

Without the course

Your lab hours

You know about

- Google
- Google Scholar

With the course ✓

Your lab hours

You know about

- Scholarly communication & publishing ✓
- Searching & retrieving information ✓
- Tools for analyzing scientific information ✓
- Tools for managing scientific information ✓
- Tools for sharing scientific information ✓
- Patents ✓
- Data and text mining ✓
- 2D und 3D visualization of molecules ✓
- Scientific writing ✓
- Outreach and research metrics ✓
- 2 ECTS ✓

D CHAB D BIOL D MATL

About the course

The course Scientific Information Retrieval & Management in Life Sciences and Chemistry (course number 529-0195-00L in ETH Zurich's course catalog) is taught every fall semester. It is tailored to doctoral students in chemistry, life sciences, material science and health science but is open also to students from other disciplines and Master's students. It is open also to students from University of Zurich and has also been tailored to the needs of the **Life Science Zurich Graduate School.**

The course features a multi-level approach to scientific information. On one hand, we show the big picture, discussing aspects like scientific writing and publishing, critical choice of data sources, patents, visualization and design, data pipelining and knowledge generation, outreach and impact of publications. On the other hand, we highlight an extensive list of field-proven tools and databases that can assist researchers in their day-to-day activities.

Your lecturers

Jozica Dolenc
PhD in chemistry, 7 years research experience in physical chemistry and biomolecular simulations at ETH Zurich, 10 years experience in information science.

Oliver Renn
PhD in chemistry, 7 years research experience in bioinorganic, bioconjugate and organometallic chemistry, 7 years in STM publishing, 9 years in information science in pharmaceutical industry

Leo Betschart
PhD in chemistry, 7 years research experience in synthetic organic chemistry at ETH Zurich and UBC Vancouver, 5 years experience in information science

What doctoral students say who took the course:

The course had quite an impact on my working principles

Will make the difference during my life as PhD student and during my future career

Resulted in a much more effective use of my time

The concepts introduced (...) about retrieval of information, text mining, scientific writing and about different databases help in every stage of a doctoral program

Perfect overview on what a PhD student should know

Makes a great impact to my scientific work at ETH Zurich

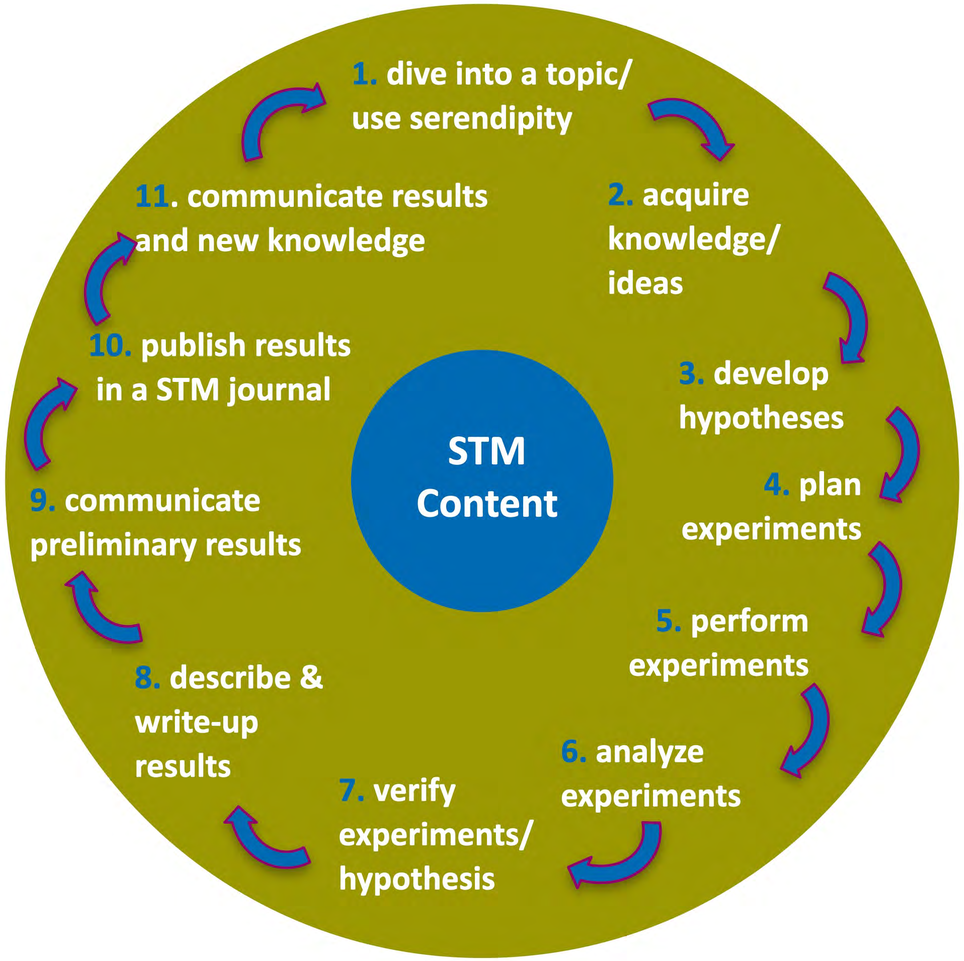
Rather astonished by the number of tools never heard about

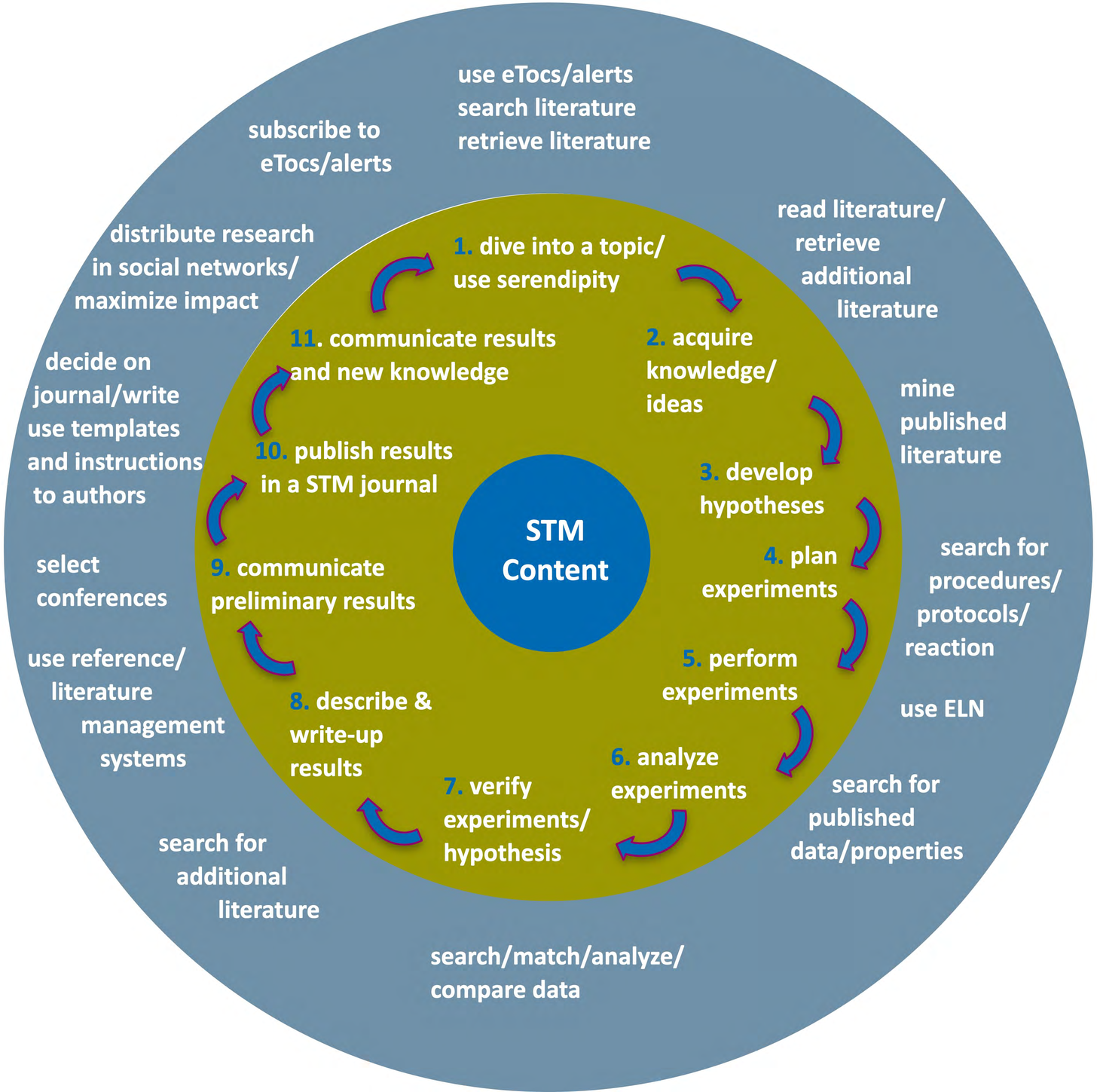
How little things can change your PhD life

Great overview of productivity tools/hacks

Immediately impacted my research

2 ECTS PhD Course
Information Retrieval and Management in Chemistry and Life Sciences




STM Content
1. dive into a topic/ use serendipity
2. acquire knowledge/ ideas
3. develop hypotheses
4. plan experiments
5. perform experiments
6. analyze experiments
7. verify experiments/ hypothesis
8. describe & write-up results
9. communicate preliminary results
10. publish results in a STM journal
11. communicate results and new knowledge
use eTocs/alerts
search literature
retrieve literature
read literature/ retrieve additional literature
mine published literature
search for procedures/ protocols/ reaction
use ELN
search for published data/properties
search/match/analyze/ compare data
search for additional literature
use reference/ literature management systems
select conferences
decide on journal/write use templates and instructions to authors
distribute research in social networks/ maximize impact
subscribe to eTocs/alerts

Scopus, Web of Science
Reaxys
SciFinder
Google Alerts
RSS Reader, LinkedIn
ResearchGate
Mendeley, APCs

Kudos, Overleaf
Altmetrics
Bibliometric
Impact factor
Open Access
Linked Data
Open Data
Beall's list
h-index
Archives
Endnote
Mendeley
Citavi
Papers
Reference Manager
Refworks
Patents
Patent Databases

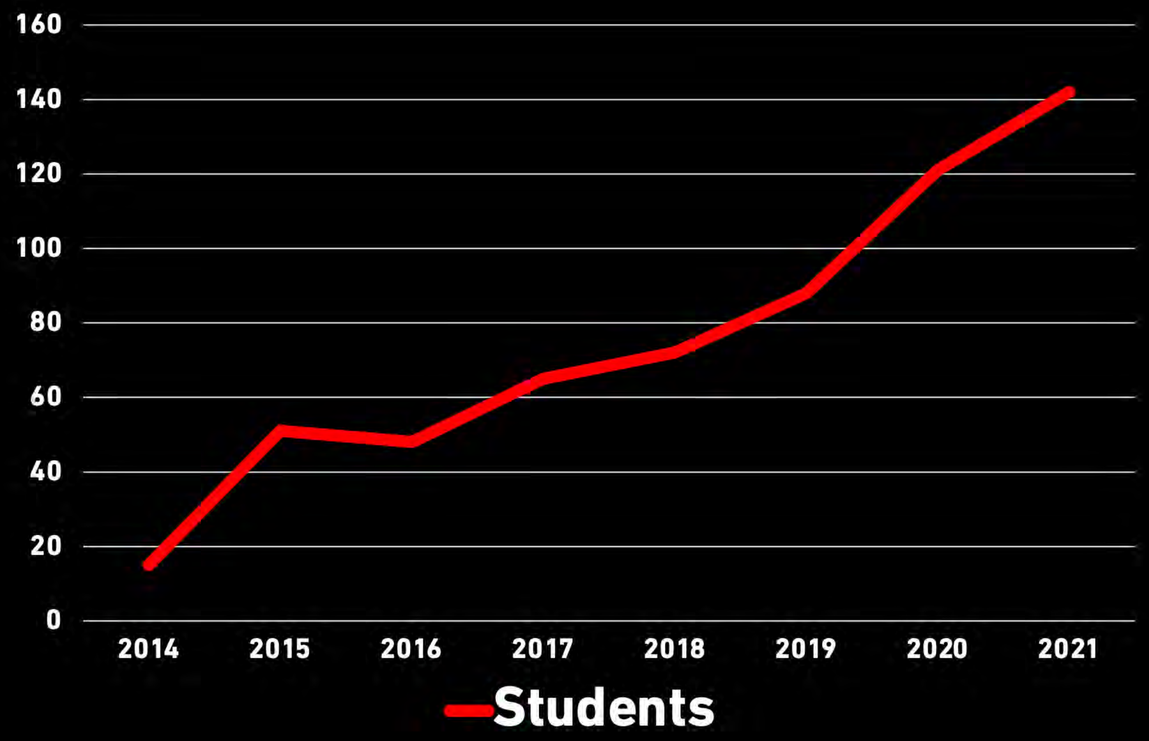
Copyright
Plagiarism
Good Scientific Practice
Ethical Guidelines, ELN

Library Catalogues, NEBIS, CLICAPS, Google, Google Scholar, Bing, Scopus, Web of Science, PubMed, DOI, OpenURL , Open Access Publishing, DocDel
iScience Search
PubChem
Quetzal, MeSH
Quosa, Luxid, I2E
Endnote
Mendeley
Citavi
Papers
Reference Manager
Refworks
Reaxys
SciFinder
SOS
RRR
ChemSpider
Integrity
Utopia Reader
Springer Materials
EHS, iHop, Quertle
KnowItAll Anyware
KNIME, Pipeline Pilot
Reflect, GeneValorization

- The world of scientific publishing & communication
- Searching & retrieval using search engines and literature databases
- Searching & retrieval with tools in chemistry
- Searching & retrieval with tools in life sciences
- Tools for analyzing, managing & sharing information
- Patent information
- Text Mining
- Scientific writing & Good Scientific Practice
- Visualizing molecules in 2D and 3D
- Communicating & analyzing the impact of science

No. of students in the course

Scientific Information Retrieval & Management in Life Sciences and Chemistry



D-CHAB (55)	D- BIOL (14)
D-HEST (35)	D-MATL (13)
D-USYS (4)	D- BSSE (11)
D-ITET (1)	
USZ (6)	Master (3)

How do we do it?

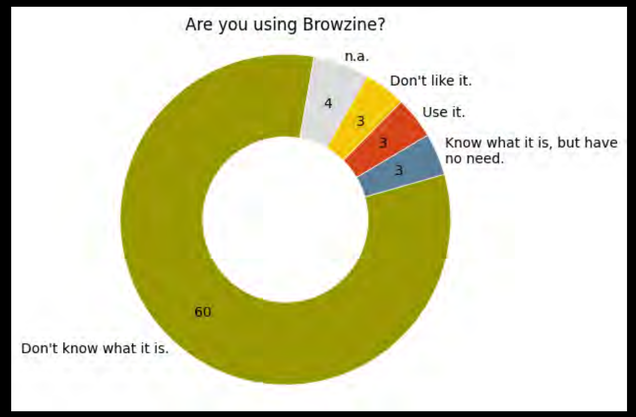
How do we do it – soft factors

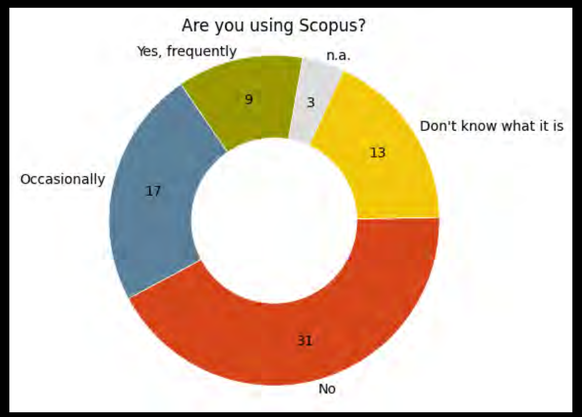
- Certain sense of humor (entertaining but serious)
- Knowledge of the research processes

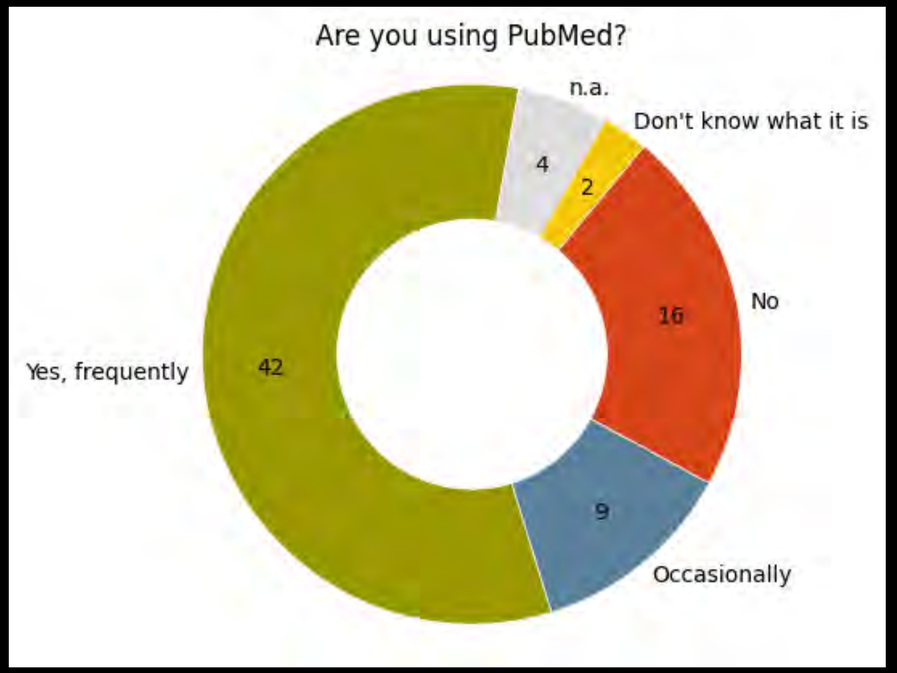
How do we do it – Hard factors

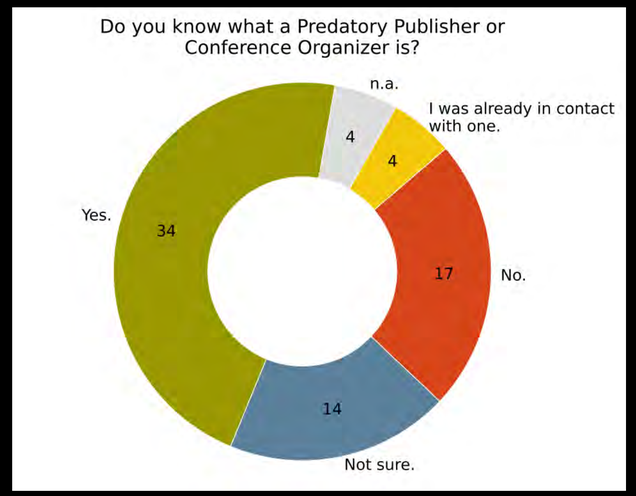
- >2000 PowerPoint slides
- Practical demos, based on an analysis of the research topics of the attendees
- Course contents adjusted based on a introductory Kahoot quiz at the beginning.
- IT Tools support interactivity and learning
- Summary Sheets for each course unit

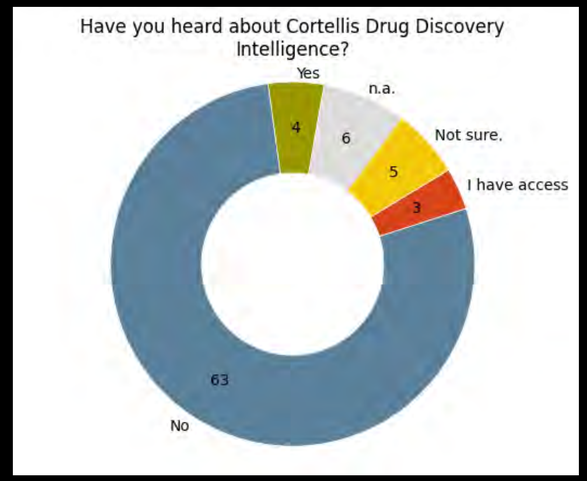

Where do you come from?
skip
16
2
Answers
Master at African university.
Master at European university
Master at an American or Australian university
Master at Asian university
kahoot.it Game PIN: 828480
CREW

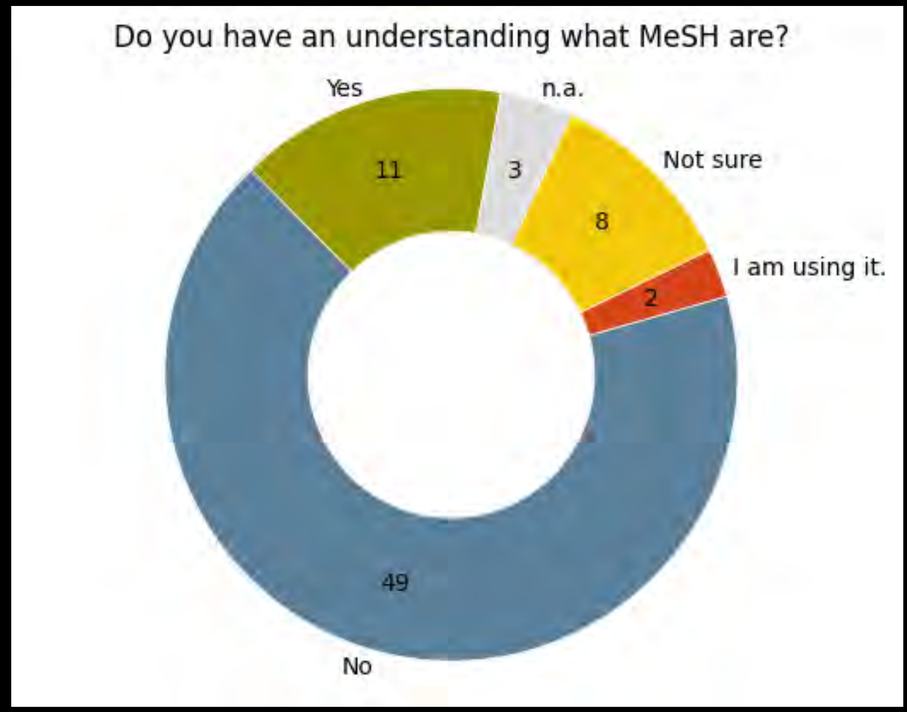

Are you using Browzine?
n.a.
Don't like it.
Use it.
Know what it is, but have no need.
Don't know what it is.
4
3
3
3
60

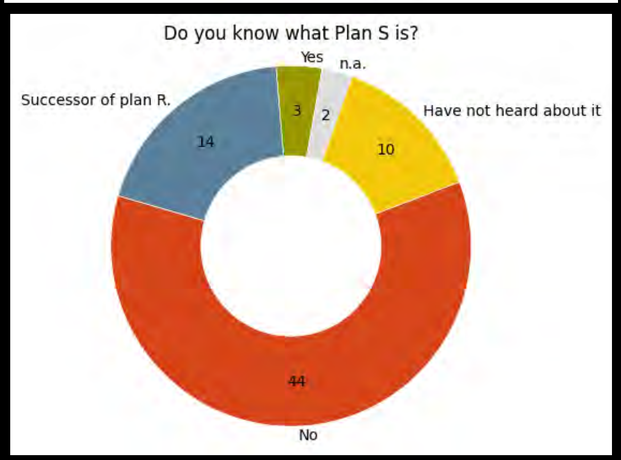

Are you using Scopus?
Yes, frequently
n.a.
Don't know what it is
Occasionally
No
9
3
13
17
31

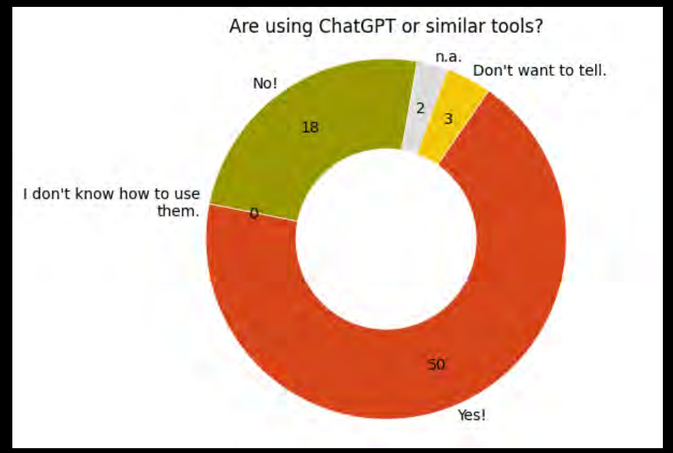

Are you using PubMed?
n.a.
Don't know what it is
No
Yes, frequently
Occasionally
4
2
16
42
9

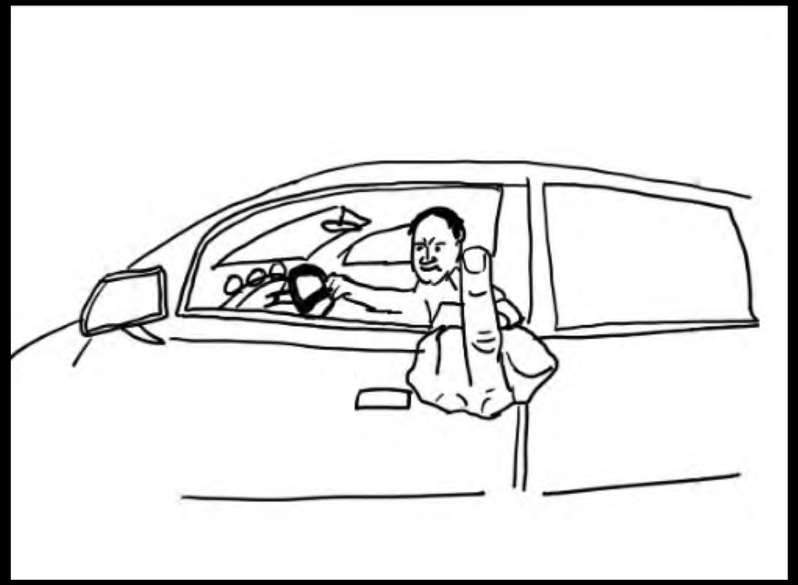

Do you know what a Predatory Publisher or Conference Organizer is?
n.a.
I was already in contact with one.
Yes.
No.
Not sure.
4
4
34
17
14

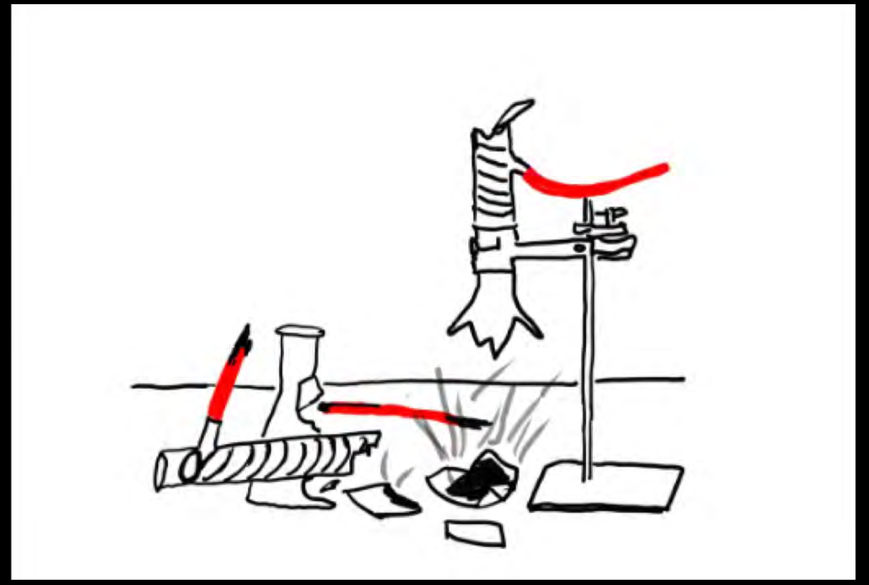

Have you heard about Cortellis Drug Discovery Intelligence?
Yes
n.a.
Not sure.
I have access
No
4
6
5
3
63

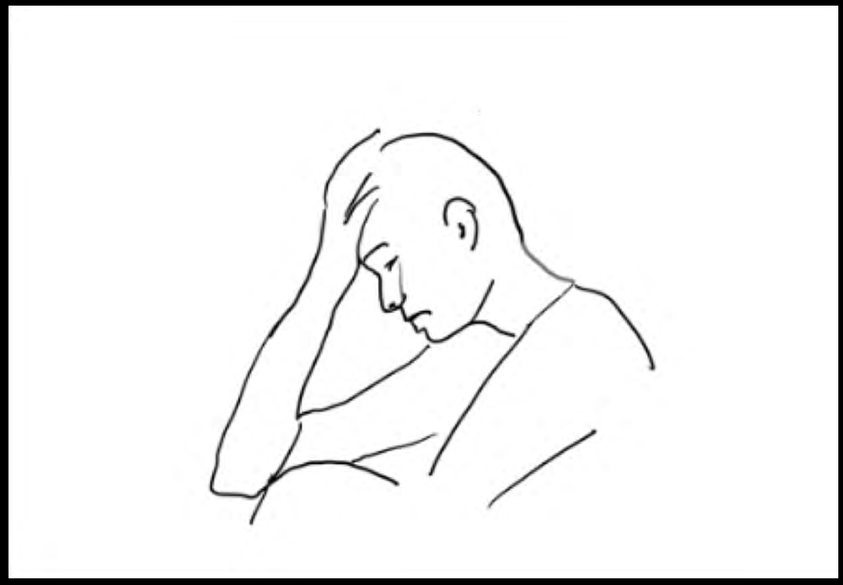

Do you have an understanding what MeSH are?
Yes
n.a.
Not sure
I am using it.
No
11
3
8
2
49

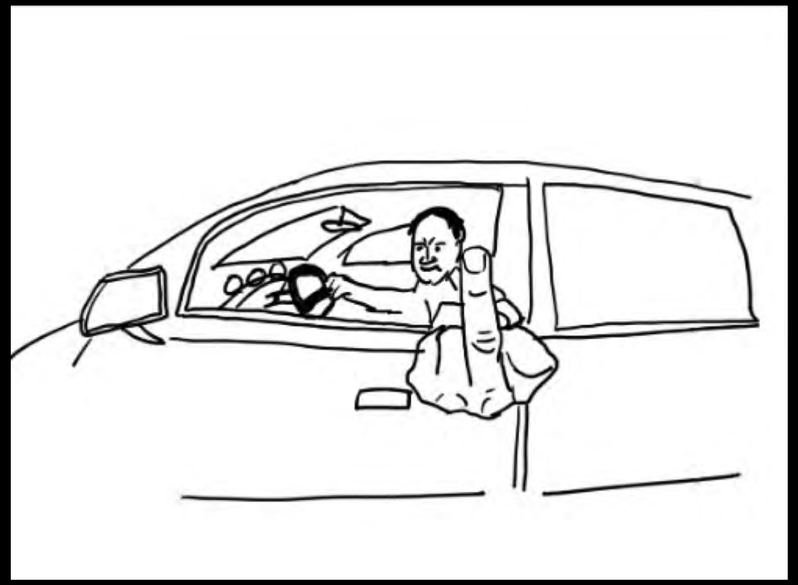

Do you know what Plan S is?
Yes
n.a.
Successor of plan R.
Have not heard about it
No
3
2
14
10
44


Are using ChatGPT or similar tools?
n.a.
No!
Don't want to tell.
I don't know how to use them.
Yes!
2
18
3
0
50



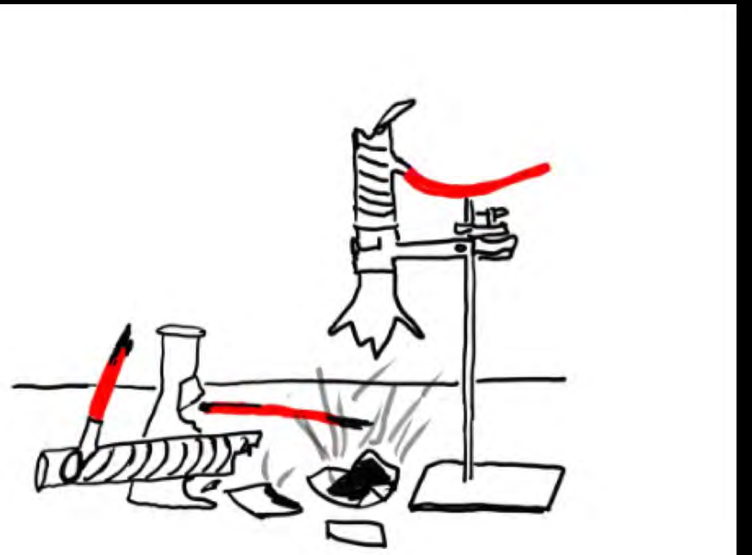






Road Rage

Extreme anger generated from a traffic incident or accident that leads to an assault with a motor vehicle or other dangerous weapon by the operator or passenger(s) of one motor vehicle on the operator or passenger(s) of another motor vehicle.
Parent Heading: Automobile Driving
Parent Heading: Dangerous Behavior
Parent Heading: Rage



Negative Results

Subject matter related to research studies in which the data do not demonstrate any clear evidence of effect, especially if an effect was expected.
Parent Heading: Data Collection

Sadness

Feeling or showing sorrow; the sense of being unhappy. It is related to DEPRESSION but is not synonymous.
Parent Heading: Emotions

F5 What did you like most about the course? (Contents, teaching style, ...)

#	BEANTWORTUNGEN	DATE
1	I really enjoyed the course. I felt like you had fun teaching us so it was fun to listen and learn. Thank you for this course!	1/30/2024 11:20 AM
2	The content was amazing and comprehensive.	1/30/2024 10:17 AM
3	Content, superb organisation and preparation of the lecturers	1/30/2024 9:48 AM
4	Insights on literature search and chemistry databases. presentations were of high quality.	1/25/2024 8:46 AM
5	That the lectures were structures with some fun facts and jokes that always kept me listening	1/24/2024 9:35 PM
6	I really like the classroom atmosphere and learning useful knowledge in a relaxed environment.	1/24/2024 9:00 PM
7	the overviews	1/17/2024 6:34 PM
8	Everything was of the highest standards, and I believe that this should be a mandatory course for PhDs. This is because the number of available tools and databases becomes simply overwhelming without proper guidance.	1/15/2024 11:15 AM
9	the build-up structure and additional side information e.g. about start-ups	1/9/2024 1:28 PM
10	Teaching style	1/9/2024 1:18 PM
11	Teaching style :)	1/9/2024 12:25 PM
12	I liked the teaching styles with some nice anectodes, but perhaps sometimes they were too many and made the course feel like it was not going forward.I like the access to the moodle sheet, I will most probably come back to them multiple times during the PhD. It is THE course to prepare yourself for a PhD !	1/9/2024 9:56 AM
13	Well summarized lecture and delivery	1/9/2024 9:30 AM
14	Contents (except chemistry specific parts), that I was able to take the course mainly online...	1/9/2024 9:17 AM
15	Style of teaching, demos, broad overview	1/9/2024 9:06 AM
16	Variety of tools and databases that were demonstrated	1/9/2024 9:06 AM
17	I enjoyed the live-demos a lot.	1/9/2024 8:16 AM
18	patents	1/8/2024 10:22 PM
19	The content was very thorough and the slides are a great resource to come back to and find the right tools. I also really enjoyed the teaching style because it was very humorous and easy to follow.	1/8/2024 8:34 PM
20	I liked most the coverage of different scientific databases (alternatively to NCBI PubMed) and the usage of (different) AIs to assist in research.	1/8/2024 8:18 PM
21	The amount of tools presented and how they were grouped (made sense).	1/8/2024 7:01 PM
22	Live demos of databases	1/8/2024 6:34 PM

Your Feedback on our Fall Semester 2023 Course 529-0195-00 Scientific Information Retrieval and Management in Life Science and Chemistry SurveyMonkey

F6 And what did you like less? (Contents, teaching style, ...)

#	BEANTWORTUNGEN	DATE
1	The fact that it started in the afternoon which makes it difficult to focus for me	1/30/2024 9:48 AM
2	Mostly the specific chemistry parts as I really did not have any relation to it	1/24/2024 9:35 PM
3	nothing now	1/24/2024 9:00 PM
4	the part of patent is boring I think.	1/24/2024 6:08 PM
5	chemistry-focused lectures, but I understand why they were there	1/17/2024 6:34 PM
6	N/A	1/9/2024 1:18 PM
7	SOme of the contents	1/9/2024 12:25 PM
8	Some of the more specific topics covered (websites, programs) were not relevant to me at all- still interesting to hear, but simply not relevant, and when it's the second of third lecture like that it is a bit boring.	1/9/2024 9:35 AM
9	Everything was informative	1/9/2024 9:30 AM
10	Sometimes it was a lot of information and many slides in a short time.	1/9/2024 9:17 AM
11	it would have been a more helpful course in my first year of PhD, at this point I've been to a few info events covering many of these topics	1/9/2024 9:06 AM
12	Quite dense, sometimes hard to remember what all the tools and databases were. Maybe a summary of all tools and databases presented in the course would be nice (in one document, with their specific strengths and weaknesses)	1/9/2024 9:06 AM
13	Sometimes, it was a lot of information....	1/9/2024 8:16 AM
14	The chemistry parts were really not of much use to me	1/8/2024 8:34 PM
15	In my opinion, the practical application of patent knowledge may not be immediately relevant. I believe that for many individuals, this information is more of a "nice-to-know" rather than a highly valuable asset. This is due to the fact that only a limited number of people either register patents or do so much later in life, making it likely that they may not recall the specific content of a patent-related course.	1/8/2024 8:18 PM
16	The amount of slides is somewhat overwhelming.	1/8/2024 7:01 PM
17	Some examples took too much time	1/8/2024 6:34 PM

Wir wollen die Qualität und den Wert der Vorlesung maximieren.

Jedes Jahr.

A Smart Course.

Information on the Mandatory Essay of the 2023 Course "Scientific Information Retrieval & Management in Life Sciences and Chemistry"

Choose any of the three options outlined below and submit your work by **January 8, 2024**. For each option, write about **4000 to 6000 characters** (including spaces). **Send your essay to renn@chem.ethz.ch as a PDF file**. Please name the file as follows: *2023_Essay_Option_X_Lastname_Firstname.pdf*.
For X, insert 1, 2 or 3 – depending on what option you choose. On the first page, write your name, your department, your principal investigator, and the title of your option (see below):

> **John Doe, D-ABCD, Name of PI**
> **Option 1: Shortly describe your current information workflow.**
>
> Lorem ipsum dolor sit amet, consectetur adipiscing elit. Aenean luctus orci a lobortis pellentesque. Proin eget augue scelerisque, pretium sapien quis, sollicitudin urna.

Option 1: Shortly describe your current information workflow.

Provide a **rough overview** of how you manage your scientific information and describe a walk-through of your information life-cycle process. Tell us about the software, tools and databases that help you to get through everyday life and how the course impacted this. Do you use databases or tools that are not listed on our website at "Databases" or "Tools"? When writing, consider the following steps of the research cycle:

- *Information Retrieval*
- *Updates/Alerts*
- *Literature Management*
- *Information Aggregation & Analysis*
- *Lab Notebooks/Note Keeping*
- *Data Processing*
- *Writing/Publishing*
- *Presenting/Promoting*

Begin by giving a **three-sentence-summary of your research**, so that we can better understand your perspective. Towards the end of your essay, **analyze** the aspects you would most like to improve upon. **Reflect** on the content of the course and try to **suggest** possible improvements for your personal information workflow.

Option 2: Describe the information needs that were fulfilled by something you learned in the course.

Did you learn about a new tool, a new database, or a new software in this course, and did you start successfully using it? Tell us how this tool, database or software made an impact on your research or related work and how the course impacted this. Begin by giving a **three-sentence-summary of your research**, so that we can better understand your perspective.

Option 3: Describe any of your information needs that remain unmet.

Tell us about your needs that remain unmet when dealing with scientific information or data. What would you love being able to do, but – to your knowledge – there is no way to address this specific challenge. Begin by giving a **three-sentence-summary of your research**, so that we can better understand your perspective. When describing the unmet needs, please provide specific details of the problem(s).

[redacted], D-CHAB, Prof. Dr. Detlef Günther

Option 2: Describe the information needs that were fulfilled by something you learned in the course

Quality of Life Changes with Scopus

In analytical chemistry, argon based inductively coupled plasmas are frequently used as ion source for mass spectrometry. However, the large consumption of high purity argon gas makes the plasma operation quite expensive. I am thus investigating a nitrogen sustained microwave inductively coupled atmospheric pressure plasma as a greener and more cost-effective replacement for the conventionally used argon plasma.
Since my research involves element analysis, my general way to find scientific information was by looking for the analytical method, an effect, or the element of interest in Google Scholar and employing search operators. Although refining the many results and retrieving the document was time consuming, it was still manageable. When the database Scopus was introduced in the course, I wanted to try it out due to its clearly structured user interface and the possibility to easily refine the search query. This decision would result in Scopus becoming my default database to search for scientific information.
I found Scopus quite intuitive since the search function is similar to Google Scholar with the advanced search option and the search operators. However, the results can be refined more quickly by using the given filters. As I often use the same criteria (subject area, keyword, source title, year, and author name), I customized the refinement process by re-arranging the filter list to better accommodate my needs. Another feature in Scopus that I appreciate is the possibility to show the abstracts of the search results since the titles are sometimes too generic and not indicative of the content. By being connected through a virtual private network to ETH, the found documents can be retrieved directly from Scopus with an informative automatically generated pdf file name. This is more time efficient than having to look through multiple pages of Google Scholar search results, visiting many publisher sites and renaming the downloaded file as I did before. Additional Scopus features that I benefit from are direct links from the site of a document to many used references, citing documents, author profiles and source titles. To remain up to date with the research in my field, I set up citation alerts for key documents, authors related to my research and search alerts for well-defined queries. I also generated lists of the most important sources and authors in my research field to help me keep an overview and evaluate which journals I should keep an eye out in Browzine or by eTOCs and Scopus alerts. Furthermore, the author profiles and the source title pages are full of useful information such as key performance indicators, number of citations and documents per year. I found the ability to compare different journals especially convenient when I was deciding on a journal to submit my research. Even though the CiteScore of Scopus is not identical to the traditional journal impact factor produced by Clarivate Analytics, the citation based impact factor generated by Elsevier is still a good alternative and is much more accessible since it is available on the list of sources or the individual source title page on Scopus. Similarly, the h-index as the personalized impact factor based on the number of documents and citations in a database is also integrated in Scopus and can be seen on the author profiles.
Considering all those functions it is no wonder that my way to look for scientific information has changed. Scopus introduced many helpful features such as the ability to quickly refine the query and display the abstract, the recognizable name of a downloaded pdf, as well as the links to the references and citing documents which facilitate the process to gather information. Additionally, it is very useful to have the possibility to save searches, set alerts and make lists. In general, Scopus is a platform on which information can be searched, retrieved but also analysed while staying up to date with the research. It incorporates multiple aspects that were presented throughout the course and is thus an ideal tool to implement what was taught. Even though the changes are small, together they result in time savings, less stress and thus in an improved information workflow.

[redacted]ublic and Global Health - Infection Diseases – EBPI – UZH,
Patricia Schlagenhauf

Option 2: Describe the information needs that were fulfilled by something you learned in the course.

I am a trained physician, and I am currently doing my PhD in epidemiology and biostatistics at the Institute of Epidemiology, Biostatistics and Prevention at the University of Zurich. My PhD thesis is about respiratory diseases in travellers. We are developing an application that tracks the symptoms of our patients while travelling and aims to change the clinical approach in travel medicine. Recently, I have been particularly interested in emerging viral infections such as Covid-19.

Because knowledge on this topic changes rapidly, I must constantly review the literature to find the latest relevant findings that could inform my research. Like most of my colleagues in the health sciences, I have learned to use PubMed as my primary biomedical search engine. Its broad coverage and free access are convenient. In addition, the ability to search using MeSH terms with predefined synonyms allows professionals to search directly for meaning rather than just a combination of words. This tool is an enormous time-saver when it comes to searching for relevant answers to a specific clinical question.

During your course, I was fortunate to discover another biomedical research database, Embase. I appreciate the fact that this database includes all Medline journals and more, which maintains the broad coverage that I look for in a medical database. Emtree follows the same logic as MeSH terminology but takes that functionality a step further. I find that the terminology is specified in a more natural order and includes more specific medical terms. For example, I searched for a specific type of leukemia and that specific disease was directly available as an Emtree term in Embase. On the other hand, in PubMed, MeSH terms force the user to select the leukemia condition and cellular disease groups separately, resulting in fewer relevant articles being found.

When searching for a medical procedure that used a specific medical device (e.g., endoscope, arterial catheter, etc.), I kept running into difficulties because many of these devices were not available as MeSH terms in PubMed. I always had to think of the different synonyms and associate them with the correct Boolean to my searches, which took a lot of extra time. Hopefully, Emtree takes these specific medical devices into account often and allows for more efficient searches.

I like the different filters that can be applied to our searches. In Pubmed, we have quick access to the date and year of publication, but to apply an advanced search filter we must click an additional button and the features are limited. In Embase, I like that almost everything is directly accessible in the sidebar, and that you can search by disease. This is especially handy if you are looking for the side effect of a drug or vaccine.

I also enjoy the "Source" button, which gives us a quick overview of the different types of databases our publications come from. In comparison, I have found that the European literature is retrieved much more frequently in Embase than in PubMed. This is probably because the database covers more European journals.

Funktioniert das?

Kompetenzraster Informationskompetenz

	Lernziele	Einsteigende	Fortgeschrittene	Experten
Bedarf	definiert und artikuliert den Informationsbedarf bezüglich eines festgelegten Zwecks	erkennt und beschreibt seinen aktuellen Informationsbedarf	ermittelt und dokumentiert den Informationsbedarf für eine definierte Aufgabe	bestimmt den Informationsbedarf für ein festgelegtes Projekt und entwickelt dazu ein Begriffskonzept
	versteht die Ausrichtung, den Umfang und die Eignung von verschiedenartigen Informationsquellen	nennt unterschiedliche Informationsquellen und beschreibt deren Inhalt	unterscheidet die verschiedenen Informationsquellen gemäss Ausrichtung und Umfang	vergleicht verschiedene Informationsquellen bezüglich deren Eignung und Angemessenheit
	selektiert und nutzt unterschiedliche Informationsquellen als Entscheidungshilfen	nutzt geeignete Informationsquellen zur Deckung des Informationsbedarfs	trifft eine begründete Wahl der Informationsquellen und setzt sie ihrer Eignung entsprechend ein	trifft eine begründete Wahl der geeigneten Informationsquellen und nutzt diese vergleichend
Beschaffung	findet Informationen mittels effizienter Methoden oder Werkzeuge	nutzt verschiedene Werkzeuge oder Methoden zur Informationsrecherche	trifft eine begründete Wahl der verschiedenen Werkzeuge oder Methoden zur Informationsrecherche	trifft eine begründete Wahl der Methoden oder Werkzeuge und nutzt diese vergleichend
	erstellt und führt effektive Suchstrategien durch	erklärt die Grundlagen unterschiedlicher Suchstrategien und wendet diese an	führt Suchstrategien unter der Nutzung spezifischer Werkzeuge durch und dokumentiert diese	erstellt einen Rechercheplan gemäss Informationsbedarf und dokumentiert das Vorgehen sowie den Verlauf
	nutzt geeignete Methoden um Informationen zu erhalten	nutzt das lokale Angebot zur Beschaffung von Informationen	nutzt verschiedene Methoden zur Informationsbeschaffung und begründet das Vorgehen	beurteilt verschiedene Wege zur effizienten Informationsbeschaffung unter Berücksichtigung ökonomischer Gesichtspunkte

Kompetenzraster Informationskompetenz

	Lernziele	Einsteigende	Fortgeschrittene	Experten
Bewertung	definiert Kriterien zur Bewertung von Informationen und wendet diese an	beurteilt die Informationen nach vordefinierten Kriterien	trifft eine begründete Wahl der Bewertungskriterien und wendet diese an	beurteilt bestehende Bewertungskriterien und definiert sie bei Bedarf neu
	beurteilt die Nützlichkeit der erhaltenen Informationen	beurteilt die Nützlichkeit der erhaltenen Informationen bezüglich Relevanz	beurteilt die Nützlichkeit der erhaltenen Informationen bezüglich Qualität	beurteilt die Nützlichkeit der erhaltenen Informationen bezüglich Vollständigkeit
	legt die Art und das Ausmass des Informationsbedarfes neu fest	entscheidet, ob zusätzliche Informationen notwendig sind	stellt die Deckung des Informationsbedarfs fest und begründet die Nutzung weiterer Informationsquellen	überprüft regelmässig Art und Ausmass des Informationsbedarfs und passt das Begriffskonzept an
	beurteilt das Vorgehen zur Informationsbeschaffung und passt die Suchstrategien bei Bedarf an	überprüft das Vorgehen und modifiziert die Suchstrategien	überprüft das Vorgehen und erarbeitet bei Bedarf neue Suchstrategien	beurteilt das Vorgehen sowie den Verlauf und überarbeitet den Rechercheplan
Organisation	selektiert und erfasst Informationen und ihre Quellen	erfasst Informationen und ihre Quellen mit einfachen Methoden	erfasst Informationen und ihre Quellen mit digitalen Werkzeugen	erfasst Informationen und ihre Quellen mit kollaborationsfähigen Werkzeugen
	ordnet, klassifiziert und speichert Informationen mit geeigneten Methoden	nutzt verschiedene Möglichkeiten zur Organisation und Speicherung von Informationen	klassifiziert Informationen mit geeigneten Methoden	verwaltet und aktualisiert Informationen systematisch und nachhaltig nach spezifischen Ordnungskriterien
	tauscht Informationen mit andern aus	tauscht Informationen innerhalb einer Studiengruppe aus	tauscht Informationen unter Nutzung von Informationstechnologien aus	nutzt kollaborative Netzwerke für den Informationsaustausch
	hält den Wissensstand bezüglich Informationsquellen, Informationstechnologien und Recherchemethoden aktuell	hält den Wissenstand bezüglich selektierter Informationsquellen aktuell	informiert sich regelmässig über die aktuellen Recherchemethoden	beobachtet die Entwicklung der Informationstechnologien und überprüft deren Nützlichkeit

Kompetenzraster Informationskompetenz

	Lernziele	Einsteigende	Fortgeschrittene	Experten
Anwendung	verwendet bestehende und neue Informationen zur Erzeugung von neuem Wissen oder eines neuen Produktes	integriert das neue Wissen oder das neue Produkt in eine Studienarbeit	integriert das neue Wissen oder das neue Produkt in eine wissenschaftliche Arbeit	integriert das neue Wissen oder das neue Produkt in eine wissenschaftliche Fachpublikation
	kommuniziert das neue Wissen oder das neue Produkt effektiv	kommuniziert das neue Wissen oder das neue Produkt effektiv innerhalb einer Studiengruppe	kommuniziert das neue Wissen oder das neue Produkt mit geeigneten Mitteln für spezifische Zielgruppen	diskutiert das neue Wissen oder das neue Produkt innerhalb einer Fachgemeinschaft
	überprüft die Erzeugung und die Kommunikation des neuen Wissens oder neuen Produktes	dokumentiert die Erzeugung des neuen Wissens oder neuen Produktes	analysiert und beurteilt die Erzeugung und die Kommunikation des neuen Wissens oder neuen Produktes	überprüft die Wirkung der Fachpublikation und optimiert das Vorgehen
Verantwortung	berücksichtigt kulturelle, ethische und sozialwirtschaftliche Umstände bezüglich der Verwendung von Informationen	berücksichtigt ethische Umstände im eigenen kulturellen Umfeld	berücksichtigt kulturelle und ethische Umstände im internationalen Umfeld	berücksichtigt kulturelle, ethische und sozialwirtschaftliche Umstände im internationalen Umfeld
	orientiert sich an Konventionen und an Verhaltensregeln im Umgang mit Informationen	orientiert sich an institutionellen Konventionen und Verhaltensregeln im Umgang mit Informationen	orientiert sich an fachspezifischen Konventionen und Verhaltensregeln im Umgang mit Informationen	orientiert sich an interdisziplinären und internationalen Konventionen und Verhaltensregeln im Umgang mit Informationen
	erlangt, speichert und verbreitet jede Art von Information rechtlich einwandfrei	kennt die Zitierregeln und deren Rechtsgrundlagen	kennt die Grundlagen des Urheberrechts und wendet diese auf die Informationsbeschaffung und Datenhaltung an	kennt die Grundlagen der Verwertungsrechte und befolgt diese bei der Verbreitung von Informationen

Prix Schläfli Awardees
2020, 2021, 2022 for the best PhD in natural sciences in Switzerland

Robert Pollice (2020)
Claudia Aloisi (2021)
Philippe Schwaller (2022)
(Left to right)

«I highly recommend this course to freshmen PhDs to avoid time-consuming learning through try- and-error, however, PhDs at all levels can benefit.»

The course has been instrumental in introducing me to new tools, optimizing my workflow, and the prospect of further specialized training holds the promise of unlocking even greater potential in my scientific endeavors.»

This course has been transformative, imparting invaluable skills in structured and efficient scientific information management. Additionally, delving into text mining, promises heightened work efficiency.»

What students say about the course

«Today, I can confidently say that what I learned in this course has saved me several months of redundant and tedious research (thank you).»

«Everything was of the highest standards, and I believe that this should be a mandatory course for PhDs. This is because the number of available tools and databases becomes simply overwhelming without proper guidance.»

«I was surprised that I was directly able to incorporate some of the mentioned software and tools after the lectures improving my overall information workflow.»

«The course significantly impacted my information workflow by introducing new tools, databases, and methodologies, providing valuable insights into optimising time and resources throughout the entire research process.»

«Overall, I am thankful I took the course, as this is precisely the type of knowledge one would never get in a concentrated form and would only bit by bit discover oneself.»

«The course input describing use cases of ChatGPT was tremendously helpful in that regard.»

«The course made me think about how I get information and how I use it and most importantly gave me the tools to actively increase my productivity, while spending less time on data retrieval and management.»

«At the end, I would like to express that I am very thankful and grateful of the information provided in the lectures. With them, I believe we can save more time energy which hopefully leads to better performance in our projects.»

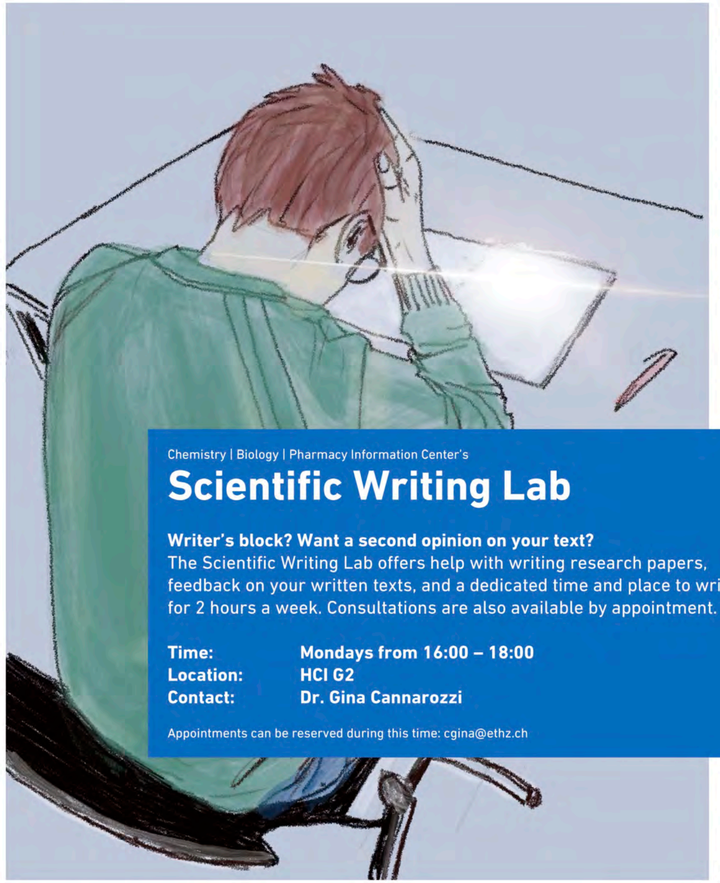
«I also participated in **the crash course text-based literature** search from the Infozentrum, that I found extremely useful»

«I learned about connectedpapers.com thanks to the **InfoZine** newsletter and I think it will be of great use when writing an introduction for finding more sources.»

«During my master's degree, your course in "Scientific Information Retrieval & Management in Life Sciences and Chemistry" was probably the single most useful course I have ever had. I found myself going back to my notes of your course now that I started my PhD, and I realised that I would love to re-watch some lectures.»

ETH zürich

Chemistry | Biology | Pharmacy
Information Center



Chemistry | Biology | Pharmacy Information Center's

Scientific Writing Lab

Writer's block? Want a second opinion on your text?
The Scientific Writing Lab offers help with writing research papers, feedback on your written texts, and a dedicated time and place to write for 2 hours a week. Consultations are also available by appointment.

Time: **Mondays from 16:00 – 18:00**
Location: **HCI G2**
Contact: **Dr. Gina Cannarozzi**

Appointments can be reserved during this time: cgina@ethz.ch

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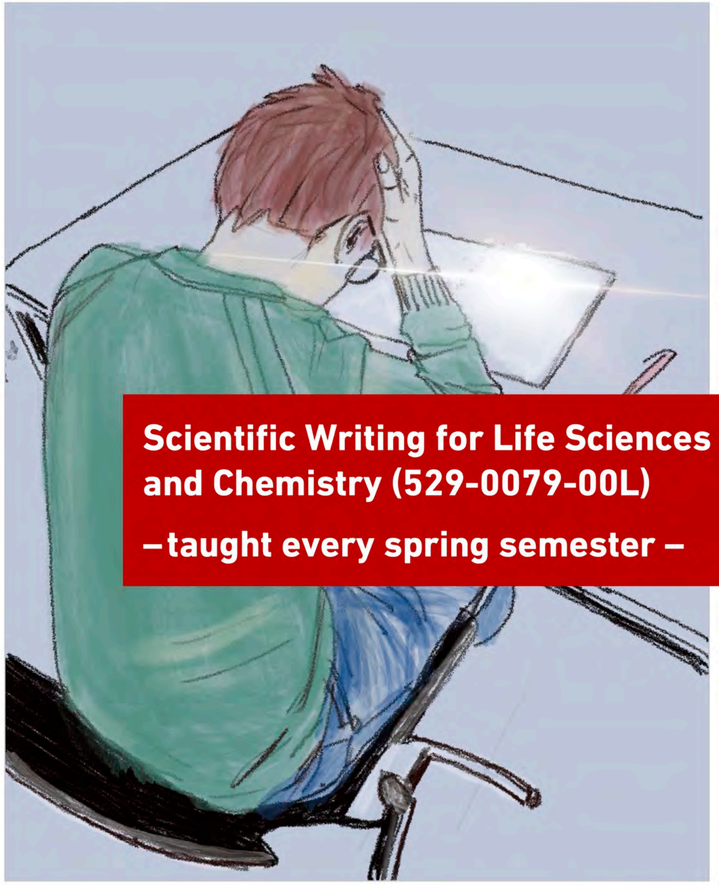

Scientific Writing for Life Sciences and Chemistry (529-0079-00L)

– taught every spring semester –

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About the course

This 1-semester course introduces students to the practical and theoretical principles of scientific writing in English. To improve their language skills, students will do practical exercises and write short scientific texts, which will be returned with feedback from the instructor.

The course, intended for Master's and doctoral students, provides a solid foundation for writing scientific articles or theses. Students are encouraged to write on a topic close to their research area.

Students will learn how to 1) structure, write, and revise scientific texts for different target audiences in English, 2) publish their work, and 3) communicate the importance of their work to others. They will also learn which tools are available for each step of the writing process and how to use them.

The following topics will be covered in 14 weeks:

1. Writing texts for target audiences
2. Creating a flow, storytelling
3. Content writing
4. Writing English like a native speaker
5. Structure of a research article
6. Figures, tables, and visualizations
7. Citation and using reference managers
8. Revising texts and proofreading
9. The scientific publishing industry
10. Submitting to a journal
11. Communication, outreach, impact analysis
12. Content writing, using style guides including that of ETH Zurich
13. Plagiarism, Good Scientific Practice, FAIR Principles

Scientific Writing for Life Sciences and Chemistry (529-0079-00L)
Tuesdays, 11:45 –12:30
HCI H 8.1
Course runs each spring semester

Competencies taught
Subject-specific competencies: Concepts and theories
Method-specific competencies: Analytical competencies
Social competencies: Communication and customer orientation

Your lecturer: Gina M. Cannarozzi-Bossard

Gina Cannarozzi, a dual US/Swiss citizen, has been an Information Consultant for Life Sciences at the Information Center since July 2021. Her career in scientific computing has taken her from physical chemistry at UC San Diego where she received a doctorate doing solid-state NMR, to computer science at ETH Zurich where she developed software for bioinformatics analyses, to the Institute of Plant Sciences at the University of Bern in 2011, where she was responsible for next-generation sequencing and genomics. Biological sequence analysis at the level of codons and food security in a changing climate are two of her interests. She has authored or coauthored more than 40 scientific papers.

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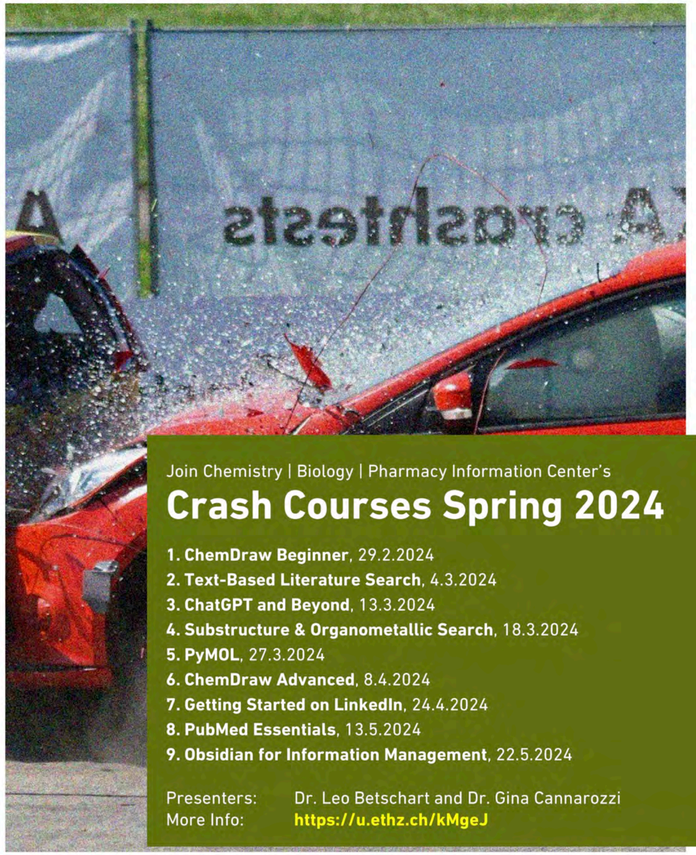

Join Chemistry | Biology | Pharmacy Information Center's

Crash Courses Spring 2024

1. **ChemDraw Beginner**, 29.2.2024
2. **Text-Based Literature Search**, 4.3.2024
3. **ChatGPT and Beyond**, 13.3.2024
4. **Substructure & Organometallic Search**, 18.3.2024
5. **PyMOL**, 27.3.2024
6. **ChemDraw Advanced**, 8.4.2024
7. **Getting Started on LinkedIn**, 24.4.2024
8. **PubMed Essentials**, 13.5.2024
9. **Obsidian for Information Management**, 22.5.2024

Presenters: Dr. Leo Betschart and Dr. Gina Cannarozzi
More Info: **https://u.ethz.ch/kMgeJ**

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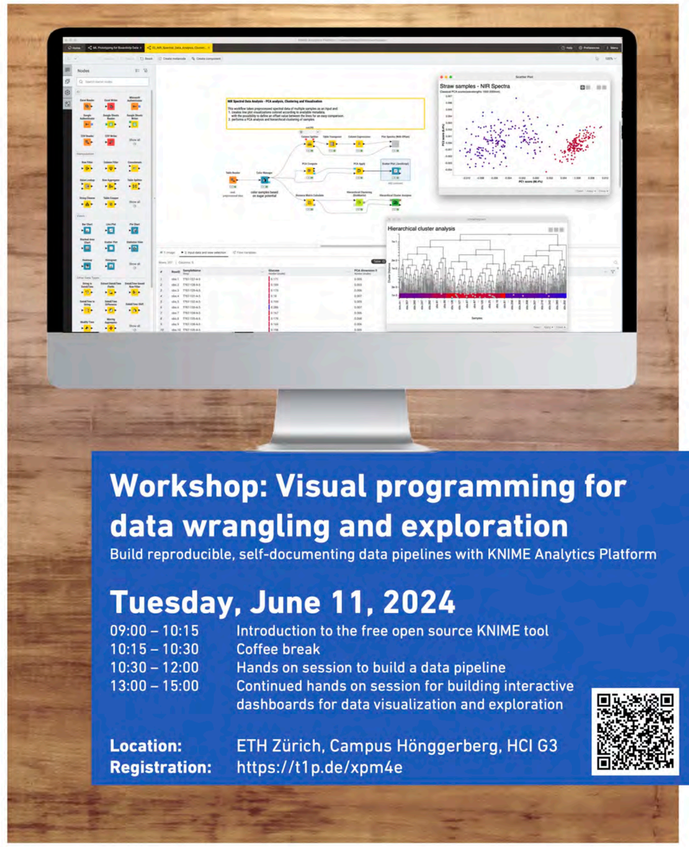

Workshop: Visual programming for data wrangling and exploration

Build reproducible, self-documenting data pipelines with KNIME Analytics Platform

Tuesday, June 11, 2024

09:00 – 10:15	Introduction to the free open source KNIME tool
10:15 – 10:30	Coffee break
10:30 – 12:00	Hands on session to build a data pipeline
13:00 – 15:00	Continued hands on session for building interactive dashboards for data visualization and exploration

Location: ETH Zürich, Campus Hönggerberg, HCI G3
Registration: https://t1p.de/xpm4e

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Open for Innovation KNIME

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Reproducible research with R: from data management to communication of results

A 2-day workshop by the Swiss Institute of Bioinformatics (SIB)

Date: March 21–22, 2024
Location: ETH Zurich, Campus Hönggerberg
Level: Intermediate
Information: www.sib.swiss/training/course/20240321_RERWR

In collaboration with the Chemistry | Biology | Pharmacy Information Center, ETH Zurich

SIB Swiss Institute of Bioinformatics

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Erstsemester-Survival-Kit
Für
Chemie
Biologie
Pharmazie
Materialwissenschaft
überreicht vom
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Hier öffnest Du die Welt der wissenschaftlichen Information!


Ein Monat im Labor kann oft eine Stunde in der Bibliothek sparen.
Frank Henry Westheimer (1912–2007)
Morris Loeb Professor of Chemistry Emeritus at Harvard University
Wer heute nicht nur die Bibliothek, sondern die Vielfalt und Funktionalitäten von wissenschaftlichen Datenbanken und Apps nutzt, kann viele Stunden unnötiger Arbeit im Labor sparen. Ausserdem hat man Zeit zum Lernen, Lesen und für neue, kreative Ideen.


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Newsletter
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Wie erfahren Sie Neues und Wichtiges über Datenbanken und Tools?
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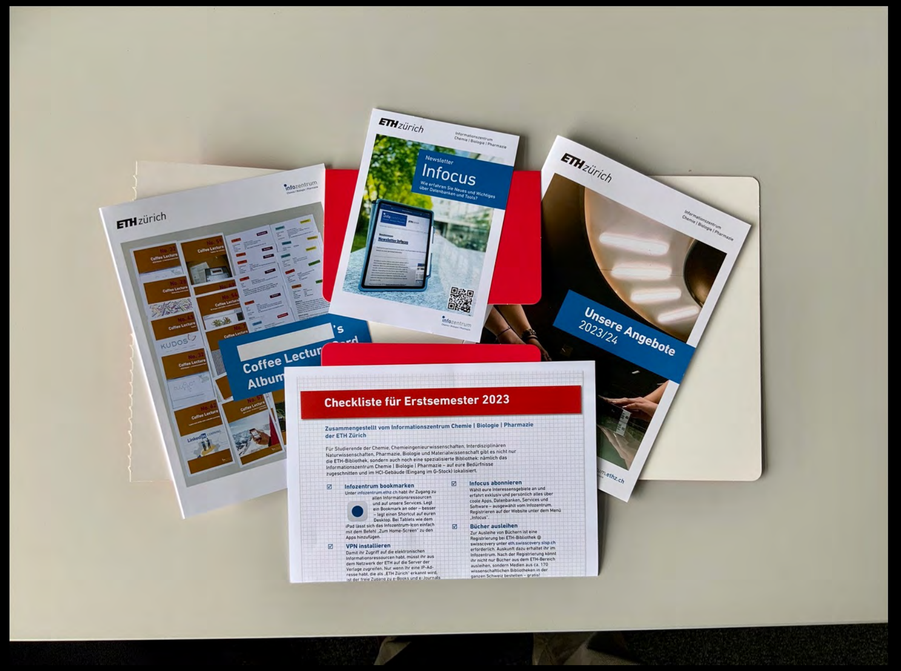
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Newsletter
Infocus
Unsere Angebote
2023/24
Checkliste für Erstsemester 2023
Zusammengestellt vom Informationszentrum Chemie | Biologie | Pharmazie der ETH Zürich
Infozentrum bookmarken
Infocus abonnieren
VPN installieren
Bücher ausleihen

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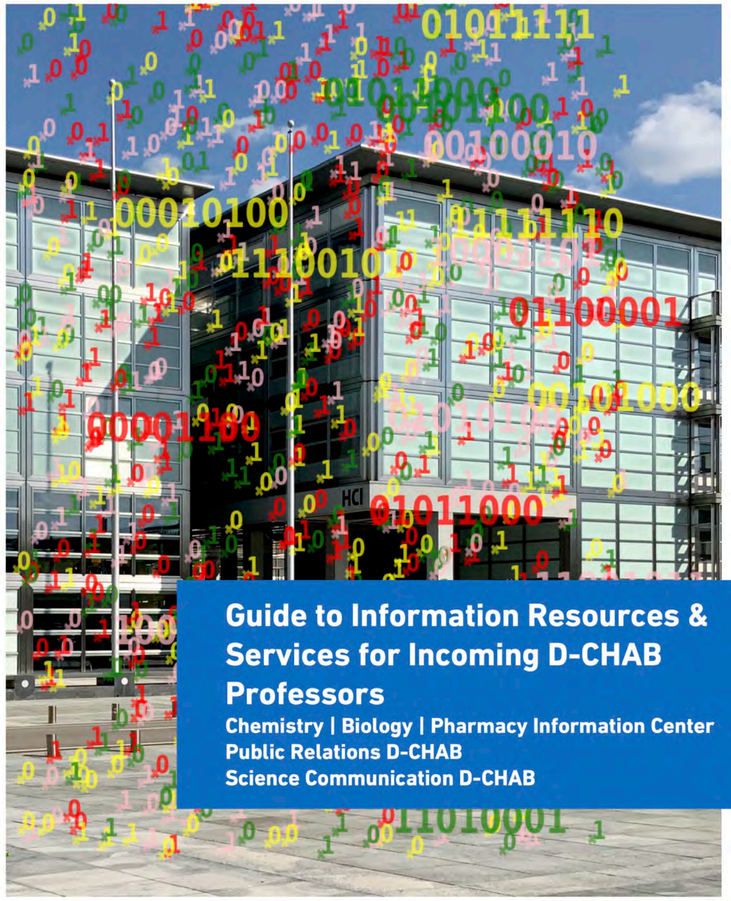

Guide to Information Resources & Services for Incoming D-CHAB Professors

Chemistry | Biology | Pharmacy Information Center
Public Relations D-CHAB
Science Communication D-CHAB

Getting to know what (new) tools you have for working with scientific information

The Chemistry | Biology | Pharmacy Information Center is constantly scouting new information solutions, evaluating them, and organizing trial licenses for testing.

In order to stay tuned to what is new you should subscribe to **Infocus**, our personalized e-mail alerting system that sends out only the information that matches your interests.

We publish news of broader interest in our magazine **Infozine**, the magazine for users of scientific information. It is published several times a year in English, German, and Spanish; subscribers receive a PDF download link once a new issue is published.

Infozine also publishes Special Issues focusing on specific topics, e.g., Research Metrics.

Visit our **Coffee Lectures** to learn about databases, tools, and their new functions. Coffee Lectures are held in three-week blocks several times a year, every Tuesday, Wednesday, and Thursday. A coffee lecture takes only 10 minutes, and we provide the coffee. When attending, you will get a Coffee Lectures Collector Card summarizing the essential information. You will find all Coffee Lectures in the Coffee Lecture Collectors Album.

In addition to Coffee Lectures, we also offer **Research Group Menu Card Seminars**. You can order these seminars from a Menu Card, where you select an "information menu" prepared especially for your research group.

Your To-Do's

- ☐ To receive alerts, activate Infocus through our website: www.infozentrum.ethz.ch/en/infocus/

- ☐ Read the latest Infozine issue. It may not hurt to also read old issues, which can be found on our website at "Infozine".
- ☐ Once a Coffee Lecture announcement is sent out, add the Coffee Lectures of interest into your calendar, so you do not miss them.

- ☐ Think about a Research Group Menu Card Seminar once your group has grown.

At ETH Zurich, you also have access to both the chemistry information solutions **SciFinder** (from ACS) and **Reaxys** (from Elsevier), and therefore, there is no need to rely on the free ChemSpider.
You are also not limited to **PubMed**, but have licensed access to **EMBASE**. This most comprehensive biomedical information database allows searching PubMed contents and more using a more advanced thesaurus, Emtree.

And those are just a few examples. Do you know that ETH Zurich is the only university where you have access to an **early discovery pipeline database, i.e., CDDI (Cortellis Drug Discovery Intelligence)** – usually licensed only in pharmaceutical companies?

Getting PDFs of all articles

At ETH Zurich, you do not need to use ResearchGate or Sci-Hub to get access to the full text of journal articles.
On the rare occasion that ETH Library has no license, you can use the button "ETH Get It" to order the article (in library speech, the "document"). If you use ETH Get It, the order form is automatically populated, and you don't have to fill in the bibliographic details.

Getting access to software

At ETH Zurich, software is deployed online through the IT Shop. Check out the complete list of software at the IT Shop. ChemDraw licenses are also available through the IT Shop.

The Chemistry | Biology | Pharmacy Information Center licenses additional scientific software. A list of software (free and licensed) can be found at "Tools" on our website.

Electronic Lab Notebooks (ELN)

There are several options for using an ELN at ETH Zurich. There is OpenBIS, developed by ETH Zurich's IT Services as a data management system, Chemotion, an Open Source ELN, and commercial Signals by revvity, formely Perkin Elmer, the company that owns also ChemDraw.
If you are interested in using an ELN, contact us.

Access to APIs

If you want to use data database APIs, e.g., for Rexays, please contact us.

Your To-Do's

- ☐ Register with **SciFinder** using your ETH Zurich e-mail address. Information can be found on our website by looking for SciFinder in the interactive module "Databases".
- ☐ Register with **EMBASE**. All URLs of databases and tools can be found through the interactive modules on our website.

- ☐ Log into the IT shop (itshop.ethz.ch) with your ETH login to see available software.

- ☐ If interested in an ELN, contact Dr. Leo Betschart or Dr. Oliver Renn.
- ☐ If interested in APIs, contact Dr. Leo Betschart or Dr. Oliver Renn.

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Infozine No. 27

The magazine for users of scientific information

Editorial

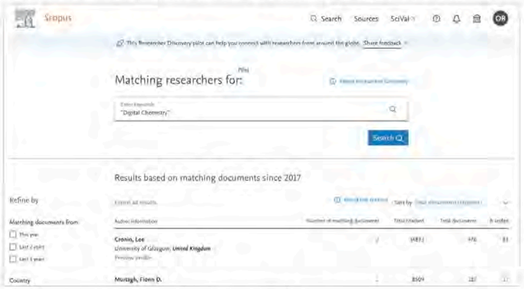
Dear readers,
We would like to extend our sincerest apologies for the year-long delay in publishing the next issue of Infozine. However, we are thrilled to announce that the latest issue is now available and we hope it meets your expectations.
At the Chemistry | Biology | Pharmacy Information Center, we understand the importance of staying informed in the fast-paced world of science. As such, we encourage our readers to make use of all the information retrieval and management tools available at ETH Zurich, which are covered in this and earlier issues of Infozine.
Being information savvy is essential for researchers and professionals alike, and staying up-to-date with the latest developments in our fields is crucial for success. We hope that Infozine continues to serve as a valuable resource for our readers, providing them with the knowledge and tools they need to excel in their work.
Thank you for your continued support and we look forward to bringing you more exciting content in future issues.
Best regards,
Your Chemistry | Biology | Pharmacy Information Center

If you are curious how this text was compiled, continue reading on page 8.

Selected Contents
No. 27 – May 2023

Scopus with Researcher Discovery

ETH Zurich is, among other universities, piloting the new Scopus module *Researcher Discovery*, which is already available to all ETH Zurich users at www.scopus.com until summer 2023. It can be found as a new tab between the search tabs *Authors* and *Affiliations* on the Scopus starting page and is a direct and data driven approach to find and connect with researchers from around the globe. *Researcher Discovery* includes a keyword search, which matches your search terms against a database of 17 million authors by searching through their documents.



Questions you can answer using the new module are:

- Who are experts whose output I should follow?
- Who could be a good mentor/supervisor?
- Who else is working in my field?
- Who should I try to connect with on this topic?
- Who could I work with on this grant proposal?
- Who could contribute ideas from an adjacent area?
- Who could be a reviewer or whom could I ask for feedback?
- How can I put together the best teams for a new project?

If you search e.g., for "digital chemistry", you will receive a list of researchers, with a default ranking by matching documents – which can be changed to ranking by total number of documents, total number of citations, or h-index. If you refine the results by limiting to Switzerland, the profile of Kjell Jorner, a new professor at ETH Zurich, will show up. Results can be exported as a csv file. By a clicking a name, you can view the researcher's profile. Likewise, you can investigate at which institutions a particular research area is highly represented. As a researcher who wants to be found by peers, showcase your work using *Scopus Author Profiles* and the *Author Feedback Wizard*. Building on your feedback and usage, Scopus will determine the best way forward, such as adding more functionality, releasing it to more users, or changing direction altogether. Thus, try and explore *Researcher Discovery* search tool and use it to quickly find your next PI, mentor or coworker.

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Infozine No. 28

The magazine for users of scientific information

Editorial

The year of AI

Since OpenAI came on the scene with ChatGPT, AI chatbots based on Large Language Models (LLMs) are being used by more and more people for a variety of purposes. And there are more and more tools for researchers to help them better use and find scientific literature. A critical compilation of these tools, originally planned and already started by Andrej Kilian, would have taken more than eight pages of Infozine alone - on the other hand, the development is simply too fast. This text will therefore appear elsewhere, but you will find an incomplete compilation of the tools on page 2. As an alternative, one page of the Infozine was created entirely with AI: The text and images on page 5 were generated with ChatGPT 4. Until recently, the Infozine editor used the Wonder app as the tool of choice for images, but it has become clear that DALL-E, for example, has improved significantly and that Midjourney clearly provides the better image to illustrate the term text-mining compared to Wonder.

We wish you all a relaxing holiday season, a happy and restful transition into the year 2024, and much fun reading the 28th issue.
Your Chemistry | Biology | Pharmacy Information Center

Selected Contents
No. 28 – December 2023

PubPharm

Users of PubMed or Embase should check out PubPharm (www.pubpharm.de), a freely accessible biomedical literature search engine maintained by the Fachinformationsdienst (Specialized Information Service) Pharmacy at the Technical University of Braunschweig. Using natural language processing, PubPharm searches for information from MEDLINE, journal articles, preprints, dissertations, conference abstracts, clinical trials, and patents. In the following, we focus on the powerful features unique to PubPharm.

The functionality "Drug Overviews" creates a Drug-Target-Disease Network. For each connection in the network, the number of co-occurrences of two terms is given. The initial drug name is connected in red to other drugs that often co-occur with the diseases associated with the initial search term. The diseases are shown in the green outer layer with the clinical phase in the bracket. In blue, associations between the drug and its targets are shown. The network can help explore well-established connections. Gaps in the network may indicate gaps in the literature and could serve as potential starting points for future research. Clicking on any connection will take you to the "Narrative Service". The "Narrative Service" allows you to search according to the way one query term affects another. This influence is a directional association such as "induces", "decreases", "inhibits", "treats", and "interacts". Such highly specific searches are unavailable in Embase and PubMed. Moreover, one can use placeholders, e.g., "Ivermectin treats Disease," to list all diseases that can be treated with Ivermectin according to frequency.
A simple search mask lets you perform text-based searches for generic names, diseases, or genes. In the search results, the title, source type, links to full text, and Altmetric information for each publication are displayed. You can find the abstract, bibliographic information, and keywords in the document details. The control panel to the right of the hit list also provides suggestions of related substances, diseases, and genes frequently associated with your search term. These analyses result from semantic mapping, a specialty of PubPharm. For instance, searching for the compound Vemurafenib yields a selection of other kinase inhibitors as related compounds.
Many standard functions like truncation/wildcards, phrase search, proximity operators, and Boolean operators (AND, OR, NOT) are available, as is structure search, which is based on the content of PubChem and DrugBank. Queries are created via drawing, SMILES, InChI, or name-to-structure. Substructure or similarity searches are also possible.

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Infozine No. 29

The magazine for users of scientific information

AI is coming. Is the chemistry world ready?

This is the title of an article in one of the latest issues of Chemical Engineering News, *the magazine of the* American Chemical Society – *not available at ETH Zurich but with free for ACS members. The article begins with the introduction that, according to futurologist Jamie Metzl, artificial intelligence (AI) will soon become as much a part of our everyday lives as electricity used to be. The same would apply to AI in drug discovery and development, and AI would not replace chemists, but chemists who understand AI would replace chemists who have no AI knowledge, the article continues. It is important to us that you are familiar with and use the latest and best tools for information retrieval, management and analysis and that you remain competitive, whether you are pursuing a career in industry or academic research or are simply keeping up to date as part of your lifelong learning. That is why this issue of the Infozine once again contains a lot of information about new AI tools.*

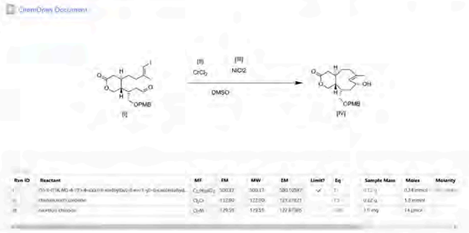
We wish you a pleasant summer, students a good and successful exam period and hope you enjoy reading the 29th edition.

Your Chemistry | Biology | Pharmacy Information Center

Selected Contents
No. 29 – June 2024

Signals has arrived!

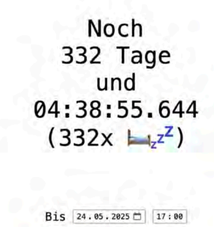
The Electronic Laboratory Journal (ELN) Signals has been desired by many synthetic chemists for years, but due to bureaucratic and financial hurdles it had never worked out until now. Thanks to the tireless efforts of Dr. Leo Betschart from the ICBP, Signals has finally become available at ETH on June 3, 2024. Signals is a product of Revvity (formerly Perkin Elmer), the company that also owns ChemDraw. ChemDraw is therefore perfectly integrated into Signals. Reactions can either be drawn in the browser or copied in from ChemDraw via a plugin. Signals calculates the molecular formulas and molar masses of the molecules, and this information is entered into the preparation table. After entering the molar ratios, concentration and desired batch size, the quantities of the remaining reactants are calculated automatically. Reagents can be added via the *Quick Add* function using the CAS number, whereby substance data such as density is often read in from a database.



The exact specification is recorded in a text field, perhaps even with a picture of the DC plate. All ETH users can directly share experiments with each other, and within research groups the readability of the experiments of all others can generally be set. In this way, you can learn from both the successes and mistakes of others and don't always have to reinvent the wheel. Signals is available from the ETH IT Store. It is free of charge for all Bachelor and Master students and costs CHF 50 per year for employees.
The tedious manual preparation of copies or backups is no longer necessary with an electronic laboratory notebook. Measurement data should also not simply disappear somewhere on a drive but be archived together with the regulations. This makes it much easier to comply with research data management requirements. An alternative to Signals is Chemotion, a freely available open-source tool from the Karlsruhe Institute Technology (KIT), but it must be operated and maintained on your own server. Those who are not dependent on working with chemical structures could also be happy with OpenBIS, an in-house development from ETH Zurich, which can be used for many types of research but does not meet the requirements of preparative chemists.

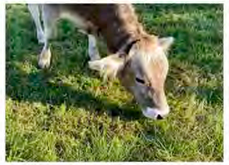
Dauert noch (still takes time)

Dauert noch is not a commentary to put you off, but a very reduced website (https://www.dauertnoch.de) that helps you count down the days until an event, be it an exam, the longed-for start of the vacations, the date of birth, a reorganization or the retirement. The site is simple and without an imprint, but the developer is known to the editor-in-chief via a third party. Several different counters with unique URLs can be created and distributed.



Swisscows

Swisscows (https://swisscows.com/de) is neither a breed of cattle nor a mountain pasture, but a private, anonymous Swiss search engine that claims to be the European answer to Google & Co. The high quality of their search results is based on their own index and years of technology expertise. Swisscows is family friendly, as both pornographic and sexual content are not indexed and not displayed. Swisscows has no interest in user data. In their search engine, your data is neither stored nor is a search history built up – thus guaranteeing absolute anonymity. The search engine earns money with search ads delivered by Bing.



floatz AI is now available free of charge to all students and researchers in Switzerland

In the last Infozine, we presented you with various AI tools, including floatz, which was made available to various of our customers as part of a test license. The floatz team has now decided to make floatz AI available to all students and researchers in Switzerland free of charge. Users who already have an account can simply continue to use floatz. All others must register using their Switch edu-ID, which everyone at ETH Zurich should already have, as it is the only way to use library services of any kind!

Why should you use floatz? According to the floatz advertising, these are the reasons:

"With over 5 million articles published annually, researchers like you face:

- Endless hours sifting through countless publications.
- Struggles with different terminologies across disciplines.
- Constant fear of missing critical developments.

We've been there too. As former ETH researchers, we understand that feeling.

That is why we created floatz AI– to transform how we discover and share knowledge.

Focused on discovery, floatz AI cuts through the noise to quickly find and keep track of the publications and answers you need.

Imagine easily navigating scientific literature, staying updated with the latest in your field, and saving countless hours. With floatz AI, now you can."

If you want to check whether these promotional statements by the floatz team are true, create an account. You can find out how to create a Switch edu-ID in our FAQs on our website https://infozentrum.ethz.ch/en/faqs under the heading Information Resources in a PDF.
And for mobile users: floatz AI is now fully responsive on mobile and tablet interfaces, the user interface has been improved as well as the stability. The floatz website has also become much more informative, it's worth taking a look.

App Tip

Suno AI
A Song for the Information Center

Suno AI (https://suno.com), or simply Suno, is a generative artificial intelligence music creation program designed to generate realistic songs that combine vocals and instrumentation or are purely instrumental. Suno has been widely available since December 20, 2023, after the launch of a web app and a partnership with Microsoft, which included Suno as a plugin in Microsoft Copilot. On March 21, 2024, Suno released its v3 version for all users. The new version allows users to create a limited number of 2-minute songs using a free account. Users can pay to subscribe monthly or annually to unlock more capabilities of Suno. To try out Suno, we asked ChatGPT 4 to analyze our website and generate a song text for and about the Info Center. The first prompt delivered a decent result right away, so we selected in Suno the setting Custom, copied the text into Lyrics box, didn't change much about the Style of Music setting, and got the following two songs to choose from. Summer in the Info Center 1 and Summer in the Info Center 2. We look forward to your songs.

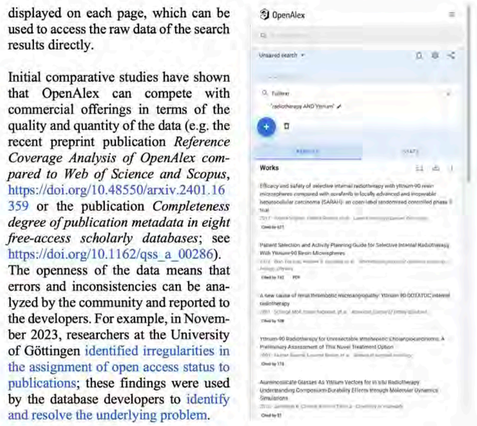
Open Alex

OpenAlex (https://openalex.org) is a new, open database for scientific literature. It is being developed by the non-profit organization OurResearch, which also offers the popular browser extension Unpaywall among other things. The unique selling point of OpenAlex is that all data is made available under a free license (CC0) and can therefore be reused for any purpose. It is even possible to download a snapshot of the entire data and use it offline. Costs are only incurred for bulk queries via the API (over 100,000 queries per day) and extended support.

The reason for developing OpenAlex was the discontinuation of the Microsoft Academic Graph (MAG) at the end of 2021. Until then, the MAG had been used in the background by many databases that process scientific literature data. In the initial phase of OpenAlex, the focus was therefore on expanding the API and improving data quality to be able to offer a replacement for the MAG quickly. The first versions of the graphical user interface for end users were still quite rudimentary.

In January 2024, a new version of the graphical user interface was released, making OpenAlex interesting for everyday use. The layout is tidy, and the search is extremely responsive. Filters by works, authors, sources (e.g. journals), institutions, publishers, funders, regions and topics can be combined as desired. A "report" is displayed for each search result, in which the data can be evaluated according to various criteria, e.g. according to co-authors, journals, participating institutions or the open access share. The three-part layout – the search with filters at the top, the results below on the left, and an area with evaluations on the right – is reminiscent of the *Dimensions* database from Digital Science. An API button is displayed on each page, which can be used to access the raw data of the search results directly.

Initial comparative studies have shown that OpenAlex can compete with commercial offerings in terms of the quality and quantity of the data (e.g. the recent preprint publication *Reference Coverage Analysis of OpenAlex compared to Web of Science and Scopus*, https://doi.org/10.48550/arxiv.2401.16359 or the publication *Completeness degree of publication metadata in eight free-access scholarly databases*; see https://doi.org/10.1162/qss_a_00286).
The openness of the data means that errors and inconsistencies can be analyzed by the community and reported to the developers. For example, in November 2023, researchers at the University of Göttingen identified irregularities in the assignment of open access status to publications; these findings were used by the database developers to identify and resolve the underlying problem.



OpenAlex has the potential to become an important building block of an open science infrastructure. The University of Sorbonne in Paris has decided to cancel its subscription to the Web of Science database and instead rely on OpenAlex data in the future. The University of Leiden is also using OpenAlex for the current edition of its CWTS university ranking.

Since OpenAlex is a new service with a rapidly growing user base, it is to be expected that the data and the functions of the API and the website will change considerably. The developers currently communicate news primarily via the Google group *openalex-users*. There is detailed documentation for the API. You can also get a brief introduction to OpenAlex through a recording of Leo Betschart's Coffee Lecture, which is available on our YouTube channel.

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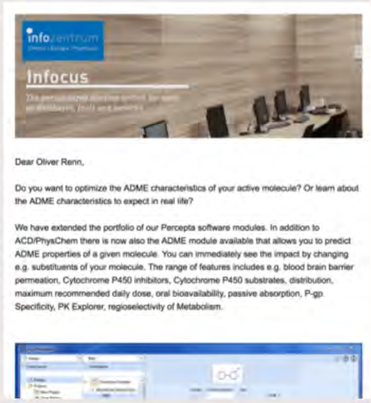

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Receive news on any of these subjects?

Infocus No. 112: Finding precise and relevant information with floatz

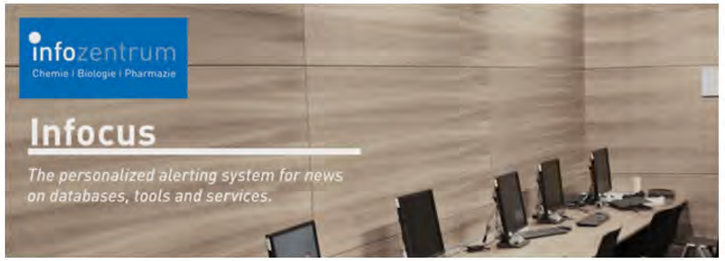
IC

Infozentrum Chemie | Biologie | Pharmazie

An: Renn Oliver

Dienstag, 21. November 2023 um 10:13

View this email in your browser



Dear Oliver Renn,

As one of four European universities we had access to Scopus AI, a next generation tool that combines generative AI with Scopus content and data to help researchers get deeper insights faster, support collaboration and societal impact of research.

Now, the Chemistry | Biology | Pharmacy Information Center has limited trial access to a similar tool, floatz. Floatz is being developed by two former ETH Zurich PhD students, one of them from D-CHAB, and has been launched recently.

Floatz enables scientists to find precise and relevant information using a novel AI architecture. Learn more at https://floatz.ai or https://www.linkedin.com/company/floatz-ai/about/

Access is through a personalized log-in and is limited until December 15, 2023. We have a few log-ins left and would be happy to provide one to you if you are interested. The trial is free, but you would need to provide some feedback on the tool and your experience.

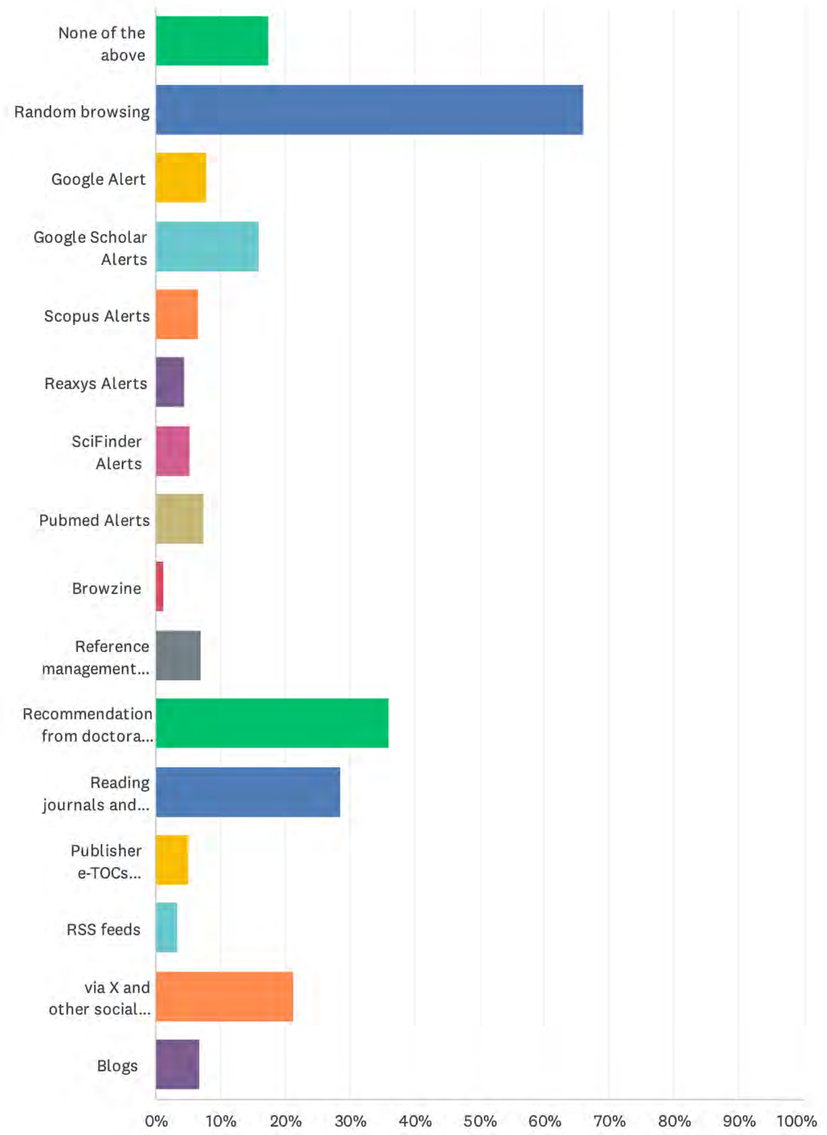
If you are interested, please contact Oliver Renn (renno@ethz.ch). Log-ins are

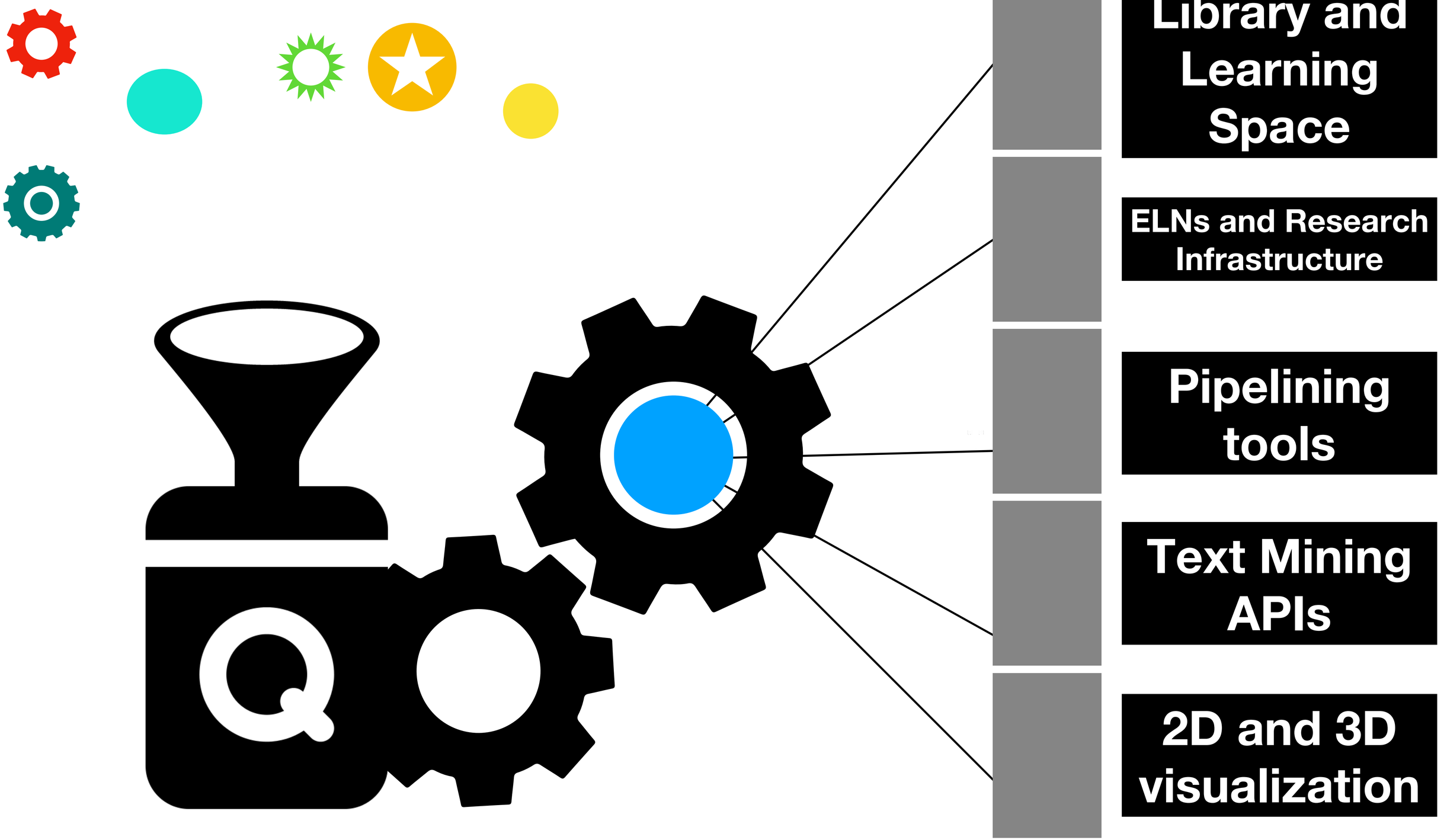
F21
How do you search for scientific articles? (please select all that applies)

	FREQUENTLY	OCCASIONALLY	I AM NOT USING IT	I DON'T KNOW THE PRODUCT	INSGESAMT	GEWICHTETER MITTELWERT
via Swisscovery	16.39% 78	33.82% 161	27.73% 132	22.06% 105	476	2.55
via Google	53.57% 255	35.71% 170	9.87% 47	0.84% 4	476	1.58
via Google Scholar	51.89% 247	27.73% 132	16.18% 77	4.20% 20	476	1.73
via Scopus	9.45% 45	18.07% 86	39.92% 190	32.56% 155	476	2.96
via Reaxys	20.38% 97	20.59% 98	32.14% 153	26.89% 128	476	2.66
via SciFinder	21.43% 102	29.83% 142	32.14% 153	16.60% 79	476	2.44
via PubMed	26.47% 126	26.68% 127	30.67% 146	16.18% 77	476	2.37
via Web of Science	6.51% 31	14.08% 67	39.71% 189	39.71% 189	476	3.13
via Dimensions	1.26% 6	2.52% 12	36.13% 172	60.08% 286	476	3.55
via EMBASE	1.68% 8	2.73% 13	37.82% 180	57.77% 275	476	3.52
via AI Tools such as Elicit, ResearchRabbit, Floatz, Scopus AI, etc.	6.72% 32	18.28% 87	35.08% 167	39.92% 190	476	3.08
Recommendation from colleagues and friends	21.85% 104	50.42% 240	19.54% 93	8.19% 39	476	2.14

F23 I come across interesting new articles (books and journals) via the following sources: (please check all that apply)

Beantwortet: 476 Übersprungen: 126

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Pipelining tools
Text Mining APIs
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