



Stand on the shoulders of giants



The art of generating knowledge

Introduction

This project aims to extend Google Scholar from a paper-based search engine towards a working environment for the academia by providing a comprehensive atmosphere for studying, annotating, relating, marking, commenting, storing, sharing, collaborating and publishing in the academic arena.

Google Scholar is highly effective when it comes to the state-of-the-art of specific subject matter through its broad searching scope and its ability to determine the entry's relevancy. In spite of that, it won't tell the user the underlying connections between different concepts nor the relevancy or the different keywords provided by the user in his search query.

Here, by means of a variety of annotation tools, the user will value, arrange, connect and extend the existing content; he will provide valuable semantic information for reorganizing it in a glanceable way (a cartographic visualization). His same annotations could also be reassembled into a new formal contribution in a way that keeps building "*on the shoulders of giants*" and avoids semantic redundancy.

How does it work?

There are three main tools for annotating scholarly literature:

- ★ Section [§]:
The user may identify valuable passages within the text. By marking a section, the user adds it to his collection (like quotes of relevant ideas, central statements, definitions, etc.) He may use them later in the construction of his own texts while these entities remember their bibliographic specifications.
- ★ Title [a]:
Titles serve for handling many sections and it's the user's tool for administration and classification. These titles are the central elements to be clustered for visualization of the user's knowledge map.
- ★ Note [n]:
The user can add his own notes to documents as a way of commenting, arguing or extending ideas. They can be personal (private, as scratch notes for future a paper) or public (i.e. as a way of opening a debate or dialoguing with others).

This way of annotating also produces new connections between people (mediated by the subject matter): now users can share sections (as citations), titles (as central concepts or themes). Also, this annotation system will generate expert hand tagging and will inform Google's database with new and emerging connections between documents and authors.

Features of Google Scholar + con§tel

- ★ Searching tools:
 - ★ Google's robust search engine oriented to scholarly literature
 - ★ Semantic query
 - ★ Search for underlying connections in visual representations
- ★ Visualize + navigate:
 - ★ Take a quick glance into large amounts of information through a legible and efficient visual representation
 - ★ Switch views between document map, Title map (concepts) and authors map
 - ★ Visualize your own map of contributions
- ★ Annotate:
 - ★ Mark sections (and keep your quote collection)
 - ★ Entitle and organize your collection (and see how your criteria may modify the overall representation)
 - ★ Add notes to documents and keep track of them
- ★ Authoring
 - ★ Produce tabular text and choose between standard and recognized formats
 - ★ Choose whether its private or public for all to see
 - ★ Document version control (even after publishing)
 - ★ Administrate your sections, your concepts and your notes

Goals

- ★ Provide studying tools (digest and annotation, and keep track of topics related to certain domain).
- ★ Make the experts (from all knowledge fields) contribute with valuable metadata translatable into ontological graphs for Google's index.
- ★ Provide a comprehensive and natural application-environment for students, professors and researchers for administrating and storing documents, notes and scratch books for eventual publication.
- ★ Assist authors in keeping track of citations, formalizing them into the accepted standards.
- ★ Provide a work environment for saving, annotating and tagging documents for further recall.
- ★ Provide a bridge to relate researcher through their specific subject matter.
- ★ Provide authors to keep track of their papers, review comments and annotations done by other specialists and measure the impact of his contribution.
- ★ Extend the "paper culture" (tabular structure, endnotes and quotes) into non-linear digital culture.
- ★ Inspire potential authors to contribute