

## General idea

The Internet is often praised for its “democratizing” potential, i.e. empowering citizens to express (even marginalized) opinions and especially to find critical information about a huge variety of topics. However, in reality, this ideal does not hold. One important determinant is thereby the gate-keeping function of today's search engines, which show the same biases as traditional mass media, i.e. content mainstreaming, hyper-commercialism, and industry consolidation<sup>1</sup>. Thus, the idea arose to build an information platform that tries to address the problem of actually finding critical information in a more structured way than it is possible today. Subsequently, I will present basic information about the application, the application's layout and the individual functionalities of the “Critical Information Network”. Since the final assignment of the course “Internetprogramming – Mobile Enhancer” is an adaption (and extension) of this site for mobile devices, the (full) database-model can be found in this description. The model relevant for this application, which is a subset, can be found in the appendix. Please note that I have assumed that the application is intended to run on modern browsers with the latest versions.

## Installation

- Install XAMPP
- Copy the folder 4.0 into the XAMPP subdirectory “/htdocs”
- Open “localhost/phpmyadmin”, create a database called “critical\_search\_db”
- Import the provided SQL-dump in “db” with default settings
- Access the start page “index.html”
- Login using the user name “admin” and the password “admin”

## Basic information

For the purpose of clarity, the application code is separated into five subfolders:

- /html (HTML-files)
- /files (Test files and similar)
- /img (Image files)
- /js (JavaScript)
- /php (PHP-files)
- /stylesheets (CSS-files)
- /db (database dump)

Since all folders should be self-explaining, I will not go into further detail for each of them. It should however be mentioned that the application is based on a MySQL-database (called “critical\_search\_db”) contained in XAMPP<sup>2</sup>. The respective database dump can be found in the folder /db. I have not changed any of XAMPP's default security settings, thus, the access is based on the user “root” without a password.

## General layout

In general, I have used a liquid layout throughout the site. However, with a minimum width of 750px. The page structure consists of three parts: a header (holding the navigation bar), a main body for the content, and a footer (holding the links to the login and contact information). For this purpose I have used the header (and nav), and footer-tags provided in HTML5. Where applicable, I have used the article/section tags in the main-part of the site. In figure 1 (next page), you can see an

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<sup>1</sup> Diaz, A. (2008). *Through the Google goggles: Sociopolitical bias in search engine design*. In: A. Spink & M. Zimmer (Eds.), *Web Searching: Multidisciplinary Perspectives*, (pp. 11–34). Dordrecht, The Netherlands: Springer.

<sup>2</sup> <http://www.apachefriends.org/en/xampp.html>

annotated example of the layout. The page-layout was created by hand-written CSS, this includes also the navigation bar hover effect (over “Background”).

I have also added stylings for printing (hiding everything except the main content part) and basic styles for iPad/Smartphones by using CSS-media queries in the main CSS-file “index.css”. Please note that the styles for mobile devices are not fine-optimized, as the mobile adaptation will be carried out as part of the course “Internetprogrammering – Mobila enheter”.

### The page “head”

Despite the title, the embedded scripts and stylesheets, each page head contains meta-information. This includes the charset, the viewport-definition (enabling an adequate presentation on mobile devices), a description, keywords, the author, and robots-information.

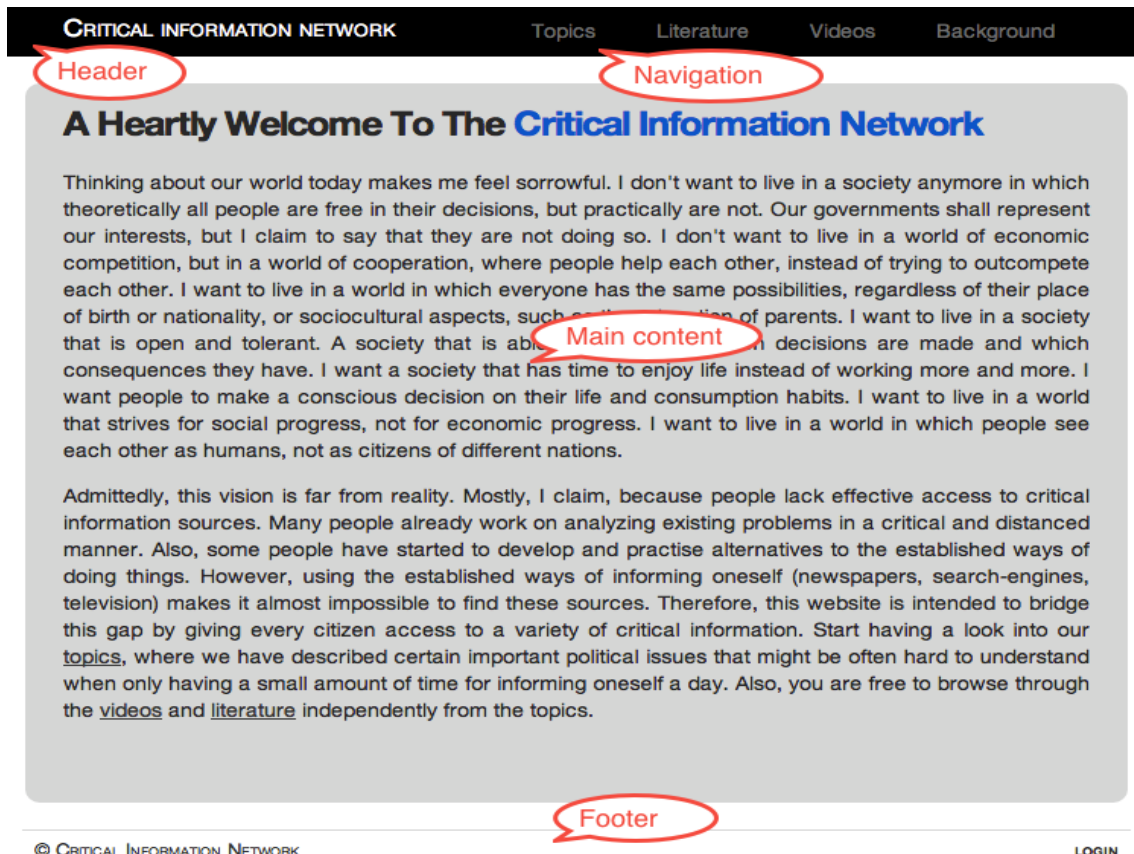


Figure 1: General page layout and main elements of the site

### Contact

The purpose of this page is to provide contact information for a “regular” user. Thereby, I used the HTML-tag for addresses, and additionally, specified the contact information in a machine-readable form using the “vCard” format.

### Login

The application includes a (simple) login functionality. A logged in user is generally able to create, edit, and delete data stored in the database. The required login credentials are “admin” (username) and “admin” (password). For each site the script “index.js” is loaded, which checks for the class “authorized”. In the case that a user is not logged in (indicated by an entry in the local storage), all elements with this tag are simply hidden. Thus, only users that are logged in can access the areas that are required for data modification.

## Topics

As described initially, a problem for a regular citizen is the structured access of critical information sources. Therefore, a central concept in my application are topics. For example, even though a lot is written about the *financial crisis* or the *Euro-crisis*, many people do not really understand what the crises are about. And even though they might be interested in informing themselves, it can be very difficult to find the information that would enable them to more critically understand policies and similar. Figure 2 shows the overview of the example topic “Euro-crisis”.

At the top, there is place for a short summary that is intended to be a critical reflection on the topic at hand. The idea is not that definitions or lengthy discussions are provided, but that citizens can read a concise and informative text, probably confronting them with the problems in the public perception of the topic. Since these texts are out of scope of the assignment, I simply copied texts from Wikipedia. But it is important to mention that it actually should be a text as described before.

**CRITICAL INFORMATION NETWORK**   **Topics**   Literature   Videos   Background

### Euro-Crisis

Summary

The European sovereign debt crisis (often referred to as the Eurozone crisis) is an ongoing financial crisis that has made it difficult or impossible for some countries in the euro area to repay or re-finance their government debt without the assistance of third parties. From late 2009, fears of a sovereign debt crisis developed among investors as a result of the rising private and government debt levels around the world together with a wave of downgrading of government debt in some European states. Causes of the crisis varied by country. In several countries, private debts arising from a property bubble were transferred to sovereign debt as a result of banking system bailouts and government responses to slowing economies post-bubble. In Greece, unsustainable public sector wage and pension commitments drove the debt increase. The structure of the Eurozone as a monetary union (i.e., one currency) without fiscal union (e.g., different tax and public pension rules) contributed to the crisis and harmed the ability of European leaders to respond. European banks own a significant amount of sovereign debt, such that concerns regarding the solvency of banking systems or sovereigns are negatively reinforcing.

Edit   Delete

### Literature List

Associated literature

How the World Works  
Manufacturing Consent The Political Economy of the Mass Media  
The Fight for the Right to Food: Lessons Learned  
The Strange Non-death of Neo-liberalism

New   Edit

### Videos List

Associated videos

Catastroika  
Debtocracy  
Flow: For Love of Water  
GasLand

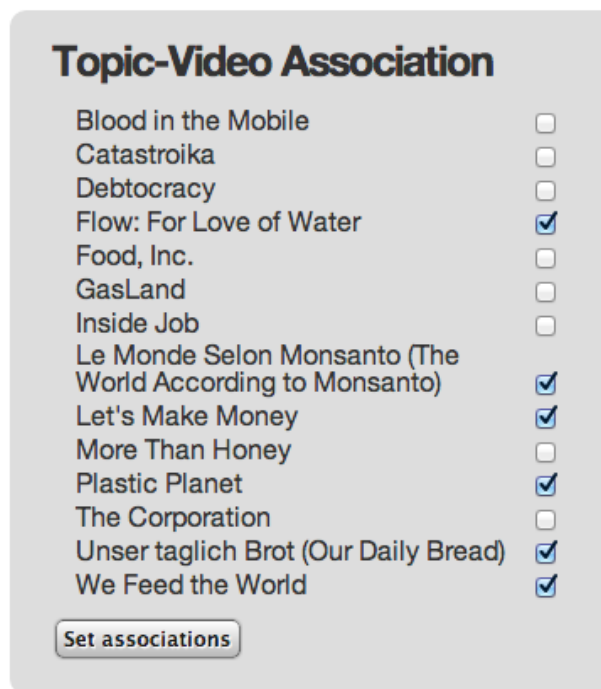
New   Edit

Figure 2: Topic view

At the second and third position there are literature and video lists associated with the topic. Hereby. Certain literature can be linked to a topic or a video that is of relevance. This is what I see as a more “structured” form of information access.

In addition, you can see in the bottom right the indication that the user is logged in. Therefore, the “New”, “Edit”, and “Delete” buttons are visible. Just as a quick information: Only the topic can be deleted because literature and videos are generally maintained separately (as described later). Creating a video or literature from here will directly associate this topic with this literature/video. Clicking on a video or literature will bring you to the details of this entry. The “Edit” button will provide you with a list of *all* literature/videos, from which you can select those being relevant to the topic.

For an example, please consider figure 3.



The screenshot shows a web interface titled "Topic-Video Association". It contains a list of 15 video titles, each followed by a checkbox. The titles are: "Blood in the Mobile", "Catastroika", "Debtocracy", "Flow: For Love of Water", "Food, Inc.", "GasLand", "Inside Job", "Le Monde Selon Monsanto (The World According to Monsanto)", "Let's Make Money", "More Than Honey", "Plastic Planet", "The Corporation", "Unser taglich Brot (Our Daily Bread)", and "We Feed the World". The checkboxes for "Flow: For Love of Water", "Le Monde Selon Monsanto (The World According to Monsanto)", "Let's Make Money", "Plastic Planet", "Unser taglich Brot (Our Daily Bread)", and "We Feed the World" are checked. At the bottom of the list is a button labeled "Set associations".

| Video Title   | Association Status                  |
|---|-------------------------------------|
| Blood in the Mobile                                       | <input type="checkbox"/>            |
| Catastroika   | <input type="checkbox"/>            |
| Debtocracy  | <input type="checkbox"/>            |
| Flow: For Love of Water                                   | <input checked="" type="checkbox"/> |
| Food, Inc.  | <input type="checkbox"/>            |
| GasLand   | <input type="checkbox"/>            |
| Inside Job  | <input type="checkbox"/>            |
| Le Monde Selon Monsanto (The World According to Monsanto) | <input checked="" type="checkbox"/> |
| Let's Make Money  | <input checked="" type="checkbox"/> |
| More Than Honey   | <input type="checkbox"/>            |
| Plastic Planet  | <input checked="" type="checkbox"/> |
| The Corporation   | <input type="checkbox"/>            |
| Unser taglich Brot (Our Daily Bread)                      | <input checked="" type="checkbox"/> |
| We Feed the World   | <input checked="" type="checkbox"/> |

Figure 3: Edit topic-video association

## Literature

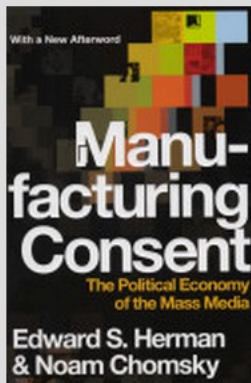
Besides being able to check the associated literature from a topic, it is also possible to browse literature independently (see figure 4).



Figure 4: Literature index

In addition to getting an alphabetically sorted list of all literature, it is also possible to restrict the literature to certain sub-categories, such as “Books” or “Scientific articles”. A click on a link will bring you to the literature details (see figure 5). Based on the literature type you will get presented different information. For a book for example ISBN numbers and edition, for a scientific article the DOI and similar. Dependent from “where” you access the literature details, a click on “Back” will bring you either back to the topic context you were coming from or the literature index. This is primarily realised by setting variables in the session storage.

## Manufacturing Consent The Political Economy Of The Mass Media



### Summary:

Please note that the content of this book primarily consists of articles available from Wikipedia or other free sources online. Manufacturing Consent: The Political Economy of the Mass Media (1988), by Edward S. Herman and Noam Chomsky, is an analysis of the news media as business. The title derives from the phrase the manufacture of consent that essayist editor Walter Lippmann 18891974 employed in the book Public Opinion 1922. Using the propaganda model, Manufacturing Consent posits that corporate-owned news mass communication media print, radio, television are businesses subject to commercial competition for advertising revenue and profit. As such, their distortion (editorial bias) of news reportage what types of news, which items, and how they are reported is consequence of the profit motive that requires establishing a stable, profitable business; therefore, news businesses favoring profit over the public interest succeed, while those favoring reportorial accuracy over profits fail, and are relegated to the margins of their markets (low sales and ratings).

### Type: Book

**Author:** Frederic P. Miller

**Number of pages:** 72

**Edition:** n/a

**Publication date:** 2010-07-02

**Publisher:** Alphascript Publishing

**ISBN-10:** 1407054058

**ISBN-13:** 978-6131659638

**URL:** n/a

[Back](#) [Edit](#) [Delete](#)

Figure 5: Literature details

To create (or “Add”) literature, you will be provided with a simple form layout. As stated before, depending on the literature type different information is of interest and thus, only the corresponding inputs will be shown.

A special case represent “Books”. When this literature type is selected, a search button is displayed. Entering a title and clicking this button will provide you with a list of search results from an asynchronous call to the Google Books API<sup>3</sup>. If you select one of the books, the available information is inserted into the form. For an example consider figure 6.

<sup>3</sup> <https://developers.google.com/books/>

**Create literature**

20 results found

Sollen Banken bei der Bepreisung und Bewertung von Derivaten zusätzlich (2012)

Please enter a title: \*

Please select the literature type: \*

Please enter the URL for the cover:

Please write a summary: \*

Please enter the number of pages:

Please enter the name of the author:

Please enter the ISBN-10 number:

Please enter the ISBN-13 number:

Please enter the edition:

Please enter the publication date:

Please enter the publisher:

Please enter the URL:

Figure 6: Add and search for a book

Editing literature will provide you with the same form, however, the stored information in the database will be preloaded for editing it. Besides HTML-form validation, also JavaScript-validation is carried out. This includes the checking for a (non-empty) title and summary, a literature type, a valid URL for a cover (if present), a valid URL to the book (if present), valid ISBN-numbers (if present), and a valid publication date. A deletion of a book will automatically remove the link to all associated topics using a database “cascade”.

## Videos

The structure and functionality for videos are more or less identical to literature, besides the fact that there are no different types of videos. The search function for creating/editing videos is based on JSON-P calls to the APIs of Rotten Tomatoes<sup>4</sup>/OMDB<sup>5</sup>. An example can be seen in figure 7.

When a Youtube “embed” URL is posted in the “Please enter the URL to the video” field, the corresponding video will automatically be embedded in an iframe on a details page of a video. For an example, consider figure 8.

<sup>4</sup> <http://developer.rottentomatoes.com/>

<sup>5</sup> <http://www.omdbapi.com/>



## Add Video

5 result(s) found

Bottled Life: Nestle's Business with Water (2012)

Please enter a title: \*

Please enter the URL for the cover:

Please write a summary: \*

Please enter the length (in minutes):

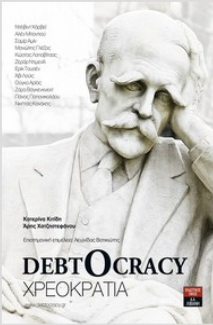
Please enter the name of the director:

Please enter the year:

Please enter the URL to the video:

Figure 7: Add and search for a video/movie

## Debtocracy



**Summary:**

Debtocracy seeks the causes of the Greek debt crisis and proposes solutions sidelined by the government and the dominant media. It follows countries like Ecuador that created debt Audit Commissions and tracks this process in Greece.

**Director:** Aris Hatzistefanou  
**Year:** 2011  
**Length:** 75 min  
**Video URL:** <http://www.youtube.com/embed/qKpxPo-lInk>

DEBTOCRACY (FULL - ENG Subs)




Figure 8: Video details and Youtube-link

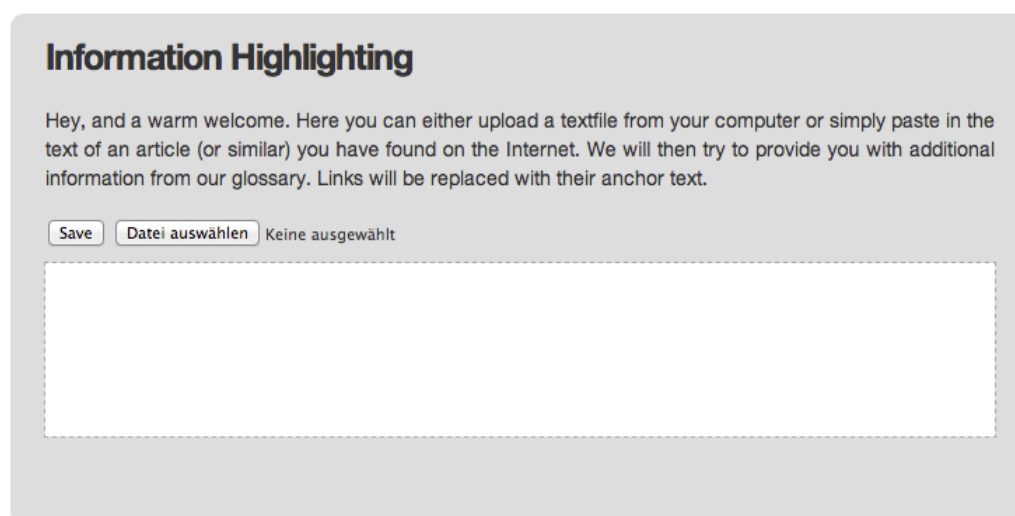


## Background – Glossary and Highlighting

In contrast to the previous two functions, “Literature” and “Videos”, which are related to “Topics”, the “Glossary” and “Highlighting” functions are more stand alone. The idea behind this is that often people read articles in newspapers, however, lack the knowledge about certain words. In context of the Euro-crisis these are words like “Troika”, “IMF”, “haircut”, and similar. Therefore, I intend to collect (critical) summaries of these terms in a glossary. As with the descriptions of topics, I used existing descriptions<sup>6</sup>, but in reality this should be a well-written critical one.

Clicking on “Glossary” will present you a list of terms identical to the representation of “Topics”, “Literature”, and “Videos”. A click on a term will provide you the definition/summary of the term.

“Highlighting” then makes use of these terms (see figure 9).



*Figure 9: Information highlight ready for insert*

You can either paste in a text (possibly from a newspaper article) or select a \*.txt-file from your computer. (Note that this restricts the possibilities on devices such as the iPad/iPhone). Clicking on “Save” will lock the content-editable area, parse the text and provide tooltips (from jQuery UI<sup>7</sup>) for each of the found terms from the glossary. A saved text is stored in local storage and will automatically be loaded on the next visit to the site. I have provided a sample text called “test.txt” in the folder “/files”. A highlighted text and tooltip is shown in figure 10.

<sup>6</sup> <http://www.bbc.co.uk/news/business-15060411>

<sup>7</sup> <http://jqueryui.com/tooltip/>

## Information Highlighting

Hey, and a warm welcome. Here you can either upload a textfile from your computer or simply paste in the text of an article (or similar) you have found on the Internet. We will then try to provide you with additional information from our glossary. Links will be replaced with their anchor text.

[Edit](#) [Datei auswählen](#) Keine ausgewählt

While long a tenured expert with over 60 years of experience in all things financial crisis, the International Monetary Fund (**IMF**) was put to the test when it first joined forces with the European Commission and European Central Bank in 2010 to tackle the European Financial Crisis.

Upon the establishment of this "**Troika**", questions arose whether the collaboration should be seen as a sign of European weakness, or whether it was a tactical move by the EU countries to gain the valuable expertise of the **IMF** in resolving the crisis.

With its continued role in the Euro Crisis expanding and solidifying, further questions are arising in regards to the **Troika**'s longevity and the effects the coalition is having on the integrity of both the **IMF** and European institutions.

Born of our Circumstance

In March 2010, the then-President of the European Central Bank (**ECB**), Jean-Claude Trichet, denied the possibility of an **IMF** role in the European financial crisis. He proclaimed that **Eurozone** countries were in no need of additional external financial stabilization, and alleged that European states facing an economic crisis should focus on internal measures to get themselves back on track.

Less than a month later, rating agencies cut Greek's rating to junk, spreads widened dramatically, other EU countries, including Portugal, saw their credit ratings downgraded, and sovereign debt refinancing costs rose substantially. S

The European Central Bank is the central bank responsible for monetary policy in the eurozone. It is headquartered in Frankfurt and has a mandate to ensure price stability - which is interpreted as an inflation rate of no more than 2% per year.

Figure 10: A loaded text and an open tooltip for the glossary term "ECB"

## Appendix – Database schema

