

A Digital Swedish–Yiddish/Yiddish–Swedish Dictionary: A Web-Based Dictionary that is also Available Offline

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Abstract

Yiddish is one of the national minority languages of Sweden, and one of the languages for which the Swedish Institute for Language and Folklore is responsible for developing useful language resources. We here describe the web-based version of a Swedish–Yiddish/Yiddish–Swedish dictionary. The single search field of the web-based dictionary is used for incrementally searching all three components of the dictionary entries (the word in Swedish, the word in Yiddish with Hebrew characters and the transliteration in Latin script). When the user accesses the dictionary in an online mode, the dictionary is saved in the web browser, which makes it possible to also use the dictionary offline.

Keywords: Digital dictionaries, Yiddish, Swedish

1. Introduction

The Swedish Institute for Language and Folklore, ISOF, produces a number of different types of dictionaries. Examples include dictionaries for common immigrant languages that are intended for learners of Swedish,¹ dictionaries for professional translators,² as well as dictionaries for the national minority languages of Sweden. The main goals of this work is 1) to publish dictionaries, 2) to develop data sets that can be released as open data and used in third-party applications such as machine- and computer-assisted translation, computer-assisted language learning, and dictionary applications.

In addition to these two main goals, we also often make the content of the dictionaries digitally available via web page search interfaces. Previously, these search interfaces have required internet access to be possible to use. However, there are many situations in which there is a need for a dictionary and in which offline access might be needed, for example in hospitals, in court rooms, and when travelling. The standard solution to this problem is to develop mobile apps, which can be used offline. However, since the development of dictionary applications is not the main focus for ISOF, we currently do not have enough resources to develop and maintain dictionary apps for different mobile platforms, in addition to developing dictionary web pages. Instead, we have focused on developing web pages that can be accessed when using a mobile phone or a computer in an offline mode.

As the first practical application using this approach we have implemented a web-based dictionary for Swedish–Yiddish/Yiddish–Swedish. This web-based dictionary will be described here.

¹<https://sprakresurser.isof.se/lexin/>

²<https://sprakresurser.isof.se/tolkordlistor/>

2. The printed dictionary and the dictionary as open data

Yiddish is one of the national minority languages of Sweden (Lag (2009:724) om nationella minoriteter och minoritetsspråk, 2009)³, and one of the languages for which ISOF is responsible for developing useful language resources. As a part of this work, a new edition of a Swedish–Yiddish/Yiddish–Swedish dictionary was published in paper book format by ISOF⁴ in 2020 (Kerbel et al., 2020).

The dictionary contains three main components for each entry in the dictionary: 1) the word in Swedish, 2) the word in Yiddish, written in its standard form with Hebrew characters, and 3) a transliterated form, in which the Yiddish word is written with Latin characters. The system used for transliteration is a system introduced by the first publisher of the dictionary. This system is a Swedish adaption of the YIVO transliteration system for Yiddish. The entries also contain additional information, such as part of speech and usage notes.

The content of the dictionary is also available as open data⁵ with a CC0 license, and is provided as a part of the National Language Bank of Sweden. The open data format of the dictionary follows the same three-component structure as described in the previous paragraph. This data forms the basis for our web-based dictionary.

³https://www.riksdagen.se/sv/dokument-lagar/dokument/svensk-forfattningssamling/lag-2009724-om-nationella-minoriteter-och_sfs-2009-724

⁴<https://www.isof.se/lar-dig-mer/publikationer/publikationer/2020-12-18-jiddisch-svensk-jiddisch-ordbok>

⁵<https://sprakresurser.isof.se/jiddisch>

3. The web-based dictionary

The web-based dictionary is available at:

<https://sprak.isof.se/jiddisch/>.

Figure 1 shows the top results after “or” has been written in the search field. To reserve the maximum amount of space on the screen for displaying the search results, the user interface contains nothing apart from a single search field and the search results. This clean layout also makes it easier to integrate the dictionary into another existing web page layout.

The single search field is used for searching all three components of the dictionary entries. That is, if the user searches for a word using Hebrew characters, it is only used to match the component of the entry that is written with Hebrew characters, and if the user conducts a search using Latin characters, it is used to match both against the Swedish component and against the transliterated Yiddish. The search is performed incrementally, to minimise the number of key strokes needed for retrieving a dictionary entry. That is, as soon as the user starts typing matches are shown, and when the user continues to type, the search result is updated according to the updated search string. Figures 1 and 2 show how the search results have changed after the user first has typed “or” and thereafter “ord”.

Jiddischordboken



Figure 1: The top results after “or” has been written in the search field. The transliterated Yiddish word is shown in a standard font, the word in Hebrew characters with a grey background, the word in Swedish in a boldface font, and additional information in italics. (“Jiddischordboken” is “The Yiddish dictionary” in Swedish.)

When the user accesses the dictionary web page in an online mode, the contents of the dictionary are saved in the web browser. When opening the dictionary in an offline mode, with the same mobile device (or computer) and the same browser, the user is still able to use the dictionary.

Jiddischordboken

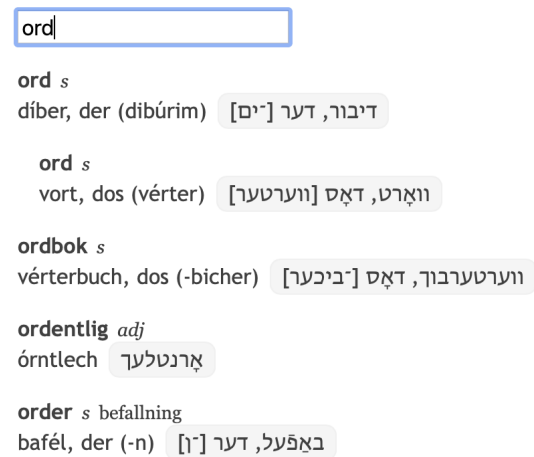


Figure 2: The top results after “ord” (Swedish for “word”) has been written in the search field.

The dictionary web page is implemented using HTML and JavaScript. The content is made available in an offline mode by using IndexedDB and Service Workers. The source code⁶ for the web-based dictionary is freely available on GitHub.

4. Future work

Although the web-based Swedish–Yiddish/Yiddish–Swedish dictionary is fully functional, we will continue to improve it.

We intend to conduct a small user study, in order to gather ideas for possible improvements. We will, for example, gather ideas regarding the dictionary content, how the search results are presented, as well as ideas regarding the user interaction and layout in general. In addition, we will implement similar web-based search interfaces for other dictionaries, e.g., dictionaries for translators and interpreters, for which the offline functionality might be particularly useful.

5. Acknowledgements

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6. Bibliographical References

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⁶<https://github.com/sprakradet/jiddischordbok>