

# Towards Creating the National Term Bank: The Case of Mongolian Terminology Resources

Namsrai Munkhtsetseg<sup>1</sup>

<sup>1</sup>*Institute of Language and Literature, Mongolian Academy of Sciences, Jukov's avenue 54a, Bayanzurkh district, Ulaanbaatar 13330, Mongolia*

## Abstract

The goal of terminology work is to record and organize the meaning and usage of specialized terms and to make those available in various terminological resources like (online) termbases, specialized dictionaries, glossaries, and terminology standards, in order to use them in texts, translation and specialized discourse. The present paper mainly focuses on analyzing the contents of the recently launched online terminology dictionary in terms of terminographic standard and aiming to seek further enhancement of it in order to achieve the international level.

## Keywords

terminology resource, subject field specialists, online dictionary, term bank concept-based approach

## 1. Introduction

In the world, most of the developed countries and some developing countries already have their national and international term banks with large number of terminology resources. For instance, the Canadian Termium, the Swedish Rikstermbanken, the Finnish TEPA, Latvian Tilde's EuroTermBank and EU's multilingual term base IATE and etc. According to BiHua Qiu [1], China National Committee for Terms in Sciences and Technologies (CNCTST) has its free online official term database linked to "China Knowledge Resource Integrated Database" which contains 350,000 standardized Chinese terms with their English equivalents, and most of them have precise definitions. In such a way, many countries of the world have intended to have national and international term banks. In terminology planning and in particular in the framework of a national terminology policy, a national terminology database often is used as one of the primary tools for the implementation of that policy [2].

The goal of terminology work is to record and organize the meaning and usage of specialized terms and to make those available in various terminological resources like (online) termbases, specialized dictionaries, glossaries, and terminology standards, in order to use them in texts, translation and specialised discourse. Once created, such terminology resources need to be used and reused as fundamental knowledge entities in public education, vocational training as well as corporate learning systems.

Since 2000s, Mongolia has rapidly developed information and communication technology. At the same time, language technologies and computational linguistics have been advanced and linguists, scholars and publishing companies have used them for their research works. As a result of this progress, a large amount of linguistic resources has been digitized and many monolingual, bilingual and multilingual electronic dictionaries including online and offline dictionaries have been created so far. However, all of these dictionaries are general language-oriented ones even though they include some terminology resources in their contents and they are lack of enough terms, definitions and other term related information that can provide users with fully sufficient information about concepts of different subject fields.

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✉ [munkhtsetsegn@mas.ac.mn](mailto:munkhtsetsegn@mas.ac.mn) (. N. Munkhtsetseg)

ORCID [0000-0001-5285-0566](https://orcid.org/0000-0001-5285-0566) (. N. Munkhtsetseg)

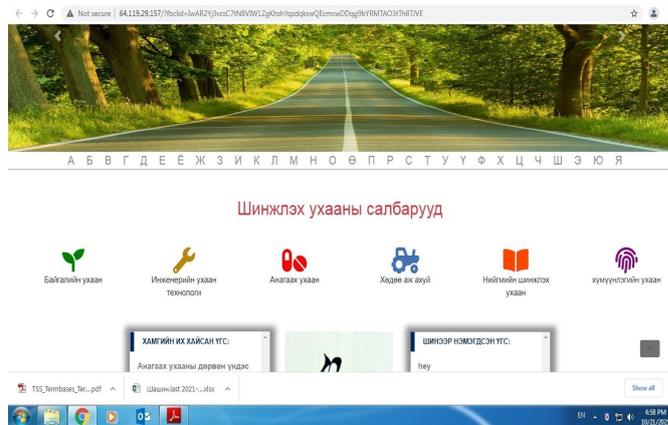


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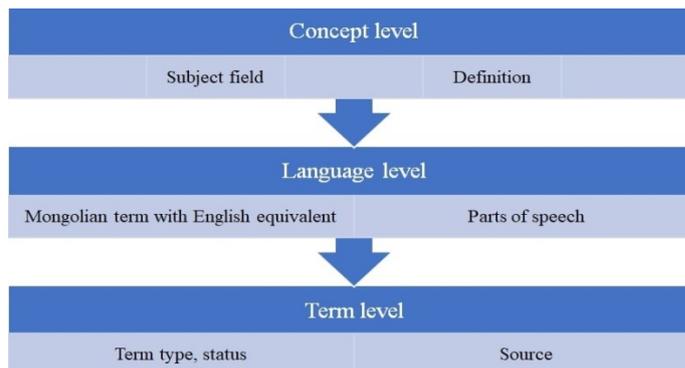
## 2. Online dictionary of scientific key terms in Mongolia

The terminology community of the Institute of Language and Literature, Mongolian Academy of Sciences in cooperation with Institute of Mathematics and Digital Technology, Mongolian Academy of Sciences launched open source “Online dictionary of scientific key terms” in December, 2021. It is online terminology portal that allows users to search, upload, translate and share terms and definitions with other users nationwide. We expect that this central terminology repository is essential for terminology harmonization and systematic terminology work to solve today’s terminology related problems in nationwide. Currently, 12551 terms with English equivalents, definitions and sources from the subject fields: social science, natural science, medical science, agriculture, and humanity sciences according to the frascati classification. The first page of the dictionary is shown in Figure 1 as following.



**Figure 1:** The interface of the online terminology dictionary (source: <http://dict.ac.mn/> )

The structure of the database reflects a concept-based approach to terminology. Each entry has three inter-related levels where monolingual information (with English equivalent terms) about a concept can be recorded:



**Figure 2:** Data model of the online dictionary

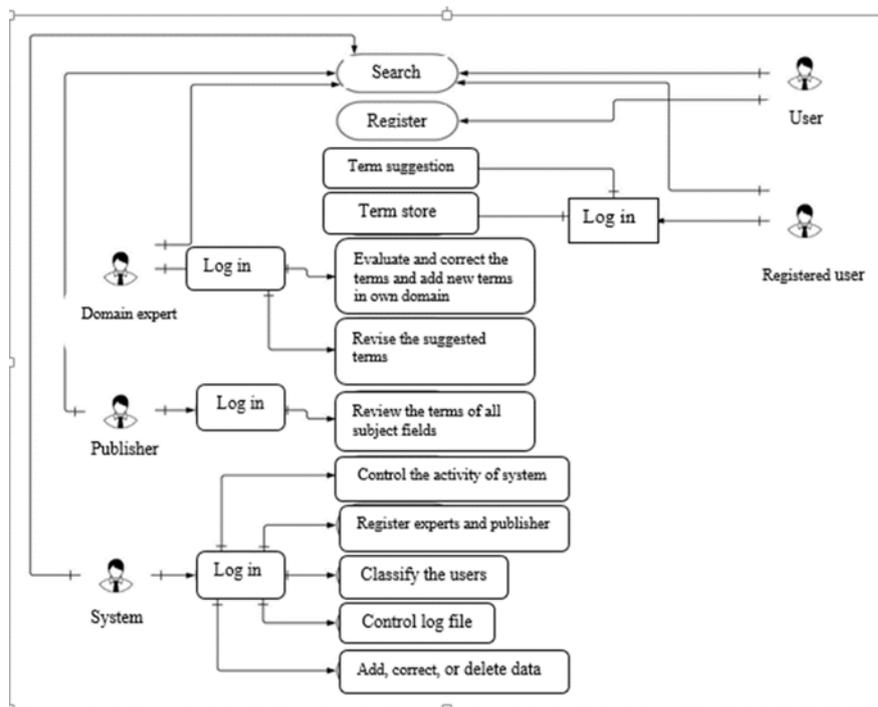
The terminology in the dictionary is stored in semantic relationships between concepts and terms. The semantic relationships are: broader concept (BC), narrower concept (NC) and other types of related concepts. Thesaurus structure of the dictionary enables users to represent static and procedural information. It provides a basis for classification of science knowledge. Let us show you entry design by an example of the term “бронхит” (bronchitis) in the Figure 3.



**Figure 3:** The entries of the term “bronchitis”

As we have seen the Figure 3, the entries of the term “бронхит” include the versions in Mongolian national script (on the top in the left hand side) and Cyrillic script (on the top, in the center), English equivalence (in the center), definitions in Mongolian and English (at the bottom of the center), science field (on the top in the right hand side), taxonomy (below the science field) and source (at the bottom of the right hand side). Searching a term can be in several ways: searching by terms, searching by domain, and searching by alphabetic letters.

The dictionary system develops the database with the participation of users, collects semi-structured data in the form of JSON data and stores the structured data in the database using MYSQL.



**Figure 4:** USE CASE diagram of the termbase system (source: Lhagvasuren A and others, (2022))

### 3. Conclusions

This terminology repository aims to not only consolidate and harmonize terms in nationwide and but also to integrate terminology work with knowledge management. (Wikiprogress knowledgebase n.d.) In the near future, we are planning to consolidate our termbase with international term banks such as IATE or Eurotermbank. For it, our project will help to implement it.

The preparation of reliable terminological data with help of domain experts is significant for unifying terminological usage to achieve clarity and consistency within the nationwide and international level.

“...innovations in lexicography need time, both to spread and to be developed. This is supported by our data, although the outcome of this development is very open at the moment” [3] Similarly, we need time to enhance the quality of the online dictionary by learning knowledge from the experienced international terminologists.

## References

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