Whenever we want to know what a given word means in a foreign language, people usually turn to a bilingual dictionary (be it in a paper or electronic form), a list of words with equivalent words in a foreign language. However, with the advent of computer technologies new kinds of resources have been developed, offering access to much bigger and more innovatively presented language data than traditional dictionaries. In this study we will focus on the so-called 'wordnets' - large (electronic) networks of words in their specific senses linked by a rich inventory of lexico-semantic relations expressing different types of meaning correspondence. For example, {samochód 1}, {auto 1}, {wóz1} 'car' are lexical units that together form a synset, which is related via hyponymy relation to a synset formed by lexical unit {autobus 1} 'bus' and hypernymy relation to the synset formed by a lexical unit {pojazd drogowy 1} 'road vehicle'.

In the proposed research, we will focus on the comparison of plWordNet - a wordnet of the Polish language (Słowosie ) and Princeton WordNet - a wordnet of the English language that provide two independently created models of representation of a lexicon, that is, an inventory of words, of Polish and English. More specifically, we will compare the two lexical databases to determine how equivalent the linguistic data found in them are (as we believe that such findings may come in useful for lexicographers, translators or foreign language learners). In the course of the project work, we will also investigate the whole variety of lexical gaps and/or mismatches between the two lexical databases and we will also try to explain their causes (e.g. cross-cultural differences, typological differences between languages, different methods used in the construction of Polish and English wordnets, to name but a few possibilities). Furthermore, after investigating the types and scope of equivalence between the two wordnets, we will capitalize on the findings and propose a method of linking the wordnets on the level of lexical units, that is, a level of wordnet structure characterised by a significantly richer number of linguistic details. Such a task, it should be stressed, has never been conducted before. To facilitate this, we will attempt to develop the system of automatic prompt generation that will be used in the future to link plWordNet and Princeton WordNet on the level of lexical units. That is why our project will also provide a significant contribution to research in natural language processing; the findings and the methods developed throughout the study may help one extract relevant and meaningful information from texts produced in two languages, that is, Polish and English.