

Fuzzy Exact Search and Fuzzy Exact Translation Based on UPN

UPN stands for Universal Permanent Number, which is the set of distinct integers from minus to plus infinity. UPN is for assigning globally unique and permanent names to permanent entities, such as books, real estates, published articles, people, knowledge, and DNA. When the number of UPN becomes too large for humans to remember, UPN can be remembered by UPS, which stands for Universal Permanent Software. In fact, UPN is a byproduct of UPS, which is based on the invention of the Completely Automated and Self-generating Software System explained in a patent with the same title and with Patent Number 6, 078,901. UPN can be applied to Exact Search and Exact Translation, where each search or translated item is represented by a UPN.

Exact Search means finding just one result in every search. Today, a search engine provides pages of results for the human users to identify the ones of interest. This is Fuzzy Search. However, if a book number ISBN is inputted in a search, the book will be ranked at the top of the result. Unfortunately, ISBN is not globally unique and might come into conflict with identification numbers from other number systems, such a product number and an account number. UPN is designed to make the identification universal or global and permanent. The first step in knowledge management is to assigning globally unique and permanent names, that is UPN, to permanent entities, such as items involved in knowledge. Technically, the search engine company needs to do is to add features allowing the submission and the retrieval of UPN or just have crawlers to crawl numbers identified as UPN or stored in a UPN software depository. One of the number system UPN should immediately be replaced is ISBN. Understanding that ISBN is incorrectly designed will be a great breakthrough for society in critical thinking.

Exact Machine Translation means matching two exact translated scripts of two different languages. Today, if one wants to translate a serious formal letter for a receiver, whose native language is completely unknown to the sender, the sender cannot trust the Google fuzzy translation, which would not be understandable to the sender. What needs to be done is to have a certified translation by an expert translator, who contributes to the big data of translated scripts. There will be an unlimited number of certified translated scripts corresponding to another unlimited number of translations of other languages. The two main problems of such an unlimited system are: (1) Every translation needs a name and (2) There needs a way to remember these names. The answer are, respectively, (1) For large quantities, UPN must be used because the translations are intended to be permanent and universal, as in book numbers and (2) The completely automated software UPS can have the computer remember the translated scripts, for which each UPN stands for one of the scripts.

The introducing the most valuable product based on life science, namely, UPN will give society a glimpse of the Age of Life Science characterized by unlimited complexity and by complete automation. The first products can be UPN for DNA and UPN for books. Also, a UPN can be assigned to each and every Universal Permanent Device, which is keychain-like device for recording one's life story and is backed up by a cloud service. Logically, all the registration numbers of students and faculty members should immediately be converted to UPN for permanent record keeping. The UPN business is just in selling numbers, to replace the current incorrect, non-permanent and local, number systems by the universal permanent number systems based on UPN, which can be found by Exact Search. The current fuzzy search, even making billions of dollars, is incorrect by post-creational standard because it bypasses the Exact Search, which post-science is trying to introduce with the solution of complete automation. The correct solution to search should be Fuzzy Exact Search, which puts fuzzy logic 3000 year ahead of the existing incorrect fuzzy search. Exact Search starts will assign a distinct and permanent name in the form of integers, namely, UPN, to every search result. Fuzzy Exact Search will then expand the range of Exact Search.