ABSTRACT
This paper introduces the e-learning platform for kanji studies that is being used at the Department of Japanology and Sinology, Jagiellonian University in Krakow. The platform has been created in response to educational challenges posed by the emergence of the information society, where students are excessively dependent on the Internet and mobile devices. Although the Kanji Jigoku platform facilitates the study of kanji, it cannot match a traditional dictionary and, above all, does not exempt students from hard work, as to master kanji requires a lot of time and patience.

KEYWORDS: Japanese language, didactics, e-learning, kanji

The Internet and mobile devices, such as smartphones, tablets and e-book readers, have brought about revolutionary changes in people’s lives. That is to say, information has become accessible within three moves of a finger on a screen. In the academic world the Internet has profoundly changed study habits and methods of conducting research. A smartphone connected to the Internet may serve not only as a dictionary, encyclopedia or translator, but also as a device for research query and quick verification of information.

For students of Japanese language in Poland the Internet is a blessing. Nowadays everyone can afford Japanese dictionaries, including a kanji dictionary, which for an average student twenty years ago was too expensive and difficult to obtain. Some notable publishers have decided to release their works on the Internet for free. Dictionaries Daijirin (Sanseidō) and Daijisen (Shōgakukan), for example, are available at the Kotobank, Yahoo, Goo and Weblio portals. Apart from websites, publishers also offer applications for mobile devices. Applications that can be used offline are successfully competing with applications requiring a connection to the Internet: they do not generate costs for the Internet-data transfer, usually they are faster and ad-free.

Having noticed that students had bid farewell to paper dictionaries I realized that it was high time to introduce the Internet to my kanji classes. In 2010, I started developing a website for kanji studies, dedicated for
students of the Department of Japanology and Sinology at the Jagiellonian University in Kraków, Poland. This website eventually evolved into a large e-learning platform, “Kanji Jigoku,” or “Kanji Hell,” which consists of a website and an application for devices running on the Android system.¹

**Issues Concerning Internet Sources**

Despite their many assets, Internet dictionaries are also not without their shortcomings and pose some challenges to their users. The internet in general takes the edge off a sense of quality control. The problem of Wikipedia and other projects of this kind is that users take their reliability for granted, having no guarantee whatsoever that the content they get on the screen has been checked and proofread by a professional editor. This issue concerns all Japanese online dictionaries that constitute a compilation of various databases, the credibility of which is in some cases questionable. By juxtaposing professional and quasi-professional resources these dictionaries shift the responsibility of quality control to users, and this should not be the case. Take the Weblio portal, for example, where the corpus of the *Daijisen* dictionary is mixed with example-sentences extracted by an algorithm from Japanese Wikipedia and the Tatoeba database. The sentences from Wikipedia are often out of context and therefore useless. The sentences from Tatoeba are even more problematic, as many of them have been written by non-native speakers. Ordinary users, however, are not able to judge whether they are correct. Speaking of example-sentences, the issue of *furigana* (reading) needs to be addressed. In Tatoeba and Tangorin *furigana* attached to sentences is generated “on the fly” by algorithms. The algorithms, however, are not perfect and generate errors – not many, but enough to question their credibility. Take for example the word 清水: it can be read either “Shimizu” or “Kiyomizu”. In Tatoeba and Tangorin the sentences containing the expression “Kiyomizu no butai kara tobioriru” (lit. “to jump from the terrace of the Kiyomizu temple”, to make a leap in the dark) are read “Shimizu no butai…” – an inexcusable error. Of course, we may say that errors occur in “traditional” dictionaries too, but in this case the problem concerns the removal of humans from the editing process, which brings us back to the issue of quality control.

¹ The “Kanji Jigoku” project would not have been completed without support from the Hakuko Foundation which granted me a research scholarship at the Tokyo University of Foreign Studies in 2014-15.
Project Description

“Kanji Jigoku” (hereafter KJ) combines the functions of a textbook and a small dictionary. It contains 2,484 characters: the standard jōyō kanji set (2,136), kyūji (old versions of characters), and jinmeiyō kanji (characters used in names). All characters are organized into levels and classes. The three-year undergraduate curriculum at our department includes 1,800 characters which are organized into six levels, corresponding to six semesters. The curriculum is as following:

1st level: 251 characters, 22 classes (10-12 characters per class);
2nd level: 249 characters, 23 classes (10-12 characters per class);
3rd level: 325 characters, 25 classes (13 characters per class);
4th level: 325 characters, 25 classes (13 characters per class);
5th level: 325 characters, 25 classes (13 characters per class);
6th level: 325 characters, 25 classes (13 characters per class).

The curriculum follows the order of kanji of the following textbooks: Basic Kanji Book (Nishiguchi 1994) (the first two levels) and Kanji in Context (Kano 1989). Each kanji contains a standard description that includes: character meanings, number of strokes, the radical, basic on’yomi and kun’yomi readings, Chinese readings in pinyin, and, in some cases, nanori readings (readings used in names). Following the description come compound-words (jukugo) and example sentences illustrating the usage of vocabulary. Each kanji is usually provided with four or five most representative compound words. Currently the KJ dictionary contains ca. 9,900 words and 5,600 example sentences.

Basic information about characters come from the kanji database created by Electronic Dictionary Research and Development Group (EDRDG). KJ, however, does not simply copy the EDRDG data, as is the case of many online dictionaries. All imported data has been carefully selected and double-checked. For example, historical and rarely used kun’yomi and on’yomi readings have either been omitted or marked as complementary.

The EDRDG database is not free of errors, so they had to be corrected. To present the comparative context of a kanji, KJ displays other characters from the same phonosemantic group. For examples, the character 語 is juxtaposed with 五 and 悟 (as they share the same component and reading

2 To complete a level within the semester (fifteen working-weeks), students have to study two classes (20-26 characters) per week.
go). Some characters are provided with additional information about etymology etc. For example, KJ encourages the user to compare the character 与 with 举, because historically they are related (与＝與, 举＝舉) and therefore they share the same reading (yo). Another example: KJ informs that 勲 is not related to 動 and thus explains why the two characters do not share the common reading. In addition, KJ is linked with other online dictionaries. On the sidebar of the page there are links to Yamasa Kanji Dictionary, Jisho, Tangorin, Weblio, Goo and Chinese Etymology websites. This enables the user to check the character in other sources with one click.

The set of compound-words is based on the vocabulary list in kanji textbooks. As a principle, each kanji is provided with one word marked with a star, which is meant to be a catchword helping to memorize the kanji. For example, KJ recommends memorizing the character 貿 (bō) as a component of “trade” (貿易 bōeki), and 旅 as a component of “journey” (旅行 ryokō). To illustrate the meaning of a word related to Japanese culture, a picture from Wikimedia Commons is provided (for example: wooden clogs geta, sliding door shōji, paper fan uchiwa etc.).

The example sentences have been composed by lecturers of our Department or borrowed from various sources: dictionaries, textbooks of Japanese language, textbooks used in Japanese middle- and high-schools, newspapers, online articles etc. They cover a wide range of topics, as the idea of KJ is to expand students’ vocabulary in various fields. Hence students get some idea of the language of social sciences as well as physics, chemistry, biology and geography. The language difficulty and grammatical complexity of sentences have been adjusted to the level of students’ skills: sentences at the 1st and 2nd levels are short and simple. All sentences are appended with furigana and translated into the Polish language.

It needs to be emphasized that KJ does not generate furigana “on the fly”. The reading of each sentence has been inputted manually and saved in the database. KJ enables the user to import furigana from websites hosting furigana algorithms (Kanji Converter, Furigana Generator), but at the end it requires the administrator to approve the reading before saving it.

The KJ platform features various tests and exercises. Students can review the study material using flashcards or multiple-choice tests. KJ offers twenty-three different kinds of tests generated by computer algorithms,

---

3 The copyright-protected materials are not accessible to guest-users of the platform. Full access is limited only to users of the Jagiellonian University network.
including tests for *kun’yomi* and *on’yomi* readings, meanings and readings of compound-words, *okurigana* (*kana* suffixes attached to *kanji*) and old characters.

KJ is dedicated not only to students but also teachers. The teachers (i.e. users with administrative permission) can generate and print out a test. Hence the task to prepare an exam sheet takes less than a couple of minutes. The content of KJ is not fixed. I am still working on expanding the set of example sentences, in particular the sentences for beginners. KJ can also be perfected by adding expository notes about etymology to all *kanji*. I do not plan, however, to expand the vocabulary corpus or to add new characters. KJ is first of all a textbook and therefore shall not exceed students’ limits of acquirement of knowledge.

**Conclusions**

From the perspective of the past few years, since I introduced KJ to my classes, I cannot say that the level of *kanji* knowledge among students of my Department has improved or worsened. KJ has not brought any revolutionary changes in *kanji* learning, but this is not what I was expecting. I have created KJ in response to the expansion of the Internet in our life. The Internet does not make people wiser or better informed. It does not improve people’s learning skills. My biggest reservation about the Internet is that it makes information too easy to access, thus eliminating the act of searching from the process of learning. The act of searching is important, because it creates stimuli improving the memory. Above all, it helps uncover new layers of knowledge, and, by extension, it improves the study context. It does make a difference whether one can freely browse through library shelves and explore them, or can only pick up a book at a counter; it makes a difference whether one can study an encyclopedia, or simply get a piece of information on a screen. In this respect KJ, like other digital sources, cannot substitute a physical dictionary.

Studying *kanji* is very painful and solitary work that requires regular training, patience and time. First year students need, of course, some guidance from a lecturer, but basically teaching *kanji* can be easily moved to the Internet. After I had introduced KJ, I gave my students the freedom to decide whether they wanted to come to my classes or to study on their own. Most of them chose the latter, but, to my great satisfaction, they have gone on to pass their final exams. I have observed, however, that those students who come to class to be grilled at the blackboard statistically get better results in exams. After all, interpersonal relations and the atmosphere in the classroom are important factors stimulating the learning process.
References
Kanji Jigoku
http://info.filg.uj.edu.pl/~smeyer/kanji/
http://stachu.freehostia.com/kanji/ (mirror site)

Chinese Etymology
http://hanziyuan.net/

Jisho
http://jisho.org/

Electronic Dictionary Research and Development Group
http://www.edrdg.org/

Furigana Generator
http://furigana.sourceforge.net/

Goo
http://dictionary.goo.ne.jp/

Kanji Converter
http://nihongo.j-talk.com/


Kotobank
https://kotobank.jp/


Tangorin
http://tangorin.com/

Tatoeba
https://tatoeba.org/


Yahoo Japan Dictionary
http://dic.yahoo.co.jp/

Yamasa Kanji Dictionary
http://www.yamasa.org/ocjs/kanjidic.nsf/MainPage?OpenForm
AUTHOR’S PROFILE

Stanisław Meyer (PhD University of Hongkong) is assistant professor at the Department of Japanology and Sinology, Jagiellonian University in Krakow. He conducts research on Okinawan history, Japanese colonialism and Japanese minorities. As an academic lecturer he teaches Japanese history and kanji. In 2018 he published a monograph *Historia Okinawy* (The History of Okinawa).