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The next generation of language education: technology and pedagogy side-by-side

AIKAWA, Takako
Massachusetts Institute of Technology, USA
Alessandro MANTELLI
Università Ca' Foscari Venezia, Italy
Marcella MARIOTTI
Università Ca' Foscari Venezia, Italy

Abstract

The goal of this panel is to urge language teachers to re-think the design of our language curriculum and pedagogy while exploring innovative learning activities for the next generation. To this end, we first introduce two types of learning applications that are under development. The first application is designed to enhance the receptive skills of reading and listening through different interconnected media. User data gathering, multi device usability, and maintainability and sustainability will be addressed.

The second application enhance the productive skill of writing. It identifies the mistake(s) made when writing a sentence, and it also provides meaningful feedback to the learner. It utilizes the grammar knowledge crowdsourced from Japanese language teachers and natural language processing (NLP) technology. We will demonstrate what types of grammar rules have been acquired through this crowdsourcing and explain how these rules are being fed into the application's system, using NLP.

The first two papers demonstrate that technology has advanced enough to enhance not only learners' receptive skills but also productive skills. The third paper discuss how language teachers can 'survive' technology and show how rapid advancement of new technologies might drive toward the de-standardization of teaching, the professionalization of teachers, and critical education.

JALEA: a highly maintainable Japanese Learning Web Application

Alessandro MANTELLI
Università Ca' Foscari Venezia, Italy

Abstract

The paper aims to present the ICT characteristics of JALEA [JApanese LEArning system] (Mariotti, Mantelli, Lapis, 2016), an innovative web tool for the acquisition of the Japanese language dedicated to higher education learners with a learner-centered approach based on self-guided discovery of grammar structures and words' meaning. This tool has been developed focusing on the principles of adaptability and maintainability: it is usable on several platforms (PC, tablet and smartphones) and thanks to the implementation of an area accessible to maintainers that includes

several automatization features, text and multimedia content can be easily added and modified also by personnel with low ICT knowledge or skills. Data collection features are also present to allow for the acquisition of statistics about learner usage, the analysis of which can help improve the system and the related learner experience.

Keywords: Japanese Language; e-Learning; Foreign Language Education; Instructional Design; Authentic Learning in Interactive Media; Digital Humanities.
【キーワード】 日本語教育、e ラーニング、言語教育、インストラクショナル・デザイン、デジタルヒューマニティーズ

1 Introduction

JALEA [JApanese LEArning system] (Mariotti, Mantelli 2016) is a web tool for the acquisition of Japanese language that addresses the limits related to conventional didactic tools, such as grammar reference books or course textbooks for Japanese language learning, that are mainly:

- Fragmentation of separate reference tools (words dictionary, Sino-Japanese characters dictionary, grammar reference)
- Artificial materials created with the purpose of preparing to speak a different language rather than encouraging a direct engagement with a foreign language as in real life.
- Constrictive, tedious and time-consuming method based on a top-down predetermined teaching path.

JALEA is the natural evolution of an earlier project called BunpoHyDict (Mariotti 2008, 2011), which basically addresses the problems mentioned above but lacked 3 important points that have been implemented in JALEA.

1. Automatic user data collection the analysis of which can help improve the learner experience
2. Usability through different devices such as PC, tablets and smartphones
3. A developmental approach focused on project maintainability and sustainability, for instance by creating a layer for managing texts and content requiring less effort and time.

JALEA has been conceived both for use by self-learners without any assistance, and as a support tool by foreign language teachers in class. The main concept behind this web application is that the learner can enjoy autonomous discovery of the language without being limited to specific language levels or units. Presently JALEA is written in Italian, as it addresses mainly the B.A. students of the Ca' Foscari University of Venice, but its approach and structure can meet equally well the needs of students of Japanese from any language background.

2 JALEA implementation research questions

In the present paper, I will discuss the main ICT aspects of JALEA, however details about code implementation and development will be avoided as they are outside the scope of this paper.
JALEA implementation research questions can be divided into 3 points as below:

1) Maintainability

1. How can the development time be minimized to cope with limited funds and to grant faster updates?

2. As a project that grows exponentially because of the constant updates, how can it be maintainable and sustainable?

2) Adaptability

1. How can it be used on different devices (PC, tablet and smartphone as well)

3) Data collection

1. How can data related to learner navigation be gathered so as to improve learner experience?

2.1 Maintainability - minimizing development time

JALEA has been developed as a PHP application in a LAMP stack. LAMP is an acronym for Linux Apache MySql and Php. It means that the application resides in a Linux OS based server, and the http server is Apache. MySQL is the database used and the server-side language in this case is PHP .

As in any typical Web Application, the user can access by using a browser on a PC/Mac or tablet/smartphone through the internet. Files and data are saved respectively in the Linux filesystem and in the database. Each request is interpreted by PHP which generates an html page on the fly to be returned to the browser. The code has been organized with the architectural pattern MCV (Model, Controller, View) through the implementation of the Codeigniter framework.

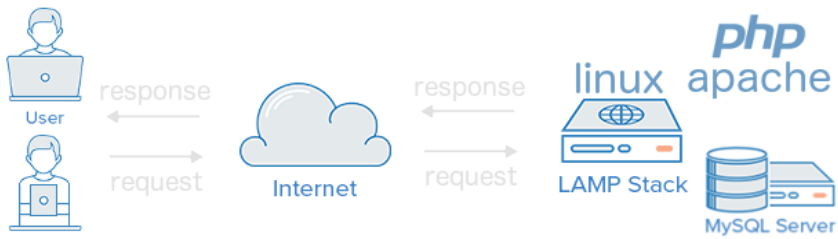
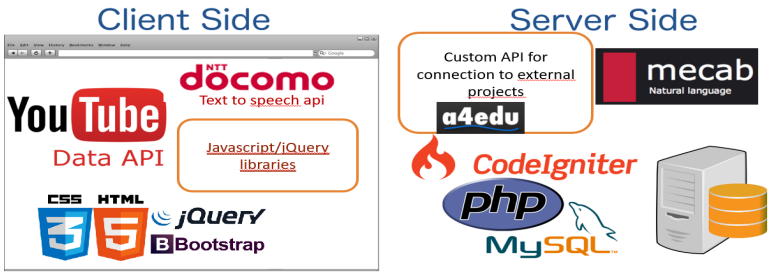


Figure 1: JALEA architecture scheme

JALEA makes use of different technologies, often in the form of APIs (Application Program Interface). Some are on the client side and are used directly in the browser, others are on the server side, and thus are implemented in the server.



Fugure 2: Jalea Main Components details scheme

To solve the problem of maintainability of the software from a development perspective, it has been decided to use several open-source or free-to-use external components in the form of APIs. By doing so, it is not necessary to build everything from scratch thus reducing the development time and cost. I am going to describe below the main API components that are the base of some special functionalities of JALEA.

2.1.1 YouTube API

The YouTube API allows to play video, synchronize subtitles script with a video item and jump to the required point of the video. In JALEA this functionality is used in the video section.

Figure 3 Screenshot of the video section

With the implementation of this API, it is possible to synchronize the script (displayed in the right part of the image above) with the video. It is also possible to change the video speed. By pressing the time link on the left of the screen the video automatically jumps to the indicated time. However, it is still necessary to prepare a script with the subtitles and the corresponding timetrack but thanks to the API is possible to perfectly bind the timetrack to the video without any gaps.

2.1.2. Text-To-Speech API

In JALEA, it is possible to click on the icon on the left of each example sentence and hear it pronounced with a synthesized voice. It is also possible to match some of the sentences with samples pronounced by a real speaker, but as it takes a lot of the time to prepare real voice samples for each sentence, it has been decided to use a Text-to-Speech API to automatically convert the text to speech when an authentic voice sample is not present.

Figure 4: Example sentences. By clicking on the grey colored speaker icon on the left, the sentence is automatically convert in synthesized speech.

The Text-to-Speech conversion is obtained thanks to the free API released by DOCOMO[1].
In the settings of this API it is possible to select from 6 different character voices and to change emotion, level, pitch and speed.

2.1.3. KanjiVG e DMAK

In JALEA, by activating the "Dictionary" function, it is possible to position the mouse in any lexical item of the example sentences to activate a popup frame with the Italian translation of the sentence and the character-drawing animation as shown in the image below.
To obtain this effect, all the SVG[2] shapes provided with the project KanjiVG[3] have been implemented.

Figure 5: Kanji animation of a lexical item[4] that has been selected in the "dictionary" mode

Each SVG shape is then processed with a JavaScript[5] library[6] called DMAK[7] that draws each single vector shape at a certain speed (configurable through library parameters) thus creating the animation effect.

2.1.4 A4Edu custom API

The a4Edu (Asian languages for education) API is a custom API that I built from scratch to allow each JALEA lexical item in a sentence to connect to the a4Edu (Mantelli, Mariotti 2016) Japanese - Italian online dictionary, developed from the former ITADICT (Mariotti, Mantelli 2011).

The API passes the selected lexical item and its grammatical function[8] to an API that functions as connector between JALEA and a4Edu. Then, an a4Edu dedicated library returns the most relevant Italian translation (when present in the dictionary) to JALEA. In case of *Kanji* compounds, in most of the cases it is sufficient to look it up in the a4Edu dictionary and return the correspondent translation. In the case of Kana words, the lexical item is searched in the dictionary along with its grammatical function to avoid misinterpretation. Let's take for example the case of さん *san* that can mean both 'three', as well as the honorific suffix (Mr., Ms.) for names. The system can easily misinterpret it, unless the programmer informs the system with specific indications about its grammatical function.
In the image below, I provide one example of what has just been described. The lexical item さん is correctly interpreted as the corresponding honorific suffix and the corresponding Italian translation

is returned.

Figure 6: Correct translation for the lexical item "san" in 田中さん tanaka san

2.1.5 MeCab integration

In JALEA all the Japanese content of the examples is converted in morphemes with MeCab[9] and then rearranged in larger lexical items with the implementation of a custom library that I created. It is thus possible to prepare content for JALEA just in *kana-kanji majiri*, and also have the corresponding transcription in *hiragana* and *rōmaji*. This means that a lot of time and effort can be saved during the content preparation.

Hiragana and *rōmaji* transcription can be turned on/off on the fly by pressing the interface buttons at the bottom of the page.

Figure 7: Hiragana and rōmaji are automatically generated and can be turned on/off by pressing the corresponding buttons

2.2 Maintainability - easy content management

To add, update and delete content, a complex but easy-to-use control panel area has been created. By accessing this area, it is possible to add content, examples as well as images and videos as shown in the images below.

Figure 8: Example of the backoffice area for the video section of JALEA

As each grammar description page of JALEA is identified by a tag, to create a link between a portion of the text and its description page, it is sufficient to wrap this text with the corresponding tag. Thus, there is no need for the editor to look for the URL of the related grammar explanation page to link to each highlighted item, nor to write complex html code. Once a word is wrapped by the content manager with a JALEA tag, the system automatically creates a link to the corresponding page.

2.3 Adaptability

To automatically adapt JALEA content to the size of multiple devices, all the layouts have been created using the Bootstrap framework[10]. This complex framework allows for the creation of adaptable blocks of content that automatically rearrange their position when the window/screen size changes.

Thanks to this framework it is possible to resize the content of JALEA to adapt the content to a smartphone or tablet screen. This technique takes the name of responsive design.

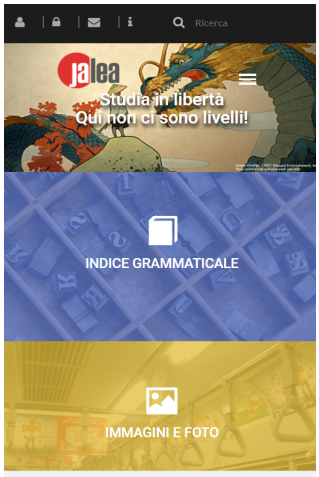


Figure 9: JALEA layouts on smartphones of different sizes

3. Data Collection

To gather data about user usage and experience in JALEA, we must ask the user to log in to use the application. To be sure that no fake logins are used and to avoid the annoyance of the registration process, the login authorization API of the users' University must be connected to JALEA. The downside of this implementation is that only students and personnel of a specific University can use JALEA.[11]

Collected student data include name, age, address, academic year, exam grades and graduate or undergraduate status. Students name are encrypted so to assure privacy.

We will disclose data about JALEA usage in the near future, since I am preparing some satisfaction surveys to be compiled directly from the JALEA site to gather further information from the users.

4. Future

There are still some aspects of JALEA that we need to improve in the future. The in-site search functionality is one of them. At the present moment, it is possible to search using simple keywords or to do complex searches by matching one particular multimedia type or tag as in the images below.

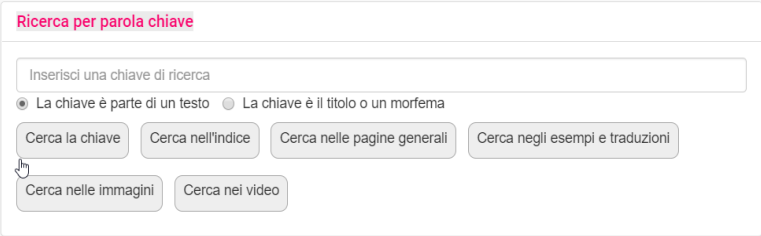


Figure 10: Search by keyword, examples, images or video

Figure 11: Search by grammar tag

We want to improve the search functionality by highlighting the searched word in the text so that it is easy to identify and by extending the search also to external sites if the keyword is not found. To do so we are planning to connect JALEA with other external online dictionary sites through dedicated APIs and to display the search results inside the JALEA window. The basic idea is to have learners consider JALEA as starting point for all kinds of searches about Japanese grammar and dictionary.

Secondly, we are planning to add several kinds of online exercises to practice Japanese grammar and AI-driven natural language communication and to connect JALEA directly to Prof. Aikawa's AI Tutor. This will enable students to automatically check his/her composition or exercises, as will be presented in the next paper.

Notes

[1] Docomo Text-to-speech API are distributed free of charge and available at the following page:https://dev.smt.docomo.ne.jp/?p=docs.api.page&api_name=text_to_speech&p_name=api_reference&lang=1

[2] Scalable Vector Graphics (SVG) is an XML-based vector image format for two-dimensional graphics with support for interactivity and animation

[3] KanjiVg (http://kanjivg.tagaini.net/) is a project by Ulrich Apel which provides a SVG file that gives the shape, direction and of each of its strokes for each *Kanji* and *Kana* character

[4] For 'lexical item', we consider a morphologic semantic item, very similar to the concept of word for European languages. See Lewis, M. (1997). Implementing the Lexical Approach. Language Teaching Publications. Hove, England

[5] JavaScript is a language implemented in the browser (such as Chrome, Firefox or Explorer) that is used to make pages interactive. It also provides animation functionalities and real-time page element rearrangement.

[6] A collection of computer routines that a program can use.
[7] DMAK By Matthieu Bilbille: (https://github.com/mbilbille/dmak).
[8] It will be discussed in the next paragraph.
[9] MeCab (http://taku910.github.io/mecab/) is an open source Part-of-Speech and morphological analyzer for the Japanese language. It divides the sentence in morphemes and returns a map of such morphemes with the corresponding *kana* readings.
[10] Originally created by a designer by "Twitter" developers in 2010, Bootstrap has become one of the most popular front-end frameworks and open source projects in the world.
[11] Actually available only for Ca' Foscari University of Venice.

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Toward the Development of the AI Tutor

AIKAWA, Takako
Massachusetts Institute of Technology

Abstract

This paper showcases a Japanese writing support system called "AI Tutor", which is currently

under development. AI Tutor is designed to facilitate learners of Japanese (beginning to intermediate levels) to write by detecting and correcting learners' grammatical errors automatically. AI Tutor is unique in that its knowledge is built upon the corpus data crowd-sourced from Japanese language teachers. In this respect, it is a product of collaboration between language technology and teachers. The organization of the paper is as follows: first, we provide a high-level overview of the AI Tutor project and discuss the project's motivation. Second, we explain the corpus data structure on which the system of AI Tutor is based. Third, we explain what types of errors AI Tutor can correct by presenting some concrete examples. Fourth, we discuss some limitations of AI Tutor's error correction functionality and finally, we present our approaches to tackle such limitations.

Keywords: Artificial Intelligence, Crowd-sourcing, Natural Language Processing
【キーワード】 人工知能、クラウドソーシング、自然言語処理

1 Introduction

AI Tutor is a Japanese writing support system that is designed to facilitate learners of Japanese (especially, beginning to intermediate levels) to write by detecting and correcting their grammatical errors in real-time. The backend system of AI Tutor utilizes natural language processing (NLP) technology, but AI Tutor's knowledge about the Japanese language is built upon the corpus data crowd-sourced from Japanese language teachers. In this respect, AI Tutor is a product of collaboration between language technology and teachers.

We started this AI Tutor project to find out what types of computer-learner interaction(s) can have true pedagogical value.[1] Further, we wanted to develop a system that can enhance learners' so-called "productive skills" (e.g., writing or speaking), as opposed to "receptive skills" (e.g., reading or listening), because currently available Internet applications mostly focus on facilitating only learners' receptive skills. We hope that this project can shed new light on how technology and language teachers can work side-by-side for the advancement of Japanese language education.

2 Corpus Data

As mentioned above, AI Tutor's knowledge about the Japanese language is based on the corpus data crowd-sourced from language teachers. We recruited Japanese language teachers in the U.S. and asked them to do two different tasks: (i) to create error sentences that they see in their students' written homework or exams and (ii) to correct these errors. We call this process "teaching-sourcing" (Takahashi & Aikawa 2016, Aikawa & Takahashi 2017, Aikawa 2017).[2] We took this teacher-sourcing approach because we assumed: (i) that only language teachers can tell what types of errors learners of Japanese would make and (ii) that JFL (Japanese as a Foreign Language) knowledge is something that only language teachers have. Furthermore, we wanted to marry language teachers and technology in some fashion, and we thought this would be a great opportunity to do so while also empowering language teachers.

This teacher-sourced corpus data consists of "error-corrected" pair sentences, such as those in (1).[3] We currently have more than 10,000 pair sentences like these.

(1) a. [error]この本は、高いだと思います。<-> [corrected] この本は、高いと思います。
("I think that this book is expensive.")
b. [error]学生は、何人ありますか。<-> [corrected] 学生は、何人いますか。
("How many students are there?")

The motivation to build such error-corrected pair corpus data is to retrieve automatically the mapping rules from "bad Japanese" to "good Japanese". In fact, this is similar or identical to what Machine Translation (MT) is doing; that is, MT has all sorts of mapping rules from one language to another, and it provides the most probable target language strings, given a source language input. AI Tutor provides the most probable correction(s), given an error sentence, and in this respect, it is similar in behavior to MT. Figure 1 summarizes the mapping retrieval mechanism based on our corpus data.

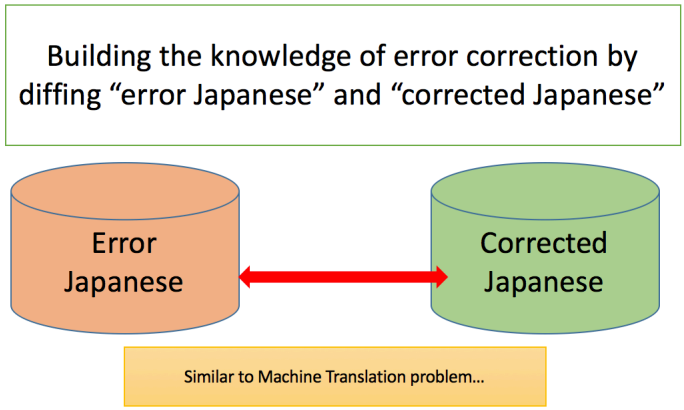

Figure 1: Knowledge Retrieval based on the Error-Corrected Corpus Data

3 Error Correction Types

The mapping rules that we retrieved from our corpus data are based on the differences in surface strings between the error sentences and their corresponding corrected ones. The total number of these surface string-based rules is about 8,000. We judge AI Tutor's coverage of error correction to be comprehensive because we have observed that AI Tutor can consistently handle prototypical errors that beginners of Japanese language make. Table 1 below presents some sample corrections that the current AI Tutor system makes.

Table 1: Sample Error Correction Suggestions by AI Tutor

Adjective modifier	高いの車を買いました。 有名の人はどこですか。	高い車を買いました。 有名な人はどこですか。
Verb conjugation	アイスを食べるません。 今日、私はひまじゃなかったでした。 日本語を話すません。	アイスを食べません。 今日、私はひまじゃなかったです。 日本語を話しません。
Sentence connection	うちはきれくて大きいです。 このゲームは新しい、おもしろいです。	うちはきれいで、大きいです。 このゲームは新しいくて、おもしろいです。
Embedded	京都へ行きました時、このえを買いました。 まっすぐ行きますと、こうえんがあります。 あの人は、ハンサムと思います	京都へ行った時、このえを買いました。 まっすぐ行くと、こうえんがあります。 あの人は、ハンサムだと思います
Idiomatic	妹は、せがながいです。 ズボンをきています。	妹は、せがたかいです。 ズボンをきています。
Adjective Conjugation	アパートはべんりだでしたか。 なっとうが好きくない。	アパートはべんりでしたか。 なっとうが好きじゃない。
Lexical Choice	ここには、傘がいません。 まどをあけておねがいします。	ここには、傘がありません。 まどをあけてください。
Adverbs	カレーはとても食べたくありません。	カレーはあまり食べたくありません。

4 Limitations

Though the correction rules acquired from the teacher-sourced corpus data are quite comprehensive, they are limited in some aspects. The following subsections will discuss what types of limitations these rules currently have.

4.1 Lack of Robustness

First, the rules acquired from the corpus data are all string-based transformational rules, and hence are pertinent only to the errors included in the corpus data. For instance, our corpus data contain errors such as those in (2), and the presence of these errors in our corpus allows AI Tutor to handle errors such as those in (3). But, it cannot handle errors such as those in (4), simply because these error strings are not present in our corpus. Put differently, AI Tutor can handle only the errors observed in the corpus data, and hence it is not robust enough. So, we need to have a mechanism to generalize our current rules in a systematic way, so that AI Tutor can be more robust.

(2) a. あの部屋はきれいなです。-> あの部屋はきれいです。{きれいなです->きれいです}
b. はやく食べるください。-> はやく食べてください。{食べるください->食べてください}

(3) a. 教室は、きれいなです。->教室は、きれいです。
b. 部屋で食べるください。->部屋で食べてください。

(4) a. この問題は、妥当なです。->*この問題は、妥当なです。(no changes)
b. ここに寝るください。->*ここに寝るください。(no changes)

4.2 Lack of Context Sensitivity

Another limitation that the current rules face is that they are not sensitive to a context, and hence, some of our rules over-correct errors. For instance, examine the following:

(5) ごはんを食べてあります。->ごはんを食べています。
(6) ごはんが食べてあります。-> ごはんが食べています。

The system learned the rule that changes the string of [食べてあります] to [食べています] based on errors such as the one in (5). This rule works for cases like (5), but it should not apply to cases like (6), because the previous noun (i.e., ごはん in these examples) is marked by the nominative case *ga*, as opposed to the accusative case *o*.

Another example of this sort includes the so-called Japanese "giving and receiving verbs". Compare, for instance, (7) and (8) below.

(7) *山田さんはトムに本を買ってくれました。->山田さんはトムに本を買ってあげました。
(8) 山田さんは私に本を買ってくれました。->*山田さんは私に本を買ってあげました。

The rule learned from (7) (i.e., to change the string of [買ってくれました] to [買ってあげました]) should not apply to examples like (8), because the indirect object of (8) is the first person "I". In fact, (8) is grammatical, and hence no correction should be made.

The type of problem seen above would not arise if the system could check the previous context of the error to determine whether a particular rule is appropriate to be applied. Unfortunately, the current AI Tutor does not have this function, and hence it will over-correct errors in some cases.

5 Approaches to Limitations

In order to tackle the hurdles discussed in Section 4, we are investigating the possibility of using different techniques. The following subsections will discuss our current plans to tackle these hurdles.

5.1 Natural Language Processing (NLP)

Our rules lack generalization, and hence they cannot deal with errors that are not present in our corpus data, as addressed in Section 4.1. One way to tackle this problem is to use natural language processing (NLP) technology when learning error correction rules.[4] For instance, if we utilize a morphological analyzer (such as MeCab) and annotate our corpus data with part-of-speech tags, we can learn a more general rule that would delete な when it occurs between a NA-adjective and the copula (i.e., [NA-adj+な+ copula => NA-adj+∅+copula]) based on data such as in (2a). Then, we can handle all the errors that fall under this pattern, even if they are not seen in our corpus data. This certainly makes AI Tutor's error correction coverage more robust.

One potential glitch in this approach, however, is that we may end up having wrong morphological analyses for error sentences because a morphological analyzer is trained on good Japanese sentences. This, in turn, may invite more so-called "noise" to our system. Having said that,

it is worth pursuing this approach in order to enhance the coverage of AI Tutor, and we plan to adopt this to our system in the future.

5.2 Feedback Mechanism

Another approach to enhance robustness of AI Tutor is to utilize even further the power of crowd-sourcing. As described in Section 2, we created our corpus data through the process of teacher-sourcing, and extracted our initial rules from this corpus data. We plan to enhance robustness by using a different type of crowd-sourcing. To this end, we have already implemented features by which AI Tutor can incorporate user feedback into its system. Figure 2 and Figure 3 below provide the snapshots of these features.

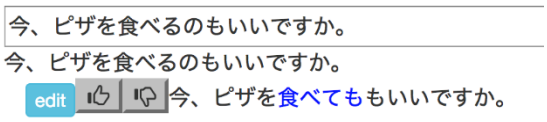

Figure 2: Thumbs-signal Feature

Figure 3: AI Teacher's Editing Feature

Figure 2 presents the thumbs-up/down feature: if a user finds AI Tutor's error correction(s) to be wrong or inappropriate, s/he can click the thumbs-down button. For instance, the correction provided in Figure 2 is not appropriate, and this correction can be voted down by users. If a particular error correction receives a certain number of "thumbs-down" votes, we can automatically delete that correction at the backend system of AI Tutor. This feature should keep AI Tutor from making bad corrections, and it will increase its overall user experience.

Figure 3, on the other hand, provides a snapshot of AI Tutor's editor, by which a user can suggest his/her new correction. For instance, a user who sees a bad error correction, such as the one in Figure 2, can not only click the thumbs-down button, but s/he can also provide a new correction through this editor. This way, we can keep crowd-souring new error correction data.

The thumbs-up/down feature can also help us rank alternative corrections. For instance, AI Tutor suggests several corrections as shown in Figure 4. A user can not only thumbs-down bad corrections, but s/he can thumbs-up good ones, and by logging such user feedback, we can rank and rearrange the suggestions based on their voting counts. The more thumbs-up correction, the better it is, and hence that correction gets presented at the top when AI Tutor makes suggestions.

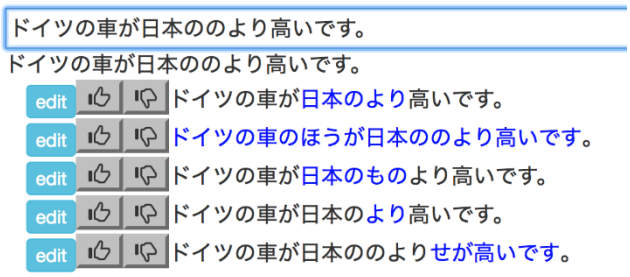

Figure 4: AI Tutor suggests several corrections

6 Concluding Remarks

This paper presented AI Tutor's features and knowledge retrieval method. The paper also addressed AI Tutor's current limitations and provided our approaches to them. As mentioned in Section 1, we started this project to take on the extremely challenging task of helping learners with their productive/active skills. We built a preliminary version of AI Tutor based on the teacher-sourced corpus data. However, the amount of this data is still not good enough for a computer to do something intelligent by itself. With more data that consist of error-corrected pair sentences, we believe that AI technology, such as deep learning or neural networks, allow us to build a more robust system for error correction. This is why we are currently investigating the possibility of using machine-learning techniques.

Notes

[1] The project is a collaboration work with Dr. Tetsuro Takahashi, Senior Researcher from Fujitsu Corporation.

[2] Thanks to the generous funding from the Japan Foundation, Los Angeles, we could conduct the teacher-sourcing twice in the past, Fall of 2015 and Summer of 2016.

[3] Many studies have been done to analyze types of errors that learners of Japanese make (Teramura 1990, Ohso, et.al, 1997, Ohyama, et.al., 2012, among others). One crucial difference between the previous studies and ours is that the former focuses on the inquiry of how differences in learners' native languages would affect error types, whereas the latter, the inquiry of how learners' errors can be corrected. Further, we actually applied the knowledge retrieved by our corpus data to AI Tutor's system to support learners' acquisition of writing skills, but none of the previous corpus data has been utilized in such a way.

[4] For instance, we can use MeCab, a Japanese morphological analyzer and CaboCha, a Japanese dependency parser, for this purpose.

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IT development and the 'forced' future of language teaching:
Toward the de-standardization of language education and the professionalization of language teachers

Marcella MARIOTTI
Ca' Foscari University of Venice

Abstract

As the previous two papers have demonstrated, technology has advanced enough to enhance not only learners' receptive skills but also their productive skills. Too often it has been recently said that language teachers will lose their jobs due to A.I. or extremely well designed sophisticated apps.

In this paper I discuss how language teachers can 'survive' technology and 'make a difference' for language teaching, and 'why' we need to re-think the design of our curriculum and pedagogy.

I analyse a European case study (*Action Research Zero*, Mariotti, Ichishima, Hosokawa 2016) to show how rapid advancement of new technologies may drive towards the de-standardization of teaching, the professionalization of teachers, and critical pedagogy A big shift is needed in considering the teacher's role in the classroom and the fundamental role of language teachers as global-citizen educators, teaching through dialogue and other 'global' activities.

Keywords: Foreign language teaching, de-standardization of FLT, critical language education, Artificial Intelligence, JALEA
【キーワード】 外国語教育、言語教育の非標準化、クリティカル言語教育、人口知能

1 Professional Knowledge Landscapes: Learning from (self-)history

In this article, I am not going to 'simply and emotionally narrate' my own Japanese learning-history. Instead, agreeing with Clandinin & Connelly that 'professional knowledge context shapes effective teaching, what teachers know, what knowledge is seen as essential for teaching, and who is warranted to produce knowledge about teaching', I will first address my own 'response to the environment, to landscape features that impact the teaching and learning setting' (Moloney & Harbon, 2017:vi).

Already 30 years have passed since I started to study Japanese at Ca' Foscari University of Venice. At the end of the Eighties we had no grammar classes and our native speaker language teachers adopted the 'direct method', talking to us in Japanese, adopting textbooks and literature masterpieces. I searched for grammar explanations in our reference book in Italian, and as soon as *A dictionary of basic Japanese Grammar* (Makino, Tsutsui, 1986) was published it became my faithful and trusty companion. Mechanical exercises did not help me during my first chance to study-travel to Japan (1991), and as Japanese proficiency might be concerned I was the worst in my class.

I had a hard time, but great friends helped me to improve my language skills and to express my thoughts. Friendship and shared values, as well as peer pressure and 'in land residence', were the basis of such improvement.

Returning to Venice I graduated and I won a MEXT grant to study over 5 years, M.A. and Ph.D. courses in Sociology of mass communication, at Osaka University. I was extremely grateful, but also dependent on native speakers who would check my writing. It was as if I could not trust my own thoughts unless they were corrected by my patient native-speaker friends.

Once I had left Japan in 2001, I started teaching Japanese language to students of Chinese at Ca' Foscari University, so that they could find Japanese references for their research. I also taught Japanese grammar to students who took Japanese as a second language, often following the grammar instructions page by page in textbooks grammar. Feeling uncomfortable with what I perceived as my own mechanical role (佐藤, 2016)(牛窪, 2016), I enrolled in a PhD course in Japanese language teaching, hoping to develop a grammar reference book for Italian speakers. At that time, I was intrigued by the theory of pleasure as a constant source of motivation (Caon, 2006) to store 'new inputs to learn' (Krashen, 1985) as well as the new spiral learning process suggested by Hosokawa (細川 et al., 2007): thinking> talking> listening> answering> reflection> thinking: I assume my fascination with these ideas was because my first studying experience had been so far away from Hosokawa's theorised process.

Thanks to a Ph.D. workshop held by professor Ogawa Takashi and the above mentioned studies about foreign language teaching and learning, I finally realized my way of learning was tightly tied to finding the right grammar and method I needed to express myself. I compare this to Stephen Downes suggestion: '…the idea is that learning is like a utility – like water or electricity – that flows in a network or a grip, that we tap into when we want' (Downes, 2007). A post-doc JSPS grant allowed me to create a reference tool I have always dreamt of since I was a student: a Japanese grammar hypermedia dictionary with authentic examples from everyday life in Japan: BunpoHyDict. In eight years the latter has developed into the *JALEA System* (Mariotti, Mantelli, Lapis 2017), which is integrated with other online projects (*ITADICT* Mariotti-Mantelli 2011, *EduKanji* Mantelli 2010, *A4edu* Mantelli-Mariotti 2016), collaborating with more than 72 people, and investing more than 6.000.000 yen, thanks to a Mitsubishi Corporation donation in 2016. Focussed mainly on the reception processes, JALEA goes hand in hand with the second project presented in our panel: Aikawa's *Ai Tutor*: This project took three years, and included an investment of about 890.000 yen and 30 people's support.

What brought me to develop such an interactive reference tool? Why have we invested so much energy and funds in these two technology enhanced language learning projects? What kind of new language teachers does technology allow us to dream of? What kind of language teaching are we

aiming at?

These are some of the questions my own history as a Japanese Language learner and teacher have aroused in me, and I will address them in this paper. A very initial and generic answer might be of course the awareness that in my own history as a student of Japanese, my 'pleasure' was not enough to continue to motivate me for studying the Japanese Language in a standardized way. If we think (do we? Do we have the time to think? Are we teachers encouraged and rewarded to do think?) that expressing ourselves to other people is our ultimate 'pleasure' or the ultimate way to feel ourselves alive as a human being, we may begin to question our way of teaching. Also, we may question the way we were taught, and the reasons for our 'short memory'. I even have begun to have unpleasant feelings about my own addiction to native speaker checks.

1.1 Why de-standardize? Considering Pink Floyd.

Pink Floyd's song, *The wall* (1982), has become the leitmotiv of almost all my presentations' opening. The **words** that form the sentence in the song, 'We don't need, no, education – We don't need, no, thought control… Hey teacher leave the kids alone/ all in all you are just/ another brick in the wall', had continuously puzzled me since I was 9. At that time, this song was the background music of my dance recital and I had to listen it hundreds of times in a week to exercise. Only in 2017 (!) I finally understood the meaning hidden in those words and why they puzzled me. Thus, they are now my leitmotiv. Words and language vehicle ideas. What is that? Why could I not grasp the meaning of this song until few years ago?

1.1.2 Another brick in the wall?

Thinking back to the Japanese language classes which I both received and offered, I wish to thank Balboni (Balboni, 2003), Ogawa (小川貴士, 2007) and Hosokawa (細川英雄 et al., 2002) for their writings, as well all my students up to today, who have pushed me to re-think the meaning of teaching a language, reviewing my sociological studies and Gramsci's ideas of consensus, ideology and reflecting upon my own 'teaching landscape'. As Gramsci (1932) points out, since all action is political, every choice we make has a political background and has political consequences. Thinking about our choices takes time and energy because it is simplest to follow the 'well known path'. Therefore, re-thinking politically is not easy to do. What was I doing during my classes? Was I really *choosing* my action? Of course I was. I was teaching, I took on that action: so, voluntarily or not, I had chosen to follow what had already been decided by others before me. I chose to follow the instructions I had been given through my Japanese language studying years. Without even questioning it, I myself was a brick in the wall, a gear of the system, reproducing the same language teaching and learning environment that did not help me, nor my students.
What was wrong with my actions? How and why can we act *transformatively*?

2 What are we teachers aiming at? Why being 'critical'?

Mayo (1999), in building a comprehensive theory of transformative adult education, based on participation and active democratic citizenship as part of a genuine global democracy, analyses Gramsci and Freire educational theories and practices, while Shaull underlines in the introduction of

Mayo's book how 'There is no such thing as a neutral education process. Education either functions as an instrument which is used to facilitate the integration of generations into the logic of the present system and bring about conformity to it, or it becomes the 'practice of freedom', the means by which men and women deal critically with reality and discover how to participate in the transformation of their world.' (R. Shaull, 2005:34).

If we agree with posing such problems in order to transform education, or (radical) critical pedagogy, we need to step back, and ask ourselves *why* do we need to transform *what*? Critical pedagogy-transformative/problem-posing education aims at **empowering students to individuate, reflect and question** the ideologies and practices that make them or others individuals feel oppressed and restrained. Doubting and questioning makes us responsible about ourselves and our actions in society. Transformative education starts from the community nearest to the students, which is the classroom, aiming to consider and respect them as active citizens. So called bank-pedagogy, aims at 'saving bits of holy-teacher knowledge' inside students' *empty*-heads:

> *In the banking concept of education, knowledge is a gift bestowed by those who consider themselves knowledgeable upon those whom they consider to know nothing. Projecting an absolute ignorance onto others, a characteristic of the ideology of oppression,* ***negates education and knowledge as processes of inquiry****.* ***The teacher*** *presents himself to his students as their necessary opposite; by considering their ignorance absolute, he* ***justifies his own existence****. The students, alienated like the slave in the Hegelian dialectic, accept their ignorance as justifying the teacher's existence - but, unlike the slave, they never discover that they educate the teacher.* (Freire 1970: 247)

By utilizing transformative education/critical pedagogy/problem-posing education instead, we see how Gramscian thought of an 'organic intellectual', who gives voice to those who need one, becomes concrete, realizing that 'the relation between teacher and pupil is active and reciprocal, so that every teacher is always also a pupil and every pupil a teacher'. The learner is not an empty head to fill with knowledge, but is a thinking individual whose ideas are capital and an investment.

> *"In problem-posing education, people develop their power to perceive critically the way they exist in the world with which and in which they find themselves; they come to see the world not as a static reality, but as* ***a reality in process, in transformation****. Although the dialectical relations of women and men with the world exist independently of how these relations are perceived (or whether or not they are perceived at all), it is also true that the form of action they adopt is to a large extent a function of how they perceive themselves in the world. Hence, the teacher-student and the students-teachers reflect simultaneously on themselves and the world without dichotomizing this reflection from action, and thus establish an authentic form of thought and action"* (Freire 1970:252).

Problem-posing education needs 'listening, dialogue, and action', as it recognizes learning and knowing as social, not merely an individual process, able to bring changes in co-creating our own society, and based on 'previous knowledge' of the students, i.e. on their own ideas and capabilities to discuss, questioned through a facilitator-teacher. 'In a Freirean context, learning occurs through the

combined efforts of teacher and students. There is neither a formula for a given outcome nor an ultimate destination. One of the objectives is to understand one's social conditions and imagine ways to create liberatory social conditions' (Rangel, 2017:75).

In problem-posing transformative language education, learner's own ideas became the 'textbook' and the teacher's role changes to that of a facilitator who encourages the self-reflection processes through a dialogue towards an awakening of critical awareness.

How is it possible to encourage a problem-posing/ enquiry based language education?

3 Case Studies: from 2010 to 2016

3.1. From 2010 to 2014: Activities with Graduate Students

With the above questions in mind, I held 15 weeks of Japanese Language courses in 2010-11, 2012-13, 2013-14 and a three month (Jan-March 2013) joint workshop with Hosokawa and his Waseda University Ph.D. students at Ca' Foscari University. The aim was to stimulate *real* social interactions between students through a common goal: publishing online their own thoughts and the process that resulted in them, in a group report in the Japanese Language (http://virgo.unive.it/mariotti/kangaeru.html). Learners had to choose a theme to talk about, and through dialogues with others, inside and outside the classroom, explain why they cared about that subject and how it was connected to their past-present-future. Such a process brings an awareness of their own personal and others' values, and of their own historical position in the society. This workshop recalls the 'autobiography of intercultural encounters' method (AIE, Byram et. al 2009), suggesting an 'inter-individual' encounter, where 'culture' is that which is *owned* by each individual, arising from the social interaction that takes place in and outside the class-room. More details about each case study can be read in Mariotti (Mariotti 2016: 103-127). Some common and vivid conclusions were drawn by the participants themselves [original transcript, without any correction]:

> *「日本語はかり使って人と話し合ったり、感想を書いたり、改めてアドバイスを交換したりしました。が予想だにしていなかった要素も多かったです。[省略]報告が終わると、以外にすっきりしました。尚、母語を通じて普通に伝われないものもやっと掘り出せた気がします。対話報告後、プロジェクトに参加した親友ともう一度話すと、二人も母語ではない言語でコミュニケーションしたからこそ、普段より素直に話せ、遠回しな言い方を避け、真実をそのままで伝わることに努めたと認めました。(C.)」*

> *Actually, [interacting only in Japanese] I have been able to discover things I was not able to express in my native language… both of us realized that just because we communicated in a foreign language, we were able to be more honest/direct, avoiding roundabout speech patterns and making every effort to say things as they truly were. (C.)*

This statement itself shows what it means to become a citizen through language: '…[it] means to be free, as user of Japanese/FL, to use that very language" （Hosokawa 2012: 261）.

Actually, the final discussions on how to evaluate the whole course, and peer reports and activities, posed a crucial question: does it make sense to evaluate the development process of an individual? Arguing and debates had been the very *time&place for awareness* about the whole process that had

been taking place in such holistic-total-global activity/actions/practice Language Education. Two different positions were discussed: 1) a strong community composed against the teacher ('we do not understand, let's gather our understandings and help each other through a Facebook group and let's ensure the same top grades for all of us!') and 2) a sense of concurrency ('I worked harder, I know more, I am the best and I will not help others'). This position was held to only until they had gathered towards the common goal, free from grades, in creating the online booklet about their thoughts. In all cases, the learners finally bore their own responsibility about what they thought and wrote in the reports.

The development of foreign language education which considers the classroom as a interactional community and does not use any textbook will improve language proficiency levels due to the very fact that it does not allow a 'banking education'. The next research question, then, evolved naturally from the above case studies: Is it possible to realize a teacher-student/student-teacher simultaneous self-reflection involving "listening, dialogue, and action" in a 'zero beginners' foreign classroom? We brought this challenge to the *Action Research Zero* workshop (Mariotti, Ichishima, Hosokawa 2016).

3.2 *Action Research Zero (ARZ)*: the 2016 workshop

Inspired by the practical research gathered in the edited book, *Shiminseikeisei to kotoba no kyōiku: Bogo, daini gengo, gaikokugo o koete* (Hosokawa, Otsuji, Mariotti 2016), we organized a four month period Action-Research project involving 15 'zero-beginners' students of Japanese at Ca' Foscari University (Sept.- Dec. 2016), and 4 tutors (3 M.A. Italian students in Japanese language and 1 Japanese volunteer). Details of the project can be read in Mariotti-Ichishima (2017).

The workshop did not center on Japanese grammar explanation but on giving voice to what students thought was important to them, starting from a self-presentation (*Watashi wa Y desu,* 'I am Y'), then expanding to encompass what they liked (*nani ga suki desuka* 'What do you like'), what this meant to them (*Watashi ni totte X wa Y desu,* 'To me X means Y'), and why it was important to them to talk about this subject (*Nazenara X kara desu*, 'Because it is…'). Since finding reasons for own thoughts is connected to our past, present and future, this project required time to talk, listen, question, answer, return to initial opinions. Through such a process of dialoguing, the review and formulation of a new point of view often came about. The students could relate to each other in any language they wanted, but since it was a Japanese Language course, and the facilitators, Ichishima and Hosokawa, did not know Italian, students had to report and write their thoughts in Japanese from the beginning. Please refer below for some samples from the email interactions, without adjustment or translation.

19 Sept. 2016, 18:42 – after *meeting 1* (2 hours of class interaction):

Example 1> Name: Gio

Email object: ジョウアン二のかつどう

Email content: わたしはからてとよむことがだいすきです。わたしはしぇるくほるむすのすとりだいすきです。わたしはからてかですとだからからてだいすきです。

15 Oct. 2016, 19:00 – after 7 *meetings* (about 14 hours of class interaction, and 7 online few lines report and comment/questions submissions):

Example 2> Name: Gio

Email object: 私の猫と私 、動物と私

Email content:

1) アイシャさん、あなた は 人間（にんげん） と 動物（どうぶつ） の 友情（ゆうじょう） は 人間（にんげん） を 改善します（かいぜんします） 考えますか（かんがえますか）。

友情（ゆうじょう）＝Amicizia [friendship]

改善します（かいぜんします）=Migliorare [improve]

考えますか（かんがえますか）=Pensi? [Do you think?]

2) 何（なに） が あなた の 猫（ねこ） と あなた の 絆（きずな） について あなた にとって 大切（たいせつ） ですか。

絆（きずな）＝Legame [bond]

について＝Riguardo [about]

大切（たいせつ）＝Importante [important]

3) アイシャさん は 人間（にんげん） と 動物（どうぶつ） の 友情（ゆうじょう） 特別（とくべつ） です 言いました（いいました）。 どして。

特別（とくべつ）＝Speciale [special]

言いました（いいました）＝Hai detto [you said]

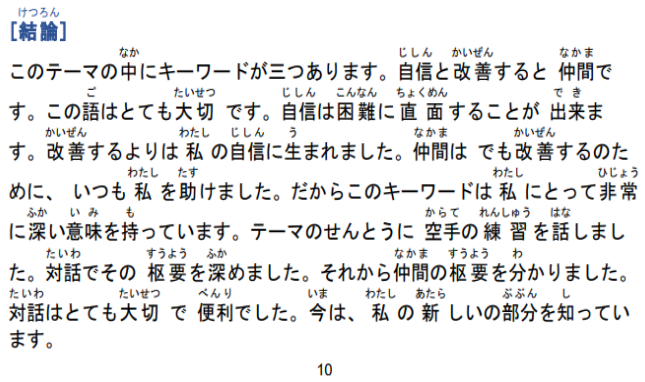

Figure 1Gio's conclusions in the Final Report (Jan 2017)

The final reports of each student can be read at the website: http://virgo.unive.it/mariotti/kangaeru.html. What is important here is how students invested their time in the classroom to concentrate on interacting with teachers and peers and to discuss the contents of their interactions (see Figure 1), while using their home-time to search for grammatical explanations or how to translate words. From a survey I conducted between Jan and Feb 2017, it became apparent that the students used the following methods to support their study: a grammar book in Italian (89%), associated with tutors (72%), Google translator (45,5%), an online grammar dictionary (9,1%), or friends. As far as words translation is concerned they used mainly English-Japanese online dictionaries (72%) and online Italian-Japanese translators (45,5%). It became clear that contents of the interaction drove students interest toward grammatical items which were not usually taught, nor present in textbooks for, the 'first year-zero beginners' level (Bartolommeoni 2017). Further, it was evident that books, tutors and the internet were the primary sources for finding grammatical explanations or exercises. We must emphasise here that tutors were not meant to explain grammar but to guide student interactions, and

that Italian language free websites for Japanese Language Learning are still extremely rare. The Italia Association for Japanese Language Teaching (AIDLG) has developed a website, Hi-J.eu (Highschool Japanese: thematic scenarios without grammar explanations), partially funded by the Japan Foundation, while JaLea Research Team developed JaLea (Japanese Learning System through authentic materials, with hyperlink to grammatical explanations, by Mariotti, Mantelli, Lapis) recently in 2017, thanks to Mitsubishi Corporation funding. The only academic free source available in Italian to ARZ students was BunpoHyDict (Mariotti 2008).

This interaction-centered AZR workshop was the first opportunity for zero-beginners outside Japan that followed a Japanese Language Education through Global Activities (*sōgo katsudō gata nihongo kyōiku*). It seems that, even if technology assisted students to have more 'time for thinking in interaction', the still strong belief of students and tutors in 'banking education/pedagogy' was only partially deconstructed (Arleoni 2017). A big shift is expected though, through A.I. and the use of well designed sophisticated apps. It is our belief that these will free the way from such mechanical expectations that hold back the potential freedom of both, teachers and learners, allowing a de-standardization of teaching, the professionalization of teachers, and opportunities for critical education through dialogue.

4. Conclusion: Technology and critical radical language education

As Lesley Harborn (2016) states in her article, *Acknowledging the generational and affective aspects of language teacher identity*, 'Looking back and looking forward, systematically, … can be a productive exercise'. The previous paragraphs describe three fundamental motivations to improve and enforce joint research on technology and A.I. as they inform the ongoing development of critical foreign language education. Those three motivations are:

1) to concretize the 'new' vision and concept of language education itself and its true value as a process of forming socially responsible individuals as members of a public civil society;

2) to educate about the value and pleasure of self-inquiring, exploring and expressing ourselves. Although this is a difficult and demanding process, it will surely drive the input into long term memory (outside of the school exams term!).

3) to free teachers and learners from standard curricula, allowing the former to develop and express themselves as professional and non-mechanical human beings, and releasing the latter ones to be able to think as social actors responsible for their own ideas and actions expressed by the language as utilised.

What all of the above motivations have in common is not only allowing more time to think, but offering the learners active participation in creating their/our own teaching and learning landscapes towards active citizenship and social cohesion.

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次世代言語教育に向けて：テクノロジーと教授法の相互共存

相川　孝子
マサチューセッツ工科大学
アレッサンドロ・マンテッリ
カ・フォスカリ大学
マルチェッラ・マリオッティ
カ・フォスカリ大学

要旨

本パネルでは、次世代のための革新的な言語学習活動が如何にあるべきかという課題を探求しつつ、 今後の言語教育のカリキュラム、教授法のデザインがどうあるべきか、再考する。パネルでは、まず、現在開発中の２種類のアプリを紹介する。最初のパネリストによって紹介されるアプリ(JALEA)は、言語能力の receptive skills（例えば、「読む力」とか「聴く力」）を高めることを目的としてデザインされたもので、様々なメディア（例えば、写真、ビデオ、オーディオなど）を介し、ターゲット言語とその文化についてのコンテンツを学習者に提示するものである。 ２番目のパネリストによって紹介される アプリ（AI Tutor）は、学習者の productive skills（特に「書く力」）を支援するものだが、このアプリの特徴は、学習者が文章を書く際、彼らが犯す間違いを指定するばかりでなく、有意義なフィードバックも提示することができるということだ。また、 このアプリは、日本語教師から クラウドソースしたデータを基に習得された文法知識を利用している 。発表では、このクラウドソースされたデータから習得された文法ルールの紹介、また、その際の NLP 技術の利用法なども説明する。 ３番目のパネリストは、今後、言語教師がいかに、この急速に発展するテクノロジーの世界で生き残り、言語教育に貢献することができるかを議論する。ここでは、ヨーロッパのケーススタディを紹介しながら、テクノロジーの進歩が、言語教育の非標準化(“de-standardization”)と教師の専門性(“professionalization”)を推進する大きな力となることを提唱する。また、テクノロジーの発展に伴い、教室での教師の新たな役割、即ち、市民性形成のための教育者（”citizenship educators”） になっていかなければならないことを提唱する。

JALEA (JApanese LEArning): 高度なシステム管理維持能力をもつ日本語 Web アプリケー ション

アレッサンドロ・マンテッリ
カ・フォスカリ大学

要旨

本発表では、JALEA(JApanese LEArning) という BunpoHyDict (Mariotti 2008)の構想を基に開発された最新の E-learning アプリケーションを紹介する。 BunpoHyDict は、様々な生教材をマルティメディア（例えば、ビデオ、写真など）を通し紹介し、また「学習者によるナビゲーションと発見」を重視するという点で、革新的なアプローチであるが、 次の三つの課題を持つ。 １）学習者のナビゲーション体験をスムーズにするためのデータ収集法の欠陥。２）異なったデバイス（例えば、タブレット、スマートフォンなど）での利用不可。 ３）

随時更新される生のメディアに対するシステム管理の維持、安定の不足。 発表では、JALEA が上記の課題に対し、次のような様々な対策を施し、実装できるより優れた日本語支援ツールであることをデモを通し実証する。 １） システムデータとプログラムコードの分離により、学習者のナビゲーションデータの集積、分析を可能にする。 ２）レスポンシブ・ウェブデザインの導入により、様々なデバイスへの対応が可能。コンテントの外観や操作方法も最適化する。 ３）SOC (Separation of Concern)という概念を導入し、管理者がデータとメディアを入力、管理できるレイヤ(backend)と、ユーザー用のレイヤ(frontend)を用意。更に、コンテントマネージメントをより管理し易くするため、下記のような自動化を導入。 • ユーザーにタグされた文書内容のハイパーリンク自動作成。 • Mecab (自動形態素解析システム)の導入。同時に、カスタム辞書も実装。 また、かな > ローマ字の自動変換なども可能にする。 • 音声合成システムの利用による テキスト＞音声の自動変換。複数の音声パラメータの調整で、よりリアルな音声再現も可能。

AI Teacher の開発に向けて

相川　孝子
マサチューセッツ工科大学

要旨

本発表は、現在本校にて開発中の「AI Teacher」という日本語支援システムを紹介しつつ、次の二つの課題について考える。 1. 自然言語処理技術 (Natural Language Processing [NLP]) の日本語教育への利用方. 2. 教師養成のための日本語学トレーニングの奨励. 課題 1 については、 AI Teacher の実装デモを行いながら、 NLP がどこまで日本語教育に利用できるかを探る。AI Teacher は、学習者の入力文の中の文法的誤用を自動的に指摘、修正するばかりでなく、適切なフィードバックも与える機能を持つが、システムが利用している日本語文法知識は、日本語教師からクラウドソーシングしたデータを基に構築されている。このデータは、(1)の ような[誤用文<->修正文]のペアーからなっているもので、既に 12,000 文ほどのペアー文が存在する。 (1) [誤用文]この本は、高いだと思います。 [修正文]この本は、高いと思います。 本発表では、我々が NLP を利用しながら、このクラウドソーシングされたデータをどのように処理し、どのような文法知識を自動抽出したか、具体的に紹介しつつ、NLP がどこまで言語教育に貢献できるかを考察したい。 課題 2 については、上に述べた[誤用文<->修正文]ペアー文データを分析している際、発見されたことが動機となるのだが、 ペアー文データを詳細に観察してみると、日本語教師の間で、誤用文の修正方法に大きな「揺れ」があることがわかった。本発表では、具体的にどのような修正の 「揺れ」があるのか、またどんな文法パターンが誤用文に含まれた場合、教師間の修正の揺れが起こりやすいのか、様々な角度からデータ分析に取り組み、教師養成のための日本語学トレーニ ングの必要性を提唱、かつ奨励したい。

IT の発展に伴う言語教育の「不可避」の未来：言語教育の非標準化(“de-standardization”) と言語教師の専門性(“professionalization”)に向けて

マルチェッラ・マリオッティ
カ・フォスカリ大学

要旨

本研究は、言語教師が急速に発展するテクノロジーの世界でいかに生き残り、言語教育での市民性形成のプロセスに貢献できるかという課題について考察する。 最初の二人のパネリストが提唱するように、オンライン上での自己学習のためのテクノロジーの発達は、凄まじいものがある。そんな中で我々は、今、教師の役割や教授法などを見直す岐路に立たされている。しかし、教師は一体どのようにこの急速に進展するテクノロジーを利用し、市民性形成のための教育者(“citizenship educators”)になれるのであろうか。 この課題に関連した先行研究には、 細川、尾辻、マリオッティ(2016)、佐藤(2016)などがあるが、 これらの研究では、言語教育・学習は市民性を形成するための有意義な「場」として考えられるべきだと提唱されている。 本発表では、まず欧州の大学のゼロビギナーのケーススタディ（"Practice Research：Action Research Zero"）を分析し、クリティカルペダゴジーの観点から、以下の 2 点を示唆するデータを提供する。 1. テクノロジーは学習者の動機と言語習得プロセスを高めることが可能だが、ヒューマンインタラクションとしてのコンテンツ制作プロセスに関するフィードバックに欠ける。 2. 言語行為を学習者のマイクロレベルに絞り、自己のアイデンティティを表現する手段としてみなすと、文法の誤りをチェックすることは、もはや教師の役割・目的とはみなされないこと。 上記の２点を指摘した後、テクノロジーの発展が我々教師に、市民性形成のための教育者となるための新たな機会と義務を与えてくれ、且つ、言語教育の非標準化(“de-standardization”)、教師の専門性(“professionalization”), クリティカルペダゴジー（Freire 1970）の実現をも可能にさせてくれることを提唱する。

ヨーロッパ日本語教師会（公益社団法人）

Association of Japanese Language Teachers in Europe（AJE）e.V.

本会はヨーロッパ各国において日本語を第一言語としない者に対する日本語教育の振興とヨーロッパと日本の相互理解を深めることを目的とする。そのために欧州各国の日本語教育の現状を把握し、情報交換や教師間の相互協力を図るべくネットワークを確立、ヨーロッパにおける日本語教育の発展のために努力する。

主な活動内容

- ヨーロッパ各国日本語教師間のネットワークの確立
- ヨーロッパ日本語教育シンポジウムの開催
- 日本国内及びヨーロッパ外の日本語教育関係機関とのネットワーク形成
- ヨーロッパの日本語教育事情に関する資料・情報などの収集、整理及び提供
- ヨーロッパにおける各種研修会への協力
- ニュースレター、その他の刊行物の発行

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会　費　＜会計年度：1 月 1 日～ 12 月 31 日＞（単位：ユーロ）

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入会申し込み　ホームページ：http://www.eaje.eu/ 参照

問い合わせ

Dr. Marcella Maria MARIOTTI　e-mail: mariotti@unive.it
Department of Asian and North African Studies
Ca' Foscari University of Venice
Dorsoduro 3462 - 30123 Venezia
Italy

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【校正協力者】（五十音順）
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編集後記

ヨーロッパ日本研究協会(EAJS)の国際会議の分科会として開催される 3 回目のシンポジウムは、益々活気に溢れた有意義なシンポジウムとなりました。

そのシンポジウムの成果をまとめた本報告・論文集の編集作業は、ヨーロッパ日本語教師会が日本語教育グローバルネットワークの加盟団体として初めてヨーロッパ（ヴェネチア）で日本語教育国際研究大会（ICJLE）を開催するための準備との同時進行の作業で、慌ただしく、大変な作業でしたが、上記の多くの方々が校正に協力してくださり、編集を終えることができました。

本論集には、基調講演のクリスチャン・ガラン先生の論文をはじめ、特別パネルのほかパネル発表に基づく 13 本の論文、口頭発表に基づく 27 本の論文、ポスター発表に基づく 16 本の論文が揃いました。

デジタル版（PDF）としてウェブサイトで提供することにより、ヨーロッパ日本語教師会の会員だけではなく、日本語教育に関心のある多くの方々とシンポジウムの成果を共有することができ、とても嬉しく思います。

速やかに執筆してくださった執筆者の方々、丁寧に原稿のフォーマットを確認してくださった校正協力者の方々に心からお礼を申し上げます。

リスボン報告論集　編集委員会代表

高木　三知子（マリーアップス外語学院）ヨーロッパ日本語教師会　副会長
岩﨑　典子（ロンドン大学 SOAS）ヨーロッパ日本語教師会　前副会長

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