

Write Ora Ora: A Collaborative Space for Writing Using Wiki Wiki Web System

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Abstract

Wiki web, a new collaborative system, is applied to online collaborative writing for Japanese EFL students. Based on the review of the issues in giving online feedback to student writing, the advantages of the Wiki web in writing instruction are discussed. Current problems and their solutions are sought as future perspectives are presented for further research.

1 Review of Online Composition

Uses of computers and computer network have changed the process and characteristics of writing. In the early stages paper began to be replaced with electronic files, and then those electronic files were made public on the computer networks, opening the doors for online collaboration. This change cast a large impact on the characteristics of writing processes and the instruction of writing. Editing is no longer as dreadful as it was on paper, submitting and returning compositions far easier and faster with digitized information.

The attempts to use innovations can be categorized into three groups. The first group is to use standalone word-processing application programs such as WordStar or Microsoft Word. Data files are exchanged either via computer disks or over networks. Once the Internet became the standard, e-mail and WWW began to be used more. Unlike commercial programs, using the standardized services of the Internet is more advantageous because of its compatibility and high user population. The third category is

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sophisticated packages for online composition or collaboration such as Daedalus. This can be seen as a combination of standalone application programs and the standard Internet services because most of them incorporate email, WWW and other popular Internet services into their solution packages. Among these three, email and the WWW have been widely used for online composition since the Internet became available for most teachers and students.

At Chubu University, much emphasis has been placed in utilizing these innovations in language classes, particularly in the Internet English course offered for the students of the second year or above. In this class, e-mail, mailing lists, netnews or BBS systems are being used not only for online composition but also for publishing students' final projects (Oguri, 1997; Oguri, 2001; Ozeki, et al. 2001).

2 Issues in Online Feedback to Student Writing

There are several issues to be considered for successful and effective online composition. One of the issues is the fact that each media or service has its constraints on the nature of interaction that takes place within the framework. Take e-mail as an example. Since e-mail has evolved as a means for asynchronous communication among individual users in ASCII text, it better serves for personal interaction rather than synchronous collaborative tasks such as discussing something in a group. Responding to e-mail messages naturally tends to be communicative, rather than inserting teacherly comments and corrections in students' writings.

In the case of WWW, it was originally developed for publishing documents online, hence it assumes the read-only permission for the data and prevents the readers from giving feedback to the WWW pages. In order to overcome this limitation, a wide variety of CGI programs are available to make the web pages interactive. One such example is the bulletin board system (BBS) on WWW. Users can post messages to the BBS and others in turn can add comments to the postings. This makes interaction possible among anonymous users on the web, yet messages can be exchanged in a form of a linear chain of messages and formats of the messages are constrained by the CGI script being used.

Another issue to be considered is the distribution methods of the composition or messages. E-mail is the most powerful and effective in this regard whereas WWW or BBS services are comparatively passive in a sense that the information will not be available until users actually visit the pages, although many of them have capabilities of email notification systems.

The third issue is the extent of the interactivity of the services. E-mail is surely interactive between the sender and the receiver of the messages, and so are the mailing lists and netnews. BBS on the web became interactive with the help of the CGI scripts. Yet, none of these services is as interactive as discussing something within a group with a whiteboard in front. In this situation, all participants can contribute to other participants, and can also manipulate the same information shared by the participants.

Finally, there is an issue of keeping track of the revision history of each piece of writing. When working with standalone application programs, users need to save all the previous editions of data files themselves, though some application programs do offer this feature. Most of the email programs let users store all the messages in different folders and provide search features, but still it is not easy and requires user effort to organize all the revision history.

3 Project: Collaborative Environment for Writing

In order to cope with the problems summarized above, an innovative collaborative system called Wiki Wiki Web has been applied to the writing instruction for Japanese EFL learners in the present project. After going over the technical framework and characteristics of the innovation, actual writing activities and their procedures are demonstrated, along with discussions of problems and future perspectives.

3.1 Technical Framework: Wiki Wiki Web

Wiki Wiki Web, or simply Wiki, is one of the recent innovations for online collaboration on the WWW. In short, it is a collaborative hypertext environment on the web where any user can add or modify any information. This web space is expandable by adding new pages and these pages are interlinked within the Wiki space by keywords.

It was originally developed by a software company called Cunningham & Cunningham, Inc. and several Wiki clones are available with slightly different features. For the present project, I chose MoinMoin Wiki, a Wiki clone that is programmed in a scripting language called Python. The reasons for the choice are that MoinMoin Wiki is compatible with Japanese language, and there are tools available to benefit writing activity such as the spell checker and the access to the revision history.

3.2 Characteristics of Wik Wiki Web

Ordinary web pages are protected by authorization so that only the owner can edit the

pages. As briefly mentioned above, the pages in the Wiki space can be edited by any user, and it can be done within the web browser window. No special tool or application is necessary to edit or renew the pages in the Wiki web. This can be an advantage for online collaboration, though it leaves its entire space open for possible malicious attacks or mischief.

Another very important feature of the Wiki web is a special keyword structure called Wiki name. A Wiki name is parallel to an anchor in HTML, and a Wiki name is automatically linked to a page with the corresponding Wiki name. In most of the Wiki clones, a Wiki name consists of two or more capitalized words combined together, for example WikiName or WritingMadeEasy. In Japanese-compatible Wiki clones, using Japanese in Wiki names requires an extra effort using square brackets or quotation marks. In ordinary HTML on the web, an error is raised when a link is followed and the destination file does not exist. In the Wiki web, however, following a new Wiki name link automatically prompts the user to create a new page, thus the user can add a new page if desired.

Table 1 Examples of formatting elements on Moin Moin Wiki

Headings	Lists	Graphics	Links
= Heading =	* a bullet list	http://host/img.gif	http://www.yahoo.co.jp/
== Subheading ==	* the second item	{Icon(smile.gif)}	{ http://www.goo.ne.jp Goo Home}
=== Level 3 ===	* sublist		awaji@intl.chubu.ac.jp
==== Level 4 ====	* second item		
===== Level 5 =====	1. a numbered list		
	1. second item		
	1. nested list		
	1. second item		

- = characters represent the headings.
- A white space followed by a * sign or 1. will be displayed as an item of a bullet list or a numbered list.
- An URL of a graphic appears as an inline graphic.
- A set of icons are available and accessible in a specified format.
- Valid URLs are linked automatically.

In addition, users do not have to have their own web space to publish documents on the Wiki web. All they have to do is to add a new page to the existing Wiki space, make it their home page, and start expanding their own web space from there. No knowledge of HTML is required to write Wiki web pages because they are written in plain text. The price of this is that no sophisticated HTML is available in the Wiki web, but sufficient features for document publishing are provided in the Wiki space such as basic headings and lists,

handling of graphics, and links to external web pages. All of these features are written in plain text formulas, which are much easier than HTML tags. Examples in Moin Moin Wiki clone are illustrated in Table 1.

The system requirements for starting your own Wiki web are 1) an account on a web server, 2) availability of CGI on the server, and 3) necessary scripting language for the particular Wiki clone to install (Python for Moin Moin Wiki). For some of the above requirement, you might have to ask your system administrator. If you are not sure about the system configurations of your web server, please contact your local system administrators for details.

3.3 Online Composition in WriteOraOra

WriteOraOra is an application of the Wiki web for EFL writing instruction. It is a collaborative space for writing, where learners and instructors can cooperate and share the writing processes on the web. Its humorous name came from the 'Wiki-Wiki-ness' of double-word linking such as Wiki Wiki or Moin Moin, and also from the fact that Wiki Wiki means 'quick' in a Hawaiian language, which corresponds to a casual urging in Japanese 'ora ora.' The guide character in the environment is an old Hawaiian with Japanese origin called OraOra. He is said to speak strange Japanese language with a strong samurai accent. To make the application more interesting and less threatening to the writers, I take the persona of OraOra and imitate his peculiar way of talking. Another teacher occasionally shows up and gives feedback to the students in the disguise of a playful samurai character. This playfulness helps to reduce the strain and tension between teachers and students in error corrections.

Unlike the forcible connotation of the name, WriteOraOra is a highly voluntary, autonomous writing space. Students will be greeted by a funny looking man in the front page and are invited to read the basic information about the space. Users are not required to have as much knowledge and skills as they would need to create and modify pages written in HTML, and the procedures are mostly self-explanatory and only require mouse

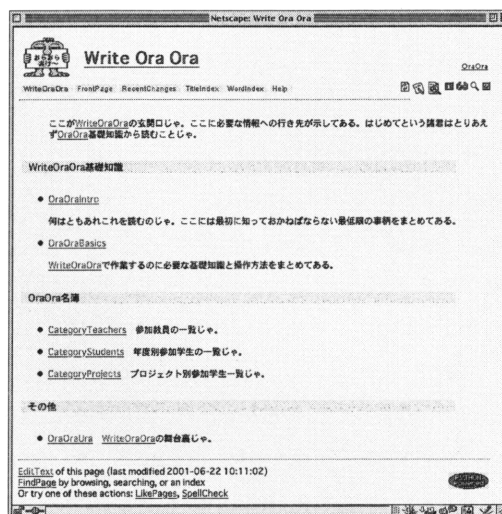


Figure 1: Front page of Write OraOra

exist in the dictionary will be highlighted in red. Unfortunately, suggestions and corrections are not available in this spell-checker.

Another feature that is beneficial for the students is the revision history. Backups of the older pages are stored by the system and these are easily accessible by clicking the information icon at the page top. In the history list, past revisions are listed by date, along with the size of the page information, the editor and actions. In the editor column, IP addresses or host names of the editor are displayed unless the user name of the editor is not supplied by the user preference. In the action column, either *view* or *diff* is available, which respectively displays the old screenshot of the page or differences from the previous version of the page. With this feature, students can consult the revision history to look back the development of the composition or teachers can look into the history to better comprehend student writing that can be sometimes incomprehensible without any clues or context.

There are features that are useful for the teacher to keep track of the student work and give feedback to them. The *Recent Changes* button will display a list of the recently edited pages with their direct links. The instructors can periodically look at the list and monitor the students' progress, and follow links to give feedback to individual pages. A set of icons are available in the

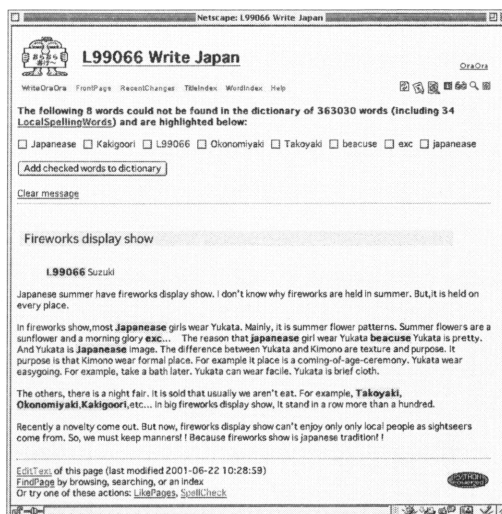


Figure 3: Result of spell-check

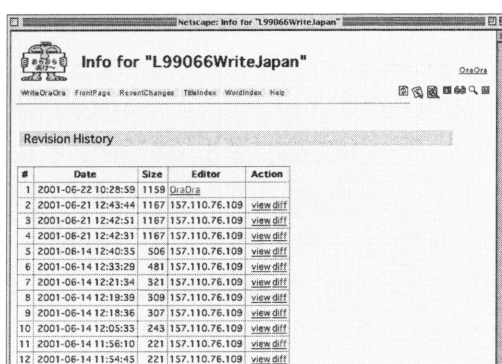


Figure 4: Revision history list



Figure 5: Diff view

Wiki space so teachers can use those icons to mark mechanical mistakes in the writing in order to raise the writer's attention, just as teachers use symbols in giving feedback to students' writing on paper. A search feature is also available throughout the Wiki space and pages can be searched by the title or keywords in the content of the pages. This is useful to list all pages with keywords in the title that designate a specific assignment, or to view all pages with some student's ID in the title, etc.

It is often the case that the teachers have to repeatedly give the same advice to different students. The powerful linking by Wiki names can be helpful in creating a knowledge base of comments and advice to the frequently repeated common mistakes. In other systems such as e-mail, netnews or BBS on the web, teachers would need to keep copies of their feedback to reduce the effort of reproducing them or would have to make available the past logs of the interaction to refer students to related information. Using instant links by Wiki names, teachers can store those pointers in separate pages and can put links to related pointers anywhere in the pages. For example, if many students make mistakes in the subject-verb agreement, the teacher can create an explanation page with a Wiki name such as *TipsSubjectVerb*, and can advise students who make the same mistake to follow the link and read the pointer. All this can be done within the same environment without the extra effort of creating new databases and so on.

Given feedback from the teachers, students can go back to their pages to rewrite or edit their composition. This reciprocal process of rewriting and feedback goes on until students successfully produce their final draft. It has been three months since this project started and currently 30 students are working on their composition in WriteOraOra. Students are working on writing tasks with topics of their own choice. A majority of the participants have revised their outlines or essays average of ten times since the project started, which would not be easy to carry out without this online collaborative innovation.

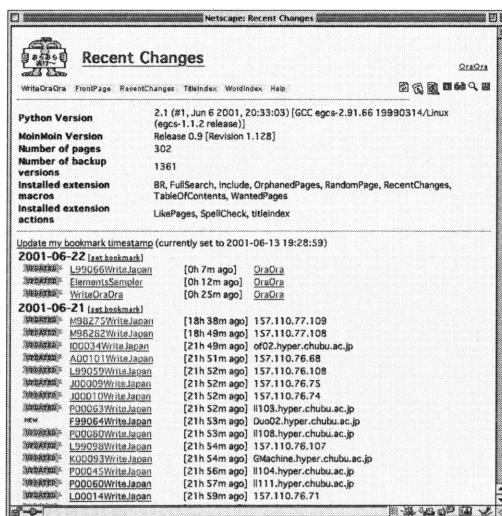


Figure 6: Recent changes list

4 Advantages of Wiki Wiki Web in Collaborative Writing

The present project appears to be successful so far, though more time and extensive observation are necessary before more substantial conclusions are drawn about the project. Here, I would like to share the advantages observed in using the Wiki web system for the purpose of collaborative writing.

One of the most notable advantages is the ease of online publishing. Web publishing has been made much easier than before with the advent of full-featured web page authorware programs, but still they assume a certain amount of knowledge and skills before the user can publish pages on the web. Publishing on the Wiki web requires no special HTML knowledge or networking skills like FTP. It does not need any account on a web server, either. Limited class time does not have to be devoted to instructions on the technical procedures of publishing on the web.

Another advantage is the quality or mode of collaboration that is made possible by the use of the Wiki web. Unlike exchanges by email or message threads on a BBS, the interaction carried out on the Wiki web is no longer constrained by the system and need not be linearly threaded. Anyone can add or delete information anywhere in any page. There is no distinction between the author and other contributors. It can be described as interfusion rather than interaction. While this gives us much freedom in the interaction, it can at the same time be a disadvantage in some cases. Therefore it still needs more examination and consideration before we come to any conclusions.

Lastly, the Wiki web system is suitable for accumulating and creating a knowledge base for feedback to students can be easily done as already described in the previous section. It is easy to keep track of student work by the recent changes list or the page search features, and the revision history is automatically stored and can be recalled by a single mouse click.

5 Problems and Future Perspective

Wiki web's freedom of being able to edit any page can be a drawback to publishing students' final product on the web. To prevent accidental or intentional alteration to the compositions, a new feature of read-only pages is necessary. This will be useful in protecting pages which should not be editable by users such as templates or the pointer pages written by teachers.

There are a few more problems to be solved from the technical aspect. One is a more

user-friendly output of the *diff* command in the revision history. The current output of the *diff* is minimal and not user-friendly, and a major improvement is necessary so that students of non-engineering majors can make better use of the output results. Another problem is the notification of the page modification. Changes in the Wiki web will not be recognized until the user actually comes back to the Wiki web and see the page display. In mailing lists or newsgroups, the users are notified of the change without visiting anywhere. A similar feature is available in the Wiki web by using a plug-in module in addition to the default package, but the feature has not been extensively tested to see if it really serves the need.

As described in Masui (2001), there is a potential collision in the timing of page modification in the Wiki web. No rigid precaution is taken in the script because of its openness and collaborativeness. As the number of participants increases, the danger of the collision hightens by theory. However, the probability can be reduced by the organization of the pages and activities, by structuring pages to disperse student access to the same pages at the same time. No case of collision has been encountered in this project so far.

Finally, various forms of collaboration need to be tried out in this new environment. One example is a collaborative writing activitiy so that learners work together to write something about a given topic. The effect of the peer correction or feedback has not yet been examined in this environment, to see if the original authors really appreciate feedback from their peers or if the quality and quantity of the peer correction in WriteOraOra differs in other situations and systems. Another issue to be looked into is if general readers with no Wiki web experience can manage giving comments and feedback to the pages in the Wiki web area.

6 Conclusion

The Wiki web is a relatively new framework and is still in active development. The problems mentioned in this study may well be solved in future versions of the Wiki systems. There are numerous pedagogical advantages in conducting writing instruction in the Wiki web as demonstrated in this study, though the potential of the system for collaborative writing has not been fully sought in the project, thus further examination is necessary.

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