



The IALLT Journal

A publication of the International Association for Language Learning Technology

LANGUAGE LEARNING TECHNOLOGY REVIEW



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Rich Internet Applications for Language Learning

A Rich Internet Application (RIA) is commonly defined as a web application that shares many of the characteristics of desktop application software, but is delivered either by way of a site-specific browser, via a browser plug-in, extensive use of JavaScript, or virtual machines.

Created by the Center for Language Education And Research (CLEAR) at Michigan State University, the suite of Rich Internet Applications for Language Learning currently consists of 11 free online programs for developing, recording, uploading, and mixing (mashing) interactive learning materials both for and with your students and peer instructors. The tools are also very expedient for guided instruction with and about technology in an interactive, collaborative environment—a feature that I myself consider equally important. Indeed, teaching students how to use Web 2.0 and other technologies has become almost as important as the course content we relate to them, as our students most likely will be using computers in

their future jobs, even if they are not in an IT field. Providing them with computer skills while working on language and cultural competencies creates added value.

These cloud-based tools are readily available at <http://ria.clear.msu.edu>. Since CLEAR materials are based upon work supported by the U.S. Department of Education they are free of charge. A new user first will have to create an account with CLEAR in order to log in and then access and start working with the individual applications.

Some of the programs make heavy use of audio recording and the RIA portal offers a convenient test-recording box that allows users to immediately check and see if their computer is configured properly by recording themselves on the fly via the Flash Plugin. An accompanying link refers users who run into problems to step-by-step instructions which will help them ascertain that all permissions are set right in order to allow flawless and trouble free recording. In fact, all of the RIA tools have extensive and straightforward, easy-to-follow documentation available from within the tool's individual website-section.

A Wide Variety of Applications



As mentioned above, the RIA cloud-based apps come in a variety of formats. This short review can only highlight a selection of five, namely Audio Dropboxes 2.1, Broadcasts, Conversations 2.1, Mashups, the beta-version of Video Dropboxes, and the interactive exercise maker called SMILE. These applications open up a world of creative possibilities not only for the instructor who is just getting used to integrating technology into language learning, but also for more sophisticated educators who are already fairly adept at building websites and using html, wikis, or blogging tools.

By using the RIAs they can add some pizzazz to their online presence and teaching materials by embedding some of these tools into materials hosted in a different and maybe more malleable environment. As all the other applications in the RIA series/toolbox, these five applications are an excellent way to familiarize students with the possibility of creating their own materials and exercises when embedded into the curriculum of a class on instructional technology. They would also function very well as the foundation of a series of faculty workshops on integrating technology into the curriculum.

How Might RIAs Be of Use?

As the RIA website points out, the advantage of multimedia in language learning is the high level of interactivity and student engagement that is made possible by them: these “[m]aterials can encapsulate models of second language acquisition theory such as the Interactionist Hypothesis” as well as support the ideas inherent in content-based learning and communicative language teaching. Within the framework of an integrated web page learners can be confronted with a mixture of audio and video input, instruction and annotation, and varied opportunities to produce language output.ⁱ

Engaged Learners Lead to Active Learning

The explicit goal of the RIA project is to create tools that are informed by language acquisition research and ultimately engage language learners in active as well as collaborative learning. In this respect, RIA programs are first of all excellent production tools. There is no prefabricated content in them, but there is plenty of functionality. Therefore, the tools can be used to support and develop any number of materials, even those that are not directly related to language learning. It is of no consequence whether a teacher of introductory or advanced language, an instructor of instructional technology, or a professor teaching literature and culture adopts them for his or her purpose. Since the programs provide function, not content, they can be “filled” with any subject matter supporting one’s teaching goals.

Furthermore, it is important to note that all tools can be used independently of one another, but are most effective when combined into Mashups or other varied and multifunctional forms of interactivity. The inherent potential for this kind of cross-fertilization of the distinctive formats can inspire the creation of a multitude of learning environments that will have more of an impact than discrete/stand-alone exercises alone.

It is still a commonly expressed view in the field of language instruction that the new digital technologies are primarily being used within a curricular model that differs little from when we relied on analog technologies. In other words, students are primarily subjected to digitized audio and video and then record their responses: the “classic” lab situation. Web-based language materials are often merely static texts and images, or programs that drill and test, but rarely do they encourage deeper, student-engaged learning. The products of CLEAR’s RIA tools are intended to be learning objects. “By interacting with the materials created with RIA tools, learners should produce output and monitor their output for self-correction, and test their internal hypotheses as a part of developing interlanguage grammars.”ⁱⁱ

How Do I Start Using RIAs?

CLEAR's RIAs for creating interactive, multimedia language materials are a good starting point for the beginning language technologist, but will also satisfy the more sophisticated and experienced user. Considering what they are able to deliver as final products, these tools do not require an immense amount of pre-existing computer skills. If the user can adequately point, click, drag, drop, copy, and paste she is halfway there. Although the RIAs offer a high level of interactivity, they do not require anything to be downloaded and installed or any kind of programming skills.

The cloud-based tools can be used by any language teacher at any level to create materials that are tailor-made for his/her class. The RIAs allow the user to instantly create pages where students can record audio- and video files that are uploaded and organized in the teacher's virtual dropbox. Mashups combine images, videos, and interactive exercises on one page. The conversations app allows the teacher to develop "listen and respond" exercises that automatically capture student input. The Broadcasts interface creates podcasts that are easy to record and are published and syndicated with the click of a button.

In short: CLEAR RIAs will enable language learners to improve their language skills, increase their language competencies, and hone their technology skills.

What Are the Risks?

As stated earlier, all functions of the RIAs are platform-independent since they are housed within a web-browser, thus no specialized hardware or software needs to be installed or downloaded. However, this is also where the greatest risks lie hidden: The materials you create are all housed on an external server. They cannot be downloaded, backed up, or transferred in their entirety. Although individual files (images, audio/video clips, student responses) can be downloaded for future reference and safekeeping, you can never own your complete output.

The web browser as a distribution platform for software has the advantages of universal access to materials and ease of use. There also exists the possibility of leaving the (for advanced users somewhat inflexible) CLEAR environment by integrating or embedding some of the materials and applications into one's own websites, blogs, or social media (e.g. an audio dropbox so that people can leave comments on a particular reading or messages for the Spanish Club). Not being able to completely own one's materials is indeed becoming more and more the standard with most cloud-based apps and hosted exercise makers (Quia et al.), so it should not deter the user from building up a collection of learning materials within the framework of CLEAR. Based on years of personal experience of working with other CLEAR applications (Audio Portfolios, Audio Assignments), I can report that the servers are well maintained and tech staff responds promptly to glitches and requests

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for help.

The documentation provided is excellent and detailed, but it might deter people who are not good at following written instructions and thus feel easily overwhelmed.ⁱⁱⁱ However, CLEAR offers workshops and summer seminars for those who want to immerse themselves more into RIAs and instructional technology. It strikes me that the best and most effective use (and a possible recipe for full-fledged adoption on a departmental basis) can be achieved via a language technology specialist and/or dedicated faculty member when they teach these tools in faculty workshops and offer follow up assistance and troubleshooting.

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ⁱ Carole Chapelle's (1998) article on the development of multimedia language learning materials informed by research into Second Language Acquisition and Computer Assisted Language Learning.

ⁱⁱ Thorne and Smith: The three major components of interaction — exposure (input), production (output), and feedback.

ⁱⁱⁱ The CLEAR website also provides access to discussion forum on technical issues and best practices for RIAs in your daily teaching as well as a number of video Tutorials for the Mashup and SMILE environment.

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