LEADING THE WAY FOR OPEN ACCESS RESEARCH

Mark Warschauer, University of California, Irvine

Language Learning & Technology is widely recognized for its high quality research. Less discussed is the leadership role the journal has taken in the open access research movement, contributing to new way of thinking about online academic journals.

INTRODUCTION

The movement for publishing research online emerged more than 25 years ago. One of the leaders of that movement was cognitive scientist Stevan Harnad. In an influential paper, Harnad (1991) described computer-mediated communication as a "fourth revolution" (p. 39) in the means of production of knowledge, matched historically only by the onset of language, writing, and print. Harnad pointed in particular to the power of the Internet for rapid and open diffusion of scientific research, breaking through the limitations in access, speed, and interactivity of the notoriously sluggish academic publishing industry. He also described a new online publication called *Psycoloquy*, which he considered a model for future "electronic journals" (p. 47).

Pscycoloquy was undoubtedly an important trend setter. Yet, though sponsored by the influential American Psychological Association, the journal operated on the scholarly margins. It was abandoned in 2002 after 13 years of publication, and there is no record of its citations or impact during those years.

A number of other online journals followed in the footsteps of *Psycoloquy*. Some of these early pioneers are still publishing today, including *Kairos: A Journal of Rhetoric, Technology, and Pedagogy* (now in its 20th year) and *TESL-EJ* (which just completed its 19th volume). These journals have emphasized innovation and access, and they have achieved their goal. Their accomplishments are to be applauded. Yet among these early pioneer online journals (i.e., those started in the 1990s), *Language Learning & Technology* (*LLT*) had a unique goal, which it achieved as well. What made *LLT* different, and thus its contribution so special?

A NEW STANDARD FOR ONLINE JOURNALS

LLT was launched in the mid-1990s out of a collaboration between the University of Hawai'i National Foreign Language Resource Center (NFLRC) and the Michigan State University Center for Language Education Research (CLEAR). Like other online journals started in the 1990s, *LLT* sought to enhance the speed of publication and the accessibility of published research. Yet *LLT* had an additional goal: to raise the rigor of published research in its targeted area. Thus, rather than seeking to be defined principally by its mode or style of publication, *LLT* sought to be the highest quality journal in an emerging area of inquiry.

This sounds like an obvious goal, but *LLT* was going against the grain. By the time the first issue of *LLT* appeared in 1997, there was already a popular notion of a dichotomy between print journals (which alone printed rigorous peer reviewed research) and online journals (which were accessible but not rigorously reviewed). Indeed, at the time, many academics refused to submit work to online journals, believing (or knowing) that their institutions would fail to recognize articles published in online venues. To break out

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of this stereotype, *LLT* recruited a top notch editorial board, including leading applied linguistics from around the world. For its inaugural issue in July 1997, the journal invited internationally recognized applied linguistics to submit papers on the topic *Language Learning & Technology: Defining the Research Agenda*. The resources of the NFLRC and CLEAR were used to achieve broad publicity. *LLT* quickly gathered broad attention.

Other steps were taken in line with print journals (but less commonly taken by online journals at the time). The journal applied for and rapidly got an International Standard Serial Number, thus marking it as unique publication. It also took steps to get included in *Thomas Reuters Web of Science* and other academic journal indices. Indeed, the very name of the journal was carefully chosen with its goals in mind, with *Language Learning* purposely preceding *Technology*, and the words *online* or *electronic* purposely excluded. Quality of scholarship rather than mode of delivery was emphasized.

To help ensure a steady flow of high quality submissions, *LLT* chose a strategy of alternating between regular and special issues. This stood in contrast to the more typical models of journal publishing such as (a) rarely publishing issues or (b) only publishing special issues. The journal has thus continually been open to submission of manuscripts on any topic related to language learning and technology, while also having frequent special issues that serve as a magnet for the best research in specific areas. In addition, a number of scholars who initially served as guest editors of special issues were then brought on as editors or associate editors, ensuring a steady supply of strong editorial leadership, including, most prominently, Dorothy Chun, who served as a guest editor in Volume 3, Number 2 and has been an editor ever since.

In addition to articles, the book reviews, software reviews, annual listings of topical dissertations, and emerging technologies column (the latter edited for 20 straight years by Robert Godwin-Jones) helped synthesize a wide range of additional research and resources for readers around the world. As a result of all these steps, *LLT* achieved a much broader and higher impact than other online journals from the 1990s. By 2012, the journal was being accessed by 687,892 visitors from around the world, from 372,642 unique addresses. A total of 72% of these visitors came from outside the US (Warschauer, 2014). By 2014, the total number of annual visitors rose to over 900,000, with rapid growth in readership in every region of the world (see Figure 1).

2014	Count	% increase	2013	Count	% increase	2012	Count	% increase
Subscriptions	21,604	. 02%		21,215	2.16		20,766	7.29
Visitors by country								
1. US	358,526	26.87	1. US	282,598	45.71	1. US	193,952	12.56
2. China	134,870	34.77	2. China	100,076	31.27	2. China	76,239	71.34
3. UK	51,831	8.95	3. UK	47,575	23.01	3. UK	38,677	92.72
4. Canada	41,551	37.68	4. Canada	30,179	130.69	4. Viet Nam	37,997	9.07
5. Philippines	37,139	48.53	5. India	27,473	60.56	5. Germany	20,080	27.40
6. Brazil	36,260	111.74	6. Philippines	23,806	106.38	6. India	17,111	58.70
7. Germany	34,896	74.64	7. France	22,852	139.01	7. Indonesia	16,749	67.79
8. Ukraine	33,795	102.22	8. Viet Nam	21,708	-42.87	8. Canada	13,079	17.30
9. France	32,796	43.51	9. Indonesia	20,740	23.83	9. Switzerland	12,305	(ND)
10. India	32,530	26.13	10. Australia	19,354	70.55	10. Philippines	11,535	73.54
11. Indonesia	24,703	22.22	11. Germany	17,839	-11.16	11. Australia	11,348	16.46
12. Australia	23,012	28.34	15. Japan	12,907	23.61	14. Japan	10,442	6.63
13. Viet Nam	19,387	-24.03	22. Brazil	9,659	31.47	19. Brazil	7,346	-3.32
14. Japan	16,151	35.68	23. South Korea	9,091	30.54	21. South Korea	6,964	6.68

Figure 1. This figure shows *LLT* readership by country from 2012 to 2014.

In 2015, the total number of annual visitors rose to 1,199,420, from 671,088 unique addresses. Even more impressive has been the Journal Impact Factor of *LLT*. It has consistently ranked among the highest-impact in the world in two separate fields for a decade: linguistics and education (see Figure 2).

Year	Impact Factor	5 Year	Linguistics	Education
2013	1.93	2.36	10 out of 169	26 out of 219
2012	1.38	2.21	12 out of 160	19 out of 216
2011	1.74	2.47	7 out of 162	15 out of 206
2010	1.69	2.46	8 out of 141	15 out of 177
2009	2.53	3.575	3 out of 93	3 out of 139
2008	1.70	2.067	11 out of 68	9 out of 113
2007	1.22	No Data	13 out of 55	14 out of 105

Figure 2. This figure shows *LLT* journal citations report rankings from 2007 to 2013.

Perhaps the greatest recognition of *LLT*'s leading role came in a published study by Smith and Lafford (2009) evaluating scholarly activity in the field of computer-assisted language learning (CALL). An international survey of CALL researchers found that *LLT* was ranked in a tier by itself in academic quality, well above 18 other journals that were grouped in three lower tiers. The survey also found that *LLT* was most highly ranked of 20 related journals in terms of its benefits for promotion and tenure, and that it was mentioned nearly twice as often as any other related journal as a preferred outlet for scholars' own research. The comparison list of journals in that study included those that publish in the areas of CALL, computers and learning, and applied linguistics. Almost all of them were print journals published by established associations or companies, and many were considerably older than *LLT*. This was the clearest evidence that *LLT* had reached its goal of not only reaching the broadest possible audience, but also setting the highest standard of academic research.

THE NEW OPEN ACCESS MOVEMENT

In the decade after *LLT* and other pioneer online journals first emerged, the Internet exploded in growth, reaching hundreds of millions of new users around the world. Scores of new interactive features were developed, in what was broadly described as *Web 2.0* (see discussion in Warschauer & Grimes, 2007). The stage was set for much broader diffusion and acceptance of online publishing.

At the same time, issues of open access to research were becoming much more pressing (Willinsky, 2006). Rising subscription costs for journals were putting serious strains on universities in wealthy countries and making much scholarship completely out of reach for scholars in developing countries. In response, the online journal industry exploded, with issues of cost and access at the core (Willinsky & Moorhead, 2014). On the one hand, prominent new online journals such as *PLOS ONE* and *AERA Open* have arisen, basing their funding on author publication fees rather than subscriptions. (*LLT* never had to take this step due to its support by its sponsoring organizations and the federal grants they received.) On the other hand, virtually all print journals are now published online as well, with most of these journals also allowing open public access to articles if authors choose to pay a publication fee. Scores of predatory journals, which take in author fees but fail to review or even read submissions before publishing them, have arisen as well.

The last example notwithstanding, the question of whether high quality research can and should appear in online publications has been resolved. Indeed, major research funders, such as the National Science Foundation and the National Institutes of Health in the US, now require that publications resulting from their funded research be made openly available. Thus today, academics no longer question whether they will receive proper credit and support for publishing their work in online journals, but rather whether they might suffer sanctions if they do not make their work publicly accessible.

With questions of funding, peer review, and other matters still under debate, the future of academic journal publishing is very much in flux. But when the history of the transition from print to online publishing is written, the important role of *LLT* should be noted as one of the first journals to demonstrate that publishing exclusively on the Internet was fully compatible with being among the best academic journals in the world.

ABOUT THE AUTHOR

Mark Warschauer was the founding editor of *Language Learning & Technology*. He is currently Professor and Interim Dean in the School of Education at the University of California, Irvine and editor of *AERA Open*.

E-mail: markw@uci.edu

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