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## An On-line Context Finding System for Irish Materials

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When the battle of Comar, the battle of Gowra, and the battle of Ollarba had been fought, and after that the Fianna for the most part were extinct the residue of them in small bands and in companies had dispersed throughout all Ireland, until at the point of time which concerns us there remained not any but two good warriors only of the last of the Fianna: Ossian son of Finn, and Caeilte son of Crunnchu son of Ronan.<sup>1</sup>

One of the most obvious pedagogical problems facing those of us who teach Celtic materials to undergraduates, and even to post-graduate students from outside the field, is that of context. Consider the opening of the twelfth century preface to the *Acallamh na Senórach*, quoted above. Where is Gowra and what happened there? Who is Ossian? What are the *fianna*? Why are these places and people mentioned first? The context problem is obviously most acute outside Ireland, Wales, Scotland and Brittany, but I suspect that even in the traditionally Celtic areas of Europe student preparation for university studies in these fields is not what one might ideally wish, or even ideally remember (or wistfully imagine) from a more educationally seemly past. This lack of useful mental furniture amongst students represents a serious barrier to learning, in that inordinate amounts of classroom and advising time are often taken up with providing rudimentary explanations of place names, cultural practices, native literary genre names and the like. (What's an *aisling*?) Ironically, although useful reference works and secondary studies (for example, Fergus Kelly's *Introduction to Irish Law*<sup>2</sup>) are now appearing, few libraries in these days can purchase all of them, and students are increasingly unfamiliar with using libraries. My wife recently sent some of her students (some second and third year) to the campus main library at the University of California, Berkeley to bring back to the classroom a suitably scholarly book that would be useful for their individual projects. One student admitted that he had never taken a book out of a library before and another called my wife's mobile phone to report that 'she was in the library but she didn't see any books.'

Our students seem to live in a world of horizontally arranged fragments of information, plucked from Google searches and Wikipedia entries. My wife asked a student to report to the class about the Wailing Wall. He explained that it was an Israeli rock music group, because that was the first 'hit' he got on Google. Most significantly, it never occurred to him to inquire as to *why* Israeli rock musicians might choose such an odd name. Perhaps he thought the reference was to the acoustics of their performing

<sup>1</sup> O'Grady, S.H. 1892 *Silva Gadelica*, London: Williams and Norgate 101.

<sup>2</sup> Dublin Institute for Advanced Studies 1998

style. So much for context. Additionally, students now approach their educational work asynchronously. They are working in their dormitory rooms at two AM when most libraries are closed, and when the shrinking band of trained reference librarians is soundly asleep. From the students' point of view, there is no one to help them *but* Wiki.

Given that the available context information on the web is, for many students, horizontal and shallow, is it possible to create a richer environment for finding and incorporating context that will serve some of the purposes of a reference librarian or a very patient instructor? Is it possible to design an on-line system that can provide the student with the optimal set of context resources for his or her particular research needs? I hope to show here a first approximation of what such a system might look like for Irish materials. Our project (*Context and Relationships: Ireland and Irish Studies*, funded by the National Endowment for the Humanities and the Institute of Museum and Library Services) has enabled us to develop a model of what we call a "Context Finder" coupled with (ideally) a "Content Provider."

[Electronic Cultural Atlas Initiative](#), University of California, Berkeley.



### Context and Relationships: Ireland and Irish Studies

Everyone is necessarily concerned with the context and relationships of what they study: the what, where, when, who, why and how. This project will demonstrate how auxiliary resources can be made more readily available in a demonstration project using Irish Studies literature.

Partners include the [Celtic Studies Program](#) and [The Emma Goldman Papers](#) project at UC, Berkeley, and the [Centre for Data Digitisation and Analysis](#) at Queen's University, Belfast, Northern Ireland.

Funded in part by the [Advancing Knowledge](#) program of the [National Endowment for the Humanities](#) and the [Institute of Museum and Library Services](#), award number PK-50027-07, Oct 2007 - Sept 2009.

This project builds on [Support for the Learner: What, Where, When, and Who](#) and [Bringing Lives to Light: Biography in Context](#)

Related Publications

Proposal Summary ([PDF](#)) | Proposal Narrative ([PDF](#)) | Project Diagram ([PDF](#))

Principal Investigators: [Michael Buckland](#); [Fredric Gey](#); and [Daniel Melia](#).

Others: [Barry Pateman](#), [Paul Ell](#), [Ray Larson](#), [Deirdre Wildy](#), [Jeanette Zerneke](#), and [Kimberly Carl](#)

[website: <http://ecai.berkeley.edu/neh2007/>]

The fundamental conception of how such a tool would work is that a text would be called up to the center of a computer screen, selected from a set of digitized texts that would be displayed, for instance, as a list to the right of the central screen. Users, an instructor for instance, could add texts to the 'provider' side of the display, and would,

thus, create a corpus of material related to a particular course or research project. The Content Provider thus serves one of the purposes of a research librarian: recommending suitable material to investigate for a particular project or purpose. In an open computing environment, such corpora could be shared, modified, and augmented by other users. The present difficulty with content provision is, of course, that not every text that one might wish to include is available in digital form; the good news is that the long-term trend is toward much greater availability of digital material.

The other task of a reference librarian is the crucial business of providing context, helping students or other users to make maximum sense of the textual material in question. In an actual library, of course, the librarian would suggest a series of printed (or on-line) resources available in the library: dictionaries, encyclopedias of various kinds, maps, gazetteers and the like. In our second-stage computer setting, the context reference sources are arrayed on the left of the screen (as you face it) and include materials that are directly searchable, e.g. the CELT corpus at University College Cork<sup>3</sup> or simply accessible, but requiring a separate search engine, for instance, the *Electronic Dictionary of the Irish Language*<sup>4</sup>, *eDIL*.

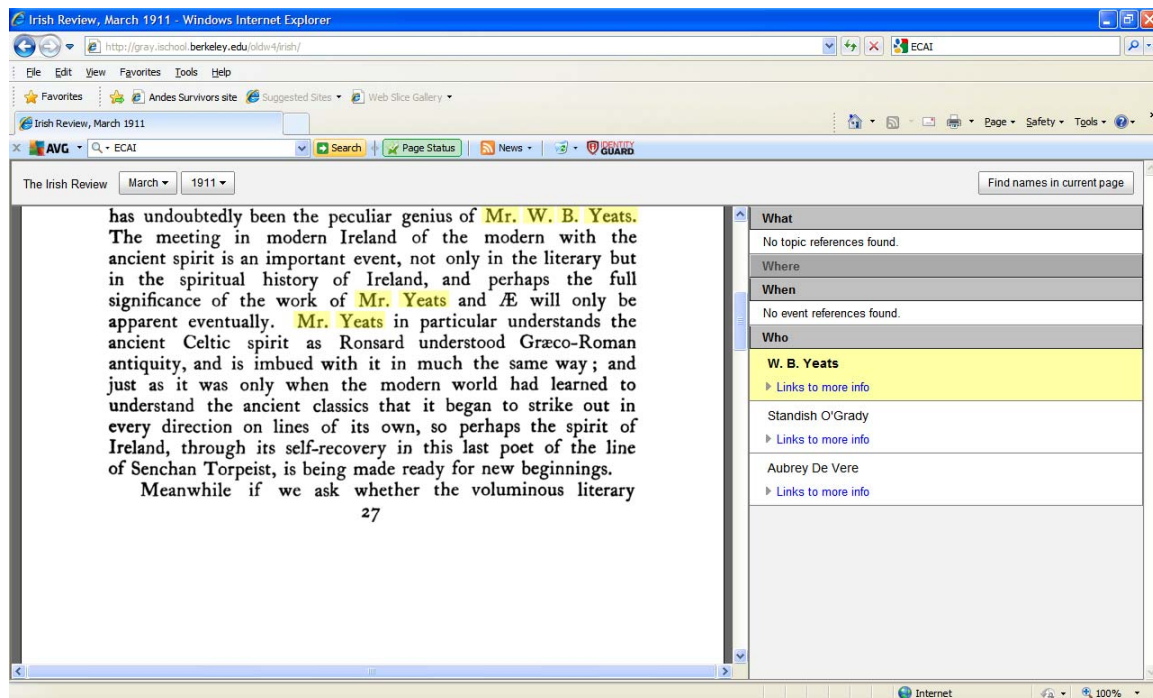
Any of you who have tried to develop computer software tools will be aware of the difficulties involved in creating a stable platform for such a venture. Over the course of the last three years, we have often been stymied by the difficulty in obtaining content and in maintaining even off-the-shelf software, such as Mozilla's Jet Pack utility, which Mozilla changed mid-stream for technically opaque reasons. Nevertheless, we have been able to develop two prototype versions of the system, which can serve to illustrate the possibilities of such an automated reference librarian.

The first demonstration is one that shows the usefulness of automatic noun searching. The operation is quite slick, but requires a certain amount of purposeful HTML/XML mark-up (although it allows for the user to provide the markup transparently from the text, as you will see.) This was our first approximation. The actual programming was done by a team of postgraduate students led by Ryan Shaw of the U.C. Berkeley School of Information.

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<sup>3</sup> [www.celt.uc.ie](http://www.celt.uc.ie)

<sup>4</sup> [www.dil.ie](http://www.dil.ie)



[<http://metadata.berkeley.edu/demos/> has a film and an interactive demonstration.] In the screenshot above, the text box shows part of an article from *The Irish Review* of 1911.<sup>5</sup> The user has clicked on ‘Find names in current page’ and the program has identified the highlighted personal names when selected by the ‘Who’ button. It will be noted that AE, Ronsard, and Senchan Torpeist have not been recognized by the program, but they can be added manually by the user and will be remembered by the program.

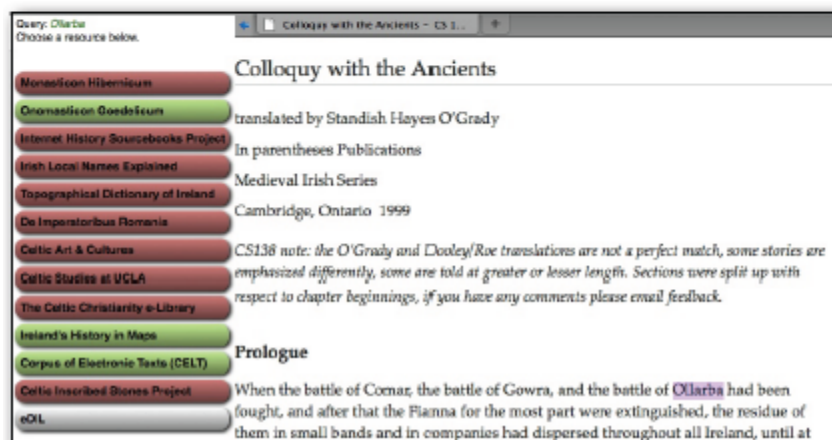
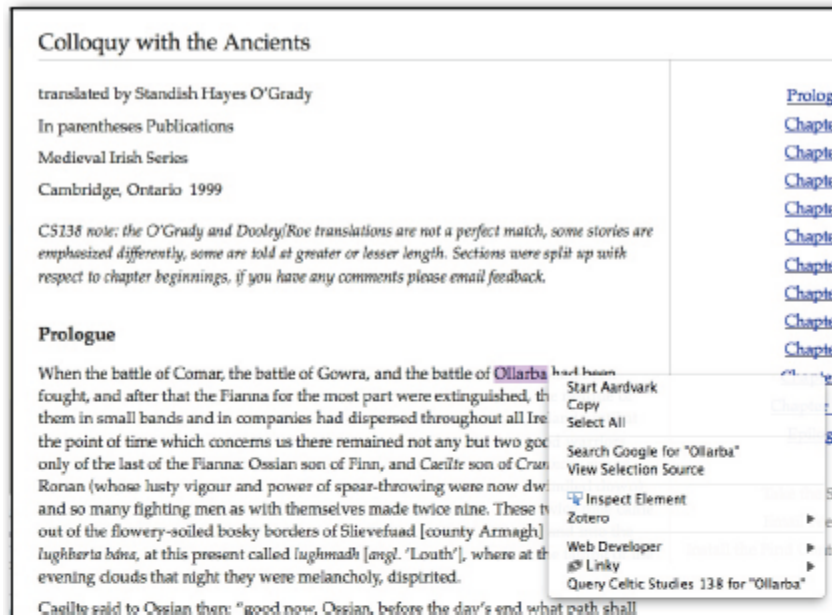
As the project progressed, we decided that for efficiency’s sake we would try to use HTML/XML coded text without special markup as well as off-the-shelf software to encourage ease of use. The upshot was that the searching of context material was clarified, but at the sacrifice of the automatic name-recognition feature of the first prototype. This second part of the project was designed around use in an actual classroom setting: my UC Berkeley course on medieval Irish literature in translation (Celtic Studies 138). Using a digitized version of Standish Hayes O’Grady’s English translation of the *Acallam na Senórach* (provided by medieval scholars at York University, Toronto<sup>6</sup>), we set up a context finder specifically for the students in the course. Noah Kersey, a postgraduate student in the School of Information was the principle programmer for this experiment. The experiment, incidentally, required formal permission from the campus Committee for the Protection of Human Subjects, lest the tender psyches of our students be bruised by exposure to an exotic search engine.

In this version of the context-finder, the main text is center-left with a panel to the right allowing direct jumps to each chapter. When the user (student, in this case) highlights a word, a dialogue box opens allowing a selection from a set of technical queries and, more saliently, the choice of a direct Google search or ‘Query Celtic Studies

<sup>5</sup> *Irish Review: A Monthly Magazine of Irish Literature, Art and Science*, Dublin

<sup>6</sup> In Parentheses Publications, [www.yorku.ca/inpar/](http://www.yorku.ca/inpar/)

138'. If the latter option is selected a set of bars appears to the left of the screen representing each of the digitized resources provided by the instructor. The program (the now obsolete Mozilla Jet Pack) very quickly searches the resources themselves and lights up in green those which contain any instances of the highlighted term, leaving those without 'hits' in red. The user can then click on the green bars to investigate that source.



Query: Ollair  
Choose a resource below:

- Metastorms Metastorm
- Onomasticon Goidelicum
- Internet History Sourcebooks Project
- Irish Local Names Explained
- Topographical Dictionary of Ireland
- De Imperatoribus Romanis
- Celtic Art & Culture
- Celtic Studies at UCLA
- The Celtic Christianity e-Library
- Ireland's History in Maps
- Corpus of Electronic Texts (CELT)
- Celtic Inscribed Stones Project
- WDL

**ollair** rotho  
part of the dowry of the dau. of Holywood, wife of Baron of Delvin, Fir. 840 (b); § 1 Holywood Rath, in N. Dublin, stat. § al. Ollar, the Six-mile-water, c. Ann.; § Ollar, LI. 24 a; § the Six-mile-water which rises at the junction-point of the 10. Upr. Antr. Upr. Glanann and Lr. Belfast, and flows SW. for 13m. betw. b. of Upr. Antr. on the right, and the 10. Lr. Belfast and Lr. Massarene on the left, and enters L. Neagh, at Antr., Paj. § "the junction-point" is a little SW. of Badpeltre station, and here also at Mōn in Chathra rises the r. Ollar, at Inver of Larnie, which runs NE., forming the N. boundary of the p. of Inver, dividing it fr. the p. and post-own of Larnie, and entering the N. of Larnie Lock at Inver Ollar; Larnie fr. which the p. of Inver is named; § v. Mōn in Chathra; § Ollar and Ollar in Dalruidie, Lec. 41, 594, Lg. 141, Bm. 31 a, LI. 24 a, 129 b, 286 a b, Sc. 31 b, K. 149 b, Pm. 1. 100; § in Linc. LI. 24 a, Lg. 156, 173; § in Mag Line, LI. 129 b, Pm. 1. 120, Pm. 8, Hc. 2, 543, Cf. 189, 306, 342; § Ollar, in SE. of Mag Line, LI. 530; § al. in Lincmag, Bb. 31 a; § is a r. opposite Rath Mōr (in Mag Line), Ls. 133 b, Lm. 913, 954; § Ollar was S. of Larnie, LI. 184; § Ollar, in Uln., betw. Dōn Rīgth and Mag Macha, LI. 263 b; § the r. or as Ollar, LI. 186, Ollar, Ls. in line; § v. Inver r. Ollar, Trach. U. Trig. O.; § either Ollar, or Ollar, the harbour of Larnie, has been corrupted into Weller-Sib and Ollar-Sib, which points to Ollar-Sib; § however, Inver Ollar, Traig Ollar and Inver Ollar point to the sea L. at Larnie rather than to L. Neagh; § LI. 186 shows Ollar as S. of Larnie; § O.D. (Pm. 1. 100) says "them can be no doubt as to their modern names."

**ollair**  
Ollaric; § n. Larnie, al. Inver r.; § v. Ollar.

**ollha**  
Ml.; § lgg. Ollha.

**ollri** rnaige lsa  
Fca. haid i n Ollhb. M.F., Lec. 545; § in Ollhb. M.F., Sc. 6 a, Sd. 5 b, Hc. 143; § v. Ollhb. M. F., Ullad. c.

Query: Ollair  
Choose a resource below:

- Metastorms Metastorm
- Onomasticon Goidelicum
- Internet History Sourcebooks Project
- Irish Local Names Explained
- Topographical Dictionary of Ireland
- De Imperatoribus Romanis
- Celtic Art & Culture
- Celtic Studies at UCLA
- The Celtic Christianity e-Library
- Ireland's History in Maps
- Corpus of Electronic Texts (CELT)
- Celtic Inscribed Stones Project
- WDL

283 AD - Pothadh was king over Ireland, when Pothadh Cairnbeach was slain by Pothadh Airgbeach, Pothadh Airgbeach was afterwards slain in the battle of **Ollair**, in Mugh Linc, by Caelic.

286 AD - The first year of the reign of Fiacha Sraibhna over Ireland.

322 AD - Fiacha Sraibhna, after having been thirty seven years as king over Ireland, was slain by the Collas, in the battle of Dubhshonair, in Cricth Rois, in Brough.

323 AD - The first year of Colla Uais, son of Eochaidh Deimhnech, as king over Ireland.

326 AD - The fourth year of Colla Uais, in the sovereignty of Ireland, when Muirtheadh Taroich expelled him and his brothers into Alba Scotland with three hundred along with them.

327 AD - The first year of Muirtheadh Taroich in the sovereignty of Ireland. At the end of this year the three Collas came to Ireland, and there lived not of their kind but three nine persons only. They then went to Muirtheadh, having been instructed by a dival, and they scolded at him, and expressed evil words, that he might kill them, and that it might be on him the curse of the English should alight. As he did not oppose them, they tarried with him, and were faithful to him.

351 AD - The battle of Achadh Leithbeing, in Fuarneagh, was fought by the three Collas against the Ulstermen, in which Sill Fonghas Pogha, son of Fionnar Fionnra, the last king of Ulster, who resided at Darbhair. They afterwards burned Eamhaid, and the Ulstermen did not dwell thence since. They also took from the Ulstermen the rest of the service animals from the Madra and Lough ollhbaidh rnaigebh, Colla Mhuir led in his battle.

Unfortunately, no publically available demonstration of this program is yet available.

The context finder is, of course, two-edged. On the one hand it provides simple explanatory information directly (from, say Wiki- or Edmund Hogan's *Onomasticon Goidelicum*, via the Celt Project) but on the other, suggests other sources and other paths to pursue with respect to a particular inquiry. The latter result may encourage the student to further research, or, alas, merely provide further confusion. One of the virtues of the second prototype is that it informs the student which resources might be useful and which contain no useful references. Leaving aside the software difficulties, this experiment demonstrates well the utility of the context-provider model for offering nearly instantaneous help and advice.