Resources at the Interface of Openness for Academic English

Alannah Fitzgerald OpenCourseWare Consortium Global Conference 2014
Global OER Graduate Network (GO-GN) Research Track

https://www.flickr.com/photos/jef_safi/5111616644
Aims of the Research

To **identify which tools and resources**, including the communities who develop and use them, are at the interface of openness for academic English. And, to **define** what openness means in the broader context of academic English resources development and use.

To **increase awareness and uptake**, through **Design-Based Research**, of open corpus-based language learning tools and resources for academic English in both formal and informal education.

To **locate and analyse the interfaces** where social friction can be experienced and where the diffusion of open tools, resources and practices for academic English can lead to structural discontinuities (both positive and negative).
Interfacing Communities

Communities/Actors that Interface this Research:

• English for Academic Purposes Practitioners/Researchers/Learners
• Open Source Software Developers/Computer Science Researchers (FLAX Language Project)
  – Corpus Linguistics Software Developers/Researchers
• MOOC Subject Academics/Instructional Designers/Researchers/Learners/Platform Providers
  – Open Educational Resources Practitioners/Researchers
Design-Based Research *through Mistakes*

- Design-Based Research as “*Action Research on steroids.*” (Anderson, 2007)
  - Collaborate, Document, Return, Reiterate, Release
  - Two case studies previously (Durham-OU with SCORE, Oxford with the UK Higher Education Academy)
  - Two research contexts at present (MOOCs, Traditional English for Academic Purposes programmes)

- “We often joke in our work that the iterative adjustment and improvement of our interventions could be characterized by ‘*research through mistakes*’”. (Anderson & Shattuck, 2012)
  - Mistakes and opportunities from past research and development with an eye to what could go well and not so well with current research
Design Inquiry of Learning

Imagine
Define an educational challenge that you would like to address.

Investigate
Analyze the context, refine the challenge, identify a suitable pedagogical approach.

Reflect
Produce an account of your design process, the learning experiences you derived from it, and their outcomes.

Evaluate
Assess the extent to which your design meets its objectives, identify areas for improvement.

Inspire
Review examples of past innovations and apply the insights from those to your project.

Ideate
Conceptualize a solution.

Prototype
A rapid crude implementation to test your ideas.

Yishay Mor

https://www.flickr.com/photos/yish/9205077749/
Social Interface Theory

http://www.flickr.com/photos/spindexr/5584821686/
Social Interfaces

“Social interface is a concept from social science (particularly, sociology of technology). It can be approached from a theoretical or a practical perspective.” (via Wikipedia)

As a practical concept social interface is seen in usability studies for evaluating interface designs within human-computer interaction.

As a concept of social interface theory, social interface is defined by anthropologist, Norman Long (1989, 2001).

In 2001 his revised definition was:

"a social interface is a critical point of intersection between different lifeworlds, social fields or levels of social organization, where social discontinuities based upon discrepancies in values, interests, knowledges and power, are most likely to be located.”(Long, 2001)
FLAX Language at Waikato University

http://flax.nzdl.org  FLAX image by permission of non-commercial reuse by Jane Galloway
The **FLAX** (Flexible Language Acquisition) project aims to automate the production and delivery of practice exercises for overseas students who are learning English. Exercise material comes from digital libraries, which can supply a virtually endless supply of collaborative and competitive language activities. *(All software produced by this project is open source, issued under the GNU General Public License.)*
Simple FLAX Interface Designs

**Virology** is the study of viruses and virus-like agents: their structure, classification and evolution, their ways to infect and exploit cells for virus reproduction, the diseases they cause, the techniques to isolate and culture them, and their use in research and therapy. [Wikipedia]

**related topics in Wikipedia**

- Animal virology
- Thomas Huckle Weller
- Tobacco mosaic virus
- Jonas Salk
- Prion
- Viral replication

- John Franklin Enders
- Harald zur Hausen
- Bacteriophage

A bacteriophage (from 'bacteria' and Greek φυτεύειν *phegein* "to eat") is any one of a number of viruses that infect bacteria.

- Herpes simplex virus
The traditional text analysis software interface for working with large language collections (corpora) has been the Key Word In Context (KWIC) interface. Corpus linguistics researchers and developers of KWIC interfaces have claimed over the years that learners of a language can deduce language use patterns by examining KWIC lines. This method is also known as data-driven learning.
Radio Ga Ga: corpus-based resources, you’ve yet to have your finest hour

These past few months I’ve been tuning into a lot of different practitioner events and discussions across a range of educational communities which I feel are of relevance to English language education where uses for corpus-based resources are concerned. There’s something very distinct about the way these different communities are coming together and in the way they are sharing their ideas and outputs. In this post, I will liken their behaviour to different types of radio station broadcast, highlighting differences in communication style and the types of audience they are seeking to engage...

Radio Ga Ga album cover by Queen via Wikipedia

http://www.alannahfitzgerald.org/394/
Past Case Studies with Durham-SCORE & Oxford-UK Higher Education Academy

http://www.open.ac.uk/score/
Openness in English Language Teaching

Author: Alannah Fitzgerald  April 2012  License: Creative Commons Attribution (CC-BY)

Openness in English Language Teaching

Alannah Fitzgerald, Terri Edwards, Jeff Davidson & Lesley Kendall

http://presentations.ocwconsortium.org/uk2012_331_fitzgerald_openness_english_language/
Durham Findings

• OER cascade study with FLAX, AntConc, Lextutor and WordandPhrase corpus projects

• Development of language specificity in EAP with corpus resources was valued by students. Study on development of lexical range in timed-writing scenario showed positive results.

• Interface designs of tools and level of complexity were issues

• Collaboration in materials development and DBR with FLAX project was valued by participating teachers

• Unable to build corpus-based OER into existing Durham programmes
Specificity in EAP (Hyland, 2006)

Terri: I mean this [Learning Collocations collection in FLAX] is so useful and this is the kind of thing our students massively lack. I mean, what was nice with [student] who was not having a very good day that day was when I sort of thought, well, I’ll distract him and let’s have a look at some geology stuff because he’s a geologist. He was fascinated, absolutely fascinated and we just then started swapping words.

Alannah: That’s the great motivator, isn’t it?

Terri: Yes.

Alannah: To get students to look in their own subject areas.

Terri: It was really nice for him to actually look at these to see how many words he actually knew and to then explain them and their collocates to me. He found that fantastically motivating. So, you know, I was milking it slightly... but it was good. And, again, I thought why don’t we have each student looking at their subject-specific collocations sets?
The age structure of the population was changing.

Figure 5.1 The age structure of the population of England and Wales, 1851-2021

Figure 6.7 presents data for the age structure of the population in more detail.

The most usual way of predicting future service needs is by the forward projection of current prevalence data to the predicted age structure of the population in the future.

Bill said: Within ten to 20 years, changes in the age structure of the population, it is going to be vital to attract women to ensure that the complement of applicants is kept up.
## FLAX – Learning Collocations
(related collocations, definitions, topics)

### related collocations

<table>
<thead>
<tr>
<th>ageing</th>
<th>population</th>
<th>fertility</th>
<th>age</th>
<th>longevity</th>
<th>pension</th>
<th>country</th>
<th>increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>health</td>
<td>overpopulated</td>
<td>decline</td>
<td>global</td>
<td>expenditure</td>
<td>elderly</td>
<td>rise</td>
<td>immigration</td>
</tr>
<tr>
<td>aging</td>
<td>reweighing</td>
<td>well-being</td>
<td>people</td>
<td>sustainability</td>
<td>demographic</td>
<td>world</td>
<td>sub-replacement</td>
</tr>
<tr>
<td>old</td>
<td>benefit</td>
<td>fast</td>
<td>proportion</td>
<td>migration</td>
<td>myth</td>
<td>counter</td>
<td>reduce</td>
</tr>
<tr>
<td>median</td>
<td>ratio</td>
<td>rate</td>
<td>develop</td>
<td>transition</td>
<td>future</td>
<td>experience</td>
<td>arise</td>
</tr>
</tbody>
</table>

### definitions

**Population ageing** or **population aging** (see [English spelling differences](#)) occurs when the median age of a country or region rises. [Wikipedia]

extended definitions from wiktionary

### related topics in Wikipedia

- Sub-replacement fertility
- Population pyramid
- C. D. Howe Institute
- Demographic transition
- Pension Benefit Guaranty Corporation
DBR with Teachers and FLAX

Jeff: Developers put in a lot of tools but they don’t realise how a non-user can come to this homepage [FLAX] and think well, how do I choose any of this? You’ve just given me a bag of tools and I don’t know which one to use.

Alannah: That’s right, and a lot of my work has been about trying to get people into the different project tools and demonstrating them. But that’s a human layer...that’s not a great resource, is it? Because I’m only touching so many people that I talk to or I might meet through my work. But if it’s actually there on the project website it’s going to be a lot better...it’s going to reach a lot more people.

Jeff: I can just imagine people entering a kind of step one, step two – what would you like to do? I’d like to do this, this or this, right? Which kind of collection would you like to look at and so on?

Alannah: I mean they [the FLAX software developers] do know this because the project is just in the research stage...but just to get these ideas from us is really good and that has become my role with giving feedback on the FLAX interface experience for mainstream teachers and learners of English. FLAX is all about radically transforming the user interface experience for those teachers and learners who want to use corpus tools but who get put off by a lot of the complexity with many of the corpus-based resources out there.
University of Oxford OER Reuse

http://openspires.oucs.ox.ac.uk/resources/index.html#posters
I have assembled these posts into **ethnographic accounts** (LeCompte & Schensul 1999:17; Clifford 1990:51-52) to stop the clock as it were and to reorder the recent past that has been observed and jotted down; to systematize, contextualize and assemble the activity of the TOETOE International project across seven different countries. They will be **part narrative and part design dialectic**, drawing on stories and evaluations made by international stakeholders concerning the **re-use of Oxford content: Oxford-managed corpora** (the British National Corpus aka BNC and the British Academic Written English corpus aka BAWE) **and Oxford-created OER** (podcast lectures and seminars, images, essays, e-books) in combination with other open English-medium content.
...Research Methods Used

“Moreover, these evaluation narratives will continue to inform the design of open source digital library software for developing flexible open English language learning and teaching collections with the FLAX project (Flexible Language Acquisition) at the University of Waikato in New Zealand.

Thick descriptions (Geertz, 1973) will be presented from networked meetings, workshops, conference presentations and interviews with OER and ELT practitioners for arriving at better understandings of the social acts and symbols connected with the international open education movement.” (Fitzgerald, 2013)
Oxford Findings

• People want collections that are relevant to their own context
  – DIY collections development in FLAX

• BAWE (British corpus development and reuse of this software for ESAP collections development
  – Augmented full-text development with Wikipedia, Collocations and Google linguistic data
  – Wordlists, Lexical Bundles, Part-Of-Speech (POS) Tagging, Cherry Picking and Language Activities Design
  – Unable to revisit the licences on texts for further OER derivatives development
  – Reuse of BAWE software in FLAX for further domain-specific language collections development
The process by which we use our knowledge to make these inferences is known as reasoning. We use reasoning in nearly everything - from solving mathematical conundrums to finding the way to a particular destination. It is of no surprise then, that the mechanisms of reasoning are of such interest to psychologists.

is a right handed lady indicating that her dominant hemisphere (i.e. that which controls language and mathematical function) is on the left. From the history it appears that is suffering from a type of dysphasia.

The data collected during this process then undergoes post-processing such that the maximal amount of information of this processing can vary and there are a number of mathematical tricks that can sharpen resolution, eliminate correction. However at its most basic the processing involves performing a Fourier transform on the location of this the structure of the crystal and be inferred and thus the shape of the molecule.

http://www.youtube.com/watch?v=26i_Y146G0s
Financial Crisis Lectures

Linda: I'm Linda Yueh, I am a fellow in economics at St. Edmond Hall, University of Oxford. I am an economist and actually also a lawyer by training, but I teach economics at the University.

I have a couple of recent books, one of them is 'Macro Economics', an undergraduate textbook, which will soon need to be updated given the events of the past year. And another book which is coming out next year called 'The law and economics of globalization' to look at the ways in which the economy has been changed, in both economic and legal terms, over the last few years.

Jonathan: My name is Jonathan Michie, I am also an economist by training, although I am now director of Oxford University's department for continuing education, which does a range of part time courses including online courses, and in fact our most popular online course is on the global economy by Doctor Linda Yu. I am also president of Kellogg College. My most recent book is a handbook on globalisation.

Linda: I think 2008 has been a tremendous year in terms of economic developments. One of the things that perhaps we ought to think about is how we got here, in terms of the financial crisis. So we know at some point last year, around last summer, the sub-prime mortgage crisis in the United States really began to take hold. The most obvious manifestation was of course the failure of Northern Rock, which generated the first bank run on a British bank run in about a century.

Since then of course, things have only gone from bad to worse. In March of this year we know that the failure of Bear Stearns, which was forcibly sold to JPMorgan Chase, essentially marked the start of the prospect of systemic banking sector failure, and this culminated with the collapse of Lehman Brothers.
licetne Anglice loqui?

Posted on March 23, 2013 by Melissa Highton

Warning: this post include an above average number of three letter acronyms (TLA)

One of the best things about Oxford's OER collections is that they are free to be reused in many different ways. One of the best things about Oxford University Press* aka OUP is that they lead the world in support for English language teaching (ELT). One of the best things about doing learning technology research is that we can explore the new ways in which these areas overlap (LAP)

This year we have hosted an ELT researcher to include Oxford's OER in her work as she travels the world to work with English language teachers to promote re-use of open materials. The Oxford OER collections include Oxford-managed corpora; the British National Corpus (BNC) and the British Academic Written English corpus (BAWE) and Oxford-created OER (podcast lectures and seminars in spoken English, images, essays, ebooks).

Alannah Fitzgerald is an open education practitioner and researcher working in the area of technology-
Present Research with OERRH

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Recent Work:    Evidence Hub / Hal Plotkin Interview / OER in 10 videos / Reports /

http://oerresearchhub.org/
## OER Research Hypotheses

<table>
<thead>
<tr>
<th>Hypothesis A – Performance</th>
<th>Use of OER leads to improvement in student performance and satisfaction.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesis E – Reflection</td>
<td>Use of OER leads to critical reflection by (language) educators, with improvement in their practice.</td>
</tr>
<tr>
<td>Hypothesis G – Indicators</td>
<td>Informal (MOOC) learners use a variety of indicators when selecting OER.</td>
</tr>
<tr>
<td>Hypothesis H – Support</td>
<td>Informal (MOOC) learners adopt a variety of techniques to compensate for the lack of formal support.</td>
</tr>
<tr>
<td>Hypothesis I – Transition</td>
<td>Open education acts as a bridge to formal education, and is complementary, not competitive, with it.</td>
</tr>
<tr>
<td>Hypothesis K – Assessment</td>
<td>Informal means of assessment (in MOOCs) are motivators to learning with OER.</td>
</tr>
</tbody>
</table>

[http://oerresearchhub.org/collaborative-research/hypotheses/]
Educating in Beta

Current activity within open education can be characterised as having reached a beta phase of maturity. In much the same way that software progresses through a release life cycle, beta is the penultimate testing phase, after the initial alpha-testing phase, whereby the software is adopted beyond its original developer community.

Open education has now come to the attention of the mainstream press and traditional higher education,

http://www.alannahfitzgerald.org/educating-in-beta/
Developing Language Collections in the Open

The open source dictum, ‘release early and release often’, in fact has morphed into an even more radical position, ‘the perpetual beta’, in which the product is developed in the open, with new features slipstreamed in on a monthly, weekly, or even daily basis. It’s no accident that services such as Gmail, Google Maps, Flickr, del.icio.us, and the like may be expected to bear a ‘Beta’ logo for years at a time. (O’Reilly, 2005)
“Natural science might be characterized as a discipline of discovery, identifying and describing entities that had not been previously considered. As a result, natural science employs a large set of highly technical words, like *dextrinoid*, *electrophoresis*, and *phallotoxins*. Most of these words do not have commonplace synonyms, because they refer to entities, characteristics, or concepts that are not normally discussed in everyday conversation.” (Biber, 2006)
# Virology Language Collection in FLAX

<table>
<thead>
<tr>
<th>Type of media in the FLAX Virology Collection</th>
<th>Number of items in the FLAX Virology Collection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Podcast audio transcripts (<em>This Week in Virology</em>)</td>
<td>130</td>
</tr>
<tr>
<td>YouTube video transcripts (2013 <em>virology course at Columbia, also in Coursera</em>)</td>
<td>110</td>
</tr>
<tr>
<td>Academic blog posts (<em>Virology Blog</em>)</td>
<td>540</td>
</tr>
<tr>
<td>Open Access research articles (relevant to virology course and divided into paper sections)</td>
<td>40</td>
</tr>
</tbody>
</table>
Concerted assembly: Influenza virus particles form by budding
(Refers to Figure 13.6 of POV3rd, on the left)

So this is an example of another way of assembly besides this sequential assembly. This is called Concerted Assembly where, things more or less tend to happen all at once, although there are obviously some precursors that have to be made. This is the formation of influenza virus, and we may have looked at a slide like this before, but now we'll look at it in some detail. And remember, the influenza virion, the RNAs replicate in the nucleus. There they get wrapped up in the viral proteins that are eventually going to end up in the virion particles. So we have genome replication, we have mRNA synthesis. The mRNAs have to go out into the cytoplasm, get translated and then the proteins that are bound to associate with the nucleus, the genome, and then go back in and form the virion particle. So now we have the formation here of viral proteins. That gets shipped. Makes its way to the plasma membran...
Virology Collocations

Virology v1

Browse Collocations in Collection

vaccine  vaccinia  validation  value  variability  variation
varicella  variety  variolation  various  vary  vast
vector  vectoring  version  versus  vertical  very
vesicle  vesicular  viable  vial  view  viewpoint
violet  viral  virion  virologist  virology  virome
virtue  virus  viscosity  visible  visualize  vivum
volume  vrna
Virology Terms and Concept Support

**Inoculation** is the placement of something that will grow or reproduce, and is most commonly used in respect of the introduction of a serum, vaccine, or antigentic substance into the body of a human or animal, especially to produce or boost immunity to a specific disease. It can also be used to refer to the communication of a disease to a living organism by transferring its causative agent into the organism, the implanting of microorganisms or infectious material into a culture medium such as a brewers vat or a petri dish, or the placement of microorganisms or viruses at a site where infection is possible. The verb to inoculate is from Middle English *inoculaten*, which meant “to graft a scion” (a scion is a plant part to be grafted onto another plant); which in turn is from Latin *inoculare*, past participle *inoculat*. This article covers *variolation*, inoculation as a method of purposefully infecting a person with *smallpox* (Variola) in a controlled manner so as to minimise the severity of the infection and also to induce immunity against further infection. [Wikipedia]

**related topics in Wikipedia**

- Edward Jenner
- Lady Mary Wortley Montagu
- Cowpox
- Immunization
- Vaccination
- Longqing Emperor
- Cotton Mather
- Immunity (medical)
- Sir Edward Wortley Montagu
- Smallpox
- Mount Emei
- Medicine in medieval Islam
- Joseph Needham
- Hans Sloane
- Psychological resilience
- Dhanvantari
- Chancellor (China)
- Mortality rate
- Royal College of Physicians
- George I of Great Britain
- Microorganism
- Infection
- Mung bean
- George II of Great Britain
- University of Chicago Press
- Kaifeng
- Disease
- Newgate Prison
- Voltaire
- Ming Dynasty
MOOC Research Possibilities

• What may and may not be possible in terms of data collection
  – The FLAX OSS build it first approach.
    • Dependent on MOOC content so better at this stage (FLAX does not yet interface with Coursera’s provisions for learner support) to work on MOOCs that are being re-run.
    – Match language collection to assessments for learner uptake.
  • Best case scenario:
    – Learner survey
  • OK case scenario:
    – Passive data from FLAX tracking of collection use.
    – Interview with Professor Vincent Racaniello (Earth’s virology professor who interfaces with real-world issues in virology and who is a prominent open digital scholar).
    – TAs or instructional designers on the reuse of MOOC content for developing linguistic support for learners.
Academic English for Law at QMUL

LAW QMUL

Introduction

Intellectual property rights were rendered concerns of international trade in the Uruguay Round of GATT, when the World Trade Organization (WTO) was established, and the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPs)[1] was concluded. Acceptance of TRIPs is mandatory for any country wishing to be a member of the WTO. Thus, intellectual property rights and enforcement continue to be an important part of the ongoing trade rounds of the WTO, particularly in the Ministerial Declaration adopted on 14 November 2001, in Doha (Doha Declaration).[2] The Doha Declaration includes a mandate to review the patenting of biotechnology in the context of issues of biopiracy and the specific interests of indigenous and traditional groups and developing countries.

Creating effective international protection of indigenous cultural products means by which to achieve such protection usually commence and appropriate forum in which to conduct international discussions towards (WIPO)[3] Intergovernmental Committee on Intellectual Property and

The IGC is specifically assigned the task of looking at the intellectual property rights for Member states, and current debate over balancing interests between the Fifth session of the IGC, staged in July 2003, discussions called for on Biological Diversity (CBD).[5] As this article is published, the IGC is

--- Biopiracy and bioprospecting ---
Related topics in Wikipedia
- Traditional Knowledge Digital Library
- Traditional knowledge
- Siddha medicine
- Indigenous intellectual property
- International Treaty on Plant Genetic Resources for Food and Agriculture
- European Patent Office
- Captopril
- Unani
- Index of environmental articles
- Biological patent
DBR Cycles with QMUL

• Practitioners/Researchers involved in first iteration of language collections development
  – Interfacing with open Law resources
    • Open Access articles, Government research reports with contributions from QMUL Law professors, Case Law, Open Lectures, Student writing
  – Teacher Development with open tools and resources
  – Developing interaction within the corpus and derivatives from the corpus
  – Documenting the collections development process for sharing across the EAP sector
Data for Now and Later

- Research interventions on the perceived usefulness of the collection and collections design and development

- Data for PhD:
  - Focus-group interviews with teachers – what were the critical interfaces for discontinuation (positive/negative) in materials development practices?

- Data for later:
  - Learner workshops and training videos
  - Writing and redrafting study using FLAX
  - Learner survey

- Future iterations interfacing with Law subject academics

- Cascading across further EAP programmes at QMUL for different subject areas
References


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www.alannahfitzgerald.org TOETOE Blog
Slideshare: http://www.slideshare.net/AlannahOpenEd/