

Teaching Portfolio Extract

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History & Computing:

Research, Analysis and Writing with real tools on real problems

Since 1990, the final year seminar has been a key part of the UCC History programme. The final year seminars are a capstone seminar, topping off the departments skill focussed small group teaching by engaging students in the process of completing a substantial dissertation, often using primary sources. The seminar is usually taught by 2 staff over the full year with a limited number of students, although some seminars are taught by individual staff.

With my interest in using ICT in teaching history, it is hardly surprising that I have invested a great deal of seminar teaching in this area. When seminars were first introduced, we had a single History & Computing seminar, taught by three staff, which fell into two distinct parts. One semester was devoted to creating electronic editions of primary texts, using a DOS based wordprocessor called Nota Bene. Some of the scanned texts from this part, once edited, came to be part of the CELT archive. The other semester worked on digitising part of the 1901 Census of population using Microsoft Works. It quickly became apparent that there was more in this than could be accommodated in a single seminar, and it was split into two seminars, one dealing with texts and one with the 1901 Census.

After a few years however, the teaching partners in both seminars felt that the work required to prepare and teach these classes was too demanding, and both were dropped.

This was a view which I disagreed with, and after a number of years, I persuaded my Head of Department to

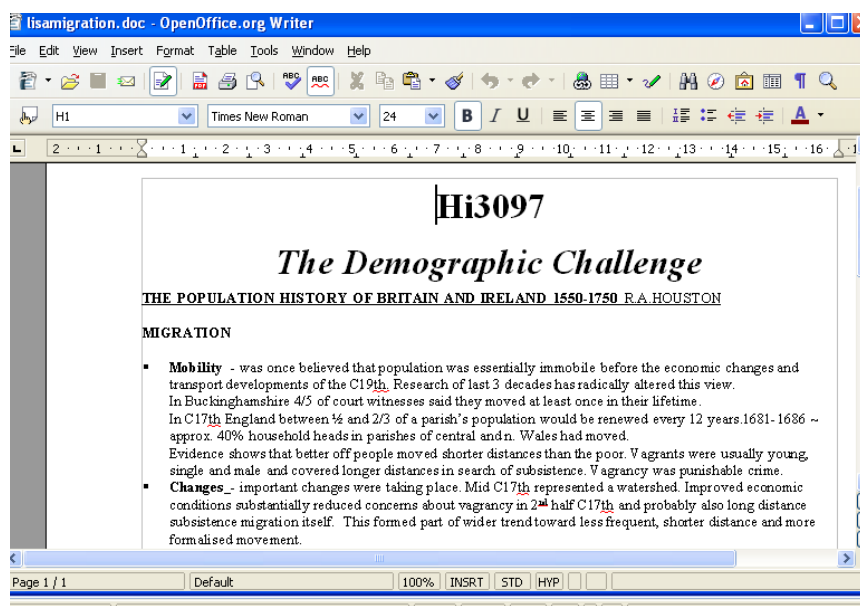


Illustration 1: Student Summary of a reading in population history

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allow me to revive one of the seminars, on the 1901 Census, on my own with a smaller quota of students. In the intervening period, I found that student IT skills had improved, and as a result, the basic skills teaching which had been seen as a burden in earlier years, was no longer a significant issue.

We recognise that most of our graduates will not pursue a career in history; consequently, the history dept emphasises teaching generally usefully skills of researching and analysing complex issues, and presenting that analysis clearly. Since most of our graduates will work in an IT intensive workplace, I feel strongly that we must produce graduates with the ability to function in this environment. Teaching using the 1901 Census offers an opportunity to do this, and my teaching is organised to 'cover the bases' in this area.

Thus in the seminar, I began the year by building on safe ground and setting the students a simple wordprocessing task – writing a one page summary of a particular reading. This gets their fingers back on the keyboard after the summer with a task which is not, in IT terms, difficult for them. (Students choose their own seminars, within some limits, so the 1901 Census class is a select group who know what that they are signing up for an 'IT heavy' course.) This also serves two other functions – by making each student summarise a different reading, circulate the reading summary and make a short oral presentation based on the reading, it

- establishes that the seminar is a discussion class,
- that the success of the class depends on the collaborative effort of the group, and
- allows coverage of a wider range of readings than each student could cover on their own.

The screenshot shows a Microsoft Excel spreadsheet titled 'roughwork.xls'. The data is organized as follows:

	M	N	O
1	Read	Write	Years
2031	Yes	Yes	9
2032	No	No	70
2033	Yes	No	55
2034	Yes	Yes	28
2035	Yes	Yes	24
2036		Avg	=AVERAGE(O2:O2035)
2037		Max	=MAX(O2:O2035)
2038		Min	=MIN(O2:O2035)
2039		Mode	=MODE(O2:O2035)
2040		Median	=MEDIAN(O2:O2035)
2041			
2042			
2043			

Illustration 2: Equations for simple statistics in a spreadsheet

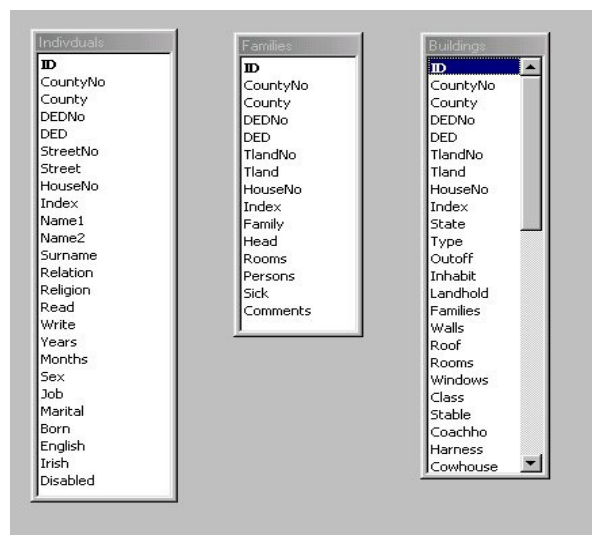
Once the students have begun to engage with the secondary reading, they can then be presented with sample printouts from the microfilm as the 1901 Census, which is a key resource in Irish population history. Over the years, the we have developed a good file format for digitising the 1901 Census, but the students are asked to look at the raw data and suggest how it might be digitised. With some direction, the discussion can be led to the best format, but going through the process helps to build understanding of the issues

involved in designing a data format which will remain faithful to the original primary source.

Students are then given a section of the 1901 Census records to input into the 'standard' format. This selection is a townland or townlands from West Cork – over the years, this seminar class has created a database of approximately 10,000 individual records, along with associated townland and building summaries, from West Cork. The students begin by entering individual records in a spreadsheet. They are then challenged to perform some simple analysis on the records they have entered, and this introduces simple descriptive statistics.

It very quickly becomes clear to the students that while the spreadsheet permits them to perform useful analysis, and allows them to replicate on their own data some of the interpretive work they have met in the secondary literature, it is limited. They soon come to see the need to link the three sets of records, for individuals, townlands and buildings, to interrogate the material more deeply.

This naturally leads to introducing relational databases. Relational databases are not complicated, but some people do have difficulty understanding how *relationships* between tables work. However, modern desktop database tools provide simple tools to assist in visualising relationships between tables, as well as interactive query and report designers.



For their dissertation, most students work on an area which they are familiar with themselves, outside the scope of the West Cork sample. Once students have identified their own research area, they can enter a sample of data for that locale, source relevant secondary reading, and apply what they have learned to analysis of the data for their area. By early in second Semester, most students will be able to

- Analyse their own data in spreadsheets/database
- Graph results in spreadsheets
- copy results of database queries into spreadsheets for statistical analysis and for creation of charts and tables
- locate the data for their own area within the national context, comparing local to national

trends for the period around 1901.

- Copy the results of their analysis into wordprocessing and presentation programmes for inclusion in terminal presentations and essays.

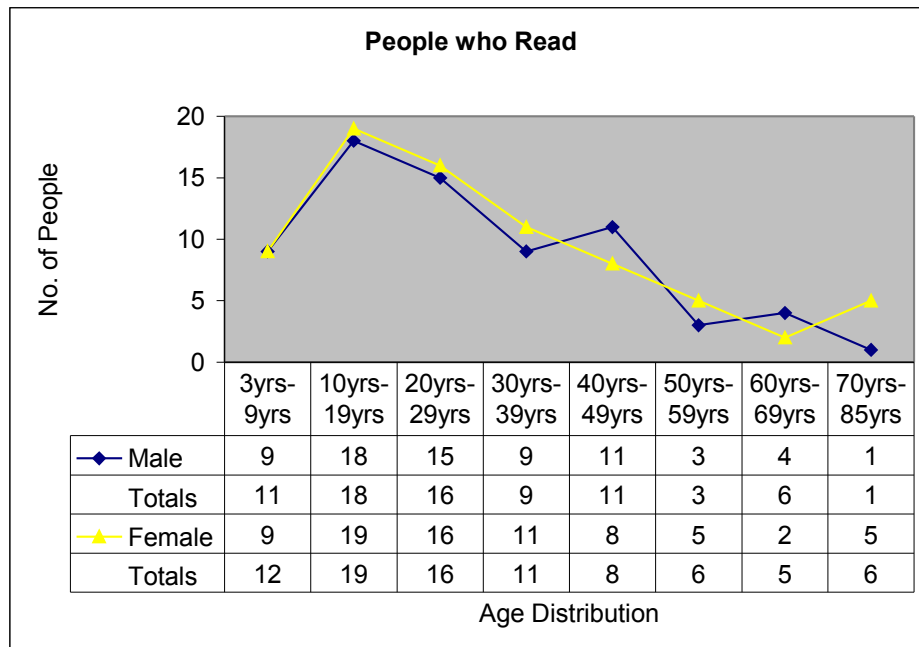


Illustration 3: Analysis of Literacy by Gender and Age - Database query, graphed in spreadsheet and pasted into graphics and wordprocessing documents for final presentation and essay.

By the end of the year, students are not only able to produce a good 8,000 dissertation but have also become comfortable with using a range of common office software to critically interrogate primary data and present the results in a variety of formats. The students have not only undertaken a substantial writing task, but also done 'real history' on primary data and mastered useful 'transferable skills'