

Learning about plagiarism through information literacy

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Abstract: Premeditated or accidental? This has to be the question every academic asks themselves when faced with a case of suspected plagiarism. Studies show, however, that premeditated plagiarism is rare. Misunderstandings about how to handle information and panics about deadlines are the causes most frequently cited by students. Teaching students about plagiarism is more than teaching them the difference about right and wrong, between collusion and collaboration or between cheating and good academic practice. A really effective anti-plagiarism programme needs to address the main cause of plagiarism by teaching students about information management. Including anti-plagiarism teaching as a key element in a linear information literacy (IL) teaching programme and embedding it within an academic course empowers students to become independent learners. It encourages them to consider the value of information, the quality of resources, the effectiveness of their search and the importance of good citation practice throughout the production of a piece of work. Acquiring the skills to weave secondary research into the student's own hypothesis has to be designed into the course. Although it could be argued that the explosion in the amount of information available to students has led to an increase in plagiarism, effective teaching can illustrate how new technologies can be used to help students avoid accidental plagiarism, and to enhance their work. Who then is best placed to deliver IL teaching? The answer is Information professionals. Ask your Librarian! The aim of this paper is to present an overview of how we have achieved fusion of IL and subject teaching on a first year Civil Engineering course at Imperial College London.

Keywords: Plagiarism, Information Literacy, Library

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Putting Plagiarism in context

Plagiarism is high on the agenda for debate in Higher Education (HE). Plagiarism appears to be on the increase and Peter Levin (no date) suggests that 'Academia seems to be in the grip of a moral panic'. The question is, why, and why now? Consideration has to be given to how people view plagiarism. Plagiarism is not 'necessarily illegal', although it does fall into the bewildering world of copyright law, moral rights and contract law. Oppenheim (2003) It could however be suggested that it is an 'academic crime', although the seriousness of crime does not seem to be understood by today's student population. Jonathan Podorelski (2004) wrote an article for the Guardian which included the following:

"I'm sorry if we seem a bit tired," says my friend Heidi. "We were up till three in the morning writing up Tom's biology A-level coursework." Both Heidi and her partner are pillars of the medical establishment. Tom is a charming, rather feckless 18-year-old. "But what else can we do?" she pleads. "It was 25% of his marks, and it was due in today." It's indefensible, but I can hardly criticise. A couple of years ago my son Nick had to hand in his GCSE geography project. I worked through the night with his mother, downloading and redrawing Internet images of terminal moraines and other dimly remembered bits of glaciers. In his GCSE French oral too, Nick parroted a presentation that we had drilled into him by rote.'

Teacher have been known to send homework home with 'well done Dad' written on it, but is this plagiarism? Is it collusion or just plain cheating? The term plagiarism itself is open to debate. The secondary school system does not help prepare students for HE and GCSE and A level students have often been taught 'to cut and paste material into essays' and 'thinly paraphrase secondary sources'. Crace (2002) Students therefore arrive in HE with little or no understanding of the issues surrounding plagiarism. Crace (2002) It is, however, not surprising that students are bewildered. There is a tacit understanding within the school system that 'to a point' plagiarism is acceptable. The introduction of a modular system and course work to the GCSE and A level syllabus may have caused additional work for parents but it may also have contributed considerably, along with the modular system in HE, to the increase in plagiarism. 'Continual assessment now dominates every area of education, where old fashioned examinations are rare. Outright cheating is easier in these circumstances ...' The Sunday Times (1999)

Students arrive into the university environment from diverse backgrounds and cultures. Many have to juggle study and work, so that they can support themselves in order to stay in HE. The president of the National Union of Students made the following comment:

'Government policy has exacerbated the problem. She explains that while the union is "strongly opposed to plagiarism", the introduction of tuition fees and the abolition of the grant has created a climate in which some students feel justified in cheating. "More affluent students can use their time to study," she says. "But poorer students are forced to earn money to pay the next rent cheque and may therefore consider all their options as an essay deadline approaches." Carlowe (2002)

There is also a growing population of students from other countries for whom the cost of getting to university in the UK is high and failure is not an option. It is therefore not surprising that when advertisements for paper mills land in their lap that they tempted and in some cases succumb. This does not excuse it but perhaps makes it more understandable. Jude Carroll (2003) however, suggests that premeditated plagiarism is rare and that misunderstanding about how to handle information and pressure of deadlines are the causes most frequently cited by students.

Academic standards at Imperial are high and there is an expectation that students are capable of gaining Information Literacy (IL) skills for themselves. Although many students learn to use the Internet from an early age it does not mean they are information literate and they often confuse IT skills with IL skills. Dick Feldman suggests that students frequently overestimate their IL skills. Rutter et al (2002) Students studying for science degrees often have little experience of academic writing compared with their peers who follow humanities and arts pathways at A' level. This deficiency in writing skills combined with the quantity of information now available can easily lead to plagiarism. The situation is exacerbated for international students, for as well as a lack of English language skills, and a fear of failure, many come from academic traditions that positively encourage the learning and reproduction of secondary research.

‘In many countries, it considered sufficient for students to show that they understand what the experts in their fields have written. In their written papers, students show that they have mastered the experts’ ideas, and they restate and synthesize those ideas coherently. As you can imagine, students from this tradition often encounter serious conflicts with our ideas of plagiarism. Feldman (1993)

The increase in plagiarism has been attributed by many to the Internet and the term ‘cyber-plagiarism’ has been born. The explosion in the amount of information available means that it is more accessible, but harder to manage. It is crucial that students are taught how to be discerning about the information they retrieve and know how to recognise quality sources. Evaluation and analysis skills are therefore essential. Similarly, as so much information is now free, there is a danger that it is valued less and intellectual property rights are not recognised. Hauptman (2001) observes that, ‘electronic systems make it so easy to locate and manipulate data, information, and images or click and paste a document that property rights are no longer honored’. It is interesting to note however, that as more and more information becomes freely available we are seeing a growing awareness of the issues surrounding IP. This conversely is leading to what we term ‘IP protectionism’, and is illustrated, for example, by some universities no longer making postgraduate dissertations available on open access in their libraries.

Teaching students about plagiarism is more than teaching them the difference between right and wrong, between collusion and collaboration or between cheating and good academic practice. A really effective anti-plagiarism programme needs to address the main causes of plagiarism by teaching students about information management.

Including anti-plagiarism teaching as a key element in an IL teaching programme, and embedding it within an academic course, empowers students to become independent learners. It encourages them to consider the value of information, the quality of resources, the effectiveness of their search and the importance of good citation practice throughout the production of a piece of work. Acquiring the skills to weave secondary research into the student’s own hypothesis has to be designed into the course. Although it could be argued that the explosion in the amount of information available to students has led to an increase in plagiarism, effective teaching can illustrate how new technologies can be used to help students avoid accidental plagiarism, and to enhance their work. Who then is best placed to deliver IL teaching? The answer is Information Professionals.

Information Literacy at Imperial College for Engineer Undergraduates

In 2003 the librarians at Imperial created an Online Information Literacy course for the Engineering in Context course which was part of the Civil Engineering Degree. The collaboration on the IL programme between the library and the pilot course began with a discussion with the course manager about how the library could support the students in a more cohesive and constructive manner. It was decided that the ideal would be for library staff to teach

IL in 'bite size chunks' throughout the course. In order to achieve this it was decided that a blended learning approach would be most appropriate. The programme was delivered by a combination of lectures, group work and hands-on sessions using the Virtual Learning Environment WebCT, which was being piloted with the College. The IL programme was incorporated into the subject teaching over six months with both summative and formative assessment.

Aims of the course

The aim of the course was to create an independent learner with the confidence and ability to retrieve, evaluate, exploit and manage information with an understanding of the legal, economic and social issues that surround its use. The course was based on a set of competencies which incorporated key skills 3 & 4 methodology and salient themes from various IL models such as Sconul 7 Pillars (2003), The Council of Australian University Libraries (2001) and the American Library Association (1998) IL frameworks. See Figure 1.

Students were required to have basic computer skills, such as the ability to use a mouse and keyboard and preferably to be familiar with the world wide web (WWW) and use of a web browser. It was anticipated that there would be a broad spectrum of IL experience from the complete beginner to those experienced in finding and using information. For Civil Engineering, the IL course was used as a complete linear programme to enhance lectures, practical hands-on sessions and group work. The course, however, was designed in self-contained units so it could also be used independently and selectively according to student needs. It was expected that the users would develop a transferable methodology, applicable to any subject or task, which they would be able to use throughout their degree course and into the work place.

Design of the course

The design of the course was very important. The aim was for an interactive programme that looked professional. A decision was taken not 'upload' documentation in Word format or to use WebCT 's navigation but to place content into HTML using Dreamweaver and put in our own navigation. This way the navigation was similar to any web page and therefore intuitive for the students to use. The Library was awarded a Teaching Development Grant to help develop the programme and the majority of the money was spent on employing a Web designer. It was decided that a brand was required for the programme and it should be something that would appeal to the Undergraduate students. Thus our Online Virtual Information Assistant, Olivia was created.



The Olivia Programme

Teaching with Olivia

The course began with a session introducing the module and an opportunity for the students to familiarize themselves with WebCT by using a WebCT orientation online tutorial using the Informs software. The students

were also asked to complete an online pre-course questionnaire which allowed us to identify students' current understanding of IL. The results of the questionnaire supported the argument that students confuse IL with using applications such as Word and Excel. The results also demonstrated that although students considered themselves to have advanced Internet skills they were naive about the quality of information they retrieved and the ethical question surrounding intellectual property.

Lectures were timed to complement the progress of student research initially concentrating on how to search effectively, evaluate their resources and quality-assess information retrieved. As student understanding increased, further sessions followed on academic writing and managing information. A session was devoted to plagiarism and how to reference material. It must be recognized, however, that although referencing is a practical skill easily taught, students find the ethical issues surrounding plagiarism and intellectual property more difficult to understand. It is, therefore, essential that anti-plagiarism teaching is built into the whole programme, allowing the student understanding of the wider issues to develop throughout the course. Thus students are encouraged to think about how to blend the ideas gained from secondary resources with their own ideas and how to represent this in their writing.

Assessment

Assessment was both formative and summative. Formative assessment was incorporated using online self-tests. These were popular with the students as they provided a non-punitive way of assessing their own progress, as the results were not recorded on WebCT. Summative assessment was in the form of online quizzes, a learning summary with their final project and the submission of a critical evaluation of a search strategy. This provided the students with a chance to reflect on what they had learnt and. IL outcomes were also combined with subject learning outcomes for the final assessment.

Evaluation

To evaluate the success of the IL element of the course a session was timetabled to allow students to feed back both the positive and negative aspects of the programme. The students had been informed from the onset of the programme that it was a pilot and it appeared that they felt an 'ownership' for the programme and responsibility towards future developments. The response was overwhelmingly positive and students were keen to provide suggestions which would improve the course for the following year.

The WebCT module itself was considered to be user-friendly and the navigation straightforward so when the students returned to individual units, it was easy for them to find the section they were looking for. The combination of online and traditional learning was popular. In particular they liked the way the sessions taught in PC labs using WebCT complemented and followed on from the lectures. They also enjoyed the informality of the PC lab sessions and they felt they benefited from the easy accessibility of WebCT, revisiting relevant units outside class hours.

Of the various units available, the students found the units on 'Databases', 'Referencing' and the 'Internet' particularly useful. They suggested that these should be presented earlier in the course next year so they could be applied to other courses on their degree programme.

Interestingly, the students even praised the use of assessment, stating that this made them more motivated to do the Information Literacy element of the course. The quizzes which were submitted also gave a good indication as to whether learning outcomes were being met. The Critical Evaluation form was handed out after students had completed their research for an essay. The questions on the form were phrased in away to make them reflect on things such as search strategies and the types of information they had retrieved. Not only did the form encourage students to reflect on their search strategy but also informed those teaching the course if the students had understood the process of what types of information was required, how to search for it and to critically evaluate resources retrieved. Possibly the best indication of the usefulness of the WebCT module came from the fact they all agreed they would like to have access to it in their second year of study.

Further useful suggestions were made about specific elements within the units such as the order of information in the referencing unit, that further examples would be useful and that other formats and referencing styles that could be included. They also asked for a discussion board to be launched within WebCT. This would allow students to post questions, which the tutors could answer, online. This is interesting as the students are all full-time on campus. We had therefore thought that the communication tools within WebCT would not be relevant, but as students are increasingly studying independently, this is not the case. In the next phase of the project we will include a discussion board and monitor its use.

Staff Development

Designing, delivering and evaluating the course effectively presented a challenge to library staff, as they had to develop new pedagogical and technical skills. As the nature and use of information has changed, the role of library staff has changed too. In academic institutions this has meant developing the skills to teach students how to manage the information revolution, learning how to design courses properly, and deliver and evaluate them effectively. Further challenges arise with new technical developments such as Portals. Such developments mean that IL and IT skills may become blurred as manipulation of software as well as information become intertwined. As a result IL teaching will have to evolve and change as required. Imperial have developed a core skills training programme for teaching and learning designed with the special requirements of librarians in mind. Staff are encouraged to take part in the Supporting Learning and Teaching Programme delivered internally, and to become members of ILTHE.

Conclusion

This programme was successful for a number of reasons but primarily because it was developed collaboratively. IL programmes should include input from librarians, faculty, educationalists and IT if they are to be successful. Ann Grafstein (2002) writes that 'IL ... projects will continue to meet, with minimal success, as long as they are initiated solely by librarians and supported only within the confines of the library.' It is also essential that IL, including anti-plagiarism teaching, is delivered in an environment that takes it seriously. Getting students to recognize the importance of IL can be difficult and it has been found that the number of students signing up for voluntary courses is 'highly dependent' on the attitude of the academic staff and academic advisors. Jubilee Report (2002) Webber and Johnston (2000) note that students only consider IL teaching to be important if they are encouraged to do so by their lecturers. It is considered that embedding IL into the curriculum and credit bearing assessment would ensure that IL is 'taken seriously by students'. Webber and Johnston (2000) Students are under such pressure to achieve, that they are increasingly concentrating on elements of their courses that lead to results. In some subject areas such

as Law, accreditation bodies have acted as a driver to ensuring that IL is embedded within the curriculum, other disciplines are not so fortunate yet.

Looking at all the evidence we can conclude that the majority of students entering HE today have not only a lack of understanding as to what plagiarism actually is but are also facing a great many more pressures than their predecessors. It is no good just telling them that they should not plagiarise. In a recent seminar on plagiarism we heard someone state that ‘they came down heavy on students who plagiarised’. At no point did they say what measures they were putting in place to ensure students understood what plagiarism was, why you should not do it, and how to avoid it. It rather like shouting at a child when they do something wrong but not telling them why they are wrong and how to avoid it in the future. There will always be a few who deliberately plagiarise, but if the majority of plagiarism is accidental then we can break the cycle. A good IL programme will help solve many of the issues surrounding plagiarism and help students become effective independent learners. It can only work however, if tied to assessment so that students see it as key to their progression. This requires a recognition of the importance of IL from academics as well as commitment to the programme.

Figure 1.

Competencies for the Information Literacy Programme

1. Recognise a need for information
2. Recognise that information is available in a wide range of formats in various geographical and virtual locations
3. Determine types and extent of information required to meet research objectives
4. Construct a search strategy and understand the need for adaptation and flexibility
5. Retrieve information effectively
6. Recognize the need to apply an ethical approach and perceive the social, legal and economic issues involved
7. Evaluate results and adapt search strategy if required
8. Organise, manage and store information either virtually or in paper format
9. Synthesise, communicate and exploit information appropriately
10. Review and critically reflect on the overall strategy

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