

## **‘Is Plagiarism an inevitable consequence of digital learning?’**

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#### Biographical note:

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## INTRODUCTION

We have witnessed across the globe two events which at first sight might appear to be unconnected but which do have an interesting relationship one to the other. On the one hand, we have the increasingly rapid utilisation of the *internet related technologies* which are impacting particularly upon all aspects of commerce, government and education. At the same time, we have witnessed in nearly all societies an increasing proportion of individuals in society who are undertaking *higher education* in either a full-time or part-time mode. The participation rate for many industrial societies is now approaching 50% whilst for some Asian countries, the anticipated participation rate may be as high as 70%-80%. There is an interesting relationship between these two broad social trends. On the one hand, university students are now increasingly likely to receive large parts of their curriculum through internet related or mediated technologies. On the other hand, an increasing number of individuals with a graduate level of education are necessary to sustain a knowledge based economy for which the internet provides the technological underpinning. Taken together, the factors of what has been termed massified higher education and an increasing reliance upon electronically mediated forms of pedagogy have led to the rapid increase and concern with issues of plagiarism or the unauthorised copying and utilisation of material passed off the student's own work.

## A DEFINITION OF PLAGIARISM

A widely used definition of plagiarism used by a British academic reads as follows:

'Plagiarism is passing someone else's work, whether intentionally or unintentionally, as your own for your own benefit' (Carroll, 2002)

Actually, plagiarism may be seen as only one of a wider range of activities ranging from relatively trivial to the more serious. For example, we could delineate the following forms of illegitimate academic activity:

- Not citing the author whose ideas have been particularly influential, either as a simple error of omission or as a result of a more deliberate intention
- Collusion with fellow students to produce similar or identical material (all too common in laboratory or some numerically based subjects)
- Making up of data or alteration of data to fit a particular case.
- The deliberate copying, without attribution, of one or two key phrases or sentences
- The wholesale copying of whole paragraphs, or sections of a work (which in extreme cases, might be the whole of the work in question). This could be compounded if the occasional word is changed to give the appearance that the work had not been substantially copied.
- Taking of unauthorised material into an examination or other forms of deliberate cheating
- Buying or downloading a complete work, usually an essay, that is then passed off as one's own.

As can be seen, there a range of activities illustrated here not all of which can strictly be regarded as plagiarism. So to ascertain the level of plagiarism extent in the student community, we need to be clear exactly what illegitimate behaviour is being defined. If we adopt a very strict definition, then it is possible that all of those who have passed through higher education may, perhaps inadvertently, been guilty of some poor academic practice. On the other hand, the overt and deliberate cheating implied by a different definition of plagiarism is not particularly common. An interesting survey conducted by Dordoy (2002) showed that over 70% of both staff and students thought that that the 'copying of a few paragraphs from a book/internet uncited' was relatively common. At the other end of the scale, only about 2% staff thought that the buying of an essay from an internet site was relatively common (although, interestingly, the figure rises to over 11% in the student community)

## HOW PREVALENT IS PLAGIARISM?

We should note that however defined, the issue of plagiarism or cheating in general is by no means new. One of the earliest and most authoritative academic studies was conducted upon American students in 1941. This study (Drake, 1941) showed that over 75% of a sample of 5,000 self-reported involvement in some degree of academic dishonesty. When the study was replicated several decades later, the proportions appear not to have decreased but even to have increased slightly (McCabe, D.L., Trevino, L.K., and Butterfield, K.D., 2001).

Studies in the British higher educational system rely upon similar self-report studies. Two of the most authoritative UK studies have asked students to self-report on a range of academic practices (Franklyn-Stokes, A. and Newstead, S., 1995; Newstead, S., Franklyn-Stokes, A. and Armstead, P., 1996). The data reported in these studies tends to confirm the impression generated by the American studies in that as many as 54% indicated that they had paraphrased material from another source without due acknowledgement but that outright cheating (such as copying from a neighbour during an examination) was not particularly common at 13%. However, a key finding from these studies indicated that two students out of five (42%) had admitted copying of material for coursework from a book or other publication without acknowledging the source.

A comprehensive survey (Pollinger, 2004) reported results that help us keep the problem of plagiarism in perspective. Some of the headline results from this survey indicated that:

- 75% of respondents had never plagiarized (9% once, 24% more than once)
- 47% do not believe that plagiarism was a problem at their institution (but 20% thought that it was)
- 1% had obtained essays from an 'essay-writing mill' (free, or for a fee)

However, more worrying were the low detection rates for plagiarism:

- Detection rate was about 3%

- 21% believe that plagiarism was not strictly enforced
- 26% did not believe that anti-plagiarism policies were very effective

As an issue, Plagiarism became a hot topic in British society in the early summer of 2004. Several recent events helped to raise the issue to prominence and ensured national coverage by newspapers and media such as the much respected 'Today' programme on BBC Radio 4. The survey by Pollinger (2004) referred to above received much prominence with the 'Times Higher Educational Supplement' reporting the results under the headline that 'Survey shows Cheating is Rife' ((Baty, 2004b). The survey contacted 600 members from a database of recent graduates from a wide range of institutions and 1,000 officers of the National Union of Students. A total of 363 responses was received, a response rate of 22.7%. The question was asked if they had ever

'inserted sections of text from any outside source into your own work, whether they are left whole or amended to conceal their origins'

The interesting feature of this survey was that three-quarters of the sample of students reported that they had never plagiarized despite the prominence given in the media to the one quarter who had admitted to the offence on at least one occasion (8%) or more than one occasion (16%). Taken in conjunction with the other surveys reported above, this figure might not be regarded as particularly high. However the non-response rate must be considered in this survey as we might reasonably infer from the 77% of those contacted who did not respond to the survey that some would find it embarrassing to admit to plagiarism and would not be particularly well motivated to submit a return.

That the issue had become a major concern to UK academics is the fact that the Joint Information Systems Committee, a body established to providing strategic guidance, advice and opportunities to use Information and Communications Technology (ICT) to support teaching, learning, research and administration had established the Plagiarism Advisory Service at Northumbria University in September, 2002. The first national conference sponsored by the Plagiarism Advisory Service was held in June, 2004 under the title 'Plagiarism: Prevention, Practice and Policies 2004' with the aim of raising awareness of the issues raised

by plagiarism and provided a platform for 33 papers indicating current research into the problems and policies of plagiarism in the UK (JISC Plagiarism Advisory Service, 2004).

Two other events also received prominence at about the same time. A student who had admitted plagiarizing his way through his degree course intended to sue his university for negligence after he was caught out on the day before his final examination. (Baty, 2004a) The student was told by the University of Kent at Canterbury that a routine review of his English literature degree coursework 'has revealed extensive plagiarism from internet sources' The student argued that he was not aware that the activity of cutting and pasting material from the internet without attribution constituted plagiarism and therefore he concluded that the university failed to provide him with the required support and guidance. This case raises particular issues which will be discussed below.

An issue raised here is whether, perhaps inadvertently, a culture of practices has become established whereby students have learnt from a relatively early age that it is quite legitimate to cite material acquired from the internet without attribution. In British schools, it is now quite commonplace for formal modes of assessment such as written examinations to be supplemented by marks provided by coursework ('continuous assessment') and this proportion can be as high as two-thirds of the total. A survey of 2,000 mothers in *Real* magazine found that parents routinely admitted to 'helping' their children with homework in some way (Owen, 2003). Evidently, help can take many forms from advice and encouragement right through to the proof-reading and writing of material. However, some critics of the apparently rising pass rates at GCSE and Advanced Level examinations can be attributed to the use of coursework in which parents may well have had an undue influence. It is unlikely that formal citation skills such as the standard use of Harvard referencing is routinely taught to schoolchildren. Indeed, it is possible that they have been positively rewarded for demonstrating their intelligent usage of internet-acquired material.

To conclude this section, it does appear that the ready availability of materials acquired electronically is contributing to a rise in the patterns of behaviour of which plagiarism is the most prominent example. To some extent, it is possible to witness a 'moral panic' in UK society as issues have received prominence in the media as well as the more specialist periodical literature. It is possible, of course, that a fairly slow but

inexorable increase in the reported incidence has led to a collective psychological 'tipping point' in which reports of plagiarism are now viewed as a serious source of concern. Whatever the current situation, the very fact of the establishment of the Plagiarism Advisory Service indicates a degree of official concern.

And as this service reports itself in the preamble to its 2004 conference

'Plagiarism in student work is not a new phenomenon but technological advances in recent years have led to concern within the academic community that the incidence of this type of behaviour *is set to increase dramatically*' (emphasis added)

(JISC Plagiarism Advisory Service, 2004)

## **PLAGIARISM AND THE INTERNET**

To many experienced professionals, it is necessary to stress at the outset that the internet has proved to be a boon, providing information from a much wider range of sources than was previously possible and the time taken for the production of high quality reports and papers to be dramatically reduced. The productivity increases are indeed dramatic and the judicious use of search engines (such as *Google*) and 'cut-and-paste' techniques within word processors have assisted in this process. It is interesting to note that whilst cases of scientific fraud are as old as scientific endeavours themselves, recent concerns have been primarily focused upon students rather than practicing academics or researchers. It is undoubtedly true that the possibilities for scientific fraud have been greatly multiplied by the use of internet technologies but the same tools that can be used to commit such fraud can equally be used in its detection. So, for example, it is now possible to download an academic paper and to use a simple search engine such as *Google* to help to ascertain whether indeed passages have been written by the imputed author or appear to have been derived from other sources.

The concerns, such as they are, have therefore been predominantly focused upon plagiarism in the *student* community, indicating that this is the group in which there is

- (i) the most immediate reward in terms of grades that contribute ultimately to the classification of an academic award important to them to gain full-time professional employment

- (ii) the group which has most to learn in terms of the deployment of academic norms such as the use of a referencing scheme, such as Harvard.

Factors that have made a particular impact upon the student community include the following:

### **Increased availability and decreasing cost of hardware**

In the last five years, the number of students attending a university who now possess their own independent computing facilities has probably become a majority. A total brand-new system was recently advertised in a British computer magazine for less than £200 (£235 including Value Added Tax which equates to a total of \$420). At these prices, even relatively impoverished students find that a computer system is now within their means. Although the pricing of hardware and software combinations are subject to great variability, one could argue that at current software prices (Windows XP, Office suite) the hardware is being given away free. At their university, the falling costs of hardware now means that access to inter-enabled facilities is now easier than ever before – many universities will now allow 24 hour access to certain computer suites. All work now needs to be handed in word-processed which now makes access to computing facilities even more pressing. Whereas students traditionally spent long hours buried away in a library in an often fruitless search for materials held in diverse places within a library system, at least in theory such materials are now much more accessible. Whereas it used to be the case that tutors demanded that students show their knowledge of the internet by using at least internet-derived resource, it is increasingly the case that tutors may demand the demonstration of more conventionally published material (in the form of a photocopy of a journal article read in the original)

### **The massification of higher education**

The authoritative Robbins enquiry into higher education showed that approximately 4% of the 18+ age-cohort could expect to experience higher education in 1961 (Robbins, 1962). Forty years later on, the relevant figure in UK society is of the order of 40% with an avowed government intention to raise this

figure to a participation rate of 50% before the year 2010. Without entering a 'more means worse' polemic at this stage, it certainly does mean that 'more means different'. The techniques to be utilized to teach 700 students enrolled in a first year Business Studies programme, for example, will differ from those where the class size was typically less than 200 a decade ago. Such massification is likely to mean that a student cohort will be derived from those whose parents are less likely to have received higher education. Allied with this, recent generations of students will have become accustomed to a more modularized approach to their studies in which coursework marks are an increasingly important component. These tendencies decrease the likelihood that students who are now entering a more formal academic community will have internalized the norms of scholarship demanded within higher education. At the same time, the abilities of even conscientious staff to adequately monitor the exact provenance of a mountain of coursework are limited, giving the pressure of student numbers, amounts of coursework and other pressures on their time (including course administration, academic research and updating).

### **Instrumental approaches to study in higher education**

As the competition for 'good' professional jobs increases, even in a knowledge-based economy, there is good circumstantial evidence that students approach their studies in a more calculative way in which the attainment of a 'good' degree becomes a prime objective. There is some concern in UK academic circles concerning the 'grade inflation' now manifest in the higher education sector (and in qualifying examinations such as GCSE 'A'-levels). The mark of a 'good' degree used to be considered the attainment of First Class or II(i) (Second Class-Upper Division) which would be attained by approximately one quarter of the student population in the 1960's. This figure has now risen to more than 50% in the majority of UK academic institutions and has led to increasing incidence of disputes and appeals around the critical boundary marks (usually 60%) as employers are likely to demand an Upper Second class degree. To such tendencies, we might add the fact that students are now responsible for payment of their own fees, a figure of about £1,000 p.a. in 1998 but projected to rise in £3,000+ p.a. in 2005 after a long and bitter political debate. The total cost of a university education in the UK taking fees and living expenses into account is now of the order of £15,000 (\$27,000) and in this climate students are increasingly demanding 'value for money' and are becoming more litigious as a consequence.

## **REASONS FOR PLAGIARISM**

The fact that access to a wide range of sources is now within the grasp of many, if not all, students does not by itself provide a sufficient explanation for the prevalence of plagiarism. If we were to draw a crude analogy with alcohol, then the wide access to cheap sources of alcohol does not imply that drunkenness is a great problem. Indeed in the Mediterranean cultures of Italy and Spain, drunkenness in the indigenous population is quite rare (compared with the behaviour of young British visitors, for example). As we have discussed, plagiarism can cover a whole spectrum of activities ranging from the relatively innocuous (the omission by oversight of a single reference, for example) to the most blatant (the buying or wholesale copying of an internet-derived source). So explanations for the prevalence of plagiarism are best located at the *sociocultural* level rather than at the *technological* level.

Several scenarios of plagiarism will now be detailed, with particular reference to the student community.

### **Ignorance of referencing norms (such as the Harvard system)**

First year students will typically be introduced to the correct norms of referencing by tutors in their first year of study, perhaps in the form of a tutorial session but more typically being given a standard hand-out and told to 'follow this'. However, well-intentioned such efforts may not be very fruitful for a wide variety of reasons. Students approaching higher education for the first time have a multitude of new experiences to absorb and learning styles to accommodate. In 'drinking at the fire hydrant' of information typically supplied to all first year students, the material on referencing is likely to be seen as arcane or as pedantic and therefore to be seen as low priority. Even being given 'the rules' does not necessarily by itself indicate how those rules are to be applied in particular cases. As any academic writer knows, there are always questions of judgement involved in the actual application of rules and these are sometimes imperfectly understood by even experienced academics (for example, the norms for the citation of one work which is itself cited by another). Experienced tutors appreciate that students need to be given some practical exercises to test out their skills in this area before (and indeed, after) they write their first assignment. Under the pressures of a crowded curriculum, this may not get the attention that it deserves. Although

tutors could probably point to handbooks or referencing materials in which referencing rules and philosophies are adumbrated, students could equally retort that they felt ill-prepared when it came to the application of such principles in their own work. The wider point, here, is the sociocultural aspects of correct referencing i.e. that one is learning the principles that must pertain in an academic community probably receive less emphasis than is merited.

The case of the student threatening to sue his university (Baty, 2004a) is interesting, though, as it remains a theoretical possibility that there are some students who succeed despite not absorbing any of the appropriate academic norms. The issue here is whether the student who arrives at the end of his final year is one who has 'slipped through the net' or is representative of the submerged ten-elevenths of the iceberg not discernible below the water line.

## **Ignorance of the Web**

Many students may well be under the misapprehension that all material on the web is 'free'. They may well have utilized this principle when downloading music tracks, ignoring or perhaps even delighting in the implied illegalities inherent in the procedure. If material can be accessed without charge, then does it now follow that the material is 'free' i.e. provided for all or anybody to utilize as they think fit? Here again, students need to receive an education in the notions of intellectual property and to be reminded that the words they have read have undoubtedly flowed from the mind of the author (unless the material had itself been plagiarised!) Ignorance of the web may well extend beyond knowledge of the legalities of ownership. In an assignment set by the author, students referred to the Age Discrimination Act (1964) not being aware that they had accessed American material and no such Act of Parliament has ever been passed in the U.K. This raises the interesting question of the *provenance* of material, a skill more typically associated with historians than other academic disciplines. In such a critical attitude, students need to ascertain not only the actual author of the material, often no mean feat when it comes to internet published material. Establishing a date can be even more difficult if one is trying to abide by usual publishing conventions. A critical attitude towards material needs to ascertain the intended audience for the material, the context in

which it was written and so on. And so 'I found it on the web' may seem like a panacea for students attempting to derive material but a more careful sifting may reveal that much of the material is actually of little value. There are wider questions involved here of skimming the 'surface' web rather than the 'deep' web, of which students need to be made aware.

### **Feelings of inadequacy**

This factor may well be one of the most prominent factors behind the increase of plagiarism but, paradoxically, one of the least researched. As experienced teachers or academics, it is difficult to enter into the mind and skills of an 18+ student whose command of the English language has not yet been refined by the experience of higher education. A fairly typical complaint amongst members of the business community is that graduates' written skills still leave a lot to be desired even after three years of higher education. Academics themselves may well be divided between those of the 'old' school who maintain that 'every teacher is a teacher of English' or those of a different persuasion who regard infelicities of style as of no particular concern so long as the meaning is reasonably clear. If a student is presented with a 'model' or typical assignment, it may well be that they recognize that they cannot reproduce such flowing prose in their own assignments, which increases the temptation to incorporate better-written material wholesale. Experienced academics are well attuned to the abrupt changes of style in which a rather clumsily written English sentence is followed by long, flowing and complex prose including words like 'paradigm shift' or 'epiphenomenal' unlikely to be in the vocabulary of the average 18 year old. Such changes of style are often the first indication that plagiarism has, in fact, occurred. Most studies of plagiarism have been based upon the self-reporting of instances of various types of plagiarism but qualitative studies would undoubtedly help to understand this area more thoroughly.

### **Collaboration and collusion**

Groupwork is now an intrinsic part of the experience of higher education and students are encouraged to collaborate with each other in their learning experiences. In such activities, particularly those in which there is a high numerical content such as a practical statistical exercise, one of the end results may well be a set

of numerical results which are the result of a genuine and collaborative effort. From the marking tutor's perspective, however, a figure is a figure and there is often no indication whether such numerical results are the results of a genuinely combined effort or that of one numerate student whose calculations other group members have been all too willing to accept. Under such circumstances, the exact dividing line between collaboration and collusion can be difficult for tutors to draw and for students to discern. Surveys such as Dordoy (2002) also reveal that as many as 60% will admit to some fabrication of data in a project or laboratory class, especially if the student's own data seems evidently out-of-line with anticipated results. One convention is to request that students work collaboratively but actually submit work individually. Another check is to ask students themselves to comment upon their own group participation and to maintain a learning log for this purpose. However, group work will always pose a particular problem and the traditional examination (one student with their mind and their pen) acts as a useful cross-check in such cases.

## **PLAGIARISM – DOES IT REALLY MATTER?**

In view of the extent of plagiarism already documented and the concerns expressed about it, can it be said that plagiarism constitutes a threat to the whole of the e-learning enterprise? Views on this matter usually condemn the fact of plagiarism but there are some counter-arguments to the effect that its deleterious consequences have been over-stated.

### **Yes – a threat to the integrity of academic and professional cultures**

Looked at from a legal perspective, one can only be concerned about the consequences of plagiarism. It can be seen as a form of criminal deception in which large rewards may be gained for comparatively little effort. If academic qualifications which are passport to well-paid professional jobs are found to have been obtained fraudulently, then the basis of a society based upon meritocratic values is threatened. From this point of view, we can see that academic institutions are taking steps to protect the integrity of the degrees that they award. Not only does this affect their institutional standing but students' awards are likely to be

devalued in the marketplace if concerted efforts had not been made to ensure the integrity of the academic process.

Similarly, professional groups are concerned about the integrity of their professional standing. In a survey of two pharmacy schools, Aggarwal *et. al* (2002) argue that pharmacy is a health profession with members trusted by the public and with clear standards of governance, similar to those of the medical profession. The evidence that they uncovered in which 80%-90% students admitted to at least one form of academic dishonesty (although at the low end of severity) they evidently found both worrying and disturbing. In professions such as the medical profession where the trust of members of the public is deemed to be of the highest importance, then incidents of academic dishonesty will undermine the professional ethic. Other professional groups are held in low esteem (e.g. estate agents, journalists and members of Parliament) and it is possible that the general public would exhibit less concern about qualifications obtained dishonestly in these professions than in professions such as medical and allied professions.

Plagiarism also threatens to undermine the commonly held values of fairness, individualism and meritocracy which were widely held societal values. Individuals who obtain qualifications through illegitimate means not only offend against these values but could be positively dangerous if they were allowed to practice with incomplete or imperfect knowledge,

### **No – part of a pattern of learning experiences**

A counter-argument to the prevailing view is that it is important to keep the argument about plagiarism in context. Those who flagrantly flout the conventions (e.g. in a university) are likely in the long-run to fail or be caught. It is always possible, of course, that may be some students who maintain that they believed that a pattern of ‘cutting-and-pasting’ from the internet was the very essence of academic work – and that even some academics themselves engaged in this very practice in the preparation of lecture materials or even academic papers.

Some would maintain that students always learn in a variety of ways and that incidents of academic dishonesty including plagiarism are part of learning the appropriate boundaries. In this view, it is held that

plagiarism has long been a part of the 'normal' academic community and whilst the internet has multiplied the possibilities and the ease with which this can be done, the vast majority of students will respond positively to cues and directives given by their tutors if they are 'pointed in the right direction' and given adequate tutorial support.

## **POLICIES TO COUNTERACT PLAGIARISM**

Policies to counteract plagiarism range from the punitive (detection, investigation, enquiry, disciplinary consequences) through to the pedagogic (instruction in correct techniques of referencing, expression in one's own words). The natural and initial reaction of the academic community has been to react with a degree of horror when a fundamental academic norm is breached but, latterly, other voices are stating to prevail.

### **The detection and punishment of plagiarism**

The JISC Plagiarism Advisory Service established at Northumbria University provides

'..an online facility, which enables institutions and staff to carry out electronic comparison of students' work against electronic sources including work submitted by students at other institutions. The service is based in the UK and accessed via standard web browsers. JISC hope that this service will be a valuable support tool for institutions and staff in their efforts to prevent and detect plagiarism. However it is important to note that electronic plagiarism detection cannot solve the problem of plagiarism. Detection should be used as part of a wider approach to prevention. We strongly recommend that as well as making use of this detection facility, you view the advisory services web page and consider the recommendations on good practice provided. '

(JISC, 2004)

This service represents the highpoint of utilizing technology to counteract the ill-effects of using the technology! The approach utilizes specialized software based upon the 'Turnitin' software developed by the US company iParadigms. The approach will make comparisons against a database of previously submitted material (i.e. other student essays and assignments) and some 4.5 billion URLs. The service is available, upon registration, to tutors (and their students) at publicly funded Higher Education (HE) and Further Education (FE) colleges and produces within hours a 'colour-coded originality report'. Decisions on the extent of plagiarism are left in the hands of a tutor, who is in a position to make informed judgements

in the light of the similarity between the submitted piece of coursework and documents thrown up by the analysis.

There is undoubtedly a need for such a service – and a place for such specialized software. However, it is probably true to say that this service should be used in particularly severe cases – one would not envisage it being used for the very first essay submitted by an undergraduate who was unsure of the norms to apply to their first piece of work.

For more routine checking of suspected cases of over-reliance upon sources, then a search engine in popular use (such as *Google*) can often reveal the source of material that subsequently appears in the student assignment, particularly if the student has used this search engine in the first place to generate material. If the processes of checking are made too onerous or bureaucratic for tutors, then it is only natural for them to turn a blind eye. However, in the author's experience, a considerable amount of checking can be done in only a few minutes with the intelligent use of a search engine technology.

### **Pedagogic approaches to the problem of plagiarism**

It is instructive that a common term used for transgression of academic norms, including plagiarism, is 'poor academic practice'. This term conveys well the sentiment that the submitted work has some severe deficiencies and that undesirable practices need to be eliminated – after further tuition, if necessary. Such an approach is much more typically found in those instances of plagiarism discovered amongst first year students who are still in the business in their first few assignments of learning exactly how academic work is to be prepared and written. Many authors such as Carroll (2002) would now argue that it is the responsibility of academics to correctly guide their students into appropriate forms of writing and assessment submission.

In particular, three particular approaches are now advocated

1. *Teaching of citation skills*

The importance of a consistent system of referencing should as the Harvard system has been mentioned – evidently, the conventions will differ from discipline to discipline. However, the important point to appreciate is that students need more than the inculcation of the correct set of procedures whereby a document is to be correctly cited. What is involved is the induction into the norms of an academic community in which it is recognized that one can make a contribution to a subject matter only by due acknowledgment to the work of others. In this sense, the desired change is a sociocultural one rather than a purely technical one.

There are some practical difficulties that need to be recognized. Some students may wonder aloud why they should always reference a document whereas in the wider professional world to which they aspire, referencing is not seen as an important priority. In the world of Business, for example, annual reports of companies or other reports would only be lightly referenced if referenced at all. In these circumstances, it is still necessary to remind students about the ‘house style’ of the organization of which they a part (i.e. the higher education establishment that they are attending) As they progress in their academic and commercial careers, other conventions will apply, as they no doubt learn as they progress from one position to another in the course of their careers.

Furthermore, the timing of teaching such citation skills is of critical importance. A consistent and systematic approach should be adopted by all first year tutors so that by the end of the first year of study the correct academic norms and conventions have been internalized. In subsequent years, the need for corrective action should be correspondingly less and whatever penalties exacted commensurately greater. (In the author’s experience, some university departments will automatically give a zero grade to any document produced without an adequate List of References)

## 2. *Radically rethink the assessment strategy*

If a standardized essay title is produced year after year and the student body is large, then it should

come as no surprise that material is 'traded' or passed down from one year to the next. The lesson to learn is that assignments need to be set in such a way that it would be impossible to buy or attain a 'standardised' answer to the question. In my own institution and department, we typically ask students to relate their academic work to a work organization with which they are familiar. In this way, the assignment is to some extent individualized for each student.

Similarly, the problem of collusion and over-collaboration in groupwork can be alleviated if students are asked to keep and incorporate a diary of learning activities. As students project manage their work, so they are encouraged to keep a check on the exact contributions of each team members and learn to take responsibility not only for their own designated task within the exercise but also for the wider whole. Evidently, this does not always overcome the problems of Groupwork and some students resent the presence of students perceived to be weaker members of the group if they are perceived as likely to have a deleterious effect upon the mark allocated to the whole. If groups are kept small (say a maximum of three or four members) then the possibilities of 'passengers' within the group may be alleviated. However, it is fair to add that Groupwork will always to continue to pose challenges to ensure that individual credits get the marks, and only get the marks, that they deserve.

The assessment strategy as a whole can be profitably rethought. One interesting suggestion made by Ryan (2001) was an assessment strategy in which students wrote an essay under timed conditions. Students were given a topic several weeks before the examination date and were then allowed to bring one page of A4 notes into the examination and write an examination answer under timed conditions, typically 90 minutes. The author comments that this fulfilled the dual objective of crisper and more focused assignments that were more stimulating to read whilst being shorter to mark. At the same time, problems of plagiarism were all but eliminated. This is but one example of the ways in which a more imaginative approach than the conventional may help to tackle a problem.

Students may well be encouraged, in addition, to append a *Declaration of Academic Integrity* statement to their work. In this statement, an explicit declaration is made that all work is correctly cited, that no unauthorized use of internet material has been made and the student agrees to give tutors access to an electronic copy of the submitted material to cross-check in dubious cases. An example can be found by following the 'Plagiarism' links in the tutorial pages written by the author ([http://kac-tutor.co.uk/plagir/declar\\_n.htm](http://kac-tutor.co.uk/plagir/declar_n.htm))

### 3. *Teach Time Management Skills*

Students are very often tempted to plagiarise or even directly copy material if they have mis-allocated their time and left everything to the last moment. As the assignment deadline approaches, so too does the pressure to incorporate any material that will make the assignment look and feel respectable.

Tutors can help in this respect. If assignment titles are given in plenty of time and regular progress checks are made to help examine the process of the assignment writing as well as its eventual outcome, then the problem of poor time allocation resulting in a pressure to plagiarise can be severely reduced, if not eliminated.

## **CONCLUSION**

The massification of higher education in many parts of the world coupled with the increasing availability of material available on the internet means the problem of plagiarism, or at least of potential plagiarism, will not go away. However, the potential of a rewarding digital learning experience still remains within our grasp with a more imaginative use of assessment strategies and adequate student preparation.

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