Abstract
This paper centres on the tensions between the introduction of plagiarism detection software (Turnitin) for student and tutor use at undergraduate level and the aim to promote a developmental approach to writing for assessment at a UK university. Aims to promote developmental models for writing often aim to counteract the effects of the structural organisation of learning and assessment in higher education. This paper will discuss the potential for the implementation of plagiarism detection software to operate as a ‘change artefact’, creating opportunities for a departure from the habits of practice created by the demands of writing for assessment and the potential for the emergence of enclaves of good practice in respect of writing development. Tutor and student qualitative responses, gathered via questionnaires and focus groups were analysed in order to investigate the effectiveness of this initiative. In this inquiry plagiarism detection emerges as a dominant theme within regulatory discourses of malpractice in higher education. The promotion of writing development via a tool for regulation and plagiarism detection seems to be a mismatch and the extent to which Turnitin can be operate as a change artefact to promote developmental approaches to writing for assessment in higher education is questioned. The suitability of plagiarism detection software as a tool to promote writing development will be discussed in light of the findings from this inquiry.

Keywords: writing development; plagiarism; Turnitin; change artefacts

Introduction
Turnitin, described as plagiarism detection software, allows for similarities to be identified between submitted work and a range of databases including the internet, student work and other electronic sources including ‘billions of pages of web content’ (turnitin.com accessed 08.01.10). It is a tool that, it is argued, can support students and tutors in the development of writing for assessment by supporting student understanding of academic conventions and can also safeguard universities against issues relating to academic malpractice (Davis, 2007; Davis and Yeang, 2008). Described as ‘a powerful educational tool for teaching proper citation’ and a ‘formative tool creating opportunities for teachable moments’ (turnitin.com accessed 08.01.10), Turnitin is increasingly marketed as more than a punitive tool for plagiarism detection. However, the effectiveness of Turnitin as a deterrent that
harnesses the ‘power’ of plagiarism detection is also evident. This paper offers a critical reflection on the implementation of Turnitin within one department in a university and questions whether software, designed for plagiarism detection, can make a useful contribution to the development of student writing.

This paper acknowledges the existence of two related but potentially oppositional discourses within the higher education context, relating to academic writing and malpractice or plagiarism. Academic writing is a dominant mode of assessment in higher education. For many students the role of writing is central to their experience of being assessed in higher education although there is less certainty about the extent to which they will be taught to write as part of their degree (Catt and Gregory, 2006). Although the levels of emphasis given to the development of writing practices may vary widely across institutions, most universities will have developed a clear position regarding student plagiarism and academic malpractice. Universities in the UK have a definition of malpractice which would usually sit within academic regulations with clearly articulated policies regarding definitions of plagiarism yet the development of a university writing strategy might be less well defined. It could be argued that student writing sits within an assessment led regulatory rather than developmental framework. Ashworth, Bannister and Thorne (1997) refer to the massification of higher education and increasing concerns regarding control and fear regarding plagiarism.

Turnitin/Plagiarism detection software as a change artefact

Turnitin was introduced to this university in 2008 after a number of pilot projects and was ‘rolled out’ for use by Year 1 students across all programmes from September of that year. This project aimed to explore the introduction of Turnitin within one department in order to develop an understanding of the experiences of students and tutors. There was a particular emphasis on the ways in which Turnitin was adopted as a tool for writing development. One of the aims of introducing Turnitin centred on trying to shift habits of practice in respect of writing for assessment by creating opportunities for students to submit their work early and receive a report on their work thus allowing for revisions prior to a final submission date. The use of Turnitin was promoted as a means of shifting practice, for students and tutors, by challenging existing habits in respect of writing for assessment. It is therefore possible in this context to investigate Turnitin as a change artefact or
epistemic object, an object of enquiry, which might support the development of new approaches to engaging students with their writing within habits of practice governed by existing educational structures (Miettinen and Virkkunen, 2005).

Although the concept of epistemic object was developed in the context of studying experimental natural science, we suggest that it supplies an insightful vehicle for analysing how a practice (including its technologies and rules), or critical aspects of a practice, can be made into an object of enquiry in order to produce novel and alternative ways of acting. (Miettinen and Virkkunen, 2005:438)

In this respect the focus on a change artefact or epistemic object offers a useful means for exploring a departure from existing practice with an aim at enhancement. Of importance here is the role that organisations play in the reinforcement of particular types of practice where:

Routines are maintained both by pre-reflective consent by individuals and by the control systems and legitimation set up by organisations and institutions. (ibid, p.440)

Within such habits of practice there is an unconscious acceptance of particular practices that are reinforced by institutional regulatory structures. The change artefact provides a point of departure from the unconscious act to a point for reflection with the potential for change.

Writing for assessment as routine

In a discussion of concepts of error in relation to student writing, Bean (2001) suggests that some students may submit first or only draft writing for assessment. Rather than this being the product of poor academic practices for individuals, this is recognised by Catt and Gregory (2006) as symptomatic of the processes in place in the modern university that drive student writing as a product for assessment rather than a process for intellectual and academic development. They argue that systemic practices do not encourage the types of writing habits that lead to better writing, and by implication better learning.

Miettinen and Virkkunen (2005:439) discuss habits of practice as routine and as ‘the carrier of organisational knowledge and tradition’. Within the context of higher education, organisational knowledge and tradition are bound by the commitment to writing for assessment and institutional practices confirm its role as product rather than process (Catt and Gregory, 2006). Although opportunities for formative
feedback and redrafting are desirable (Bean, 2001) these may not always be structured into organisational traditions of writing for assessment.

With such systemic writing practices in mind, it was envisaged that the implementation of Turnitin could provide a means of encouraging a developmental approach to writing by providing the impetus for a significant change to existing processes. However, the ways in which discourses around plagiarism and plagiarism detection operate in higher education can also form a problematic context for writing for assessment and some of these concerns will be referred to in the discussion of this project.

**Methodology**

This was a qualitative enquiry designed to explore perceptions and experiences of using this software for a group of tutors and students from within one department. Two focus groups took place with the involvement of 6 tutors from one department, the first at the beginning of use in the department. These tutors took part in a second focus group at a later stage after Turnitin had been used over a period of approximately six months. A questionnaire, informed by the findings from the initial tutor focus group, was issued to one teaching group from the department including 25 students. This was supplemented with a group interview which gathered richer qualitative responses from three students in order to interrogate the principle findings that had emerged from the questionnaire.

**Tutor Responses**

The initial focus group provided a forum for tutors to share their experiences and levels of confidence with using Turnitin. It was evident that there were different levels of confidence and some emerging enclaves of practice particularly in respect of the ways in which the software was being used to provide electronic feedback via the GradeMark facility for annotating student work. There were distinct differences in the levels of confidence, experience and expertise in using the technology with one tutor taking a lead in advising others during the focus group. Tutors commented on the ease of gathering information on the range and use of sources with the advantages of electronic submission of student assignments as well as the advantages of being able to provide online feedback highlighted by the group. One
tutor discussed being able to mark electronic copies of student work. Tutors perceived electronic submission to be an advantage to their students. The ability to set a ‘cut off’ date was also considered to be an advantage, removing personal responsibility from the tutor, where the computer could ‘say no’. Tutors suggested that there were benefits in enabling students to look at their own work and considered that Turnitin provided a useful ‘snapshot’ of student writing that could have a diagnostic function:

I thought it was quite useful. It gave an idea of where things may be wrong. It gave a snapshot.

The potential for developmental use was recognised ‘it could probably be used as a diagnostic tool if we had the time’. Some saw the potential for being able to offer formative feedback and there were concerns that other members of the department might not realise the potential of the full use of all the tools. Tutors had shared information about students where they had a concern regarding inappropriate use of sources and in one case concerns about two separate assignments were shared as a direct result of a professional discussion about the use of Turnitin.

Tutors appeared to be more convinced of the advantages relating to online marking and final feedback to students suggesting that perceptions about the use and value of the software related to the summative rather than formative dimensions of use. There was agreement amongst tutors that there was no evidence that students were submitting their work more than once to Turnitin and little evidence therefore that they had made use of it within the drafting process. This also resulted in one tutor expressing their doubt that the drafting process would be employed by many students:

I think the students who use it do a first draft and you can normally count those on the fingers of one hand.

This use of Turnitin for draft formative submissions, as advocated by Davis (2007) was not formalised within departmental systems but left to adhoc use by individual tutors and students.
One of the main concerns for tutors was the level of inconsistency experienced by students:

*because of the inconsistency for the students – the feedback and evaluation for them is not good and sometimes they don’t get electronic feedback and won’t get their marks or feedback. It’s that inconsistency that’s causing a problem. Everybody has their own issues*

Not all tutors were making use of Turnitin and what was evident were the responses of a number of individuals with pockets of practice rather than a clearly agreed rationale for developmental use across programmes. There was a sense that there were already differences in practice in terms of electronic submission, marking and feedback and the introduction of Turnitin had highlighted inconsistencies and potentially created greater opportunities for differences in student experiences. However, different forms of submission were appropriate for different types of assessment. Some students still submitted their work as a paper copy and Turnitin was not appropriate for all submissions so there was some perceived inconsistency out of necessity for managing the range of different types of assessment. Some tutors appeared to need greater support with usage than others. The tutor focus group, in generating the opportunity for departmental discussion resulted in some tutors asking for confirmation of their developing practices from others who appeared to have greater confidence. The degree to which individualised practices were developing was evident with colleagues working within the same faculty or department seemingly only able to share practices at the formalised focus groups related to the research project.

Both tutor focus groups tended to have an emphasis on electronic submission and the technological concerns with use and feedback. The plagiarism detection dimension of Turnitin was seen as an advantage by one tutor yet also as problematic:

*Another key one for me, and this can be both a blessing and a curse, is the interpretation of the scores for previously published text that can get through Turnitin and become plagiarism I suppose – it flags that up… I think that the fact you can see where the stuff has come from is a blessing, but if it is not interpreted right, it can be a curse*
Tutor concerns related to the use of the software as a technology for electronic submission appeared to frame its use around being the recipient of a product rather than being envisaged of as part of the writing process. Concepts of plagiarism and the affective dimensions of a climate of trust appeared to be less of a concern for tutors. For students this became a significant element of the discussion.

**Student Responses**

Students from one programme completed a questionnaire in order to establish extent of use and initial experiences \((n = 25)\). Turnitin had been used by students in this group between one and eight times and it appeared to becoming established as part of the submission processes for the department. 10 students had used it four times for submitting their assignments. 9 students did report having some degree of difficulty with uploading their work due to technical difficulties. The main purpose of using Turnitin related to plagiarism detection, supported by 20 out of 26 students who responded to a question about perceptions of the main use of Turnitin on the questionnaire. The other responses to this question suggested that students related use to a form of electronic submission. A clear majority of the students responding \((16)\) had access to the Originality Report and 15 of those acknowledged that they had been able to discuss this with their tutor. 15 students reported that Turnitin had been useful in supporting their learning. Of these 7 students suggested that using Turnitin had provided an easier way to submit their work, 8 students suggested that using Turnitin had made them aware of plagiarism and made them aware of their use of referencing, 8 students responded that it had not supported their learning.

A significant aspect that emerged on the questionnaire was the main purpose of use of the software where students clearly identified that Turnitin was for plagiarism detection. Although there had been an aim to promote developmental use, student perceptions of use were based on plagiarism detection rather than to support their writing for assessment.

*When we were told that we had to use Turnitin for this piece of coursework, I think everyone was a bit annoyed because we thought well why should we? We’re not cheats and what if it gives an inaccurate result and you know you have not plagiarised anything? Why should you have to reword it just because this piece of software says that you should?
It’s like being accused of cheating to be honest I thought. It is though isn’t it?

Students shared a lack of understanding about the implications of the originality report, convinced that the identification of similarity equated with evidence of plagiarism.

it did flag up too much on my work which I hadn’t plagiarised….it just flags up similarities which was a pain as you have to rewrite it then when you hadn’t actually plagiarised in the first place

I can’t even remember what percentage mine said, but I remember things like, my contents table was flagged up as plagiarised, my quotes were flagged up as plagiarised even though they were referenced properly.

This is problematic for a number of reasons since it reflects a misunderstanding of the way in which similarity is reported rather than plagiarism. This confusion is acknowledged but also evident in Gannon-Leary et al (2009). Of equal importance is a sense of subservience to the software where students appeared to have an uncritical response to the information in the originality report. When asked whether the use of Turnitin encouraged redrafting one student responded:

I think it did but not always for the better I think because I would change something that I was quite happy with because Turnitin said it wasn’t happy with it.

Providing access to the originality report as a means of enabling and promoting student responsibility for writing appeared to be unsuccessful with Turnitin becoming a regulatory voice for this student. Students also suggested that Turnitin was of limited use in giving them formative feedback on their work since this was already available to them in a range of formal and informal ways. The originality report was not viewed as particularly useful in this respect:

A: No, not in the redrafting process, because I get other people to do - I get my girlfriend to read through- because someone else is going to pick up your grammatical errors and stuff. Other people can see them easier can’t they? So I just print it off and get someone to look through and do it that way personally
B: I just send a draft into my tutor and let them look through it.
I: But are you confident you are going to get something back from your tutors?
B: They always…they never say you can’t submit a draft whenever I ask, even in the lectures or the seminars, 9 times of out 10 they’ll come over and look at it for you.
C: I just get someone else to read it through for me
A: It didn’t effect the way you wrote because you are going to try to do it properly anyway
B: Unless you actually are out there to try and plagiarise
C: Unless you are cheating

These students spoke about effective processes for redrafting and editing, drawing on existing relationships with tutors or friends in the final stages of their writing. However, the relevance of using Turnitin during this process appears to connect directly with malpractice. There appears to be a disconnect here with existing low stakes and trust based strategies for revising texts and the appropriateness of using software associated with plagiarism detection.

As well as having other ways of gaining formative feedback on work, one student identified that the types of information gained from the originality report was not the type of information that would be useful in developing their writing since they were more likely to need help with how to structure their argument:

I don’t see how it helps your writing development. It caused me more problems than it did help me

It’s more about how you structure it and what order you write things in. it’s not necessarily about how you’ve written, it’s what order you set it out and that doesn’t do any of that. That just flags up things that it thinks you’ve nicked from somewhere. Which it doesn’t help you in the slightest if you know you’ve not done that – there’s no point using it at all.

The following extract illustrated students’ lack of trust and doubt that the software was being used in any other way than as a tool for scrutiny. It may also indicate some sense of devolved responsibility on behalf of students as Turnitin appears to be thinking for them. A key challenge in engaging students in the writing process is to encourage students to be able to take responsibility for reviewing their own work and making substantial changes to work at a redrafting stage is an advanced skill (Bean, 2001:29). Students acknowledged throughout the interview that drafting was an aspect of developing writing for assessment but struggled with making connections between this and the ways in which Turnitin could be employed, evidenced in this conversation between two of the students:
A: I don’t understand how the draft works
B: If it’s to get you to look at your work to improve it and make it better. Then it flags up to say you’ve plagiarised
A: I don’t understand how that works. Is that the real concept?
B: No it’s not. It’s a lie
A: I think the main thing is the Big Brother feeling and you are checking up on us and you don’t trust us… I think there’s that sort of feeling… even if it’s wrong… I think people take it personally don’t they? Which is human nature.

There is a real sense that students were connecting the use of Turnitin with issues of trust and surveillance, aware that tutors appeared not to trust them and that they in turn were mistrustful of tutors motivations for encouraging the use of Turnitin. A lack of understanding is also acknowledged as the starting point for this lack of mutual trust. Davis (2007) offers a useful example for the ways in which Turnitin can be used as a starting point for formative feedback with students yet this centres on early submission of assignments and a tutorial summarised in a three stage booklet. The significant ‘teaching point’ comes from the space for dialogue about the student writing rather than the originality report. Effective tutorials as time for dialogue with students about their writing must be the most effective aspect of this approach (Lillis, 2006). It may be argued that the students’ seemingly negative experiences occurred because this process was not clearly structured within the department, however, the students interviewed clearly identified such formative opportunities that were removed from their understanding of the ways in which Turnitin might be employed.

What does this say about the ways in which Turnitin could operate as a change artefact to promote a developmental writing model?

The implementation of Turnitin has created a focus for the discussion of student writing development, student responsibility for writing, opportunities for formative feedback and the ways in which we think and act to communicate the relationship between malpractice and writing development. In these respects it is useful to consider the implementation of Turnitin as a change artefact since it provided an opportunity to question particular habits of practice and disrupt usual approaches to departmental processes in respect of writing for assessment. The institutional support for implementation and inclusion in the Teaching and Learning Strategy
have provided an impetus for a large number of academic development sessions which questioned existing habits of practice and offered some principles for writing development. However, in this study, the problematic nature of encouraging the development of student writing via the introduction of Turnitin is evident since it is situated as a tool associated with final submission as well as being associated clearly with issues of malpractice.

The ways in which students are positioned by use of plagiarism software and the ways in which students are positioned in individualising methods for learner support create particular types of learners. These environments are not necessarily the most conducive to engaging students in developmental approaches to writing. Writing confidence and the development of brave writers and thinkers who can engage in discourses in their discipline are difficult to promote in conditions dominated by mistrust and malpractice. Gannon-Leary et al (2009:438) makes reference to the ‘big-brother’ culture and surveillance society in relation to the implementation of Turnitin but suggests that transparent policies and procedures can counteract this. Although they warn against the dangers of the effect that this might have on staff/student relationships, the impact on the affective dimension and conditions for writing and learning is not discussed.

Integrated use, where students and tutors access the software, may go some way to alleviate mistrust, yet there must also be an awareness that the use of software designed for plagiarism detection situates and reinforces a particular type of student/tutor relationship based on regulation. I would argue that this is unsympathetic to the development of the types of pedagogic relationships encourage resilient, thinking, writers and learners.

Enclaves of good practice emerged across this department with different levels of engagement with the institutional initiative to introduce Turnitin, with a range of different practices emerging within the small group of staff who took part in the focus group. Such differing practice was of concern to some tutors who were aware of potential problems with student perceptions of inconsistency. This highlights a challenge as well as an opportunity for educational developers as well as the complexity of the issues under discussion and the challenges for implementing change. Such enclaves of practice offer the potential for individuals to develop practices which may then be shared with colleagues. However, it may be unrealistic to assume that such practices would be shared naturally without formal intervention.
and purposeful opportunities designed to promote this type of discussion. Such enclaves can offer live and situated examples of practice more easily understood by colleagues than generic examples or decontextualised and discrete development sessions.

What is also significant is the ways in which students appeared to respond uncritically to the information that was being presented to them and that the software appeared to be ‘telling’ them what was or was not acceptable. It is possible that the potential for Turnitin to act as a change artefact could be undermined as it replaces existing habitual practices in writing for assessment with another set of unquestioned practices which appear to have an additional weight by their association with the authoritative and disembodied voice of technology.

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