

The Integrity Games: An Interactive Story Education Approach to Teaching Academic Integrity.

Katherine Gilliver-Brown and Dean Ballinger

University of Waikato, New Zealand

Abstract

Academic integrity is an important aspect of tertiary study, yet one that is often difficult to convey effectively to students. During 2015-2016 a design team in the Student Learning unit at the University of Waikato developed a Learning Management System (LMS) resource for future implementation, which sought to make learning academic integrity more engaging and effective for students through a form of ‘interactive story education’ realised in a comic-strip format. The resource presented a relatively novel variant of learning approaches such as interactivity and storytelling. However, these factors also engendered institutional responses that are currently limiting effective implementation and further development of the resource.

Introduction

Academic integrity principles such as respect for diversity of opinion, fairness in learning practices, and honesty in the use of source material are regarded as core values imparted to students undertaking tertiary education (University of Otago, 2015). However, raising student awareness of, and engagement with, academic integrity can be challenging, particularly since most students have a perception of the term as punitive and synonymous with plagiarism. This article discusses a project undertaken at the University of Waikato to improve awareness of academic integrity through the relatively novel approach of combining comic-based storytelling with interactive engagement. Emphasis is given to key theoretical and technical factors shaping this approach, such as pedagogical perspectives on storytelling and comics and the design

parameters of online learning management systems like Moodle, in relation to institutional contexts affecting the development and implementation of the project.

Academic integrity at the University of Waikato

Over the last couple of years, the University of Waikato has been undertaking a Curriculum Renewal Review (CRR) programme. This has included the establishment of a working group on academic integrity to address concerns that Waikato has had a relatively incomplete, ‘on the rebound’ approach to academic integrity issues. Two main points of concern were, firstly, that many students (and staff) were unaware or uncertain as to what academic integrity entailed, and secondly, that the dominant disciplinary approach was more of a punitive ‘ambulance at the bottom of the cliff’ response that needed more emphasis on preventative education. Academic audits undertaken in relation to the review further highlighted a lack of awareness of the existing resources and information about academic integrity issues on the part of both students and teaching staff, and the need to make these more engaging and accessible. In these respects the University of Waikato has been lagging behind some other NZ universities, which have already made academic integrity material an integral part of their learning resources.

The Student Learning pages in Moodle, the University of Waikato’s Learning Management System (LMS), included resources advising students on academic integrity matters, but the material was several years old and primarily a text-based collection of disparate resources cobbled together from a variety of sources. The director of Student Learning suggested reworking these resources into a more engaging and comprehensive academic integrity course for both student and teacher use, by making better use of the multi-media and interactive affordances of Moodle and avoiding overt emphasis on punitive notions of plagiarism.

The Student Learning (SL) e-Learning co-ordinator was enlisted as the main developer for the revamp. Her intention was to create a series of Moodle modules collectively labelled ‘The Integrity Games’, featuring story-based scenarios with which students could interactively participate (such as by giving them the ability to choose different story scenarios, opportunities for personal reflection, and feedback on their own perspectives relating to the stories). The

scenarios would be presented in the form of comic-strip illustrations. The combination of interactive stories with comic illustrations could readily be achieved through the existing technical capacities of Moodle. A fellow staff member, who was a comic artist, was enlisted to do the illustration work. At that time the developers knew that implementation was going to be a challenge; the complex and long-term process of revising the University's Curriculum Renewal Review programme meant that the administration of the module was still not finalised at that point. Therefore, they were proceeding without knowing quite how the programme was going to be implemented.

As completed, the academic integrity course consists of four modules that build upon each other in terms of how the stories convey academic integrity ideas. The first module (*Respect for the ideas of others*) looks at concepts of integrity, what the user understands by the term, and differences in response to perceived breaches. The second module (*The Integrity Games*) discusses academic conventions and principles, and problems with plagiarism. It should be noted that the term plagiarism is avoided if possible, in preference for positive discussion about respect for the ideas of others, and how this is represented within intertextual conventions. The subject of cheating is touched upon in this module, but not extended (see discussion on cheating in Section E below). The third module (*Today, you are you*) discusses the concept of voice; the role of the students' voices in writing, and how these voices are distinguishable from the voices of the sources they are citing. The fourth module (*Getting a line of cite*) looks at the mechanics of referencing, (using APA), drawing on YouTube 'how to' videos produced by the UoW Library. It explores desirability of a student interpreting source material for a particular context and applying it, or reflecting on it, in an appropriate way. This module includes the idea that "less is more", meaning that the quality of citations chosen and skilled integration is better than a large quantity of irrelevant or crudely exploited sources.

Storytelling, interactivity, and comics as learning approaches

Theoretical perspectives on storytelling, interactivity, and comics as learning approaches informed the design process. It should be noted that the designers found such perspectives relatively problematic to apply to the subject of academic integrity within a New Zealand tertiary

context. Not only has the bulk of the existing research done on interactive storytelling and comics as learning approaches been undertaken in relation to primary and secondary teaching in the USA and the EU, but the academic conceptions of these subjects has also varied widely in relation to the disciplinary background of the scholars involved.

Storytelling

The designers' decision to use a storytelling approach was based upon their intention to communicate academic integrity concepts to students through emotional engagement (humour and entertainment) with situations and characters. There were a couple of implicit premises underpinning this decision: firstly, that as humans we are psychologically predisposed to be cognitively involved with stories; secondly, that stories often are a useful way of conveying and presenting difficult or dry subject matter.

There is an extensive literature on the use of stories as teaching aids. However, much of this is focussed on helping child and adult students learn by transforming their personal experiences into stories in relation to established fictional narratives (for example, fairy tales and classic literature), or on storytelling as a method of business and education training. Moon (2010) is one of the few recent academic studies on storytelling as a learning approach that discusses it in ways relevant to the academic integrity project. These include principles such as "the use of story to encourage thought about potentially difficult situations" (Moon, 2010, pp. 110-111), "showing multiple perspectives with stories" (p. 112), and "stories and the making of judgements" (p. 113). The latter two of these principles informed the designers' decision to encourage students to reflect on academic integrity concepts by asking them to evaluate the actions of the characters in specific modules: such evaluative activities included undertaking questionnaires and writing short reflective statements that could be 'graded' by a module moderator.

Interactivity

The fundamental principle of interactivity inherent to the module design was that students would develop a more active awareness of academic integrity concepts via intellectual and

imaginative engagement in the process of choosing options in the storytelling scenarios presented. This principle encapsulated what Bonk & Khoo (2014) delineate as one key approach to interactivity as learning: “learners interacting with content or the subject of study” (Moore 1989, as cited in Bonk & Khoo, 2014, p. 182).

Bonk & Khoo (2014) also discuss several other aspects of interactive learning approaches pertinent to the design of the Integrity Games. These include a definition of learning engagement as something “manifested in sustained behavioural involvement and overall positive affect or emotion in a task” (Bonk & Khoo, 2014, p. 210), which was certainly a principle considered integral to the project. Notions of variety, the use of non-conventional learning resources to imbue the learning process with “elements of novelty, fun, and fantasy” (Bonk & Khoo, 2014, p. 116), were also implicit in the decisions to realise the project through multi-choice storytelling and comic strip illustrations.

Comics

Comics are relatively tricky media to discuss in relation to educational and academic contexts, as they come heavily loaded with preconceptions derived from their dominant role as a pop culture form: for instance, comics are lowbrow entertainment content designed for unsophisticated juvenile audiences. In short, it is probably fair to assume that, for most educators and academics, comics are synonymous with cartoon-style illustrations aimed at child or tween audiences, and are considered to be of minimal value as learning tools.

However, the dominant theoretical perspective on comics as ‘sequential art’ – stories that are conveyed through the distinct aesthetic approach of multiple cartoon or graphic pictures operating in sequence (Eisner, 2005; McCloud, 1994) – has served as the basis for recent evaluations of comics as learning approaches. The fact that comics naturally combine text and images in a sophisticated manner makes them a significant medium in relation to multi-modal models of learning, which conceptualise learning as a synthesis of textual, visual, and tactile modes of communication and activity (Jacobs, 2007). For example, a recent paper on teaching design in the fashion industry (Smith, Young, & Raeside-Elliot, 2015) redefines comics for pedagogical theory as “visual narratives” or “visualisation” and comes to the following conclusions about comics as learning aids. Firstly, they help communicate important concepts to

students of different learning dispositions, especially visual; and secondly, they use images in relation to (or over) words operating as a kind of “universal language” for students, serving to “cross language barriers on many levels, culturally, linguistically, intellectually, physically as well as technically, geographically and socially” (pp. 1565 - 1566).

The multi-modal and cross-cultural appeal of comic aesthetics were prime motivations behind the decision to convey academic integrity concepts in comic form. It was hoped that the representational, but non-realistic, nature of cartoon-style drawing would make it easier for students from diverse backgrounds to ‘project’ themselves onto the characters involved, and therefore engage in more depth with the academic integrity ideas being conveyed in the scenarios. This was complemented by the artwork ‘coding’ the characters for ethnicity and gender through features such as skin colour and hairstyle (Fig. 1).



Figure 1. Integrity games characters: Tama, Julia, Justine

The non-realistic visuals of comics also make it easy to shift emotional registers without being jarring, for example, a realistic/serious premise can be explored through fantasy/humour (i.e. a light-hearted tone). In the case of the academic integrity module, the comic form enabled qualities such as fantasy and humour to be applied in order to establish a more light-hearted and inclusive tone. The hope was that this approach might counteract the punitive overtones of plagiarism which often render engagement with academic integrity topics off-putting for students (Fig. 2).



Figure 2. Module scenario: “The Ghost of References Past”

Use of Moodle as technical platform for the project

The design team had two platform options for presenting the material. Student Learning (SL) already used hypertext markup language (html) and javascript (js) to present interactive learning objects pertaining to different academic skills via standard browsers. These resources were complemented by several Moodle courses (it should be noted that the fact that institutions usually limit access is viewed philosophically by the team as an unfortunate constraint, as they prefer an open-access approach to resource development. Nevertheless, Moodle also provides certain affordances).

The main mode developed for content delivery of the academic integrity project was the Moodle Lesson. The four modules are structured into approximately four lessons, each of which (usually) opens with the images of a cartoon story. Several of these lessons have multiple possible endings, and students can choose a pathway to follow. At the end of the cartoon there is a story summary (text and audio). From here the learners go into two or three lesson quiz pages that test their understanding of the story. This, in turn, is followed by content that invites reflection on the significance of the story in terms of academic integrity, and elicits the student’s own perspective. At this point the reflection items (usually) do not offer correction; the feedback of these reflections has been designed to endorse each unique contribution. The lesson (often) finishes with a short activity that connects the reflection with the academic integrity theme, or

moral, of the cartoon story. The modules include links to other materials: YouTube clips, Ted Talks, discussion fora, quizzes and choice activities, to name a few.

Despite its technical and graphic limitations, the advantages of an LMS such as Moodle are that it packages the content and all the interaction in one space, and can produce reasonably specific metadata. A researcher can ask the program to identify who has accessed the content and when, how long each user has remained, and of course, whether he or she has interacted with content successfully. With a subject like academic integrity, the ability to track interaction is desirable for certain stakeholders, and from a learning design perspective, it can provide valuable information on the quality of the design and its effectiveness to elicit reflection and interaction.

With regards to engagement, the designers were presented with an interesting design dilemma. It is difficult to elicit quality reflection and produce evidence of engagement within an entirely machine-moderated model. To this end it is necessary to include some form of human interaction (a core principle of e-learning pedagogy: see, for example, Naidu (2004)). This is partly provided by students interacting with each other in the discussions, but without some form of facilitator involvement the risk is that the process is viewed as busy and superfluous, and the impact is lost. Therefore, embedded within the infrastructure of the course are opportunities for students to interact in a semi-formal way with some form of e-moderator, who needs to acknowledge the participation for the student to pass the unit concerned. This moderation is not onerous, but could be perceived that way if teaching staff have not thought about how it could be incorporated into their feedback processes. The learning designers knew that including this facilitator involvement as part of the course might be controversial, but considered it preferable to include it with the possibility of it being removed later, rather than leave it out knowing that its absence would compromise what the course was attempting to achieve.

Defining and categorising the project

While the project was being undertaken, thought was also given as to how best to categorise it. The development of an appropriate label to define and describe the project may seem fairly trivial at first glance, but will be discussed here as an important factor in terms of soliciting institutional support to help ensure that the resource is utilised efficiently and can be supported towards further development.

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Project as a ‘game’

‘Gaming’ was a standard label applied to the project during development. This was because the project adhered to core tenets of digital/video games – making audience members active participants in the unfolding of the play by getting them to choose between various options in play scenarios that could lead in turn towards diverse outcomes (Egenfeldt-Nielsen, Smith, & Tosca, 2013). Translated into the context of the project, the audience members were students who actively participated in choosing options from the scenarios presented, that could in turn lead to various outcomes in terms of effectively understanding principles of academic integrity.

However, feedback from colleagues led the designers to reconsider the relevance of the word ‘game’ for the project, as gaming has such specific connotations for most people that it automatically suggests certain frameworks of interpretation. In this case, the main concern was that if the project was defined as a game it could run the risk of not being taken seriously by fellow academics and university bureaucracy, an interpretation compounded by the use of comic-style illustration. A secondary concern was that students and staff who were familiar with games would find the module lacking in the standard qualities of ‘gameness’ they would be expecting, (for example, sophisticated graphic design and multiple options). Therefore, the designers sidelined the use of gaming as a reference point for the project .

Project as ‘interactive storytelling’

‘Interactive storytelling’ is another media-based label that would appear to accurately describe the nature of the project; narrative scenarios (stories) dealing with academic integrity issues are presented to students, who can then digitally interact with them to choose outcomes and provide feedback. However, the label is most commonly used in computer science and games studies to describe the operation of virtual worlds in video games etc. In social science disciplines, it is also often used synonymously with concepts such as ‘digital storytelling’, concerned with the uses of digital technology for presenting personal histories or narratives: pedagogical variations of this application also occur in the education field. Thus, while more apt than games, interactive storytelling is still not distinctive enough to function as an effective category label for the project.

Project as ‘interactive story education’

A possible solution to the categorisation problem is offered in Greek-American academic Stavroula Kalogeras’s recent book on transmedia storytelling; an educational approach predicated upon the resources and opportunities inherent in the (still-relatively new) digital media environment. Kalogeras coins the label “transmedia storytelling edutainment” to describe “the use of stories to create learning content around a discipline” (Kalogeras, 2014, p. 16). This approach

includes the use of media tools and storytelling practices in e-education, but it is not limited to online, and may consist of components that do not include moving images, such as story-centered curriculum (fiction or non-fiction) that include scenario-based case studies and activities. (Kalogeras, 2014, p. 16)

Kalogeras’s (2014) specific interest is in learning approaches based upon stories that are conveyed in a complementary fashion across entertainment media such as films, games and websites (this notion of inter-related content across different media constituting the basis of the theoretical term ‘transmedia’). However, her definition of the approach can be appropriated as a good basis for categorising the academic integrity project, as it focuses on storytelling and scenarios as the basis for learning content; signals a range of media tools as components for conveying such content to students; and emphasises e-education as the main learning context for this approach. Kalogeras (2014) further elaborates her approach by making a distinction “between story education (SE), which covers [the] use of narrative to educate via case studies and scenarios, and TmSE [transmedia storytelling edutainment], which uses stories to educate via the journey of a protagonist” (Kalogeras, 2014, p. 16). The definition of ‘story education’ nicely encapsulates the essence of the learning approach developed for the academic integrity project - fictional scenarios about academic integrity presented in comic form - particularly if preceded by ‘interactive’ to emphasise the project’s operation online. The designers therefore considered the term interactive story education, derived from Kalogeras’s work, to constitute a suitable category label for the distinctive nature of the academic integrity project as a learning approach.

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Implementation of the module: future development

Testing and quality assurance

The designers consider the project (as it currently stands) to be a prototype that requires submission to a quality assurance process. This is particularly important given discussion that the module should be made compulsory for beginning students. This work would require tests and alterations in two main areas:

- 1) Content. This involves other academic staff testing the module for pedagogical integrity and validity – that is, testing for its effectiveness in communicating academic integrity to students from diverse backgrounds and disciplines, and likewise, analysing whether it requires adapting for specific cohorts.
- 2) Technical features. This involves vetting the design and usability of the module within Moodle, in relation to factors such as clarity and consistency of instructions, improving graphic resolution of the illustrations, and validity of the activities.

In terms of content, an important aspect of the project that needs evaluation is its treatment of the theme of cheating. Most of the scenarios tend to focus on academic integrity issues as having been unintentional or inadvertent, and relatively small-scale. While cheating (as in deliberate misrepresentation of authenticity) is a significant and increasing concern in terms of academic integrity, it is addressed explicitly in only one of the story scenarios. We recognise that it may deserve more coverage in our development. The designers' reasons for limiting the module's emphasis on cheating were to avoid overtly negative subject matter, coupled with the delicacy needed for unpacking the socio-cultural influences pertaining to cheating. Tests and feedback related to quality assurance processes would therefore help ascertain whether more content on cheating may be useful or desirable.

Quality assurance is presently the designers' present priority in terms of future development of this project, especially to identify the elements and content which effectively

communicates as intended, and to help determine whether the issue of cheating should be addressed more comprehensively. Initial attempts at quality assurance were made in early 2016. The first was a cohort of pre-degree language students, and the material was given to them as part of their course of study. The second was an informal survey of a volunteer cohort of student peer support mentors. These students also appeared to interact with the material in a manner that the developers had hoped they would, and by and large the comments from the participants were favourable (although only a small proportion replied to our survey). However, more formal quality assurance work is needed, but would be contingent upon the availability of funding.

Encouraging institutional usage of the resource

As well as quality assurance testing, there also needs to be a strategy to operationalise the implementation throughout the various disciplines and faculties. The ideal would be if the resource were included in one of the three compulsory foundation courses that are being developed within each particular school of study as part of the Curriculum Renewal Review programme.

A related area is that of incentives – that it may be helpful (or necessary) to provide rewards as a means of encouraging student engagement with the resource. Allocating marks to students for completion of the modules, which then contribute towards their overall grades for a specific paper or papers, would probably be the easiest and most appropriate incentive. The designers have also considered other forms of incentive, such as the idea of digital badges. These are being used at institutions such as Wintec (Waikato Institute of Technology) to signify that students have undertaken forms of non-academic study that should be recognized as possessing value in terms of skill and knowledge learning on their CV or similar.

In this respect, one of the most important incentives for encouraging student engagement with the module is the positive psychological reinforcement students may derive from getting personalised feedback in relation to contributions to the module, in order to provide students with a sense of ‘cognitive closure’. Therefore, ideally teaching staff, or a staff member who has specific responsibility for the module, would administer and deliver feedback, while tracking the extent to which the participants have grasped the significance of the stories to deliver the values being promoted. However, such staffing arrangements are beyond the remit of the design team,

and currently remain something to discuss with academic and institutional management alongside the quality assurance measures outlined above.

Conclusion

“The Integrity Games” can be seen as a relatively novel attempt to encourage better student engagement with academic integrity concepts, by conveying these through a synthesis of ostensibly distinct learning approaches (storytelling, interactivity, and comics) and presenting them in an accessible LMS format. However, the novelty of the approach has also highlighted factors within the New Zealand tertiary sector that have currently compromised its application and efficacy as an academic integrity resource: these include developing an appropriately strategic categorisation for the project, and a lack of institutional support for implementing quality assurance measures. In these respects, the project illustrates a number of significant implications for tertiary learning developers interested in designing learning approaches dealing with topics related to academic policy and values, such as academic integrity.

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