Factors Influencing Lecturers’ Intention to Use Talis Reading List Management System at Auckland University of Technology

by

Yan Iris Zhu

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Abstract

To fulfil the legal obligation to Copyright Licensing New Zealand, AUT (Auckland University of Technology) has adopted the Talis Reading List Management System and required all lecturers to transfer their copyright-protected readings into the new system. However, among the thousands of AUT papers, only about 400 papers have a published Talis reading list for their students. Moreover, many lecturers gave up using the system after the initial set up of their reading lists. To find the root cause of the low usage rate and abandonment, the researcher decided to identify the factors that influence these lecturers’ intention to use Talis by establishing a conceptual research model after reviewing different technology acceptance models. To test this research model, a survey was designed with 20 questions and this survey were completed by 69 lecturers from different AUT faculties. The collected data was analysed using Multiple Regression Analysis to exam each factor’s correlation with the dependent variable—Behaviour Intention. From this analysis, items which had significant influence on user intention were selected to form the final research model. From the final model, it was found that AUT lecturers’ intention to use Talis was highly influenced by the system’s characteristics like its functionality of ensuring copyright compliance and its stability, and by the timely assistance they received from the library. Social factors like managers’ endorsement of using and colleagues’ recommendation only affects lecturers’ acceptance of Talis very weakly. Apart from timely assistance, lecturers also value the one-on-one training more than workshops and manuals. Additionally, in the comment field of the survey, many lecturers also complained the difficulty of using the system which even made several lecturers abandon the system. From this research result, the library and project team should firstly investigate further on how to make using Talis easier for lecturers, and on providing timely problem-resolving assistance to lecturers. A qualitative research can be conducted further to study lecturers’ complaints in future.

Keywords: Talis, reading list, copyright, technology acceptance model, lecturers.
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Contents

Abstract ......................................................................................................................... 2
Acknowledgements ........................................................................................................ 3
1. Introduction ............................................................................................................. 6
   1.1. Background ..................................................................................................... 6
   1.2. Problem statement .......................................................................................... 7
   1.3. Research Questions ......................................................................................... 10
2. Theoretical Framework ............................................................................................... 10
   2.1. TAM ............................................................................................................... 10
   2.2. TAM2 ............................................................................................................. 11
   2.3. UTAUT ........................................................................................................... 14
3. Literature review ....................................................................................................... 15
   3.1. Importance of reading lists ............................................................................ 16
   3.2. Importance of Copyright ............................................................................... 16
   3.3. Reading list management systems .................................................................. 17
   3.4. Leadership style ............................................................................................. 18
4. Research Design ....................................................................................................... 19
   4.1. Methodology .................................................................................................. 19
   4.2. Conceptual Research Model ......................................................................... 20
      4.2.1. Variable Selection .................................................................................. 20
      4.2.2. Conceptual Research Model Establishing ............................................. 21
   4.3. Proposed Hypotheses ..................................................................................... 22
   4.4. Measurement instruments .............................................................................. 22
   4.5. Sample ............................................................................................................ 25
5. Data collection and analysis ..................................................................................... 26
   5.1. Important indicators ...................................................................................... 26
      5.1.1. Mean VS Median .................................................................................... 26
      5.1.2. P value .................................................................................................... 27
      5.1.3. R-squared ............................................................................................... 27
   5.2. Ethical considerations ..................................................................................... 27
6. Results and findings ................................................................................................. 28
   6.1 Population analysis .......................................................................................... 28
   6.2 Variable Analysis ............................................................................................ 29
      6.2.1 Variable Importance of Copyright (IC) .................................................... 29
      6.2.2 Variable Social Influence ........................................................................ 32
      6.2.3 Variable Support Quality ......................................................................... 35
      6.2.4 Variable System Characteristics ............................................................... 38
      6.2.5 Dependant Variable Intension to Use ....................................................... 40
   6.3 Hypotheses Testing ............................................................................................ 43
      H1: Importance of Copyright has a positive influence on Behavioural Intention... 43
      H2: Social Influence (SI) has a positive effect on Behavioural Intention (BI) ..... 43
      H3: Support Quality has a positive effect on Behavioural Intention (BI) .......... 44
      H4: System Characteristics has a positive effect on Behavioural Intention ...... 45
   6.4 Conceptual Research Model Testing ............................................................... 46
7. Discussion .................................................................................................................... 48
   7.1 The final research model .................................................................................. 48
   7.2 Importance of Copyright ................................................................................. 48
   7.3 Service Quality ................................................................................................ 49
   7.4 System characteristics ...................................................................................... 50
<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.5</td>
<td>Social Influences</td>
<td>50</td>
</tr>
<tr>
<td>7.6</td>
<td>Comments analysing</td>
<td>50</td>
</tr>
<tr>
<td>8.</td>
<td>Limitations</td>
<td>51</td>
</tr>
<tr>
<td>8.1</td>
<td>Lake of Research</td>
<td>51</td>
</tr>
<tr>
<td>8.2</td>
<td>Lack of statistics knowledge</td>
<td>51</td>
</tr>
<tr>
<td>8.3</td>
<td>Subjective factors VS objective factors</td>
<td>52</td>
</tr>
<tr>
<td>9.</td>
<td>Conclusions</td>
<td>52</td>
</tr>
<tr>
<td>10.</td>
<td>Further Research</td>
<td>53</td>
</tr>
<tr>
<td>11.</td>
<td>References</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>Appendix A: Information for Participants</td>
<td>61</td>
</tr>
<tr>
<td></td>
<td>Appendix B: Survey Instrument</td>
<td>63</td>
</tr>
</tbody>
</table>
1. Introduction

This session covers the background of this research, problem statement and research questions.

1.1. Background

In 2014, Universities New Zealand renewed its contract with Copyright Licensing Ltd (CLL) and agreed to implement systems to facilitate e-reporting on the usage of hard copy originals (Johnson, Garraway, & Tollan, 2016; Johnson & Tuckfield, 2016). According to the agreement, all eight universities need to make sure all copying of print materials are recorded in the e-report system, otherwise CLL will have the right to audit these universities’ intranet and electronic storage records, and if there is any copying identified as beyond the limit, universities will be required to pay the licensing fee of 10 cents per page plus penalty interest (Johnson et al., 2016). Together with other three New Zealand universities (University of Auckland, Victoria University of Wellington and University of Waikato), AUT (Auckland University of Technology) has chosen Talis Aspire to comply with this legal obligation (AUT Talis Aspire Project, 2017).

Unlike most Talis customers who use the system mainly for managing reading lists (lists of resources recommended by lecturers for use by students to get more information on a specific subject), New Zealand universities utilise this system to achieve their copyright compliance. According to Copyright Act 1994 section 44, lecturers can share up to 3% or 3 pages whichever is greater of a hard copy with their students. Additionally, CLL extends this limit and grants lecturers permission to share up to 10% or one chapter whichever is greater (Johnson, 2016). In other words, if a lecture only shares 3% or 3 pages of a print book, he/she doesn’t need to report to CLL. However, if it is greater than this amount but less than 10% or one chapter, he/she will have to report to CLL to pay the copyright fee. The current LMSs (Learning Management Systems) that New Zealand universities use give lecturers more freedom to upload copyright-protected materials as PDFs and Word documents without any auditing process. Hence, it is almost impossible to generate a report from these LMSs to pay the relevant copyright fee to CLL. That is why these universities must use another system like Talis to fulfil the legal obligation to CLL. Among the eight universities in New Zealand, four have chosen Talis Aspire, two have chosen Equelle, one decided to use eReserve and one integrated the e-reporting function into its LMS, Moodle (Johnson et al., 2016).
At AUT, the implementation of Talis was completed by the project team at the beginning of 2016 (Pewhairangi & Lord, 2017), followed by some pilot tests conducted by a few academics from different subjects (AUT Talis Aspire Project, 2017). As AUT has nearly 2,500 staff, including about 1,250 academics (Auckland University of Technology, 2016), it is impossible to train them all at once. Therefore, the project team decided to break down this impossible task into smaller steps: lecturers teaching level 5 papers in 2017, and other lecturers in 2018 (AUT Talis Aspire Project, 2017).

1.2. Problem statement

Although the implementation of Talis has been conducted smoothly so far at AUT, the project team has met strong resistance from AUT academics when promoting this new system. According to reports generated from Blackboard and Talis, in 2018 there are nearly 1300 papers on Blackboard while there are only about 400 reading lists have been published for these courses in Talis. The usage rate is relevantly low maybe because many AUT lecturers are just like some UoA lecturers who use textbooks only, or just provide a list of references to students for them to find the resources from the library themselves (Johnson et al., 2016).

AUT’s approach to Talis is different from other New Zealand universities. Many universities like University of Auckland, require their lecturers to transfer all reading materials onto Talis (Johnson et al., 2016), while AUT only requires copyright-protected materials to be transferred (AUT Talis Aspire Project, 2017). Hence, the project team members approach lecturers with a copyright audit list and explain to them that only the listed items need to be transferred. Moreover, if the listed item is available online such as journal articles and eBooks, the lecturer can replace the infringing item on Blackboard with a hyperlink rather than using Talis. Therefore, many lecturers who resisted to learn a new system just replaced their infringing PDFs with hyperlinks to avoid copyright issues. This can be one of the reasons for the low Talis usage rate at AUT.

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1 As defined in the New Zealand Qualifications Framework, all AUT papers are grouped by its learning complexity from Level 1 to Level 10. The paper level is signified by the third digit of a numeric paper code or the first digit of an alphanumeric code, e.g. 355603 and EDUC503 are both level 5 papers (Auckland University of Technology, 2017).

2 The learning management system used at AUT.
The fact that the implementation of this new technology is driven by copyright compliance has irritated several AUT academics who believes that copyright is outmoded and the world of open access is emerging. Hence, they believe learning a new system to deal with a disappearing legal obligation is a waste of time. In many other NZ universities, Talis is merely used to manage reading resources including digitised hard copies, while at AUT, lecturers are supposed to upload all copyright-protected materials including pictures into the system. For example, if a lecturer uses a picture from a print book, the lecturer will be required to submit a “digitisation request” through Talis. Many lecturers found this digitisation procedure time-consuming. Also, because using this system is driven by copyright compliance which mainly refers to digitise print materials, many lecturers turned to electronic resources as they could avoid using Talis by just posting the hyperlink of electronic readings on Blackboard. In this case, there won’t be any copyright involved because a link to the original resource is not making a copy.

Additionally, some AUT academics have been overwhelmed by new technologies as they have witnessed many technologies failures. Therefore, when Talis was introduced to these lecturers, they thought it was just another failing technology. A few other lecturers refuse to learn the system because they do not believe they have the competency to do so.

One more problem that should not be ignored is the considerable time and effort it requires to learn the new system and to transfer all exiting reading materials from Blackboard to Talis. Because of the recent education budget issues, many New Zealand institutions have been restructured in different scopes (TEU, 2014, 2015, 2017). The administrative support of these institutions have been systematically reduced over the past two decades (Johnson et al., 2016). Therefore, lecturers are stressed and under a heavier work load, so it is difficult for them to find enough time to learn a new technology and transfer all existing readings into a new system without sufficient administrative support.

Even if a lecturer is quite positive with new technologies and has sufficient time to learn a new technology, he/she may still find it is not easy to learn this new system. At AUT, the project team provides training in different ways: group workshop, one-on-one
appointment and assistance via phone, email and Skype for Business. After attending a group workshop and back to their own desktop, many lecturers found they still could not use the system. Some of them were stopped by the first step—installing the Talis “bookmark” tool in every browser they use as the setup steps are different in different browser. Even after they installed the tool successfully, they found that the resources they used to have had disappeared online, so they could not “bookmark” those resources and added them to the Talis list. Therefore, most lecturers found that attending workshops was not as efficient as having a one-on-one appointment with a librarian. With a librarian’s assistance, installing bookmark tool and finding resources would not be a challenge to lecturers, neither does digitising a physical book. However, many lecturers found they forgot all steps after not using the system for a while. Not like Blackboard which lecturers use for daily or weekly basis, the reading list management system tends to be only used several times per semester for many AUT lecturers. Hence, for these lecturers learning the new system is challenging, and remembering all the steps when they only uses it several times a year is even harder.

As mentioned in the above paragraph, one-on-one appointment is more efficient for lecturers to learn the new system but neither the library nor the project team has enough resources to train nearly a thousand of academics one by one. Running workshops is easier but it is not efficient for lecturers to learn. What is worse, this training covers two parts: copyright and the system. The copyright part is conducted by BTOs (Business Transition Officers) from the project team and the system part is the responsibility of Liaison Librarians (LL) from the library, which means one lecturer needs to make two one-on-one appointments separately with BTO and LL or make a longer meeting fitting three parties to learn both copyright and the system. Because of the large amount of effort involved, many lecturers resisted to use the system until they were required by their managers that they had to do so.

When auditing the course content on Blackboard, the project team noticed a great number of photocopies without proper attributes, which made it difficult to identify the original source for submitting digitisation requests in Talis. Sometimes the lecturer couldn’t remember the originals source because the course content was there for too long time, while sometimes it was because the content was inherited from another lecturer who had left the university. In such a case, the lecture either had to find an alternative
reading or spend a large amount of time to try to figure out the bibliographic information of the copy. This is another reason why many lecturers reluctant to switch to Talis and reserve all their readings on Blackboard as PDFs or Word documents.

1.3. Research Questions

The main research question of this research is:

• What are the factors influencing lecturers’ intention to use Talis at AUT?

Sub-research questions:

• What factors make AUT lecturers think Talis is useful?
• What factors make AUT lecturers think using Talis is easy?

Based on this research question, the main objective of this research is:

• To identify the factors that make AUT lecturers think Talis is useful.
• To identify the factors that make AUT lecturers think using Talis is easy.

2. Theoretical Framework

This theoretical framework will review three technology acceptance models that have been widely used all over the world, starting with the original Technology Acceptance Model (TAM) established by Fred D Davis (1985) and then its later versions TAM2 and UTAUT (Unified Theory of Acceptance and Use of Technology). These models were chosen because they are frequently discussed, tested and argued by many researchers in Information Systems (IS) field to predict users’ acceptance of information technologies, like Teo (2011), Okantey and Addo (2016), Schoonenboom (2014) and Lewellen (2015).

2.1. TAM

To study the major motivational factors that influence users’ actual usage of information technologies, Fred D Davis (1985) established and tested the Technology Acceptance Model (TAM), based on the Theory of Reasoned Action (TRA) nominated by Fishbein and Ajzen (1980). According to Eckhardt, Laumer, and Weitzel (2009), this model has “established the major research streams of the IS discipline”(p.12) and formed the basis of thousands of research studies over the last two decades. In the TAM model as shown in Figure 1, Davis proposed that people’s Actual System Use could be affected by their Attitude Toward Using which is determined by two factors:
**Perceived Usefulness**

“The degree to which a person believes that using a particular system would enhance his or her job performance.” (Fred D. Davis, 1989, p. 320)

**Perceived Ease of Use**

“The degree to which a person believes that using a particular system would be free of effort.” (Fred D. Davis, 1989, p. 320)

In other words, if a user thinks the system is useful to improve their job performance and it is easy to learn the system, he/she will have a positive attitude toward the system and then be more likely to use the system. According to Fred D Davis (1985), Perceived Usefulness and Perceived Ease of Use again could be affected by many other external factors like System Characteristics. For example, a lecturer may adopt Talis because he/she finds its reading list management function useful to improve work efficiency. Therefore, in this case the external factor System Characteristics has an indirect influence on users’ Attitude towards System by the medium factor Perceived Usefulness. This version of TAM has included two most significant endogenous variables—Perceived Usefulness and Perceived Ease of Use which formed the basis of many later user acceptance models like TAM2, TAM3 and UTAUT.

![Figure 1: Technology Acceptance Model Version 1 (Fred D Davis, 1985)](image)

2.2. TAM2

In 2000, Venkatesh and Davis (2000) extended the TAM version one and proposed TAM2 as shown in Figure 2. This new model replaced the endogenous variable Attitude Toward Using with variable Intention to Use. After reviewing 79 empirical studies, Turner et al. (2010) found that Intention to Use is more correlated with Actual use. Therefore, Intention to Use can be measured and used as users’ actual system use.
Additionally, this new model explains Perceived Usefulness and Intention to Use in two processes:

**Social influence processes**, including Subjective Norm, Voluntariness and Image;
And **Cognitive instrumental processes**, including Job Relevance, Output Quality, Result Demonstrability and Perceived Ease of Use.

Subjective Norm (SN) was first defined by Fishbein and Ajzen (1980) in the TRA model as “a person’s perception that most people who are important to him think he should or should not perform the behaviour in question”. The direct effect of this variable on users’ intention has been found in many research. For example, Cheung and Vogel’s study on users’ acceptance of Google Applications for collaborative learning (Cheung & Vogel, 2013), Lewellen’s research on users’ acceptance of a record keeping system (Lewellen, 2015), and Park, Nam et al.’s research on university students’ acceptance of mobile learning (Park, Nam, & Cha, 2012). While, many other researchers found insignificant relationship between SN and user behavioural intention. For example, Teo’s study on factors influencing teachers’ intention to use technology (Teo, 2011). Also, Neither did Davis find a strong relationship between SN and users’ intention and didn’t include it in the original TAM (Fred D. Davis, 1989).

Voluntariness is a new moderating variable that Venkatesh and Davis added to TAM2, as (Hartwick & Barki, 1994) identified a significant influence that SN has on users’ intention when it is mandatory to use the new technology. Normally, this influence comes from the leadership team in the organisation. In TAM2, Voluntariness was defined as “the
extent to which potential adopters perceive the adoption decision to be non-mandatory”. In Hartwick and Barki’s research, they also noticed that even when it was organisationally mandatory to use a system, some users still chose not to comply with this mandate. Such a situation is not abnormal in AUT, especially in Talis promotion campaign. A large amount of AUT lecturers find “their own ways” to achieve copyright compliance without using Talis, even when using Talis has been endorsed by the university leadership team.

Many researchers took Social Influence (SI) as a new variable like what Lewellen (2015) did in his research (as shown in Figure 3), rather than as a process like what Venkatesh and Davis (2000) did when forming the TAM2. Specifying each variable in the process gives the researcher clearer directions when preparing for survey questions, and the research result will be more specified. However, treating SI as an umbrella to cover all social related aspects giving researchers more freedom to initiate other social variables that fit the specific situation better.

![Lewellen (2015)’s conceptual research model](image)

Figure 3: Lewellen (2015)’s conceptual research model

Job Relevance was defined by Venkatesh and Davis (2000) as “an individual’s perception regarding the degree to which the target system is applicable to his or her job” which is kindly associated with Lewellen’s idea of Perceived Importance of Record in his research. For example, if a lecturer does not value the importance of a reading list, he/she will not learn a system to manage reading lists, and thus thinks the system is not relevant to his/her job. This will be discussed further in the next section—Literature Review.
Output Quality refers to how well the system performs the relevant tasks (Venkatesh & Davis, 2000). This variable is similar to the variable System Characteristics which has been adopted in many research. Li, Duan, Fu, and Alford (2012) tested System Characteristics’ influence on PU and PE from three aspects: System Functionality, System Response and System Interactivity, and did find a strong connection between System Functionality and PU.

Result Demonstrability emphases the importance of demonstrating the positive result after using the new technology. In other words, if it has been proved that a lecturer can save a lot of time by using Talis to manage his/her reading lists, lecturers will be more likely to use the system. In their research on users’ acceptance of Web 2.0, Wu, Chou, Weng, and Huang (2011) did identify a strong influence that this variable had on PU. However, this variable wasn’t chosen by many other researchers, maybe because it is difficult to demonstrate the positive result.

2.3. UTAUT

To summarise all relevant extension of TAM (Eckhardt et al., 2009), Venkatesh, Morris, Davis, and Davis (2003) formed the Unified Theory of Acceptance and Use of Technology (UTAUT) after reviewing and consolidating eight widely used user acceptance models in the IS field, including TAM, TRA and TPB. This model consists of four core variables: Performance Expectancy, Effort Expectancy, Social Influence and Facilitating Conditions. As shown in Figure 4, the first three are direct determinants of users’ intention, while the fourth is a direct determinate of Use Behaviour.

Performance Expectancy reflects the variable Perceived Usefulness in TAM, while Effort Expectancy is related to Perceived Ease of Use (Koivumäki, Ristola, & Kesti, 2008). However, the researcher found Usefulness and Ease of Use are easier to understand and easier to adapt for new researchers.

Facilitating Conditions was defined as “the degree to which an individual believes that an organisational and technical infrastructure exists to support the use of the system”. This variable was first introduced by Thompson, Higgins, and Howell (1991) in the model of PC utilization and then in UTAUT, Venkatesh combined it with variable Perceived
Behavioural Control from TPB (Ajzen, 1985) and Compatibility from the Innovation Diffusion Theory (IDT), to form the new concept of Facilitating Conditions. However, Verhoeven, Heerwegh, and De Wit (2010) found that this variable is a very big concept which could cover many different phenomena like instructor characteristics, teaching materials and management support.

What makes this model special is its four moderating variables: Gender, Age, Experience and Voluntariness. There are evidence showing that these moderating variables have significant effect on the four core determinants.

![Figure 4: The United Theory of Acceptance and Use of Technology (Venkatesh et al., 2003)](image)

Even though UTAUT was not as famous as TAM, it also has been applied in many researches. For example Koivumäki et al. (2008) adapted this model to test users’ acceptance of mobiles services in Northern Finland, and Verhoeven found this model useful in studying university freshmen’s computer usage frequency in Belgium.

3. Literature review
This literature review will start reviewing how important lecturers think reading lists and copyrights are, followed by reviewing available reading list management lists in the market. At the end, how leadership style will influence lecturers’ intention to accept a new technology will be reviewed.
3.1. Importance of reading lists

Lecturers’ perceived value of reading lists can influence their intention to use Talis significantly, as they may be reluctant to learn a technology that will not be useful to them. Reading lists are normally seen as lecturers’ teaching resources and students’ learning resources (McCormick, 2006). At university of Dundee, each programme is required to have one or more reading lists to cover all essential and recommended resources so that students can use these lists as a starting point to explore their own literature searches further (Boyle & Mitchell, 2016). And in their institutional reading list guidance, it is stated very clearly that the purpose of a reading list is to:

“enhance the student learning experience through effective consideration and timely communication of the details of relevant books and resources to support student learning” (p. 82)

Research has been done to prove the relationship between student achievement and the quality and quantity of the materials they read (Fiore & Roman, 2010; Goodwin & Miller, 2012; Topping, Samuels, & Paul, 2007). Hence, creating a list of numerous high-quality reading materials is an essential part of a lecturer job to help students achieve academic success.

3.2. Importance of Copyright

Copyright starts from the moment the author creating the work, and the author is the holder of copyright (Alexandra & Miller, 1999). However, because copyright law is “nuanced and open to interpretation”, it is always difficult to judge whether a certain action infringes copyright (Jennifer, 2018). Moreover, because of the complexity of copyright, it becomes time-consuming to obtain permission for using copyrighted materials in teaching (Di Valentino, 2015). Di Valentino (2015)’s research found that lecturers are more confident sharing digital materials with students, while always asking for permission when sharing print materials. From these research results, it seems that copyright training is essential to university lecturers. Therefore, according to Jennifer (2018)’s Canadian-wide survey with university copyright administrators, most of universities run workshops and webinars to educate their lecturers on copyright essentials. However, there are still 40% Canadian teaching faculties that were not aware of these services offered by either university libraries or copyright offices (Di Valentino, 2015).
Jennifer (2018) explains that this phenomenon may be because it is difficult to reach lecturers, as they work autonomously in different campuses or even remotely. Because of the complexity of copyright, lecturers’ lack of copyright knowledge and lack of efficient training, copyright infringement cases are not rare among higher education institutions. In 2008, Georgia State University was sued by three academic publishers—Cambridge University Press, SAGE Publication and Oxford University Press for “pervasive, flagrant and ongoing unauthorized distribution of copyrighted materials” (Staubs, 2017). In 2013, Access Copyright accused York University of overusing copyright-protected materials. Therefore, using a system to ensure copyright compliance may be an option to protect both the university and lecturers from copyright issues.

3.3. Reading list management systems

There are an increasing number of tertiary institutions who have observed the value of reading lists and adopted systems to manage these resources (Breeding, 2015). Different from other library systems that are normally maintained by library staff only, reading list management system (RLMS) requires cooperation from different departments including the library, faculties and sometimes the learning management system support team (Beasley, 2016), which made the adoption of RLMS more complicated.

Developed in-house at Loughborough University Library in 2000, LORLS (Loughborough Online Reading List System) was one of the earlier RLMS products in the market (Brewerton & Knight, 2003). However, the implementation team did encounter the problem of low academics’ engagement, which was not surprising, considering the fact that it was initiated and driven by the library with “top-down one-way communication plans” (Beasley, 2016, p. 10).

Apart from LORLS, Talis Aspire is another RLMS product that is currently dominating the market, with 94 institutions all over the world as their customers: 78 from UK, 8 from Australia, 4 from New Zealand and 4 from other countries (Talis, 2017). Both Ex Libris and EBSCO observed the big profit of this product and developed their own systems but neither of them is as popular as Talis and LORLS (Breeding, 2015).
It is very impressive that four out of eight New Zealand universities have chosen the same product Talis. According to Johnson et al. (2016), it is because of the popularity of Talis in UK and its unique functionality (automatic copying limits checking) that some products do not have. Unlike institutions from other countries who adopted RLMS mainly for managing resources, New Zealand universities’ implementation of RLMS is motivated by the legal responsibilities stated in the new contract between Universities New Zealand and CLL (AUT Talis Aspire Project, 2017; Beasley, 2016). At the end of each year, universities will run a report to list all copyright materials they have used for teaching and learning and pay the relevant copyright fee to CLL (AUT Talis Aspire Project, 2017). Before implementing RLMS, this data was collected manually by surveying each lecturer, which was very inaccurate and inconvenient (Johnson et al., 2016). Hence, to AUT lecturers, adopting Talis to manage their copyrighted reading materials is not an option but a legal obligation.

3.4. Leadership style
Changes in education largely depends on lecturers’ involvement (Harris, 2003). Eckhardt et al. (2009)’s research revealed that the strongest social influence on people’s adoption of a new technology came from their supervisors and then from their colleagues in the same department. According to D. M. E. Griffioen, Doppenberg, and Oostdam (2017), lecturers’ involvement is largely influenced by the leadership style in the institution, especially the transformational leadership (Thoonen, Sleegers, Oort, Peetsma, & Geijsel, 2011), which is also one of the most studied leadership in reforming educational technologies (Moolenaar, Daly, & Sleegers, 2010). This role affects lecturers’ intention considerably from three aspects: vision initiation, individual support and consideration, and intellectual stimulation (Thoonen et al., 2011). By initiating a vision, the manager provides a direction of the change which can guide lecturers on where they are going and what they need to do. Organising good-quality support to assist lecturers can motivate lecturers to make the change happen. Intellectual stimulation encourages lecturers’ creativity and innovation which can stimulate lecturers’ involvement. Research found that the transformational management style can be positively related to lecturers, departments and the whole organisation during the change process (Wang, Wu, & Wang, 2009). In the AUT Talis project, the transformational leadership refers to the project manager.
Apart from the project manager, direct executive managers’ leadership affects lecturers’ involvement in the activity significantly as well. Research presumes that lecturers who participated in decision-making tend to be more committed to the change (Rowan, 1990), as the feeling of being involved encourages them to support the change (Didi M. E. Griffioen & De Jong, 2015). Additionally, if the managers can show some commitment themselves (Wallo, Ellström, & Kock, 2013), and involves more debates and discussions (Evans, 2014), lecturers’ commitment can be enlarged noticeably.

4. Research Design

This section will start with explaining the methodologies the research will use, followed by establishing a proposed research model with selected variables. Based on the proposed model, the researcher will summarise the hypotheses this research will test, and these hypotheses will be tested by relevant measurement items and the sample.

4.1. Methodology

As defined by Creswell (2009) there are three common research methodologies: qualitative, quantitative and mixed methods. Leedy and Ormrod (2016) explained it further that qualitative research normally applies when a researcher wants to “dig deep” to understand a phenomenon completely rather than just “skimming across the surface” (p.269). While, quantitative research is to determine the relationship among two or more variables within a population (p.154).

In this research, the researcher decided to conduct quantitative methodologies as currently there is a lack of research exploring lecturers’ intention to use RLMS products in New Zealand, quantitative methodologies can generate an overall view of the current situation with a smaller population. Later, based on this overall view, researchers who are interested in studying the underlying reasons and motivations can conduct a further qualitative research, as quantitative research is usually followed by qualitative research “to explore selected findings further” (Atlas.ti, n.d.).
4.2. Conceptual Research Model

4.2.1. Variable Selection
To establish a conceptual research model, the researcher reviewed various technology acceptance models and studied the relevant background. Then, she decided to test these four variables’ direct influence on lecturers’ intention to use Talis: Importance of Copyright (IC), Social Influence (SI), Support Quality (SQ) and System Characteristics (SC).

Importance of Copyright is a unique variable for this case, as the researcher assumes that lecturers who think highly of copyright and take copyright compliance into their daily teaching life would be more likely to use Talis. This variable was inspired by Lewellen (2015)’s research who included variable Perceived Importance of Records into his study. As mentioned in the above Background session, the researcher has encountered several cases where lecturers thought copyright is a “disappearing” legal obligation. Therefore, the researcher assumes that the perceived importance of copyright determines a lecturer’s adoption of Talis. On the other hand, variable Importance of Reading Lists was not selected as emphasising copyright is something that the organization can act on to improve lecturers’ intention using the power of legislation, while the importance of reading list is very subjective and the organization can hardly do anything to change lecturers’ opinion.

Social Influence is an independent variable that the researcher adapted from UTAUT as she assumes lecturers’ acceptance of technology is highly depended on their supervisor’s requirement and peers’ recommendation. During her work in the project, the researcher encountered several lecturers who was unwilling to adopt the system at the beginning but later had to use Talis because their managers required them so.

Support Quality is a narrower version of Facilitating Conditions from the UTAUT model. The researcher didn’t name it Facilitating Conditions as it is a broader concept covering more than just Support Quality. AUT provides training support through two main channels: one-on-one appointments and group workshops. Additionally, if the lecturer prefers, he/she can also learn how to use the system by the manuals and other documents. If they encountered any problems, they can either contact Liaison...
Librarians or contact the project team members. Therefore, the researcher assumes that these support options make it easier for lecturers to adopt the new technology.

System Characteristics was selected not only because it was included in many technology acceptance models, but also because the researcher has heard some complaints from some lecturers on the system performance. Hence, the researcher assumes SC has a positive influence on user intention.

4.2.2. Conceptual Research Model Establishing
Just like in UTAUT, Venkatesh et al. (2003) didn’t treat the two core variables of TAM—Perceived Usefulness and Perceived Ease of Use as mediating variables to test other variables’ indirect effect on user intention, the researcher also only tested the direct influence all factors may have on Behavioural Intention. However, the researcher did take these two variables as two directions when exploring independent variables. For example, Importance of Copyright and Social Influence belong to Usefulness group, while Support Quality and System Characteristics belong to Ease of Use group, even though SC can partially belong to Usefulness group. The researcher only tested these variables direct influence on user intention because these factors are more practical to be worked on to improve lecturers’ intention. Additionally, practitioners like Alan Dennis (an IS researcher in Lee, Kozar, and Larsen (2003) research) ever commented “imagine talking to a manager and saying that to be adopted, technology must be useful and easy to use. I imagine the reaction would be ‘Duh!’ The more important questions are what makes technology useful and easy to use”. Therefore, the research established the conceptual model by combining TAM, TAM2 and UTAUT.
4.3. Proposed Hypotheses

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Importance of Copyright (LR) will have a positive effect on Behavioural Intention (BI)</td>
</tr>
<tr>
<td>H2</td>
<td>Social Influence (SI) will have a positive effect on Behavioural Intention (BI)</td>
</tr>
<tr>
<td>H3</td>
<td>Support Quality (SQ) will have a positive effect on Behavioural Intention (BI)</td>
</tr>
<tr>
<td>H4</td>
<td>System Characteristics (SC) will have a positive effect on Behavioural Intention (BI)</td>
</tr>
</tbody>
</table>

Table 1: Proposed Hypotheses

4.4. Measurement instruments

To measure all five variables in the conceptual model, the researcher created 20 items mainly adapted from various studies in the IS field. All items were reviewed by her three colleagues from the project team and the libraries’ Digital Services Team.

Under the variable Importance of Copyright, there are four items mainly adapted from the “importance of records and recordkeeping” session of Lewellen (2015)’s survey.

To study Social Influence’s effect on users’ intention, the researcher designed four items mainly adapted from Lewellen (2015). However, item SI1 actually is a Subjective Norm-Managers item and SI2 is a Subject Norm-Colleagues item adapted from TAM2 proposed
by Venkatesh and Davis (2000). These two items were added to the survey when the researcher inspired by Eckhardt et al. (2009) who studied the influence from different workplace referent groups (e.g., supervisors and colleagues) on users’ adoption of technology. SI2 is a Subject Norm-Colleagues item to test colleagues’ reference influence on a lecturer intention. While, SI3 and SI4 are both Image related items borrowed from the Venkatesh et al. (2003)’s UTAUT model.

To test Support Quality’s influence on AUT lecturers’ intention to use Talis, the researcher designed four items as shown in Table 2. These items cover the main channels of support that the university has provided to its lecturers. From this research, it can also be identified which supporting method is lecturers’ favourite and which needs to be improved in future.

There are four items designed to measure variable System Characteristics from four aspects: efficiency, functionality, stability and ease of use.

All items were measured by a seven-point Likert scale ranging from 1-Strongly Agree to 7-Strongly Disagree, as the researcher would like to give participants opportunities to select “somewhat agree” and “somewhat disagree” on some controversial items.
<table>
<thead>
<tr>
<th>Variable</th>
<th>Items</th>
<th>Statement</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Importance of Copyright</strong></td>
<td>IC1</td>
<td>I use Course Resources (Talis) because it ensures copyright compliance.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>IC2</td>
<td>Copyright compliance is every lecturer's responsibility.</td>
<td>Lewellen (2015)</td>
</tr>
<tr>
<td></td>
<td>IC3</td>
<td>Copyright compliance requirements are a barrier to work efficiently.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>IC4</td>
<td>I make sure all my teaching materials are copyright compliant.</td>
<td></td>
</tr>
<tr>
<td><strong>Social Influence</strong></td>
<td>SI1</td>
<td>I use Course Resources (Talis) because the University leadership team endorses the use of the system.</td>
<td>Lewellen (2015)</td>
</tr>
<tr>
<td></td>
<td>SI2</td>
<td>I use Course Resources (Talis) because many of my colleagues also use the system.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SI3</td>
<td>Using Course Resources (Talis) increases my chances of getting recognition in the team—eg., contributes to chances of being promoted</td>
<td>Lewellen (2015)</td>
</tr>
<tr>
<td></td>
<td>SI4</td>
<td>Placing my reading lists in the system enhances my reputation, as members of the public are able to access them.</td>
<td></td>
</tr>
<tr>
<td><strong>Support Qualities</strong></td>
<td>SQ1</td>
<td>The one-on-one training provided by the project team is effective.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SQ2</td>
<td>The group workshops provided by the project team are effective.</td>
<td>Li et al. (2012)</td>
</tr>
<tr>
<td></td>
<td>SQ3</td>
<td>The manuals and other documents are useful.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SQ4</td>
<td>When I encounter difficulties in using the system, I am given timely assistance.</td>
<td>Teo (2011)</td>
</tr>
<tr>
<td><strong>System Characteristics</strong></td>
<td>SC1</td>
<td>The system enables me to organise my readings more efficiently.</td>
<td>Lewellen (2015)</td>
</tr>
<tr>
<td></td>
<td>SC2</td>
<td>In general, I am satisfied with the system’s functionality</td>
<td>Li et al. (2012)</td>
</tr>
<tr>
<td></td>
<td>SC3</td>
<td>In general, the system operation is stable.</td>
<td></td>
</tr>
</tbody>
</table>
In general, using the system is easy.

<table>
<thead>
<tr>
<th>SC4</th>
<th>In general, using the system is easy.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BI1</td>
<td>I will be adding readings into the system regularly.</td>
</tr>
<tr>
<td>BI2</td>
<td>I will use the system to manage my readings frequently as part of my work.</td>
</tr>
<tr>
<td>BI3</td>
<td>I intend to use the system in the future.</td>
</tr>
<tr>
<td>BI4</td>
<td>I will encourage people around me to use the system.</td>
</tr>
</tbody>
</table>

**4.5. Sample**

Participants are AUT academics who have been required to use the Talis system by the university to achieve copyright compliance. Ideally, the research population should cover all AUT academics, but due to some ethical reasons, the researcher could not generate a list of all academics’ emails and send invitations directly to them. As advised by AUT Ethical Committee, the researcher recruited participants indirectly with the help from school managers and liaison librarians. To ensure all five faculties were fairly represented in this research, the researcher recruited participants from different faculties. As the researcher built a close relationship with Faculty of Business, Economics and Law and Faculty of Culture and Society when working as a BTO in the project time, she approached managers of these two faculties directly. Luckily, all of them were very supportive and forwarded the survey invitation to their lecturers. As the researcher does not have much connects at the other three faculties, she asked Liaison Librarians for help to forward the invitation to academics who were keen on taking this survey. After a month’s time, there were 83 lecturers started the survey but only 69 of them completed it.

There are several reasons behind this small number of responses. The biggest problem would be the period of this survey conflicts with AUT semester one break, when many lecturers were on leave. This conflict was not in the expectation of the researcher. The survey invitation was planned to be sent in March, but because the seeking of AUT Ethical Approval took one and half month which was out of the researcher’s expectation, the invitation had to be sent in April. On the other hand, as Talis was not an attracting topic to many AUT lecturers, they are reluctant to take the survey.
5. Data collection and analysis

Qualtrics was selected as a platform to organise and hold all survey questions, reach the targeted lecturers and collect data. Using online survey tools are convenient, time efficient, cost effective and easier to analyse the collected data (Chang & Vowles, 2013).

To estimate each variable’s influence on Behavioural Intention, multiple regression analysis will be adopted, as this analysis method focuses on studying the relationship between one dependant variables and more independent variables (Gallo, 2015). In the proposed research model, Behavioural Intention is the only one dependant variable, and all other four variables are independent.

The free statistics software package R was utilised to assist analysing collected data. It is a very mature software and developers keep on releasing new updates to make sure that the latest statistical features are included in this programme (Montgomery, 2012, p. 623).

Data analysis will start with studying the population to identify any special characteristics of this sample, followed by reviewing the survey result of each item from all four variables, through calculation each item’s Agreement Percentage (a sum of Strongly Agree, Agree and Somewhat Agree) and mean. After reviewing the data, the correlation between each independent variable with the dependant variable will be analysed, to test how well each item correlates with BI. From this result, the researcher will remove items which have insignificant influence on BI, and form the final testing model with items left. From here, the researcher will keep on modifying the model based on relevant test results, until only significantly influencing items left.

5.1. Important indicators

5.1.1. Mean VS Median
The researcher decided to use mean to determine lecturers’ average agreement level of each survey question, because the data range of each question is small, from 1-Strong Agree to 7-Strongly Disagree. Hence, there will be no extreme data to affect the result. Median was not adapted in this research also because the data range is too small, so the median of many items will be very close or even the same which will make it difficult to compare each item’s agreement level.
5.1.2. P value
P-value is an important hypothesis testing indicator that has been widely used in many research in different fields like psychology, physics, and biology (Wasserstein & Lazar, 2016). It is an evidence rejecting a null hypothesis, so a smaller p-value indicates that the null hypothesis is more unlikely to be true and then an alternative hypothesis which normally is the hypothesis claimed by the researcher will be more likely to be true (Rumsey, NA). Normally, if p-value < 0.05, researchers would mark it as statistically significant, and if p-value < 0.001, it would be statistically highly significant (StatsDirect Limited, NA). The research will adapt this indicator to determine whether a testing model is supported and also to determine the influence level that each item has on the dependant variable.

5.1.3. R-squared
R-squared is defined as “a statistical measure of how close the data are to the fitted regression line” (Minitab Blog Editor, 2013). The value of R-square is normally between 0 to 1. The higher the value, the better the model fits the data. Even though this indicator is widely used in research, it cannot indicate whether a model is adequate or not. As Minitab Blog Editor (2013) mentioned that, R-squared can be lower in psychological studies as human beings are simply harder to predict. This indicator will be used to test whether the testing model is reliable or not.

5.2. Ethical considerations
According to Leedy & Ormrod (2016, p. 120), most research related ethical issues fall into four categories:

1. Protection from harm;
2. Voluntary and informed participation;
3. Right to privacy;
4. Honesty with professional colleagues.

Leedy and Ormrod (2016) explained that the harm in category 1 includes not only physical harm but also psychological harm like stress, embarrassment and loss of self-esteem. As this research will be conducted by an online survey, there should not be any physical harm involved. However, because all participants have been required by the
university to use Talis to meet their legal obligations, lecturers who still have not adopted or are still reluctant to adopt the system may feel embarrassed or stressed. Therefore, it is very important to explain it clearly in the invitation that this survey is anonymous, and all collected data is only for research purposes.

Even though this is the researcher’s first research project, the researcher fully understands the importance of honesty and professionalism in research and will not fabricate data for “noble” conclusions. Both Victoria University of Wellington and Auckland University of Technology have approved this research.

6. Results and findings

6.1 Population analysis

Table 3: Respondent profile

<table>
<thead>
<tr>
<th>Profile</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BEL$^3$</td>
<td>15</td>
<td>22%</td>
</tr>
<tr>
<td>CS$^4$</td>
<td>28</td>
<td>41%</td>
</tr>
<tr>
<td>DCT$^5$</td>
<td>10</td>
<td>14%</td>
</tr>
<tr>
<td>HES$^6$</td>
<td>15</td>
<td>22%</td>
</tr>
<tr>
<td>TAP$^7$</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>26</td>
<td>39%</td>
</tr>
<tr>
<td>Female</td>
<td>40</td>
<td>61%</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-40</td>
<td>11</td>
<td>17%</td>
</tr>
<tr>
<td>40-60</td>
<td>40</td>
<td>61%</td>
</tr>
<tr>
<td>60+</td>
<td>15</td>
<td>23%</td>
</tr>
<tr>
<td>Years of using RLMS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$^3$ Faculty of Business, Economics and Law
$^4$ Faculty of Culture and Society
$^5$ Faculty of Design and Creative technologies
$^6$ Faculty of Health and Environmental Sciences
$^7$ Te Ara Poutama (Māori & Indigenous Development)
| < 1 year | 40 | 59% |
| 1-2 years | 24 | 35% |
| > 2 years | 4 | 6% |

The respondent profile table shows that all five faculties have been represented in this survey, while only one participant from TAP, and nearly half of them are from CS. This result is normal as TAP only has one school and many Māori courses do not have a reading list, while CS heavily relies on reading lists as a channel to extend their students’ reading scope. Other faculties like BEL rely more on textbooks. On the other hand, the result also shows that there are more female lecturers than male lecturers who completed the survey, and most of them are from the age group of 40-60. Other researchers did find that age and gender effect users’ acceptance of new technologies but not significantly (Rochelle, 2017; Wang et al., 2009). Therefore, this research will not investigate their influence on user intention further.

### 6.2 Variable Analysis

#### 6.2.1 Variable Importance of Copyright (IC)

<table>
<thead>
<tr>
<th>Items</th>
<th>Statement</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>IC1</td>
<td>I use Course Resources (Talis) because it ensures copyright compliance.</td>
<td>2.145</td>
</tr>
<tr>
<td>IC2</td>
<td>Copyright compliance is every lecturer’s responsibility.</td>
<td>2.188</td>
</tr>
<tr>
<td>IC3</td>
<td>Copyright compliance requirements are a barrier to work efficiently.</td>
<td>3.42</td>
</tr>
<tr>
<td>IC4</td>
<td>I make sure all my teaching materials are copyright compliant.</td>
<td>2.609</td>
</tr>
</tbody>
</table>

Table 4: IC items and their means
IC1: I use Course Resources (Talis) because it ensures copyright compliance.

IC2: Copyright compliance is every lecturer’s responsibility.
IC3: Copyright compliance requirements are a barrier to work efficiently.

IC4: I make sure all my teaching materials are copyright compliant.
Item IC1 has a very high percentage of agreement 81%, including 46% strongly agree, 26% agree and 9% somewhat agree, and a very low mean 2.145, which indicates that most lecturers use Talis for the system’s functionality of ensuring copyright compliance. This item also can be categorised into variable System Characteristics as ensuring copyright compliance is a key function of the system. However, there are still 19% of participants either disagree or are not sure on this statement, so these participants’ motivation to use Talis needs to be studied further. The agreement percentage of IC2 shows that not all lecturers agree that complying copyright is their responsibility even when copyright compliance is a legal requirement. IC3 is a controversial item which has 63% participants think copyright compliance impacts their work efficiency, while 29% of them do not agree.

By analysing the mean of these four items, it can be noticed that the means of IC1 IC2 and IC4 are all among 2-3, between Agree and Somewhat Agree, while IC3’s mean 3.42 is much higher than the other three. Hence participants are not so supportive to IC3 but its mean is still inclined to agree which implies that lecturers tends to believe that copyright compliance is a barrier to work efficiency. For IC4, there are 10% lecturers disagree with this statement and 7% Neither Agree nor Disagree, which is a worrying result, as the University requires all lecturers to have their teaching materials complying with the copyright law (Vujnovich, NA). Additionally, this item got a slightly higher mean than IC1 and IC2, which implies that lecturers understand copyright is their responsibility and they are aware of Talis’s ensuring copyright compliance function, but they have not make their teaching materials fully compliant.

6.2.2 Variable Social Influence

<table>
<thead>
<tr>
<th>Items</th>
<th>Statement</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>SI1</td>
<td>I use Course Resources (Talis) because the University leadership team endorses the use of the system.</td>
<td>2.522</td>
</tr>
<tr>
<td>SI2</td>
<td>I use Course Resources (Talis) because many of my colleagues also use the system.</td>
<td>4.174</td>
</tr>
<tr>
<td>SI3</td>
<td>Using Course Resources (Talis) increases my chances of getting recognition in the team—eg., contributes to chances of being promoted</td>
<td>5.507</td>
</tr>
</tbody>
</table>
Placing my reading lists in the system enhances my reputation, as members of the public are able to access them.

Table 5: SI items and their means

SI1: I use Course Resources (Talis) because the University leadership team endorses the use of the system.

SI2: I use Course Resources (Talis) because many of my colleagues also use the system.
SI3: Using Course Resources (Talis) increases my chances of getting recognition in the team—e.g., contributes to chances of being promoted.

SI4: Placing my reading lists in the system enhances my reputation, as members of the public are able to access them.
The above charts show the agreement percentage of 69 lecturers’ answers to the four SI items. Only SI1 got a very high percentage—74%, followed by SI2’s 30%, SI4’s 10% and SI3’s 4%. Additionally, SI1 got the lowest mean 2.422 between 2-Agree and 3-Somewhat Agree while all other three items’ means fell into disagree area. From this result, it is shown that leadership’s endorsement makes a big difference in lecturers’ adaption of a new technology. However other social factors like colleagues’ recommendation, internal image and external image do not alter lecturers’ attitude towards the system that much. However, this could also depend on how honest these lecturers were when answering these questions, as research noticed that participants’ honesty level is very low when answering subjective questions (Richarme & Rogers, 2009).

### 6.2.3 Variable Support Quality

<table>
<thead>
<tr>
<th>Items</th>
<th>Statement</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQ1</td>
<td>The one-on-one training provided by the project team is effective.</td>
<td>2.203</td>
</tr>
<tr>
<td>SQ2</td>
<td>The group workshops provided by the project team are effective.</td>
<td>2.971</td>
</tr>
<tr>
<td>SQ3</td>
<td>The manuals and other documents are useful.</td>
<td>2.842</td>
</tr>
<tr>
<td>SQ4</td>
<td>When I encounter difficulties in using the system, I am given timely assistance.</td>
<td>2.087</td>
</tr>
</tbody>
</table>

Table 6: SQ items and their means
SQ1: The one-on-one training provided by the project team is effective.

SQ2: The group workshops provided by the project team are effective.
SQ3: The manuals and other documents are useful.

SQ4: When I encounter difficulties in using the system, I am given timely assistance.

This sets of items got a very high percentage of agreement, especially SQ1 and SQ4. Both got 77% agreement when SQ4 got a higher percentage of Strongly Agreement. Additionally, all items’ means fell between 2-Agree and 3-Somewhat Agree, when SQ4 got the lowest mean. Surprisingly, SQ2 only got 50% agreement which is the lowest
among the four items and it also got the highest mean which implies that lecturers thought that workshops were not that useful comparing to other supporting channels. From the above charts and the mean table, it is noticed that all support services are useful to lecturers while they value one-on-one and timely assistance the most.

6.2.4 Variable System Characteristics

<table>
<thead>
<tr>
<th>Items</th>
<th>Statement</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC1</td>
<td>The system enables me to organise my readings more efficiently.</td>
<td>3.043</td>
</tr>
<tr>
<td>SC2</td>
<td>In general, I am satisfied with the system’s functionality</td>
<td>3.174</td>
</tr>
<tr>
<td>SC3</td>
<td>In general, the system operation is stable.</td>
<td>2.797</td>
</tr>
<tr>
<td>SC4</td>
<td>In general, using the system is easy.</td>
<td>3.478</td>
</tr>
</tbody>
</table>

Table 7: SC items and their means

SC1: The system enables me to organise my readings more efficiently.
SC2: In general, I am satisfied with the system’s functionality

SC3: In general, the system operation is stable.
SC4: In general, using the system is easy

Each of these SC items got nearly 60% agreement, which indicates that there are many lecturers that are unsatisfied with the system’s functionality, stability and ease of use. By investigating these items’ means, it is noticed that most of them fell into 3-Somewhat Agree and 4-Neither Agree nor Disagree. SC3 got the lowest mean and SC4 got the highest, which means there are lecturers who are satisfied with the system’s stability but do not think the system is easy to use.

6.2.5 Dependant Variable Intension to Use

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Statement</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>BI1</td>
<td>I will be adding readings into the system regularly.</td>
<td>2.826</td>
</tr>
<tr>
<td>BI2</td>
<td>I will use the system to manage my readings frequently as part of my work.</td>
<td>3.116</td>
</tr>
<tr>
<td>BI3</td>
<td>I intend to use the system in the future.</td>
<td>2.391</td>
</tr>
<tr>
<td>BI4</td>
<td>I will encourage people around me to use the system.</td>
<td>3.043</td>
</tr>
</tbody>
</table>

Table 8: BI items and their means
BI1: I will be adding readings into the system regularly.

BI2: I will use the system to manage my readings frequently as part of my work.
BI3: I intend to use the system in the future.

BI4: I will encourage people around me to use the system.

From these charts, it is noticed that BI3 has got the most agreement percentage 81% with 33% strongly agree, 39% agree and 10% somewhat agree. Additionally, its mean is the lowest among these four items followed by BI1 73%, BI2 68%, and then BI4 64% which implies participants tend to agree with BI3 more than the other three. This result
indicates that lecturers who would use Talis in future may not use it so frequently, neither may he/she recommend it to his/her colleagues. It does make psychological sense, as people who use the system more tend to recommend it to others. Therefore, there is a progressive relation among these four items: will use (BI3) -> will use frequently (BI1 and BI2) -> will recommend to others (BI4). As this research is to determine the factors influencing lecturers’ intention to USE Talis, the researcher will only take BI3 to fully represent variable Intention to Use.

6.3 Hypotheses Testing

H1: Importance of Copyright has a positive influence on Behavioural Intention

Table 9: IC items’ linear regression test result

<table>
<thead>
<tr>
<th></th>
<th>Estimate</th>
<th>Std. Error</th>
<th>t value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IC1</td>
<td>0.64764</td>
<td>0.11289</td>
<td>5.737</td>
<td>2.84E-07 ***</td>
</tr>
<tr>
<td>IC2</td>
<td>0.10935</td>
<td>0.13283</td>
<td>0.823</td>
<td>0.413</td>
</tr>
<tr>
<td>IC3</td>
<td>-0.15599</td>
<td>0.09509</td>
<td>-1.641</td>
<td>0.106</td>
</tr>
<tr>
<td>IC4</td>
<td>0.1484</td>
<td>0.12026</td>
<td>1.234</td>
<td>0.222</td>
</tr>
</tbody>
</table>

R-squared: 0.518, p-value: 1.264e-09

***p-value<0.001

H1 test result: Supported

The test result shows that the p-value of this model is 1.264e-09 much less than 0.001 and the R-square is 51.8% which is relatively high. These two values prove that variable Importance of Copyright has a positive influence on Behavioural Intention. However, among these four items, only IC1’s p-value is less than 0.05, and marked as significant, while its coefficient 0.64 is the highest. The p-values of other three items are much bigger than 0.005, which implies that their correlation with BI is very weak. Therefore, the researcher decides to only keep IC1 as a representative of variable Importance of Copyright when conducting the final model test.

H2: Social Influence (SI) has a positive effect on Behavioural Intention (BI)

Table 10: SI items’ linear regression test result
H2 Test Result: Supported

The R-squared of this mode is only 25.35% while p-value (0.0007892) is less than 0.001. Comparing these two values with IC items’ test result, it implies that this model is not as significant as IC. However, as the p-value is still statistically highly significant, H2 is still considered supported. Regarding the low R-squared, as mentioned in previous session, it is very common that psychological studies have relatively lower R-squared. When investigating each item’s test result, the researcher noticed that only SI1 has a high coefficient of 0.518316, and a significantly small p-value. This indicates that leadership’s endorsement prominently influences lecturers’ acceptance of the system, while other social elements like colleagues’ recommendation, internal image and external image did not effect’s lecturers’ attitude towards the new technology. After analysing the above test result, the researcher decided to include S1 into the final model test.

H3: Support Quality has a positive effect on Behavioural Intention (BI)

Table 11: SQ items’ linear regression test result

<table>
<thead>
<tr>
<th></th>
<th>Estimate</th>
<th>Std. Error</th>
<th>t value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQ1</td>
<td>0.44738</td>
<td>0.18711</td>
<td>2.391</td>
<td>0.01976 *</td>
</tr>
<tr>
<td>SQ2</td>
<td>0.17835</td>
<td>0.12278</td>
<td>1.453</td>
<td>0.15122</td>
</tr>
<tr>
<td>SQ3</td>
<td>-0.07096</td>
<td>0.1565</td>
<td>-0.453</td>
<td>0.65177</td>
</tr>
<tr>
<td>SQ4</td>
<td>0.50536</td>
<td>0.15966</td>
<td>3.165</td>
<td>0.00237 **</td>
</tr>
</tbody>
</table>

R-squared: 0.5039, p-value: 3.107e-09

* p-value<0.05
** p-value<0.01

H3 Test Result: Supported
The result of this model test got a very small p-value (<0.001) and a relatively high R-squared 50.39%. This signposts that variable Support Quality is closely related to variable Behavioural Intention. Additionally, both SQ1 and SQ4 have a high coefficient and a small p-value, which shows these two items effects BI observably. Therefore, it seems that lecturers value timely assistance and one-on-one training more than other supporting channels and the quality of these two services impacts their acceptance of the system. However, SQ3 has a slightly negative coefficient and a very high p-value, which implies the quality of documents and manuals does not influence lecturers’ intension that much. Even though SQ2 has positive coefficient, but the value of its coefficient is relatively low and the p-value (0.15122) is higher than 0.05, so group workshop didn’t contribute much on lecturers’ acceptance of the system. Thus, the research will only take SQ1 and SQ4 into the final testing model.

H4: System Characteristics has a positive effect on Behavioural Intention

Table 12: SC items’ linear regression test result

<table>
<thead>
<tr>
<th></th>
<th>Estimate</th>
<th>Std. Error</th>
<th>t value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC1</td>
<td>0.34712</td>
<td>0.18877</td>
<td>1.839</td>
<td>0.070577</td>
</tr>
<tr>
<td>SC2</td>
<td>-0.03458</td>
<td>0.24402</td>
<td>-0.142</td>
<td>0.887758</td>
</tr>
<tr>
<td>SC3</td>
<td>0.79213</td>
<td>0.21014</td>
<td>3.769</td>
<td>0.000359***</td>
</tr>
<tr>
<td>SC4</td>
<td>-0.22519</td>
<td>0.16205</td>
<td>-1.39</td>
<td>0.169465</td>
</tr>
</tbody>
</table>

R-squared: 0.431, p-value: 2.155e-07

***p-value<0.001

H4 Test Result: Supported

This model got a small p-value (<0.001) and an acceptable R-squared 43.1%, indicating that System Characteristics has a positive influence on Behavioural Intention. Among the four items of this variable, SC3 has the highest coefficient and the smallest p-value (<0.001), which signifies that the Talis system is relatively stable and it contributes to lecturers’ acceptance of it. However, both SC2 and SC4 has a negative coefficient and a high p-value, so these two items didn’t contribute much to lecturers’ acceptance of the system. This result was out of the researcher’s expectation. She will discuss this further
in the next session. Hence based on the test result of this model, the researcher will only select SC3 to fully represent the variable System Characteristics.

From the results of the four hypotheses tests, it is noticed that SI model got the lowest R-squared and the highest P-value, which indicates that comparing to other variables, SI has the lowest influence on user Behavioural Intention.

6.4 Conceptual Research Model Testing

After analysing all 16 items’ correlation with BI3, the researcher selected IC1, SI1, SQ1, SQ3 and SC3 to test the established conceptual model. The test result of the model is shown in the following table.

Table 12: The conceptual research model test result

<table>
<thead>
<tr>
<th></th>
<th>Estimate</th>
<th>Std. Error</th>
<th>t value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IC1</td>
<td>0.3136</td>
<td>0.1307</td>
<td>2.399</td>
<td>0.01939 *</td>
</tr>
<tr>
<td>SI1</td>
<td>0.0479</td>
<td>0.11</td>
<td>0.435</td>
<td>0.6647</td>
</tr>
<tr>
<td>SQ1</td>
<td>0.2235</td>
<td>0.1599</td>
<td>1.398</td>
<td>0.16712</td>
</tr>
<tr>
<td>SQ4</td>
<td>0.2692</td>
<td>0.1659</td>
<td>1.623</td>
<td>0.10964</td>
</tr>
<tr>
<td>SC3</td>
<td>0.3701</td>
<td>0.1357</td>
<td>2.728</td>
<td>0.00825 **</td>
</tr>
</tbody>
</table>

R-squared: 0.6079, p-value: 1.07e-11

*p-value<0.05 **p-value<0.01

The conceptual model got a very small p-value and very high R-squared, indicating that the original conceptual research model is supported. However, it is also noticed that item SI1 got very low coefficient and t-value while a very high p-value. Therefore, it is more reasonable to remove it from the model. Thus, the second draft model result is shown as below.

Table 13: The proposed model test result

<table>
<thead>
<tr>
<th></th>
<th>Estimate</th>
<th>Std. Error</th>
<th>t value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IC1</td>
<td>0.3177</td>
<td>0.1295</td>
<td>2.453</td>
<td>0.0169  *</td>
</tr>
</tbody>
</table>

46
This model got a smaller p-value than the original model, and all items’ p-values are smaller, which signposts that this proposed model is closer to the truth. However, SQ1’s p-value is marked as insignificant, while SQ3’s p-value is very close to 0.005. Therefore, the researcher decided to remove SQ3 from the model to form the final model.

Table 14: The final model test result

<table>
<thead>
<tr>
<th></th>
<th>Estimate</th>
<th>Std. Error</th>
<th>t value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IC1</td>
<td>0.3537</td>
<td>0.1279</td>
<td>2.765</td>
<td>0.00739 **</td>
</tr>
<tr>
<td>SQ4</td>
<td>0.3854</td>
<td>0.1433</td>
<td>2.689</td>
<td>0.00909 **</td>
</tr>
<tr>
<td>SC4</td>
<td>0.427</td>
<td>0.128</td>
<td>3.336</td>
<td>0.00141 **</td>
</tr>
</tbody>
</table>

R-squared: 0.5946, p-value: 9.116e-13
**p-value<0.01

This model got the smallest p-value among all models and all items have a significant influence on the dependent variable with a relatively high coefficient and t-value. The researcher decided to use this model as the final model.

Figure 11: The final model test result
7. Discussion

7.1 The final research model

The final model shows us that AUT lecturers’ intention to use Talis Reading List Management System is influenced by the stability of the system, timely assistance from the library and the ensuring copyright compliance function of the system. Lecturers value a stable system the most as they want their reading lists available to their students 24*7. The researcher ever met the case when a specific reading is not accessible. The lecturer was annoyed as he received many complaints from his students. Therefore, it is reasonable that lecturers put a higher attention in system stability than other factors. Timely assistance is another factor that AUT lecturers value a lot. It is sure that other training services are also valued by them but it is also realistic that many lecturers may forget how to use the system after the training, so in such a case, timely assistance would be important to them at the point of need. Additionally, it seems all lecturers understand the importance of copyright so their initial motivation to use the system is its function of ensuring copyright compliance. Therefore, even though this final research model may be beyond expectations, it is still reasonable and logical.

7.2 Importance of Copyright

From the result of the survey data, it is noticed that lecturers are aware of the importance of copyright and agree it is their responsibility to comply copyright, even though many of them also think it is a barrier to work efficiency. However, IC2 and IC4’s high agreement percentage didn’t lead to a closer correlation with Behavioural Intention. This maybe because copyright compliance has become a common sense to AUT lecturers, which means no matter they adopt Talis or not, they still think copyright is important. Another reason might be lecturers can achieve copyright compliance without using Talis, which is quite common among AUT lecturers. Some lecturers avoid using Talis by just providing a reference list to students or just post hyperlinks directly on Blackboard. In these ways, they achieved copyright compliance without using Talis.

Combine this phenomenon with lecturers’ low agreement percentage of System Characteristics items, it becomes more reasonable, as many lecturers are not satisfied with the system’s functionalities and think it is not easy to use the system. Of course,
there are some lecturers who simply resistant to digital related changes and some of them feel more comfortable and convenient to comply with copyright in their “old ways”.

7.3 Service Quality

Among the four service channels (one-on-one training, group workshop, help guide and timely assistance), lecturers value timely assistance the most. In other words, training services are not as important as problem resolving services to AUT lecturers when adopting a new technology. This is very logical, as it tends to not be very challenging for lecturers to learn something new, but when they are in trouble, timely assistance does make their experience of using the system better. Therefore, if possible, the library should initiate a Talis support hotline which has a group of librarians helping lecturers with Talis and copyright related problems via phone, skype and email. Skype for Business’s sharing desktop function could be utilised during trouble shooting so that the support person can clearly see what system problem the lecturer is facing as “Hearing something a hundred times isn't better than seeing it once” (a Chinese idiom bǎi wén bù rú yī jiān).

Additionally, lecturers prefer one-on-one training more than group workshops and supporting documents. From this result, the library and the project team should consider reducing the frequency of running workshops. Maybe only run workshops before a new semester starts to give lecturers a refresh on how to use the system after not using it for a while. On the other hand, the library and the project team should work together to provide more one-on-one opportunities to lecturers. Currently, the project team focuses on promoting copyright compliance while Liaison Librarians on training how to use the system. The research result shows that lecturers’ intention to adopt Talis does not largely depend on their perceived value of copyright as they all understand copyright is important. Additionally, reviewing lecturers teaching materials on Blackboard and summarising a copyright infringement list is time consuming. Hence, it is suggested that the training can focus on how to use the system first with a briefing of copyright rather than investigating too much on copyright.
7.4 System characteristics

The result shows that lecturers’ intention to use the system largely depends on system stability, which was out of the researcher’s expectation. Her original assumption was that functionality and ease of use would affect users’ adoption of a new system heavily. Also, the result of SC2 which does not significantly influence user intention, conflicts with item IC1, as ensuring copyright compliance is one of the system’s key function and a highly significant influence IC1 has on BI was diagnosed. The researcher guesses that maybe because lecturers were not so satisfied with the system’s other functions like “bookmark” a resource. On the other hand, many other research found that ease of use influences user intention significantly (Li et al., 2012; Okantey & Addo, 2016; Teo, 2011) except this research. There might be two reasons behind this result: 1. Lecturers do not think Talis is easy to use. 2. Because of good support services, whether it is easy to use the system will not affects lecturers’ acceptance of the technology significantly.

7.5 Social Influences

The final research model shows that none of the four SI items has a significant influence on lecturers’ intention to use Talis. This finding becomes logical when the measurement of academic performance is considered. To lecturers, performance success is not how much your managers or your colleagues like you, nor how well your internal or external images are. In academia, your scientific impact and the number of your publications are the primary basis for hiring, promoting and funding decisions (Tachibana, 2017). Therefore, lecturers are more independent than social.

7.6 Comments analysing

Unfortunately, most of lecturers’ comments were very negative, complaining how difficult it was to use the system. They described the system as “unnecessary”, “complicated”, “unwieldy”, “clunky” “pain in the backside” etc. One lecturer who used to be very confident with IT and always trained his/her fellow colleagues on new systems also found Talis difficult to use and was unable lead the training this time. Some mentioned the specific problems they encountered like integrating with Blackboard, the extra step to click the “publish” button, adding the specific chapter of an eBook. Many lecturers also commented that using the system was very time consuming and added to their heavy workload. Because of the difficulty to use the system and the amount of
workload involved, some lecturers gave up and just provided a list of references to the students and required them to find these resources from the library, also as these lecturers did not want to “spoon feed” their students. Some of them also complained that this should have been administrative staff’s responsibility as academics should only focus on research and teaching. Furthermore, making their lists available to the public was another concern raised by several lecturers, as they believed that reading lists were also a part of their teaching material which should only be accessible to their enrolled students. Based on one lecturer’s feedback, using Talis was challenging not only to lecturers but also to students and he/she recommended that training should be provided to students as well. Additionally, two lecturers suggested that Talis should include a function to allow students to submit resources. This function was also mentioned several times by other lecturers when the researcher worked in the project. Hence, this idea is worth the library’s nomination to the Talis development team. Despite of all these negative feedback, many lecturers concluded that they used the system only because they were required to rather than “leadership endorsed” the usage. However, it is reassuring that most of them highly appreciated the great support the library provided, and said this made a big difference to them.

8. Limitations

8.1 Lack of Research

Even though RLMSs are getting increasingly popular among universities all over the world (Beasley, 2016), there is a lack of research on studying the factors that influence lecturers’ intention to use these new technologies, while several articles have been written to explain the step-by-step implementation process (Brewerton, 2013; Cross, 2015). Studying lecturers’ intention is essential as research has found that most project failure was caused by people level problems rather than technical issues (Gratiela Dana, 2013).

8.2 Lack of statistics knowledge

As the researcher has limited knowledge of statistics, she had not conducted a good survey data analysis in this research. If possible, she would like to utilize the Structural Equation Modelling (SEM) to firstly weight each item using Confirmatory Factor Analysis (CFA), and then form a structure to specify the relationships among each
variable. However, she has not got enough time nor resources to learn SEM and CFA in depth. Moreover, this research’s sample size is small as only 69 of about 1,250 lecturers completed the survey. She believes if better statistics strategies had been applied and more lecturers were involved in the survey, the research result may be closer to truth.

8.3 Subjective factors VS objective factors

This research only studied four “objective” external factors’ influence on lecturers’ intention to use Talis, because these factors are the ones that the project team can act on. However, other more subjective factors like Perceived Value of Reading Lists and Self-efficacy are also important factors in determining a lecturer’s intention to learn Talis. If a lecturer cannot see the value of a reading list, he/she may not be bothered to learn a new system to manage it. On the other hand, if a lecturer is not confident with new technology, he/she tends to work around (eg. Replacing PDFs with hyperlinks to the original source of the reading) to avoid learning it.

9. Conclusions

This research revealed that lecturers attached great importance to copyright and their intention to adopt Talis highly depended on the system’s stability and the timely assistance they received when in trouble. As lecturers are normally autonomous, their acceptance of a new technology was not significantly influenced by social factors like leadership endorsement, colleague recommendation, internal and external images. Because complying with copyright has become a common sense, most of IC items resulted in not influencing lecturers’ intention that much. Most of lecturers’ feedback on using the system was very negative, complaining the difficulty of using and the amount of effort it required. Considering the heavy work load that most lecturers are suffering, the researcher wonders maybe it is a good option to have administrative staff to organise all lecturers’ reading materials at each school. Lecturers can just give a list of references to that administrative staff to add these resources into Talis. This staff can be a part-time employee or even a AUT student who wants to earn some extra money, because this job only requires some basic IT and citation knowledge. On the library’s perspective, it is easier to just train one person than to train tens of lecturers who can hardly find any time to get trained. As far as the researcher knows, some schools have started doing it this way.
10. Further Research
Future research can include the subjective variable Perceived Value of Reading Lists in the conceptual model to investigate whether it has a significant influence on lecturers’ adoption of Talis. Furthermore, from lecturers’ comments and their answers to SC4, it is noticed that they are unsatisfied with the system’s ease of use in different ways, so a qualitative research could be conducted to study this unsatisfactory further and provide some practical suggestions on how to improve this situation.
11. References


Rochelle, J. (2017). Enterprise social networking: Technology acceptance related to personality, age, and gender. Docoral dissertation, Capella University, Minneapolis, MN


Appendix A: Information for Participants

You are invited to take part in this research. Please read this information before deciding whether or not to take part. If you decide to participate, thank you. If you decide not to participate, thank you for considering this request.

Who am I?
My name is Iris Zhu and I was a Business Transition Officer of AUT Course Resources (Talis) Project and am a Master’s student in Information Studies at Victoria University of Wellington. This research project is being carried out in completion of my Master’s degree.

What is the aim of the project?
This project aims to explore some of the key factors that influence AUT lecturers’ intention to use Course Resources (Talis) and also to determine the importance of each factor’s influence on this intention. This research has been approved by the School of Information Management’s Human Ethics Committee at Victoria University of Wellington (reference number 0000025692) and Auckland University of Technology Ethics Committee (application number 18/80)

How can you help?
You have been invited to participate because as an AUT lecturer, you have been required by the university to use Course Resources (Talis) to digitise work when creating and maintaining course reading lists. If you agree to take part, you will complete a survey which will ask you questions about using the system. The survey should take approximately five minutes to complete.

What will happen to the information you give?
This research is anonymous. This means that nobody, including the researcher will be aware of your identity. By answering it, you are giving consent for us to use your responses in this research. Your answers will remain completely anonymous and unidentifiable. Once you submit the survey it will be impossible to retract your answer. Please do not include any personal identifiable information in your responses. All research data will be kept for six years for future publication and dissemination purposes.

What will the project produce?
The information from my research will be used in my Master’s Research report. A copy of the final report will be available in the Victoria Research Archive and the researcher may present the results at conferences or publish them in academic or professional journals.

If you have any questions or problems, who can you contact?
If you have any questions, either now or in the future, please feel free to contact me or my supervisor:

Student:  
Name: Iris Zhu  
University email address: zhuyan2@myvuw.ac.nz OR iris.zhu@aut.ac.nz  
Supervisor:  
Name: Brenda Chawner  
Role: Senior Lecturer  
School: School of Information Management  
Phone: (04) 463 5780  
brenda.chawner@vuw.ac.nz
**Human Ethics Committee information**

If you have any concerns about the ethical conduct of the research you may contact the School of Information Management's Human Ethics Committee Administrator: Vanessa Venter. Email vanessa.venter@vuw.ac.nz or telephone +64-4-463 5384.
Appendix B: Survey Instrument

IMPORTANT NOTES:

- This survey is completely **anonymous** and **unidentifiable**. Nobody including the researcher will be aware of your identity.

- This survey focuses on the use of AUT’s reading list management system—Course Resources, also known as Talis. Other learning management systems like Blackboard are not of interest to this research.

- This survey is to evaluate the Talis system itself and to assess the support provided by the AUT Talis Aspire Project team. It is not an evaluation of the individual respondents.

Section 1: Legal Responsibilities
Please state the extent to which you **agree** or **disagree** with the following statement

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Somewhat agree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I use Course Resources (Talis) because it ensures copyright compliance.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Copyright compliance is every lecturer’s responsibility.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Copyright compliance requirements are a barrier to work efficiently.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I make sure all my teaching materials are copyright compliant.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Section 2: Other Reasons for Use
Please state the extent to which you **agree** or **disagree** with the following statement

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Somewhat agree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I use Course Resources (Talis) because the University leadership team endorses the use of the system.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I use Course Resources (Talis) because many of my colleagues also use the system.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Using Course Resources (Talis) increases my chances of getting recognition in the team—eg., contributes to chances of being promoted</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Placing my reading lists in the system enhances my reputation, as members of the public are able to access them.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
### Section 3: Support Qualities
Please state the extent to which you agree or disagree with the following statement

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Somewhat agree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The one-on-one training provided by the project team is effective.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>The group workshops provided by the project team are effective.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>The manuals and other documents are useful.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>When I encounter difficulties in using the system, I am given timely assistance.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

### Section 4: System Characteristics
Please state the extent to which you agree or disagree with the following statement

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Somewhat agree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The system enables me to organise my readings more efficiently.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>In general, I am satisfied with the system’s functionality</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>In general, the system operation is stable.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>In general, using the system is easy.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

### Section 5: System Use
Please state the extent to which you agree or disagree with the following statement

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Somewhat agree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I will be adding readings into the system regularly.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I will use the system to manage my readings frequently as part of my work.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I intend to use the system in the future.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I will encourage people around me to use the system.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
Section 6: About You

Which faculty are you from?

☐ Business, Economics and Law
☐ Culture and Society
☐ Design and Creative technologies
☐ Health and Environmental Sciences
☐ Te Ara Poutama (Māori & Indigenous Development)
☐ Other

How long have you been using a reading list management system like Course Resources (Talis)?

☐ less than 1 year
☐ 1-2 years
☐ more than 2 years

Your gender

☐ Male
☐ Female
☐ Other

Your age range

☐ < 20
☐ 20-40
☐ 40-60
☐ 60+
☐ Other

Other comments you would like to share about AUT's reading list management system—Course Resources (Talis)