OUTLINE OF ISSUE

Agenda Title: **Teaching, Learning and Technology (TLAT) Council Subcommittee on eTextbooks: Report and Recommendations**

Motion: N/A

Item

Action Requested	☐Approval ☐Recommendation ☒Discussion/Advice ☐Information
Proposed by	Teaching, Learning and Technology (TLAT) Council Subcommittee on eTextbooks
Presenter	José da Costa, Chair, TLATC Subcommittee on eTextbooks
Subject	eTextbook short-term and medium-term policy recommendations

Details

Responsibility	Provost and Vice-President (Academic)
The Purpose of the Proposal is (please be specific)	This proposed set of recommendations addresses purchasing, technology, and pedagogy issues faced by the University community as eTextbooks become increasingly more common.
The Impact of the Proposal is	That the impact of the recommendations, if implemented, will affect purchasing practices of eTextbooks, technologies used to support eTextbooks, and pedagogy. Effects would be experienced by students, instructors, and support personnel at the department, Faculty, and University levels (including the University of Alberta Bookstore). Recommendations in the report move the University of Alberta from a passive position of being led by publishers to use electronic materials they want instructors and students to purchase to an active position of specifying what our instructors and students need and desire.
Replaces/Revises (eg, policies, resolutions)	N/A
Timeline/Implementation Date	As soon as possible.
Estimated Cost	N/A
Sources of Funding	N/A
Notes	On the occasion of the joint session of GFC CLE and TLATC, the Chair of GFC CLE, Dr Bill Connor, would like members of both bodies to consider and discuss the recommendations contained in the attached report of the above-noted subcommittee.

Alignment/Compliance

Alignment with Guiding Documents	*Dare to Discover* and *Dare to Deliver*
Compliance with Legislation, Policy and/or Procedure Relevant to the Proposal (please quote legislation and include identifying section numbers)	1. **The *Post-Secondary Learning Act* (*PSLA*)**, Section 26(1), gives General Faculties Council (GFC) responsibility, subject to the authority of the Board of Governors, over "academic affairs." GFC has thus established a Committee on the Learning Environment (CLE). 2. **GFC Committee on the Learning Environment (CLE) Terms of Reference**: Section 3 (*Mandate of the Committee*): "The Committee on the Learning Environment is a standing committee of the General Faculties Council that promotes an optimal learning environment in alignment with guiding documents of the University of Alberta. The Committee on the Learning Environment is responsible for making

	recommendations concerning policy matters and action matters with respect to the following:
	[…]
	b) To review and, as necessary, recommend to the GFC Academic Planning Committee and GFC Executive Committee as relates to the development and implementation of policies on teaching, learning, teaching evaluation, and recognition for teaching that promote the University Academic Plan.
	[…]
	d) To nurture the development of innovative and creative teaching practices.
	e) To encourage the sharing and discussion of evidence about effective teaching and learning.
	[…]
	g) To promote projects with relevant internal and external bodies that offer unique teaching and learning opportunities that would benefit the university community.
	h) To consider any matter deemed by the GFC Committee on the Learning Environment to be within the purview of its general responsibility.
	Notwithstanding anything to the contrary in the terms of reference above, the General Faculties Council has delegated to the Committee on the Learning Environment the following powers and authority:
	To recommend to the GFC Academic Planning Committee and to the GFC Executive Committee broad policy directions for excellence in teaching and learning."

Routing (Include meeting dates)

Consultative Route (parties who have seen the proposal and in what capacity)	GFC Committee on the Learning Environment/Teaching, Learning and Technology Council Joint Session (April 3, 2013) – for discussion
Approval Route (Governance) (including meeting dates)	To be determined.
Final Approver	To be determined.

Attachments (each to be numbered 1 - <>)

1. Attachment 1 (pages 1 – 13): eTextbooks: Short-term and Medium-term Policy Recommendations for the University of Alberta: Report prepared by the Teaching, Learning and Technology (TLAT) Subcommittee on eTextbooks

Prepared by: José da Costa, Vice-Dean, Faculty of Education, jose.da.costa@ualberta.ca

eTextbooks:
Short-term and Medium-term
Policy Recommendations for the University of Alberta

Report prepared by the
Teaching, Learning and Technology (TLAT) subcommittee on eTextbooks

February 12, 2013

TLAT eTextbook subcommittee Policy Recommendations

While the usage of electronic textbooks is still in its formative days, there is no doubt that this technology will be widely deployed in academia in the near future. The University of Alberta must be prepared for this potentially disruptive technology. There is a misconception that this technology is mainly about replacing paper textbooks with electronic copies, thereby translating into reduced costs for students. The electronic format allows textbooks to become multimedia – incorporating sound, video, games, simulations, annotations, customizations, assessment, student-specific adaptation, and many other learning tools – giving rise to the opportunity for new forms of teaching and learning. It is too early to reliably predict how this technology will evolve and the rate at which it will be adopted. However, given its inevitability, the University must be forward looking and start preparing the foundation for adopting this technology.

During the consultation process for developing the University of Alberta's Information Technology Plan (http://www.vpit.ualberta.ca/itplan/) the issue of electronic textbooks was raised. This motivated the Vice Provost (Information Technology) to create a subcommittee with the mandate to investigate issues relating to this subject and give recommendations to guide the institution forward (see Appendix A for the committee's Terms of Reference). The document prepared by this committee will need to be revisited and revised regularly because of the changing nature of the publishing milieu and, particularly, the rapidly changing nature of digital publishing. A literature review of "eTextbook use and implementation in higher education," by Ewa Wasniewski and Donna Feledichuk, provides background to this policy recommendation document (see Appendix B).

The committee met seven times between April and October, 2012. These meetings included consultations with key stakeholders including the Book Store, Library, and Centre for Teaching and Learning, as well as external parties such as Nelson Education, Pearson Canada, Apple Canada, Symtext.

The following sections detail the key recommendations of the committee.
Objectives
1. Lower the overall cost of educational resources to University of Alberta students.
2. Enhance pedagogical experiences for students enrolled in University of Alberta classes.

Principles Underlying eTextbook Adoption and Use

Purchasing

1. Instructors should strive to make use of resources students will be able to use for more than one course.
2. The University of Alberta bookstore should develop an online individualized "bookshelf" populated with course eTextbooks on the basis of students' course registration information (i.e., retrieved from Bear Tracks); students should be able to purchase all necessary course-related readings from this bookshelf without having to visit other websites.
3. The digital "bookshelf" must provide students with information regarding the availability of alternate formats (i.e., hard-copy) of books and materials.
4. Instructors must ensure that all required course eTextbooks (if available from the publishers) are made available to students through the University of Alberta Bookstore.
5. eTextbook purchasers should be able to "upgrade" to new editions of publications, if they choose, at a nominal cost.

Technology:

1. Products should not compete with the University of Alberta LMS; any digital materials should integrate fully into the University LMS.
2. The University of Alberta should identify two or three platform-agnostic readers for which it will provide technical support to students and staff.

Pedagogy

1. eTextbooks should demonstrate concepts in ways that complement students' physical and virtual classroom experiences (e.g., multimedia).
2. Multimedia enhancements should enable instructors to more effectively use didactic and constructivist instructional approaches to support student learning.
3. eTextbook publishers should provide digital content which instructors can tailor to the needs of their course (including from within the University's LMS).

Recommended University Policies

Purchasing:

1. Collections of readings (e.g., journal articles, etc. compiled into "course-packs")for which the University of Alberta Library system already has licensing rights are distributed in ways which enable users to access the content without incurring additional cost; such distribution and access is compliant with Canadian Copyright law.
2. While students are always be able to choose where they wish to purchase their textbooks (electronic or conventional), all eTextbooks, if available from the publishers, are made available through the University Bookstore.

Technology:

1. eTextbook formats are readable on multiple, platform-agnostic readers.
2. Off-line access consists, minimally, of the equivalent of the print version of the textbook.
3. eTextbooks are compliant with the most current revision of the EPUB standard of the International Digital Publishing Forum (http://idpf.org/epub).
4. University supported eTextbook readers are able, minimally, to accept notes, export notes, highlighting, copy-and-paste text to other text editors, print, and be universally accessible to all learners regardless of ability or disability (see principles of Universal Design for Learning, http://www.udlcenter.org/aboutudl/whatisudl).
5. Technical support for approved eTextbook platforms is centralized within the University of Alberta.
6. The use of personal information through online eTextbook sites is subjected to a privacy impact assessment; eTextbook sites endorsed for use by the University of Alberta must be compliant with Alberta Freedom of Information and Protection of Privacy legislation.

Pedagogy

1. Students and instructors have the capability to share their eTextbook-related notes.
2. eTextbooks provide content in multiple ways to ensure that all students, regardless of ability or disability, are not disadvantaged by the medium used to represent the information (e.g., closed captioning for audio content, descriptive captioning for video content).

Next Steps for the University of Alberta

1. Organize a national conference focusing on eTextbook "theoretical understandings and best practices" at the post-secondary level.
2. Assume a national leadership role bringing together other post-secondary institutions to establish national standards.

Appendix A

Terms of Reference

This committee is tasked to examine the emerging issues regarding the use of electronic textbooks and, where possible, make recommendations that can help guide the institution forward. Its focus is on making policy recommendations to enable etextbook and e-course-pack practices at the U. of Alberta to move forward systematically. Some of the areas for consideration include:

Purchasing
- (Un)acceptable industry practices (e.g., access limitations; resale rights of purchased products)
- Pricing practices (e.g., cost savings; price/value trade-offs)
- Partnering with publishers

Technology
- eTextbook formats (e.g., publisher or platform-specific constraints)
- Integration with the University LMS (Moodle)
- Integration with the University Libraries systems
- Hardware (e.g., support for particular operating systems; mobile devices)
- Partnering with hardware vendors

Pedagogy
- (Un)desirable features in etextbooks
- How etextbooks might affect course delivery
- Pilot projects that can help build institutional expertise
- Address how and where insights gained from pilot projects will be collected and made available
- People resources (e.g., instructional designers) that will be needed to assist instructors to use this technology

The committee is encouraged to consider making recommendations that can help give guidance for the short-term (0-2 years) and medium-term (3-5 years). Long-term planning is impractical at this point in time.

Membership

Joe da Costa (Vice Dean, Education; committee chair)

Jonathan Schaeffer (Dean – Science; former Vice Provost, Information Technology)

Dustin Chelen (VP Academic, Students' Union)

Rob Washburn (Supervisor – Information Technology, Dean of Students)

Francis Yeh (Professor – Renewable Resources, Faculty representative)

Michael Bowling (Associate Professor – Computing Science, Faculty representative)

Keith Schmeidl (Director, Bookstore representative)

Kathryn Arbuckle (Interim Chief Librarian, University of Alberta Libraries)

Donna Feledichuk (Teaching and Learning Manager, Arts Resource Centre)

Linda Cameron (Director, University of Alberta Press)

Appendix B

Literature Review on
The Current State of eTextbooks Use and Implementation in Higher Education

Ewa Wasniewski
and Donna Feledichuk
University of Alberta

Authors' Note

Ewa Wasniewski, Doctoral Student, Department of Educational Psychology and Donna Feledichuk, Teaching and Learning Manager, Faculty of Arts.

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**Literature Review on the Current State of eTextbook Use
and Implementation in Higher Education**

The history of the textbook has always been changing and evolving. Dating back to the ceca 200 B.C.E, the earliest surviving Chinese mathematics textbook had similarities in the approaches found in current mathematics textbooks (Heider et al., 2009). During the Renaissance when the printing press was created, textbooks became a way to reflect the social norms and in the 1700s newer editions starting recreating popular concepts. Currently, with the increase of technology, the demand for textbooks to be printed and distributed quickly has posed a challenge for publishers to include current and accurate content. Further, the cost associated with the production of textbooks has increased, as a result many students have chosen to purchase used books instead of buying the newer version. Heider, Laverick and Bennett (2009) state that "Americans colleges and universities are in the midst of a shift in educational philosophy which has its roots in the constructivist movement of the 1970s but has gained considerable momentum in recent years" (p. 103). As such many publishers have started to work with individual institutions in collaboration to create course specific textbooks that incorporate software searching capabilities, color photos and diagrams, video additions and interactive questions (Heider et al., 2009). Currently there has been a surge of various sites that distribute etextbooks allowing students for a fee to register and then have unlimited access to a variety of digital textbooks.

While these sites continue to expand, unfortunately, there still needs to be an attitudinal shift for the digital textbook to become accepted. In 2010, the National Association of College Stores in the US reported etextbook revenue as 3% of the total textbook revenue for that year (Foderaro, 2010). While that share is predicted to grow to 10 or 15% by 2012 (Foderaro, 2010) it is still nowhere near surpassing print textbook sales.

Realizing the rising cost of textbooks has resulted in a decrease of purchases being made by students, Acker (2008) explains that "this 'print-on-demand' model suggests a strategy to move from generic texts to custom digital context, and one in which college bookstores can play an important role" (Acker, 2008, p. 2). In order for this to occur, Heider et al. (2009) cites two initial changes that need to happen, first there needs to be a change with students' sharing textbooks and second students need to upgrade their personal computer systems to accommodate digital content format.

Student Use of eTextbooks

Trying to find recent research on student use of etextbooks that reflect new changes in formats was challenging. A scant number of articles dealing with current perceptions by students are readily available and by the time those papers are published in peer review journals the technology being referenced is already over two years old if not longer. Recent indications in studies even in print in 2011 and 2012 still present a preference for undergraduate students for print textbooks over e-books despite significant cost savings.

Woody, Daniel and Baker (2009) introduced an etextbook version of the course text to 91 students in an undergraduate psychology. The average age of the student was 19.1

years, 45 of the participants were males and 46 females. In their study they found neither gender nor comfort with computers as indicators in preference for etextbooks. They also found no association with preference for etextbook with previous use of e-books in general. Earlier studies (Young, 2000) however, had shown comfort with computers as a predictor for etextbook usage. Woody, Daniel and Baker (2009) hypothesized this difference is due to millennium freshman as the current University freshman, whom spend a proportion of each day interacting with computers.

Interestingly in this study although they reported no difference in terms of learning outcomes with etextbook versus print textbook, students reported using each format differently. In print textbooks students were more likely to read captions and charts. In etextbooks students were more likely to read section summaries and answer questions. Additionally although etextbook users can examine online content through embedded links they were not more likely to engage in these activities in e-books than in print books. Students preferred regardless of previous e-book usage, gender, or level of comfort with a computer print texts for learning.

Shepperd, Grace and Koch (2008) also confirmed no difference in achievement of student learning outcomes in print versus etextbook format. Their study also investigated student buying patterns. They found at that time that 90% of students when given the option of purchasing an e-book or more expensive textbook choose the more expensive textbook despite easy access to and in-class demonstration of the e-book.

The Louisiana State University School of Dentistry adopted electronic textbooks for all students in there program back in 2005 (Brunet, Bates, Gallo and Strother, 2011). In 2008 they surveyed the students and found dissatisfaction with most features of the bookshelf the etextbooks were available through. It was believed that incoming students would be more accustomed and more open to etextbooks, so a survey was developed for first year dental students in the class of 2013. After 9 months of use 66% of students indicated they were comfortable with reading print etextbooks up to 57.3% of the students surveyed in 2008. Also only 9 students of the 55 responding had previously used an etextbook in another college course. Their study which includes over seven years of data collection has indicated that students preferred etextbooks for the ability to search topics especially when able to access the entire library of dental textbooks through the electronic bookshelf, but not for reading large amount of text.

In a 2012 study by Miller, Nutting, and Baker-Eveleth the determinants of electronic textbook use among college students was investigated. They found that students from larger high schools whom owned their own desktop computers were more likely to have used an electronic text. Students in programs deemed to be more technical such as Business, Economics, Engineering, and Science were also more like to have used an electronic text than those in Arts or Social Sciences. Further students that are dependent on scholarships or loans were more likely to have used on electronic text, the authors suggest this implied that etextbooks are perceived as inferior to print textbooks.

Implementation Case Studies

Cornelius, Meloy, Gallagher and Gordon (2011) reported preliminary results on a digital book initiative that they are conducting at an America College for Nursing and Health Professions. Courses at the institution are offered at a fast 10-week quarter system and students move between being on campus and their various placements. The faculty decided that they needed to seek out textbook technologies that can support students' learning and studying more effectively. In determining a solution for etextbooks three main areas were consider: the use of one vendor vs multiple vendors, implementation stratifies, and the timeline for implementation (Cornelius et al., 2011). A decision was made by the faculty to use one vendor for all of the textbooks therefore providing the same platform and navigation between all e-books. "It was decide, that although implementation of e-books across the curriculum would be labor intensive at first, the return on the investment would be realized over time as both students and faculty mastered related skills to fully utilize the resources available in an all-electronic textbook platform" (Cornelius et al., 2011, p. 2396). The overall timeline from the decision to the implementation of the etextbook platform was just over three months, however the researchers have noted that ongoing collaboration and communication is critical for the continuation of this study. In the pre-implementation of this project obtaining buy-in from faculty and students was critical therefore part of the pre-implementation involved orientation of faculty, specifically providing familiarization of the etextbook and orientation to the full array of resources available in the digital version. Faculty was also supported with one-to-one help sessions that focused on how to incorporate the etextbook into their lectures. Students were provided time in-class to learn different e-resources that provided 'just in time' information to support their individual learning. Some of the initial and ongoing support included: in-house IT support, ongoing vendor support, user outreach and administrative/organizational supports. One of the key recommendations that Cornelius et al., (2011) reported in this preliminary paper is that institutions need to "look before they leap," to ensure the correct product is chosen for the purpose.

eText Ohio through support of OhioLink library consortium has opted to focus on faculty members who teach large introductory courses in colleges and university across the state (Acker, 2008). This has been one of the first projects for implementing etextbooks for large undergraduate courses. A few areas of dissatisfaction have been noted in this pilot that Acker (2008) summarizes as: technology, organization, inconvenience, lack of flexibility, all related to the etextbook and an issue in that the faculty does not use the required etextbook themselves. It is suggested however that planning for digital instruction can minimize some of the areas of dissatisfaction. "Working backwards from those objectives, the pedagogy and the learning materials that support that pedagogy would be carefully selected to help the students meet those objectives" (Acker, 2008, p. 3). Another project, at Southwest Baptist University, "finds the faculty working with students using digital texts face a new kind of literacy challenge because students scan books as strings of found phrases, jump over the linear progress of the author's idea development" (Acker, 2008, p. 5). Concerns have identified that moving to a digital textbook could increase the digital divide among students. Acker suggests that due to this new and emerging change in post-secondary education, more institution needs to examine their

own implications of the etextbook implementation and evaluate the effect on faculty and students alike.

Davy (2007) explored the evolution of the textbooks and the decline of textbook use reported by students and provided the following role of textbooks in education, "the textbook is a synthesis of current knowledge, not a primary research tool or a contribution to cutting-edge thinking" (Davy, 2007, p. 98). Davy (2007) suggests that the evolution of the textbook is not linked to pedagogical effectiveness rather it has evolved due to economic demand. "Today's students want results at minimum cost, particularly when they're paying hefty tuition and other mandated fees. They often have short attention spans, and they expect very user-friendly presentation" (Davy, 2007, p. 99). His analysis continued to report his comparison on the noted advantages and disadvantages of print textbooks versus digital ones.

Textbook	Digital
+ portable	+ i-pods, mobile phones
+ tactile	+ i-pods, mobile phones
+ no equipment required	+ ubiquitous items
+ text better on paper	+ e-paper, print on demand
+ organizing framework	+ learner journeys
- linear	+ interactive
- single medium	+ multiple media
- too much or too little	+ as much as you need
- single learning style	+ individual learning styles

Table 1. Relative advantages (+) and disadvantages (-) of print and digital textbook

(Davy, 2007, p. 100)

The purpose of any learning resource is to assist the learner to move from data information knowledge to understanding and then applying. Educators need to be cautioned that digitizing a textbook does not provide any advantages over a paper copy if it is just reproduced. "Thirdly, a well-constructed online learning resource offers students a learning experience that is much richer, deeper, more engaging and more effective than any textbook. Delivered to a mobile phone, i-pod or PDA, digital materials can also be fully portable" (Davey, 2007, p. 101). This does not mean only providing textbooks in a PDF format, educators need to work with publishers to develop digital textbooks that meet their learners' needs. It is possible to tailor content for specific individual needs or a particular learning style. Finally, Davy (2007) provides suggestions to Universities in three different areas when planning on using digital textbooks.

> To university management: compete for students' attention as well as fee income. If you prescribe digital courseware, you will be able to give your students much better value for money and help them get better results. Better still, build all learning resources into the course fees and you will be able to negotiate great deals with

publishers. To librarians: as campus bookshops continue to close, there has never been a better time to increase the influence of the library and its status within the institution. This will require some redefinition of the role of the librarian and a more proactive approach to marketing. And, finally, to publishers: traditional textbooks will not become extinct any time soon, but you need to think "outside the book." (Davy, 2007, p. 102)

In an article on the transformation in higher education with the introduction of digital books McCarthy (2011) wrote that "though our research explored a seemingly constant stream of new formats, devices, and business models, one common theme emerged: a digital transformation in higher education can succeed only if it is tailored to the unique needs of students in the academic setting" (McCarthy, 2011, p. 22). Post-secondary students do not just read their books but interaction with them by highlight and place notes. "Tablets like the iPad and color e-readers such as NOOKcolor are evolving toward these requirements, but by themselves, they cannot support a student's needs" (McCarthy, 2011, p. 22). McCarthy (2011) noted the most commonly requested features from student for digital books are: highlighting and annotation, content tagging, full-text search, faculty sharing of annotation and highlights, integration with LMS systems, web resource lookup, and study tools and suggested that platforms for digital textbooks institutes should assess the platform in both reading and also studying criteria.

Conclusions

Although there are definite and exciting advantages to etextbooks such as providing an environment where students can interact and engage with the material in a different way, as well as e-book reader characteristics such as searchability, annotation, and highlighting, as well as quickly updating versions there are some challenges that are unique to etextbooks. For example graphics and mathematics are more difficult to transmit on popular e-readers such as Amazon's Kindle. Hard copies are also not prone to viruses and they allow the reader to quickly flip through the book, make notes in margins, and bookmark pages. Although this capability is available in e-book formats it is not as quick to access as in print versions (Foderaro, 2010).

As devices such as the iPad make etextbooks more portable, and continue to improve screen display, the etextbook may become a more attractive avenue for students. However research continues to indicated that students even with a significant cost saving still prefer print textbooks over their electronic counterparts.

References

Acker, S.R. (2008, Mar. 16). Will digital texts succeed? *Campus Technology*, p. 1-7, Retrieved from: http://campustechnology.com/Articles/2008/03/Will-Digital-Texts-Succeed.aspx?Page=1

Brunet, D., Bates, M., Gallo, J.R., & Strother, E.A. (2011). Incoming dental students' expectations and acceptance of an electronic textbook program. *Journal of Dental Education, 75*(5), 646-652.

Cornelius, F., Meloy, F. & Gallagher Gordon, M. (2011). Between the Lines: Transforming Learning via a Digital Books Initiative. In T. Bastiaens & M. Ebner (Eds.), *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2011* (pp. 2395-2400). Chesapeake, VA: AACE.

Davy, T. (2007). Etextbooks: Opportunities innovation, distraction and dilemmas. Serials: the Journal for the Serials Community, 20 (2).

Foderaro, L.W. (2010, Oct. 20). In a digital age students still cling to paper textbooks. *The New York Times.* Retrieved from http://www.nytimes.com/2010/10/20/nyregion/20textbooks.html?pagewanted=all

Heider, K., Laverick, D. & Bennett, B. (2009). Digital Textbooks: The Next Paradigm Shift in Higher Education? *AACE Journal, 17*(2), 103-112.

Lim, C.I. & Lee, Y. (2011). Enhancing the usability of the user interface for a digital textbook platform from learning perspectives. In T. Bastiaens & M. Ebner (Eds.), *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2011* (pp. 1378-1383). Chesapeake, VA: AACE.

McCarthy, D. (2011). E-Reading: The transition in higher education. *EDUCASE Review. 46* (2). Retrieved from: http://www.educause.edu/EDUCAUSE+Review/EDUCAUSEReviewMagazineVolume46/iMobilePerspectivesOnebooksibr/226161

Miller, J.R., Nutting, A.W., & Baker-Eveleth, L. (2012, April). The determinants of electronic textbook use among college students. Retrieved from http://www.ilr.cornell.edu/cheri/upload/cheri_wp147.pdf

Shepperd, J.A., Grace, J.L., & Koch, E.J. (2008). Evaluating the electronic textbook: Is it time to dispense with paper text? *Teaching of Psychology 35*(1), 2-5. doi: 10.1080/00986280701818532

Woody, W.D., Daniel, D.B., & Baker, C.A. (2010). E-books or textbooks: Students prefer textbooks*. Computers and Education, 55*(3), 945-948. doi:10.016/j.compedu.2010.04.005

Young, B.J. (2000). Gender differences in student attitudes towards computers. *Journal of Research on Computing in Education, 33*(2), 204-216.