4.1. Write clearly and in a style appropriate to purpose (e.g. assignments, essays, published documents, and theses).

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Serhat -

You have submitted a very good assignment 2 paper. The introduction of open textbooks for distance education will indeed have a major impact on its availability and on its effectiveness and, as your course-based (not simulated) studies have indicated, the matter is a complex one and will undoubtedly stir up much controversy. So it goes.

Assignment 2 grade: Pass

Final course grade: Pass

Callouts such as this one are inserted by me to link the content in this assignment to corresponding competencies. Extended commentaries and reflections can be found on the e-portfolio page where this file was downloaded from.

MDDE 701

Data Collection and Analyses from the Perspectives of

Phenomenology and Grounded Theory

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Student ID: 2710133

5. Research

This paper reports on the data collection and analysis activities for the open textbook (OTB) concept from the phenomenology and grounded theory perspectives. The paper is organized as follows: The first section presents the evolution of ?? content authoring, publishing and licensing in education. Next two sections include the phenomenological and grounded theory studies in turn. The final section compares the methods and contains a brief reflection on the two research methods. The research questionnaire and sample work of the intermediate steps in data collection and analyses are supplied in three appendices. OK.

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Description of the Open Textbook Phenomenon

5.4. Critically review literature both broadly and in-depth.

What follows is a brief history of the notion of openness in software development and education that suggests that digital technologies, in open software, open content authoring and open licences are expanding the potential to become mainstream in their respective fields.

The Origins of Open Textbook

Announced with great fanfare in 2001, probably the largest open educational resources (OER) initiative, OpenCourseWare (OCW) at the Massachusetts Institute of Technology (MIT) finds its origins in the free software movement (Caswell, Henson, Jensen, & Wiley, 2008).

In 1983, Richard Stallman announced the foundation of the GNU (a recursive acronym that stands for GNU is not Unix) project at the MIT Artificial Intelligence Lab. The purpose of this project was to develop a Unix-like computer operating system and

share it freely with anyone. GNU project called for contributions from the programmers' community at large. The free software and open source software (OSS) progressively became a tradition in software development (e.g. the LAMP stack: GNU/Linux operating system, Apache web server, MySQL relational database system and PHP scripting language).

In 1998, David Wiley released the first open content license. This license was based on a principle similar to that of "free and open software" (Wiley, 2003 as cited in Caswell et al., 2008). Like the OSS movement, freely available learning content became popular quickly. Later on, Stallman announced the GNU Free Documentation License (GNU FDL) in 2000 and Creative Commons publicized their first set of copyright licenses in 2002 (Caswell et al., 2008).

Commons-based Peer Production

Following the Agricultural and the Industrial Revolution, Benkler (2002) suggests that we are now in the midst of a third major revolution in human civilization, the Information Revolution. Benkler (2006) coined the term commons-based peer production (CPP) to describe a new economic model. CPP is an organic socio-economic system of production that is growing in the digitally networked environments. Made possible by the OSS movement and the readily available Internet infrastructure, the main feature of this socio-technical system is collaboration among large groups of individuals, sometimes in the order of hundreds of thousands, who cooperate effectively to provide information, knowledge or cultural content without relying on either market pricing or managerial hierarchies to coordinate their common enterprise (Benkler & Nissenbaum, 2006, p. 394).

The author of this paper is intrigued by what OSS movement has achieved in ICTs. Inspired by those brilliant minds in the field of OSS, some of the questions that come to mind are: can instructors collaboratively write their own textbooks that can be distributed and shared free of charge? Are there mechanisms that allow sustainable collaborative work to write and publish open textbooks? How would this kind of effort contribute to the success and overall learning experience of distance students? How much acceptance and use open access textbooks have in the distance education (DE) community.? Interesting questions, indeed.

Phenomenological Study for the Level of Acceptance and Use of Open Textbooks in the MDE Program

Purpose Statement

Creswell (2007) asserts the purpose statement is the most important statement in an entire qualitative study and notes "all too many writers leave this statement implicit, causing readers extra work in interpreting and following a study" (p. 103). Based on the Creswell's script (2007, p.103), the purpose statement is constructed as follows:

The purpose of this phenomenological study is to discover the level of acceptance and use of open textbooks in the Master of Distance Education (MDE) program at Athabasca University (AU). At this stage in the research, the open textbook is defined as textbooks that are collaboratively authored, peer reviewed and published to be available free of charge.

This purpose statement has been encoded ?? written? tailored?? concocted? to contain specific terms as described by Creswell (2007, p. 104) including (1) the type of

the qualitative approach (phenomenological study), (2) the key word(s) that indicate the action of the researcher (discover the level of acceptance and use), (3) the idenfication of the central phenomenon (open textbook), (4) the participant population (the MDE program at AU) and (5) the general description of the central phenomenon (the open textbook is defined as textbooks that are collaboratively authored, peer reviewed and published to be available free of charge). Your statement of purpose is on-the-mark.

1.3. Formulate questions.

Central Question

Creswell (2007) categorizes the central research questions into four types: exploratory, explanatory, descriptive, and emancipatory (p. 107). The exploratory approach is employed to investigate the open textbook phenomenon in this case. Creswell (2007) recommends a reduction of the entire study to a comprehensive single question which is open-ended and nondirectional. The central question of this study then can be formulated as "how much acceptance and use open textbooks receive in the AU MDE community".

5.1. Frame research questions.

5.5. Formulate questions and reasoned arguments, leading to rational conclusions.

Sub-questions

Combination of issue-oriented and topical sub-questions (Creswell, 2007) is posed in this research.

1. What are the opinions about using free access learning materials for DE?
2. Is the open textbook compatible with the existing DE system(s)?
3. Is collaborative authoring of open textbooks a viable option for DE?
4. What are the advantages/disadvantages of open textbooks in DE?
5. What is the level of acceptance of open textbooks for DE courses?

5.5. Formulate questions and reasoned arguments, leading to rational conclusions.

Data Collection and Analysis

Data Collection

5.7. Effectively communicate information, arguments, and analyses in the discipline of distance education, in a variety of forms, to suit different contexts and audiences.

A general announcement was made on the course discussion boards to call for participation in this study. Additionally, a former classmate was contacted via email. Four individuals responded but only three of them participated. Finding people who have knowledge of the open textbook phenomenon was somewhat challenging. However, the study managed to survey participants whose profiles ranged from extensive experience in education and training to instructional design and to teaching software applications.

5.10. Demonstrate the use of communications and other technology-based research tools.

All participants were AU MDE program students (i.e., all had DE experience); particularly, one indicated special interest in the organizational change and DE enterprises while the other expressed support to open education. The third respondent showed special interest to the topic of this study. Considering the background and interests of the subjects, it can be concluded that all participants had -to some extent- knowledge of the open textbook and could articulate their experiences (Creswell, 2007).

For the purpose of this simulated?? course-based?? exercise, instead of conducting face-to-face interviews, a questionnaire was developed and the subjects were asked to complete and email the document to the researcher (see Appendix 1).

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Data Analysis

5.8. Critically analyze the issues and discuss the wider implications affecting the use of information.

Creswell's (2007) six-step approach to phenomenological study was employed to carry out the data analysis:

(1) Personal experiences: The author of this paper is of the opinion that non-market and non-proprietary production (Benkler, 2006) methodologies offer a remarkable system for authoring and publishing peer reviewed, high quality and free of charge learning materials. The rational for open textbooks is a straightforward one; the cost of textbooks presents a financial burden to many students. Traditional textbooks may also include a lot more content than is actually needed, or they may contain too generic information and lack relevance to the target audience (Baker, Thierstein, Fletcher, Kaur, & Emmons, 2009).

Solutions have been put forward and even legislated (Baker et al., 2009, pp. 2-3) but there is no clear-cut solution. Some educators are discouraged by the tiresome process of authoring their own textbooks as well as by copyright limitations on content that is freely available on the Internet (Baker, 2005 as cited in Baker et al., 2009).

However some collective efforts have made progress towards one common goal: to identify, create, or repurpose existing OER as open textbooks and to make them available for use by community college students and faculty (Baker et al., 2009).

(2) Significant statements: Initially, 31 statements (see Appendix 2) that appeared significant were extracted from the questionnaires. Re-examination of the preliminary list allowed the author to eliminate the repetitive and overlapping statements, which yielded the following list:

1. I have also explored MIT's open access materials but they are not so far as I know develop din?? developed in?? open collaboration.

2. Free access of this type and the freedom to create seem to be the next logical steps in furthering the democratisation of learning in terms of the western world.

3. I think open textbooks, free access, and collaborative creation need a new paradigm.

4. One advantage is that multiple perspectives may be incorporated and the end product may be more balanced or well rounded or have a greater depth.

5. A disadvantage may be that this process assumes a level of competency in self-management and collaboration that may or may not exist.

6. I would need a framework/system in place to facilitate such activities and would need to examine the framework/system before committing to its use.

7. I think if you were to introduce an open textbook in a DE course (or a F2F course), a change management strategy would be required.

8. So the customization aspect is appealing and likely to become more of an expectation.

9. Education needs to become more efficient, or we're not going to be able to sustain ourselves. This is a nonsensical statement.

10. I had one instructor who couldn't find a text he liked so decided to create his own, and it was a long, slow and painful process.

11. I had the chance to see Richard Baraniuk present in person and found his ideas intriguing. His organization seems to be doing some interesting work that can support learning.

12. The tie-in to a fully open course (no course fee charged to the student) is my ideal environment for our world.

13. Yes, I do believe collaborative authoring and open textbooks are a viable option for DE.

14. I feel a slight hesitation surrounding the idea that fully open texts, that can be edited by anyone, will lose some of their validity if the expertise of the content is editable.

15. Collaborative authoring would allow for a more open sharing of knowledge, less concern with intellectual property and more time devoted to what's best for the learner.

16. The disadvantages are they ?? payment of authors for their time and effort, this is important and cannot be overlooked.

17. I would be very happy to devote time and effort to authoring an open textbook for a course I developed.

(3) Meaning units: Four themes emerged.

New paradigm theme: 1. I have also explored MIT's open access materials but they are not so far as I know develop din open collaboration. 3. I think open textbooks, free access, and collaborative creation need a new paradigm. 8. So the customization aspect is appealing and likely to become more of an expectation. 9. Education needs to become more efficient, or we're not going to be able to sustain ourselves.

Democracy and freedom theme I think that the use of both of these terms is inappropriate as they are words used primarily in political discourse. "Openness" and "Easy access" might be more accurate terms.: 2. Free access of this type and the freedom

to create seem to be the next logical steps in furthering the democratisation of learning in terms of the western world. 4. One advantage is that multiple perspectives may be incorporated and the end product may be more balanced or well rounded or have a greater depth. 15. Collaborative authoring would allow for a more open sharing of knowledge, less concern with intellectual property and more time devoted to what's best for the learner.

Inherent challenges theme Now, this is an interesting thread or theme.: 5. A disadvantage may be that this process assumes a level of competency in self-management and collaboration that may or may not exist. 6. I would need a framework/system in place to facilitate such activities and would need to examine the framework/system before committing to its use. 7. I think if you were to introduce an open textbook in a DE course (or a F2F course), a change management strategy would be required. 10. I had one instructor who couldn't find a text he liked so decided to create his own, and it was a long, slow and painful process. 14. I feel a slight hesitation surrounding the idea that fully open texts, that can be edited by anyone, will lose some of their validity if the expertise of the content is editable. 16. The disadvantages are they payment of authors for their time and effort, this is important and cannot be overlooked.

Innovative but doable theme: 11. I had the chance to see Richard Baraniuk present in person and found his ideas intriguing. His organization seems to be doing some interesting work that can support learning. 12. The tie-in to a fully open course (no course fee charged to the student) is my ideal environment for our world. 13. Yes, I do believe collaborative authoring and open textbooks are a viable option for DE. 17. I would be

very happy to devote time and effort to authoring an open textbook for a course I developed.

(4) Textural description: Participant 1 (P1) had prior knowledge of Connexions and MIT's OCW learning materials and said that "they are not so far as I know develop din open collaboration". P1 showed support to the open textbook but noted scepticism at various occasions by saying that "there are a number of assumptions embedded in the concept that need to be examined".

Participant 2 (P2) was familiar with Canadian Healthcare Education Commons, which provides free lessons and other items. P2 also mentioned Terry Anderson's (editor) open book Theory and Practice of Online Learning. P2 portrayed positive stances with the open textbook notions by saying "DE has always seemed to me to be about reducing the barriers, so in this sense, open textbooks seem like a good fit". P2 had the chance to see Richard Baraniuk in person and found his ideas intriguing. P2 stated, "His organization seems to be doing some interesting work that can support learning".

Participant 3 (P3) said "I am very familiar with the OpenLearn initiative in the UK, all their Moodle-based courses utilize PDFs at no cost to the learner, so it is open-text in that sense". P3 showed a conviction for "open knowledge sharing, particularly for disadvantaged adult learners who cannot afford further education". P3 stated "collaborative authoring and open textbooks are a viable option for DE". P3's concerns included the potential lack of credibility for the freely editable content and monetary compensation for the time and effort of authors.

(5) Structural description: In this study, participants, in addition to their prior experiences, have been in the MDE program for sometime hence they are fully conversant with DE and they have used textbooks in various formats. Their familiarity with open learning materials spanned from popular resources (e.g. MIT OCW) to a national repository (e.g. Canadian Healthcare Education Commons). The participants' perception of open textbooks for DE is generally affirmative however the notions relating to openness seem to cause some concerns. Specifically, the positive aspects such as democratisation, affordability and increased efficiency surface in the completed questionnaires. On the other hand, the quality control for open textbooks, copyright and monetary compensation of author's time and efforts can be identified as issues.

(6) Composite description: Acceptance levels of open textbooks ranged from full endorsement to doubtful approval. In particular, collaborative authoring and use of open textbooks was found to be a viable option to further reduce barriers in DE. However the innovative nature (i.e. newness) of open textbook phenomenon calls for a careful examination to eliminate the assumptions embedded in the concept.

A Grounded Theory Study of Open Textbooks in the MDE Community

The term "grounded theory" refers to theory that is induced from a collection of data. The grounded theory approach, particularly the way Strauss and Corbin (1990, 1998 as cited in Creswell, 2007, p. 160) develop it, consists of three steps of coding; developing categories of information (open coding), interconnecting the categories (axial coding) and building a story that connects the categories (selective coding). The coding process is finalized by deriving a general theory of a process, action, or interaction grounded in the views of participants in a study (Creswell, 2003, p. 14).

Purpose Statement

In the following statement, the type of the qualitative approach is identified as grounded theory and the participants are specified to be from the "MDE community". The central phenomenon is "open textbooks," and a definition of the phenomenon is also provided. In this study "develop" is the key word that indicates the action of the researcher.

"The intent of this study is to develop a grounded theory of the utility or potential for open textbooks in the MDE community guided by two major research questions: What is the degree of acceptance and what are the most important challenges for open textbooks. At this stage in the research, the open textbook is defined as textbooks that are collaboratively authored, peer reviewed and published to be available free of charge."

5.2. Apply theoretical considerations to proposed research.

5.1. Frame research questions.

Central Questions

For grounded theory, Creswell (2003, p.66) recommends questions that may be associated with procedures in the data analysis such as open coding and axial coding. The central question of this study then can be stated as "What is OTB?" and "How did it develop to become popular?". These questions help to shape the open coding phase.

Sub-questions

The following sub-questions are aligned with the axial coding stage: Good questions given your statement of purpose for this approach.

1. What is critical to the OTB phenomenon?
2. What initiated OTB?
3. What strategies can be employed to ensure OTB's success?
4. What are the consequences of OTB?

Grounded Theory Data Collection and Analysis

Data Collection

In this exercise, the textual data in the preceding section are examined with the grounded theory methodologies.

Data Analysis

The basic idea of the grounded theory approach is to read (and reread) a textual database and label variables (i.e . make categories) and their interrelationships. The

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Margin annotations:

1.3. Formulate questions.

5.1.Frame research questions.

5.5. Formulate questions and reasoned arguments, leading to rational conclusions.

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5.8. Critically analyze the issues and discuss the wider implications affecting the use of information.

following sections include the three phase coding process that was carried out in this study.

Open coding.

In the open coding phase, the analysis is concerned with identifying, naming, and categorizing the phenomena found in the textual database. Essentially, each sentence is read to answer, "What is going on here?" or "what is this about?" During this analytic process, general categories begin to emerge.

In this study, open coding was performed in a four-column table that was followed by "Memo" entries. First column includes a numerical value that indicates each question in the questionnaire. The next column labelled "Notes" is the notes taken during reading and rereading the textual data. The third column "Textual data" contains the actual data and the fourth column "Coding" includes the codes. Constant comparison method (Creswell, 2007) was applied to the subsequent data sets (i.e. interviews or in this case questionnaires) with the first data set in mind (see Table 1, Table 2, Table 3 and the associated memos in Appendix 3).

Axial coding. Your tables 4 and 5 in the appendices section of your paper were very well done and represent an accurate distillation of the codes in tables 1-3.

Axial coding is the process of relating codes and properties to each other, via a combination of inductive and deductive thinking. At the end of open coding phase, a number of codes emerged. Table 4 (see Appendix 3) categorizes these concepts (i.e. codes) and in the next step categories are linked and organized by relationship in a

1.5. Evaluate the relevance of information for a given situation.

5.3. Access and critically evaluate sources and content for quality, applicability and relevance.

process called axial coding (see Table 5 in Appendix 3). One general category around

"reducing barriers and democratization" is formed to perform the axial coding step as

described in Creswell (2007):

1) Phenomenon: OTBs reduce barriers and increase accessibility in DE.

2) Causal condition: In addition to tuition fees, textbooks are probably the only

   high expense that is directly linked to schooling costs. In some DE settings,

   textbooks might cost more than the course tuition fee. These observations may

   be confirmed with each participant's input. For example, P3 states, "The

   advantages of open textbooks in DE are for the use of those who could not

   otherwise afford the expensive texts often associated with post-high school

   learning" and P2 says "DE has always seemed to me to be about reducing the

   barriers, so in this sense, open textbooks seem like a good fit." Finally, P1

   asserts "Free access of this type and the freedom to create seem to be the next

   logical steps in furthering the democratisation of learning in terms of the

   western world."

3) Context: It is difficult to make a distinction between the causal conditions and

   context. However in this study the context may be identified as the cost

   associated with textbooks, copyright related views (both in restrictive and

   liberating terms) and monetary compensation of OTB authors.

4) Intervening conditions: OTB is seen as an innovative concept (e.g. new

   paradigm) and draws scepticism. The questionnaires reveal some challenges

   that relate to IP and quality control of OTBs.

5) Strategies: In response to the intervening conditions one participant suggests development of OTB framework and conducting comparative studies. Participants also note the use of collaborative authoring systems and readily available less limiting copyright schemes.

6) Consequences: The intended outcome is minimizing or eliminating the cost factor for textbooks. The unintended consequence is as P3 puts it "how will university professors continue to be employed in such a paradigm?" An unpredictable outcome that is neither intended nor unintended is that OTBs are a product of multiple perspectives and the end result may be more balanced, well rounded, have a greater depth (P1) or completely the opposite.

Selective coding.

Selective coding joins together all the interpretive analysis work and develops a story line (Creswell, 2007). In this study, a conditional matrix (see Table 6 in Appendix 3) was built where the researcher asked and answered questions to describe the main phenomenon. At this stage the core variable is thought to be "reducing barriers and democratization" and the story line is written as follows:

The rhetoric surrounding OTBs can be attributed to the need to reduce barriers and more democratization efforts in DE. Textbooks can be collaboratively authored, published and distributed freely to minimize or eliminate one of the major costs in DE. In addition, collaborative writing allows customization of the content and multiple views enhances the quality. However innovative nature of OTBs require a new framework and comparative studies to ensure sustainable mechanisms to produce free textbooks.

General theory.

The emergent general theory of this study is that OTBs are welcomed as a means to reduce barriers in the MDE community. By conducting comparative studies and building a framework, a sustainable system to produce free textbooks is achievable.

1.6. Compare alternatives.

Comparison of the Two Approaches and Some Reflections

Phenomenology studies the structures of people's experience. Creswell (2007) describes a systematic process for coding data from a phenomenological standpoint in which specific statements are analyzed and categorized into collections of meaning that describe the phenomenon of interest. Grounded theory, on the other hand, is an inductive methodology stressing development of theory from data (i.e. a reverse study process). Grounded theory involves a constant comparison method of coding and analyzing data.

One significant difference between the two approaches is that phenomenology calls for a step to isolate the researcher's preconceived experiences from the participants' experiences. Called "bracketing" but difficult (if not impossible) to do. In grounded theory, each observation is coded before the next is carried out so that new information can be interpreted based on the preceding steps.

Both approaches share the same three elements, coding, developing themes and providing a visual diagram of data (Creswell, 2007). However phenomenology employs more linear and defined phases whereas grounded theory constantly compares categories and travels a recursive development path. Good point. For example, the process for performing the grounded theory seemed vague, particularly moving from open coding to

axial coding and finally to selective coding was not entirely clear. The sequence of phases in the advanced stages of grounded theory did not seem consistent in different parts of the Creswell text (e.g. the bulleted list in Table 8.2 does not match the template for coding grounded theory in Figure 8.5, Creswell, 2007, pp.156-171). This ambiguity is probably a special characteristic to the approach rather than a flaw and allows researcher to analyze data from multi-dimensional perspectives and add more creativity to the theory development process.

In conclusion, the grounded theory approach can easily mystify the novice and requires painstakingly long analysis. Phenomenology allows beginners to learn the essential steps (i.e. coding, developing themes and creating visual diagrams) and appears to have a relatively shorter learning curve.

Appendix 1

Interview (via a questionnaire) questions:

1.   What do you think about publishing free access learning materials for DE

learners on the Internet? If familiar with this concept, can you give some examples of

public and private institutions that provide open content or particularly open textbooks?

2.   Do you think the open textbook is compatible with the existing DE

system(s)?

3.   Do you think collaborative authoring and use of open textbooks is a viable

option for DE?

4.   What are the advantages/disadvantages of open textbooks in DE?

5.   Would you be interested in authoring and/or adopting an open textbook for

your DE course?

6.   If you decided to use an open textbook in a DE course, what kind of

reactions would you anticipate from students, instructors and administrators?

7.   Optional activity: if you are so inclined please watch the presentation (18

min 37 sec) at the following link.

http://www.ted.com/index.php/talks/richard_baraniuk_on_open_source_learning.html

What did you think about the presentation and the ideas presented?

Appendix 2

Participant 1:

1. The idea of publishing free access DE learning material makes perfect
    sense although the idea is sort of new to me.

2. I have also explored MIT's open access materials but they are not so far as
    I know develop din open collaboration.

3. Free access of this type and the freedom to create seem to be the next
    logical steps in furthering the democratisation of learning in terms of the
    western world.

4. I think open textbooks, free access, and collaborative creation need a new
    paradigm.

5. We probably need to rethink or re-conceive some aspects (or maybe all
    aspects) of DE.

6. One advantage is that multiple perspectives may be incorporated and the
    end product may be more balanced or well rounded or have a greater
    depth.

7. A disadvantage may be that this process assumes a level of competency in
    self-management and collaboration that may or may not exist.

8. I would need a framework/system in place to facilitate such activities and
    would need to examine the framework/system before committing to its
    use.

9. I think if you were to introduce an open textbook in a DE course (or a F2F course), a change management strategy would be required.

10. Regarding the ideas, I support them but there are a number of assumptions embedded in the concept that need to be examined.

Participant 2:

11. It means I'm not spending all my time tracking down copyright or searching for a free version of a resource a faculty member would like to use.

12. And I'm not spending course budget on clearances instead of creating animations or multi-media resources that benefit students.

13. DE has always seemed to me to be about reducing the barriers, so in this sense, open textbooks seem like a good fit. I think there is also a place for traditional textbooks too.

14. So the customization aspect is appealing and likely to become more of an expectation.

15. I think the lower costs are an important one. Education needs to become more efficient, or we're not going to be able to sustain ourselves.

16. The other advantage I would also see is getting us out of the grips of the big publishers, who I think can be very predatory.

17. I had one instructor who couldn't find a text he liked so decided to create his own, and it was a long, slow and painful process.

18. I would expect mixed reactions.

19. I had the chance to see Richard Baraniuk present in person and found his ideas intriguing. His organization seems to be doing some interesting work that can support learning.

Participant 3:

20. I am a strong believer in open knowledge sharing, particularly for disadvantaged adult learners who cannot afford further education.

21. I am not certain how the authorship and payment for intellectual property works in OpenLearn and it seems that the texts cannot be edited or changed once posted.

22. The tie-in to a fully open course (no course fee charged to the student) is my ideal environment for our world.

23. Yes, I do believe collaborative authoring and open textbooks are a viable option for DE.

24. I feel a slight hesitation surrounding the idea that fully open texts, that can be edited by anyone, will lose some of their validity if the expertise of the content is editable.

25. The advantages of open textbooks in DE are for the use of those who could not otherwise afford the expensive texts often associated with post-high school learning.

26. Collaborative authoring would allow for a more open sharing of knowledge, less concern with intellectual property and more time devoted to what's best for the learner.

27. The disadvantages are the payment of authors for their time and effort, this
    is important and cannot be overlooked.

28. True expertise might get lost or edited.

29. I would be very happy to devote time and effort to authoring an open
    textbook for a course I developed.

30. How will I be paid for my knowledge and expertise if all adults in the
    world learn and participate through and in open education?

31. As a student and researcher I can adopt an open-positive position.

Appendix 3

Table 1

Dialogues with Participant 1

	Notes	Textual data	Coding
1	Innovative idea that makes sense	The idea of publishing free access DE learning material makes perfect sense although the idea is sort of new to me. I have only recently visited the Connexions website and so	• Innovation
	Generally uncertainty with the open textbook (OTB)	the content on that site is the only example of collaborative content that comes to mind. I have also explored MIT's	• Unfamiliar
	Unsatisfied with OCW	open access materials but they are not so far as I know develop din open collaboration.	• Critique

5.6. Summarize and synthesize information with a view to pursuing deeper understanding.

	Approval of the OTB idea	Free access of this type and the freedom to create seem to be the next logical steps in furthering the democratisation of learning in terms of the western world. One question I have is whether this is intended to benefit instructors or individuals learners (or both I suppose). Each intention carries a different set of assumptions.	• Democracy • Logical step
	Who benefits from the OTB		• Benefit
2	Rejection of the OTB's compatibiliy New idea, new system, different paradigm	This is a multi-layered question but in a nutshell, no. I feel the creation and management of content in existing DE systems is in many cases still aligned with a different paradigm – one born from the conventional western F2F system. I think open textbooks, free access, and collaborative creation need a new paradigm. I would be very interested in a comparative systems analysis of the existing DE system(s) and of the DE system(s) aligned with open textbooks, free access, and collaborative creation.	• Paradigm • Comparative analysis

3	Rejection	Yes, but as described in the answer to Q2 we probably need to rethink or re-conceive some aspects (or maybe all aspects) of DE.	• Rethink
4	Multi facaded nature of OTB, needs deeper analysis, various pros and various cons	"Open textbooks" have many aspects and I would need to define each to respond to this question. For example, one aspect is the creation of content by many contributors vs. by one author or pre-selected group of authors. In this case, one advantage is that multiple perspectives may be incorporated and the end product may be more balanced or well rounded or have a greater depth. A disadvantage may be that this process assumes a level of competency in self-management and collaboration that may or may not exist; these are skills that may need to be developed.	• multiple perspectives • balanced • well rounded • new skills
5	Need a framework, need to examine the concept	In short, yes, but I would need a framework/system in place to facilitate such activities and would need to examine the	• Critique

		framework/system before committing to its use.	
6	Mixed reactions depending on the culture, topics, demographic, etc. Ownership issues and monetary value	Mixed. I'd expect some support, some scepticism and some outright rejection depending on the culture, topics, demographic, etc. I discussed this briefly with a former engineering professor and his immediate concerns were intellectual property rights and the idea that one's body of knowledge must have some monetary value. I think if you were to introduce an open textbook in a DE course (or a F2F course), a change management strategy would be required.	• Support, • Scepticism • Rejection • Concern • Intellectual property (IP) • Change management
7	Affirmative but yet doubtful, points out assumptions	Excellent presentation and I would recommend that people who complete this survey view the presentation before doing the survey as it explains a number of key concepts. Regarding the ideas, I support them but there are a number of assumptions embedded in the concept that need to be	• Embedded assumptions

		examined. Briefly, this idea assumes a level of literacy and access (not only access to the technology be it in books or online but also the time and space to utilize it).	

Memo: OTB is perceived to be an innovative concept (as such sceptical approach is clearly seen)???. New paradigm calls for a development of framework, comparative studies and change management. Notions relating to OTB would bring democratisation to DE settings, multiple perspectives through collaboratively authored textbooks and challenges due to IP and concerns with monetary compensation of authors.

Table 2

Dialogues with Participant 2

	Notes	Textual data	Coding
1	Positive responces	As an instructional designer, my first thought when I think of free resources is "yes!". Because it means I can create courses more efficiently, and provide quality resources to students. It means I'm not spending all my time tracking down copyright or searching for a free version of a resource a faculty member would like to use. And I'm not spending course budget on clearances instead of creating animations or multi-media resources that benefit students. One repository that I'm familiar with is CHEC (Canadian Healthcare Education Commons). They provide lessons,	• Efficincy • Quality
	No copyright as advantage,		• IP
	Save money and time		• Budget • Benefit
	Familiar with CHEC		• Free for use • Adaptation

		learning objectives and other items – free for use, adaptation, etc. The only open textbook that I'm familiar with is the one by Terry Anderson on online learning.	
2	Supportive stance, still likes traditional books but OTB can be printed also (i.e. hardcopy OTB)	DE has always seemed to me to be about reducing the barriers, so in this sense, open textbooks seem like a good fit. I think there is also a place for traditional textbooks too –my book shelf is lined with them and I find them to be great resources that I go back to again and again.	• Reducing barriers • Good fit
3	OTB is relevant and doable, offer options and customization.	Yes, I can see this becoming increasingly more prevalent in DE as well as traditional education. Students want more options with their materials, and they won't sit by quietly anymore to buy six different textbooks because there's a couple chapters in each of them. So the customization aspect is appealing and likely to become more of an expectation.	• Mainstream • More options • Customization

4	OTBs are advantageous	For advantages, I think the lower costs are an important one. Education needs to become more efficient, or we're not going to be able to sustain ourselves. Being able to customize is also an advantage. The other advantage I would also see is getting us out of the grips of the big publishers, who I think can be very predatory. One thing I've run into lately is that an instructor will order a	• Low cost • Efficiency • Sustainabilty
	Difficulties with publishers, who owns the content, concerns with privacy and licensing	textbook and the publisher will offer an online learning management system for them, a test bank, etc. I have huge concerns about the privacy aspects of this, as well as the ownership. One instructor put in significant effort to create a bank of test questions, but used the publisher's software and so lost everything at the end of the year. Anything to	• Ownership • Privacy • Licensing

	Reduce power inequity, takes a long time to write an OTB	reduce this power inequity would be positive. As far as disadvantages, I would say time to create quality materials. I had one instructor who couldn't find a text he liked so decided to create his own, and it was a long, slow and painful process. So there's definitely an investment when you create your own open access textbooks.	• Power inequity • Time consuming
5	If good quality, adopt OTB	I can't see a need for it at this time, in my particular role in terms of authoring. I could see adopting one, if the faculty member had reviewed it and felt it was a good quality resource.	• Adopting OTB • Good quality

6	Positive reactions from students	If it's a good resource and it's cheaper, students will be happy. Faculty – I would expect mixed reactions. A lot of them remain blissfully ignorant of copyright laws, so in that sense it doesn't impact them. Some of them might not like perceived additional effort –they prefer to go with what the publisher recommends or what they've used before. Other faculty members would be really excited about it. I think the administrators would be thrilled – less time spent on publishing, happier students.	• Cheaper • Happy students
	Mixed reactions from instructors		• IP
	Positive reactions from admins		• Happy students
7	Intrigued by Richard B.	I had the chance to see Richard Baraniuk present in person and found his ideas intriguing. His organization seems to be doing some interesting work that can support learning.	• Support learning

Learning is more than books	Learning is more than just materials though, which I think is a message that sometimes gets missed in his talk. It's only one piece of the puzzle, although it is obviously an important piece.	• Important piece

Memo: Seems like this participant crossed the "individual threshold" as defined by Rogers (2003). Notions relating to OTB would reduce barriers but introduce challenges such as IP and quality control.

Table 3

Dialogues with Participant 3

	Notes	Textual data	Coding
1	Advocates OTB	I am a strong believer in open knowledge sharing, particularly for disadvantaged adult learners who cannot afford further education. I am very familiar with the OpenLearn initiative in the UK, all their Moodle-based	• Strong believer • Affordibilty
	Concerns with authorships and IP	courses utilize PDFs at no cost to the learner, so it is open-text in that sense. I am not certain how the authorship and payment for intellectual property works in OpenLearn and it seems that the texts cannot be edited or changed once	• Authorship • Ownership • IP

	Not satisfied with MIT's OCW	posted. I am not comfortable with MIT's initiative where they provide a link to Amazon.com for the purchase of course text books. I have not investigated too many other open learning groups for their processes.	• Unsatisfied with OCW
2	Ideally OTB is integrated into a fully open course.	I think it only works well if it is tied to DE systems, just reading a book is not sufficient instruction for many topics, the tie-in to a course is best for adult learners. The tie-in to a fully open course (no course fee charged to the student) is my ideal environment for our world.	• Integration
3	OTB is feasible, supports the colloborative authoring	Yes, I do believe collaborative authoring and open textbooks are a viable option for DE. I feel a slight hesitation surrounding the idea that fully open texts, that	• Viable
	Concerns with quality	can be edited by anyone, will lose some of their validity if the expertise of the content is editable.	• Quality control

4	College is expensive, OTBs are good options	The advantages of open textbooks in DE are for the use of those who could not otherwise afford the expensive texts often associated with post-high school learning. Collaborative authoring would allow for a more open sharing of knowledge, less concern with intellectual property and more time devoted to what's best for the learner. The disadvantages are they payment of authors for their time and effort, this is important and cannot be overlooked. The delivery method for reading the text would be digital and it is still a strong reality that many adult learners do not have full or even part-time access to a computer. The content issues might be challenging in a Wiki-type environment where the texts evolve with multiple editing permissions, true expertise might get lost or edited.	• Affordibilty
	Open sharing of knowledge, less concern with intellectual property		• Opennes • Sharing • No IP
	Authors should be compensated for their time and efforts, access to computers can be problem		• Monetary compensation • Limited accesss
	Wiki envionments are prone to quality issues		• Quality control • Editing

			permissions
5	Keen to contribute for own course	I would be very happy to devote time and effort to authoring an open textbook for a course I developed.	• Willing
6	Positive reaction from students	I would expect a positive reaction from students with respect to cost and content, a challenge in convincing instructors and administrators of the quality of the content if it is being offered for free.	• Happy students
	Challenge in convincing instructors and admins		• Challenge

| 7 | Supports the concepts, some quaetions: how will I be paid for my knowledge and expertise if all adults in the world learn and participate through and in open education? | I like the ideas presented and the concepts of the Connexions initiative and open knowledge sharing. The challenge for me, and for many pursuing an expensive education, is how will I be paid for my knowledge and expertise if all adults in the world learn and participate through and in open education? Who is paying for the time and effort of authors, how will university professors continue to be employed in such a paradigm? There are only so many public dollars that can be devoted to research and education, how can they support the full complement of professors and instructors currently employed in | • Affrmative |
| | How can they support the full complement of professors and instructors | | • Monetary compensation |

What will happen to the PhD level of expertise and writing ability? More questions than answers	education institutions? What will happen to the PhD level of expertise and writing ability? What can the compromise of this be? I seem to have more questions than answers. I currently work in a corporate training environment so I have a relatively safe environment from which to ask, when I am finished with my studies and begin to pursue higher education employment, these questions will become more prevalent in my consideration of pay for expertise. As a student and researcher I can adopt an open-positive position. Perhaps my research could work toward figuring out the paradigm.	• Ctitique
As a student and researcher I can adopt an open-positive position Figure out the new paradigm		• Adopt • New paradigm

Memo: Advocates OTB. However notions relating to OTB prompts questions as in the previous cases, for example IP and monetary compensation of OTB authors.

Table 4

Categories, step 1

Categories	Codes
New paradigm	Innovation, comparative analysis, change management, rethink, viable
Accessibility??	Logical step, benefits, multiple perspectives, balanced, well rounded, power inequity
Reducing barriers	Budget, free for use, adaptation, more options, customization, low cost, cheaper, support learning, affordibilty, sharing, no IP, efficincy, quality
Challenges	Rejection, embedded assumptions, scepticism, authorship, ownership, IP, privacy, licensing, time consuming, integration, quality control, Monetary compensation, limited accesss

Tom Jones 10-1-4 1:08 PM
Deleted: Democratization

Table 5

Categories, step 2.

Categories	Codes
Reducing barriers and democratization	Logical step, benefits, multiple perspectives, balanced, well rounded, power inequity, budget, free for use, adaptation, more options, customization, low cost, cheaper, support learning, affordibilty, sharing, no IP, efficiency, quality
New paradigm and challenges	Innovation, comparative analysis, change management, rethink, viable, rejection, embedded assumptions, scepticism, authorship, ownership, IP, privacy, licensing, time consuming, integration, quality control, Monetary compensation, limited accesss

Table 6

Conditional Matrix

Category	What	When	Where	Why	How	Consequences
Reducing barriers and democratization	Process of making textbooks freely available and accessible, OTB	Authoring, publishing and distributing textbooks	MDE program	To minimize or eliminate cost factor	Collaborative authoring, no IP, customizing content	Free textbooks, Authors will be impacted. High or low quality textbooks.

References

Baker, J., Thierstein, J., Fletcher, K., Kaur, M., & Emmons, J. (2009). Open Textbook Proof-of-Concept via Connexions. *The International Review of Research in Open and Distance Learning , 10* (5).

Benkler, Y. (2002). Coase's Penguin, or, Linux and "The Nature of the Firm". *The Yale Law Journal , 112* (3), 369-446.

Benkler, Y. (2006). *The wealth of networks.* New Haven: Yale University Press.

Benkler, Y., & Nissenbaum, H. (2006). Commons-based Peer Production and Virtue. *The Journal of Political Philosophy , 14* (4), 394–419.

Caswell, T., Henson, S., Jensen, M., & Wiley, D. (2008). Open Content and Open Educational Resources: Enabling universal education. *The International Review of Research in Open and Distance Learning , 9* (1).

Creswell, J. W. (2007). *Qualitative Inquiry & Research Design: Choosing among five approaches* (2nd ed.). Thousand Oaks, CA: Sage Publications, Inc.

Creswell, J. W. (2003). *Research Design* (2nd ed.). Thousand Oaks, CA: Sage Publications, Inc.

Rogers, E. M. (2003). *Diffusion of Innovations* (5th ed.). New York: Free Press.