Teachers and Learners as Co-Creators of Knowledge in Distance Education

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ABSTRACT

From a communication viewpoint, distance education is a communication phenomenon whereby many voices are talking, with voice referring to the epistemological sense of knowledge claim. No one voice is privileged over the other. As communicators with valid knowledge claims, both tutors and learners are responsible for knowledge creation; they become co-creators of knowledge. This paper illustrates that the knowledge generated in an online management graduate course is co-created. Throughout the learning process, both tutor and learner contribute to the creation of knowledge, which is not only related to the course topic but also to distance education.

THEORETICAL FRAMEWORK

This is a reflective practitioner's research, which means it is research on one's own practice (Evans, 2000). Being situated within the communication field, I would like to use the communication frame in looking at distance education to show its hidden dimensions. In particular, I take the interpretational view of communication which sees communication as a creation of interpretation, in contrast with the informational view which looks at it as the transmission of information.

I subscribe to the idea that communication is a circular dynamic between conversation and text. Conversation refers to the activities of creating interpretation while text is the content of conversation or the interpretation (couched in language) in material form which includes the interpretation of the conversation itself. Communication is a circular dynamic because conversation creates text which in turn creates conversation. This means the interpretation of a previous interaction defines a successive interaction.

Conversation, according to Taylor (1999), has two basic properties:

1) It has specific circumstances of time, place, occasion, identity of the participants, history and purpose; and
2) To proceed reasonably smoothly, the participants are constrained to respect some basic rules of procedure.

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The second property suggests the equalizing power of conversation – it allows multiple voices to be heard. When used in its epistemological sense, voice refers to knowledge claim. Epistemology is concerned with what counts as knowledge and who can speak such knowledge. Knowledge is embodied in language. Here, I shall relate the property of text. Text is interpretation that is couched in language. What people say is text. Hence, text is knowledge. Communication has the property of recursivity/reflexivity – the text acts back and becomes knowledge.

ONLINE COURSE AS CONVERSATION

I have been teaching the introductory course of a graduate programme – Diploma in Research and Development Management (DR&DM) – at the University of the Philippines Open University since 2004. The course – R&DM 201 (Concepts and Principles of Research and Development Management) – provides students with a conceptual framework for understanding the nature of research and development management.

To make an analysis using communication as a lens, I have to make the assumption that the reality of any R&DM 201 online course is saturated communicationally – it is made up of conversations and texts. The online course is a conversation as my students and I are situated in specific circumstances of time, place, occasion and purpose. The basic rules of procedures are inscribed in the course guide (written by me and read by my students). The course guide includes introduction to the course, course description and goals, course outline, course materials/resources, course requirements, grading scheme, course schedule and contact information. Being read and interpreted, the course guide is a text that creates/generates further conversation.

Taking thefirst semester of 2008 as an instance, in the course's social forum (a venue where the class can get to know the class members, share ideas on becoming distance learners and raise questions related to the DR&DM programme as well as to the mechanics of R&DM 201 course forum), the following conversation ensued in relation to the course guide:

> R&DM 201 Course Requirements and Mechanics
> by JEAN A. SALUDADEZ – Monday, 5 May 2008, 05:51pm
>
> *Some of you may have further questions on the mechanics of the course and on the course requirements (beyond what is written on the R&DM 201 Course Guide). You may use this forum to discuss those concerns.*
>
> *On the course requirements, may I just repeat what is stated on pages 4 to 6 of the R&DM 201 Course Guide, R&DM 201 has three requirements: participation in online discussions, submission of assignments and a final examination. Discussion Fora in the course are textual and asynchronous, meaning discussions happen not in real time. Please feel free to share your thoughts. There is no right or wrong idea. All contribute to knowledge creation. (Just a reminder, share your idea, not someone else's – I mean, no copying from an Internet/offline source and posting it on the board. Also be succinct and short in your posting as much as possible, so that it will have a greater chance of being*

read.) For those who are not able to join any or all of the online discussions, they can submit a write up/essay on the discussion topics listed in the Course Guide. Meanwhile, your assignments will be uploaded in the course site. The floor is now yours for questions. Just hit the REPLY button to post.

Re: R&DM 201 Course Requirements and Mechanics
by STUDENT A – Tuesday, 10 June 2008, 01:27pm
Hi Ma'am, is it mandatory to attend study sessions for this course?

Re: R&DM 201 Course Requirements and Mechanics
by JEAN A. SALUDADEZ- Wednesday, 11 June 2008, 08:58am
We will not have face-to-face study sessions as the course is fully online.

Re: R&DM 201 Course Requirements and Mechanics
by STUDENT B – Tuesday, 17 June 2008, 01:30am
I would like to ask if the discussion will be from 8am to 5pm; it was stated as "any time". I am in Riyadh, KSA, and I just want to synchronize my time as we are 5 hours in advance here and have different weekend/working days.

Re: R&DM 201 Course Requirements and Mechanics
by JEAN A. SALUDADEZ – Wednesday, 18 June 2008, 09:09am
The discussion will be asynchronous (as stated in the Course Guide, page 5). It means the discussion will happen not in real time (the discussion will appear as a thread similar to what you can see now in this social forum), so you can post your take on the discussion topic anytime within the stated period.

The above conversation has become text as it is an interpretation of how the course will proceed.

One more example of a conversation that the course guide as a text created happened in an e-mail exchange I had with another student. Similar to the above conversational episode, the conversation created a text, an interpretation of what the course is about and how it will proceed. In the student's text, he interpreted the approach as linear and requested that the non-linear scheme be applied in his case. My reply clarified the approach adopted in the course.

Student C's e-mail:

Subject: Alternative Approach
From: STUDENT C
Date: Sun, July 27, 2008 11:36pm
To: jsaludadez@upou.edu.ph

I respectfully write you to request for a slight deviation in the schedule norm of your class. I simply cannot cope with the deadlines of my classes, with me recently leaving my full-time employment, starting another business, accomplishing the requirements necessary for its operation and trying to acquire start-up clients to keep me afloat. In line with this, I humbly ask for a non-linear scheme, if you will. I promise to submit all forum reactions and FMAs before the date of our final examination, if you would allow me to. I would really like to continue taking this subject and granting my request would let me do just that.

My reply to Student C's e-mail is as follows:

Subject: Re: Alternative Approach
From: jsaludadez@upou.edu.ph
Date: Tues, July 29, 2008 4:00pm
To: STUDENT C

I understand your situation which you are sharing with other distance education students.

May I say, however, that the approach being used in the class is not linear, rather, it is interactive. The schedule was meant to help accomplish the purpose of creating knowledge, not just completing the course requirements. It was designed in such a way that the student will have time to reflect on the materials read, interact with fellow learners for mutual learning, make and receive comments on the assignments and prepare for the final examination.

It's been my policy not to penalize late submissions (but it does not mean I encourage students to do so if they are not in a difficult situation). E-mail me if I can be of further help.

CO-CREATED COURSE KNOWLEDGE IN THE FORM OF TEXTS

The R&DM 201 course as conversation created several texts that constitute knowledge relating to the research and development management course both as a topic and as a distance education course. Knowledge as text refers to the interpretation of the conversation and the content of the conversation which transpired in the course. As text, knowledge is co-created because it comes to form out of an interaction. As an interpretation, knowledge in the form of text is multiple and fluid, not singular, monolithic or fixed.

The R&DM 201 conversation which took place in a previous semester, the second semester, of 2007, generated such texts. The conversation was structured according to the learning units of the course. Each conversational episode (corresponding to a learning unit) consisted of:

1) an overview of the activities for the particular learning unit including the intent of each activity;
2) an online discussion where students tackled/discussed a particular discussion question/topic;
3) interaction on the submitted assignment; and
4) a note capturing the conversation that took place on the activity or learning unit. The figures below show some samples on how each conversational episode was structured in that particular semester:

Learning Unit I- Framework of General Management

Learning Unit I covers the subject Framework of General Management.

The online discussion is meant to make your theoretical knowledge (that is, knowledge grounded on ideas and abstractions) and your practical knowledge (that is, knowledge grounded on observation and experience) come together in one negotiating table-- suggesting they are equally important in creating knowledge on management.

Meanwhile, the assignment is intended to surface your assumption/theoretical position on management by relating it to the concept of leadership.

- What to you is management?
- FMA for Learning Unit I
- Notes on the Forum "What to you is management"
- Notes on FMA 1

Learning Unit II- Uniqueness of Research and Development (R&D) Management

Learning Unit 11 focuses on a sub-discipline of management—R&D management. Its main objective is to create understanding on the uniqueness of R&D management.

The online discussion aims to surface the class' idea of the concept of creativity – research being described as a creative process-- and on the relationship between creativity and management.

The assignment, meanwhile, is meant to continue the argumentation that creativity can or cannot be managed by taking a position on whether researchers/scientists can manage research/science.

- What is your conception of creativity?
- FMA for Learning Unit II
- Notes on Learning Unit II

Learning Unit III (Management of the Research-Technology Continuum)

Learning Unit III covers a distinct area under R&D Management—the area of technology management.

The online discussion is meant to create knowledge on technology while the assignment is intended as a reflective exercise-- drawing management implications of the technology-society relationship.

- How would you define technology?
- FMA for Learning Unit III
- Notes on Learning Unit III

The conversation was capped by a final exam requiring answers to four questions – the first three were basic questions related to the learning objectives of the course while the fourth question asked students to state their purpose in enrolling in the DR&DM programme and what basic concepts in R&DM 201 have been learned which accomplished the purpose.

KNOWLEDGE RELATING TO RESEARCH AND DEVELOPMENT MANAGEMENT AS A TOPIC

The R&D 201 conversation has generated multiple texts. Two sets of those texts are presented in the succeeding pages. One set of texts is composed of excerpts from my notes on the learning unit activities and another set consisted of a student's (Student D) answer to the fourth question in the final exam. I put them side by side to suggest the multiplicity of texts generated by the conversation. The ordering of the texts does not in any way suggest the primacy of my text over the student's text. Rather, the texts are presented in chronological order. The positioning of the texts tells that the texts are of equal importance – the student's text is as valid as theteacher's text.

As text, my notes on the learning units are knowledge that is co-created – I was able to write the notes out of what the class members contributed in each learning unit. In the same vein, the student's text is equally co-created. The student learned the concepts out of the interactions that transpired in the course.

In Learning Unit I (Framework on General Management), what constitutes knowledge on management – which I labelled in my note as vistas on management – was co-authored by all who participated in the discussion. Similarly, the broadening of the definition of management, as students provided in their posts and as I articulated in the note, has enabled Student D to put labels on what was happening in her work situation, as she answered in the final exam. Both texts illustrate that knowledge on management is co-created.

Excerpt from My Note on **Learning Unit I** posted on 20 December 2008:

For the past weeks (19 November- 10 December 2007), the class has created knowledge on management through your articulation of your idea of management. (I hope you have experienced that articulating one's idea as well as reflecting on others' idea is learning and knowledge creation by itself).

You can see that each post has its own way of looking at management and that the various posts have widened our view of management. Through the illustrations, we were given vistas for management of organizations.

Your idea of what management cannot be separated from your assumption of what an organization is. At the present scholarship, there are two major theoretical positions/paradigms on organization and management—functional and social construction (variants of which include interpretive, critical theory and postmodern). You can also see that the class members position are somewhat scattered across the spectrum of management thinking.

Many of you have taken the functionalist stance—this is also the stance taken by the R&DM 201 Course Module writer—where organization is assumed to be fixed like a machine, where management functions like a machine operator—responsible to make it work. Hence, the focus is on the controls that the operator makes. The functionalist discourse centers on what the management ought to (or ought not) do—prescriptive in nature you could say.

Others have used the social construction's lens. Here, organization is assumed to be fluid, recreated every moment, in people's interpretation and interaction. Thus, the organization is what we make it, and management is everybody's job—what one does affect the whole organization. Some of you have engaged in a discussion on how members participate in decision making. Others have raised the issue of power relations --particularly the power domination in organizational settings. In your posting you have shown the fluidity and instability of your organization as a result of the interactions between and among all the members of your organization. The organization has become not just one person's making, it is what people—managers and managed alike—make it."

Student D's Answer to a Final Exam Taken on 1 March 2008 on Concept Learned from **Learning Unit I:**

> *I learned updated basic concepts on management – that management involves not only the old PLOC (planning, organizing, leading and controlling). Management now includes in its definition and fittingly so, the instilling of values in people, directing and guiding people and communicating with people. This has placed into words what is actually happening in my work situation.*

In Learning Unit II, what constitutes knowledge on R&D management being a unique area of management was co-created by the class members as they defended their position on whether creativity can be managed as I articulated in my notes.

Excerpt from My Note on **Learning Unit II** (Uniqueness of R&D Management) posted on 8 January 2008:

In Learning Unit II we have focused on the uniqueness of R&D Management.

In the online discussion the class has engaged in an interesting discussion/ argumentation on what creativity is. There was variation on how creativity is seen in terms of its nature: from being an ability to being an activity; from being innate human nature to being inherent/innate/intrinsic in/to a certain class of individuals. The intent of the exercise was to surface the multiple understanding of the nature of the work that is done in research and development organizations.

The class continued the discussion/argumentation on whether creativity can be managed or will lend itself to management (or of the contrary position, that it cannot be managed). Unarguably, arguments were put forth creatively and, interestingly. Your position will tell if there is a reason for existence (raison d'etre) for R&D management.

In your assignment, the class has further explored the uniqueness of R&D management. While it has been argued that creativity can be managed, the question of who should manage creativity remains. You were asked to tackle the question, can scientists manage science (as Douglas Hague titled his article in Reader No. 11 of your Reader Volume)? While we have less submissions, I am pleased with how you answered that question. The intent of that question is to surface your assumptions on science and scientists, and to reflect on whether the management (based on your theoretical position on management which you have surfaced in the other forum), of research and development organizations is unique.

Meanwhile, the knowledge that makes research and development management unique is the nature of what is managed – creativity and creative people – and that R&D management is essentially the same as business [general] management – is similarly co-created as suggested in Student D's text.

Student D's Answer to a Final Exam taken on 1 March 2008 on Concept Learned from **Learning Unit II** is as follows:

I learned the nature of creativity and how creative people's needs have to be handled given a better understanding of what motivates them. This has opened my eyes to the very technical people around me at work and made me acknowledge their uniqueness. At the same time, I have learned that management of research and development is essentially the same as my business initiative.

Finally, in Learning Unit III (Management of Research-Technology Continuum), as can be read in my post what constitutes knowledge on technology and technology management was co-created – the two concepts being defined by the various ideas and position taken by the students.

My Note on **Learning Unit III** posted on 27 February 2008 is as follows:

In Learning Unit III the class has given its take on a distinct output of research and development organizations-- technology.

The ideas shared in the online discussion on what technology is have underlying perspective of technology held by scholars in the field. These views can be classified in two: Technological Determinism and Social Shaping of Technology. Technological Determinism views technology as having pre-determined effect. It has "necessary and determinate 'impacts' upon work, upon economic life and upon society as a whole" (Williams and Edge, 1996). Many of you have held this view.

Meanwhile, Social Shaping of Technology views technology as being shaped by social, institutional, economic and cultural milieu. Technology is seen as an effect rather than a cause contrary to the position of Technological Determinism. Some of you have taken this view of technology.

In your assignment you were asked to reflect on the implication for technology management of the relationship between society and technology with Drucker's article on technology and society as a take off point. You may have possibly found in your reading as well a in your review of the literature that there is an abundance of discussion on the management implication of the position that technology shapes society. Such discussion is labeled technology transfer. The concern of management is how a technology/innovation developed elsewhere, will be adopted by the intended end-users. You have probably heard of the user perspective on technology where the concern of management is understanding how people view a certain technology and on developing technologies framed by such perspective. At present the literature on the social shaping of technology is not that many, but you can say it's emerging. Thus, you can expect that there is not much discussion on the management implications of such position.

As you can see, the way you view technology will define how you will manage it. There is still a lot more that can be said about technology management. For those taking DR&DM, technology management will be further explored in R&DM 251 (Technology Evaluation) and R&DM 252 (Technology Commercialization and Utilization).

Reference:
Williams, R. and Edge, D. (1996). The social shaping of technology. Research policy. 25, 856-899

Student D's answers – "I learned that" and "This has widened my view" – similarly suggest that the knowledge on technology and technology management is co-created. What she learned and the widening of her view were products of the interactions that transpired within the learning unit. It is the same as saying without such interaction there may not be such learning.

Student D's Answer to a Final Exam taken on 1 March 2008 on Concept Learned from **Learning Unit III** is as follows:

I learned that technology affects society, that such effects have implications on the management of technology and that there is another perspective of technology that says human/social factors affect technology. This has widened

my view on technology and also further explains why man in the end needs to control himself when coming up with technological innovations. This now explains why technology and society are a continuum.

Earlier, I mentioned that the R&DM 201 course as conversation created several texts that constitute knowledge relating to the research and development management course both as a topic and as a distance education course. In the previous discussion, I attempted to show that knowledge relating to the research and development management course as a topic was co-created. In the succeeding discussion, I shall attempt to show that knowledge relating to the research and development management as a distance education course was also co-created.

KNOWLEDGE RELATING TO R&D MANAGEMENT AS A DISTANCE EDUCATION COURSE

The same R&DM 201 conversation created/generated texts or interpretations of what research and development management as a distance education course is. Again, I shall use as texts my note, particularly excerpts from my wrapping up note for the course, and Student D's answer to the final exam to illustrate that the knowledge relating to research and development management as a distance education course is co-created.

In my note, I interpreted the online course as where local knowledge comes together with the theoretical knowledge on one negotiating table. Such knowledge of R&DM 201 as an online course that levels the field for practice and theory was co-created. It was an interpretation that was created based on the interactions that happened.

Excerpts from My Wrap Up Note posted on 28 February 2008:

We have come full circle in R&DM 201– I hope you benefited from your own exchanges and sharing of experiences. The discussion fora served as "communication arena" or "rooms for learning processes" (Rolfsen, 2004), as I mentioned in the Course Guide and as you might have experienced.*

R&DM 201 – Concepts and Principles on R&D Management – as its description implies is a course on thinking rather than doing. In the fora, I also allowed your own thinking (or others' thinking to which you also subscribe) on the main concepts in R&DM 201 (management, creativity, technology) to get articulated and at the same time be used as analytical lenses for viewing your own organizational context or your own broader social context. I allowed you to make use of your reflections on the past – your thinking on what happened or has happened in your organization – and your observation of that social concept called management as it was being played out by you or by the people who are called managers – to have a say on the theoretical concepts presented in the modules. In this sense, the "local knowledge" came together with the theoretical knowledge on one negotiating table.

**Rolfsen, M. (2004). The tyranny of trends? Towards an alternative perspective on fads in management. In Tourish, D. and Hargie, O. (Eds). Key issues in organizational communication.*

In Student D's answer, she interpreted the online course as where interaction in the form of sharing of experiences happens, making the learning experience enjoyable and rich. Such knowledge of R&DM 201 was co-created as it was an interpretation based on the interaction that happened.

> Student D's Concluding Answer to a Final Exam Taken on 1 March 2008:
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> *My R&DM 201 experience was a most enjoyable learning experience. At first, I was lost on what to share in terms of knowledge because concepts were basically the same and the sharing was of different levels of the same concept. Now I realize that the richness of learning comes from the sharing of experiences and exposures. It is the experiences that make one test concepts and the new concepts that make one more aware and more appreciative of what is happening around me.*

CONCLUSION

From the interpretational/creative view of communication, the teacher-learner relationship is repositioned whereby teachers and learners are co-creators of knowledge (as shown through the conversations that transpired in a graduate class. The responsibility for learning is shared by both the teacher and the learner and both are accountable for the learning outcome.

In the informational view of communication, the teacher-learner relationship is fixed. The teacher/tutor teaches while the learner learns. Knowledge resides in the teacher's head and is transferred to the learner's head. Hence, the role of the teacher is to facilitate the learning process. Much of the “work/improvement” in distance education focuses on how teachers can be effective facilitators.

In my experience teaching at the UP Open University, I have observed that not all students acknowledge or are ready to share responsibility for learning. Thus, it is incumbent upon the teacher/tutor to provide a platform for conversation to take place and to make students see that they contribute to knowledge creation by their mere participation in such conversation. Making students see what they can accomplish is just echoing what Chamber (2001) had articulated. When reviewing works devoted to student’ approaches/ orientations to learning, he noted that a repeated claim in these works is that:

> ...it is seen as the teacher’s job to help students develop awareness of what learning in the discipline consists of: to enter into a dialogue that will help change their *conception* of ‘learning’ so that they may approach their studies appropriately towards engagement in deep, personally meaningful, learning. Attention to this kind of understanding is seen as particularly important for adult students and for teachers operating in an open-entry system such as the OUs... Left to themselves, they may not think about how they are approaching their studies or even realise that the *how* of it matters. So helping these students to adopt a deep approach to their work is of critical importance. To that end, educational technologists and teachers should encourage them to reflect on their study practices... (p.13)

Encouraging students "to reflect on their study practices" seems to be an area that needs to be pursued continuously in present and future teaching/tutoring to make them realize that they are co-creators of knowledge.

REFERENCES

Chambers, E. (2001). *Understanding students' learning 'from the inside': The early work of Alistair Morgan. In Evans, T. Ed. Research in Distance Education 5*. At http://www.deakin.edu.au/education/conferences/publications/ride/2000/doc/Ch_1_Chambers.pdf (accessed January 2006)

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