

## **Comm. 489W**

### **ICT4D Lesson Plan**

#### **1. Specific Learning Objectives for today's lecture:**

1. Define what an information and communication technology (ICT) is (Achieved in 25-minute lecture)
2. Understand the relationship between ICTs and economic and social development (Achieved in 25-minute lecture and group discussion activity)
3. Apply critical thinking skills to create new ICT uses to meet international development goals (Achieved in 25-minute lecture and group discussion activity)

#### **Long-term learning objectives (today's lecture should help establish students' skills and ability to achieve the following long-term learning objectives):**

4. Apply critical thinking skills to evaluate the role of media & information industries in economic and social development through ICTs (Achieved in Haiti case study analysis)
  - a. Identify key players in the establishment of telecommunications infrastructure and access
  - b. Identify barriers and opportunities affecting citizens' abilities to use ICTs for social and economic development
5. Be able to create a best-fitting solution for the development of telecommunications infrastructure, access, and content (Achieved in Haiti case study analysis).

#### **2. Outline of lecture/activities for the class period (see PowerPoint titled "Comm489w ICT4D Lecture")**

25-minute lecture introducing the relationship between ICTs and Society

1. Introduction: What is the relationship between ICTs and Society?
2. What are ICTs?
  - a. Information and communication technologies are mobile phones, telephones, computers, typewriters, the Internet, social media, e-mail, blogs, ipad, ipod, etc.
3. What is the role of media & information industries in the use of ICTs for social and economic development?
  - a. Many media/information industry corporations are taking an active role in developing social and economic-building platforms on their systems. In a sense, they are serving a public service role. Include here a discussion on how telecommunications used to be state-owned and has further regulation to ensure equitable access (i.e., universal access and service policies and funding).
4. Why would media & information industries be interested in supporting development of ICTs for social and economic development?

- a. The “bottom billion” of the world. Investing in the bottom of the pyramid will enable multi-national corporations to reach a huge un-tapped market. Prahalad (1998) [on ANGEL] proposed that governments, businesses, and donor agencies start seeing the poorest “at the bottom of the pyramid” as resilient, creative entrepreneurs and value-demanding consumers. He proposed that multi-national corporations choose to serve these markets in ways responsive to their needs.
  - i. Provide example of Vodafone’s M-PESA in Kenya
  - ii. Provide example of use of mobile phones to aid agricultural productivity among small-scale agriculture entrepreneurs in rural Uganda.
  - iii. Provide example of Vodafone SMS for Life project (video clip is 1 min. 16 sec.)
- 5. In-class group activity/discussion (see Handout in Appendix)
  - a. **Instructions:** Your group will be given 15 minutes to answer the following questions. Please write down the answers to these questions. Delegate someone in your group to serve as the speaker for your group. This person will present your answers/conclusions to the rest of the class. We will spend about 30 minutes presenting and discussing group answers/conclusions
    - i. What are some of the social, political, and economic goals of use of ICTs in developing countries?
    - ii. Try to come up with a new use for ICTs to meet a development goal in a developing country. You may want to reference the United Nation’s Millennium Development Goals.

### 3. Materials to be used

- 6. Before class, students are asked to read: Heeks, R. (2009). ICTs and the world’s bottom billion. *Centre for Development Informatics*. Retrieved from: [http://www.sed.manchester.ac.uk/idpm/research/publications/wp/di/short/di\\_sp10.pdf](http://www.sed.manchester.ac.uk/idpm/research/publications/wp/di/short/di_sp10.pdf)
- 7. Instructor will present a 25-minute PowerPoint lecture introducing the relationship between ICTs and social and economic growth
- 8. Video on *SMS for Life* project through Vodafone (found here: <http://vimeo.com/16430991>)
- 9. Handout on in-class group activity (see Appendix)

### 4. Instructions for follow-up activities

The reaction paper due for this week (Nov. 6) will be focused on ICT4D projects. You are expected to identify an ICT4D project online, summarize the project in your reaction paper, and provide a paragraph assessment of the project. Do you think the ICT4D project is meeting the needs of the community? What is

working well? What is not working well? How would you change the ICT4D project? Has this ICT4D project sparked any ideas you may have for the development of a new ICT4D project?

Helpful ICT4D Project Web sites include: (1) [www.infodev.org](http://www.infodev.org); (2) [www.ictworks.org/project](http://www.ictworks.org/project); (3) [www.i4donline.net](http://www.i4donline.net); (4) [www.ictd2010.org](http://www.ictd2010.org); (5) [www.vodafone.com](http://www.vodafone.com)

## **5. The Haiti case study assignment and rubric**

### **Haiti Case Study Assignment**

Over the next five class periods you will be using the case study method to better understand and contextualize the complex issues surrounding the role of media & information industries in modern society. You must thoroughly read the Haiti case study provided on the course ANGEL Web site in order to participate. The case study we use is focused on the infrastructure and use of telecommunications prior to, during, and after the earthquake in Haiti in 2010. The case study also outlines the different stakeholders and their roles before, during, and after a natural disaster.

Students will be put into teams with individuals delegated as representatives of the different sectors that have a stake in telecommunications infrastructure, access, and use. These teams will include representatives from: (1) the government (including the telecommunications regulator), (2) media & information industry corporations, (3) citizens, and (4) aid and development organizations.

Students are expected to apply critical thinking skills to create the best-fitting solution to the problems identified in the case study. Students should work cooperatively in their groups to identify the key problems and potential solutions based on the material presented in class, readings, and other materials provided by the instructor. Students are also encouraged to do additional research to identify the best-fitting solution to the problems. Student groups should type up their answers and submit them via the course ANGEL Web site drop box by November 29. Students will share their best-fitting solutions to the rest of the class on December 4. Use of visuals and/or handouts are required in the group presentations on December 4. Groups will be given time in class on November 29 to work on these presentations.

### **Grading for participation and presentation in Haiti case study simulation**

All students are expected to participate and will be graded on their level of participation. It is expected that each student do additional research on how the sector of society they represent would likely behave provided with the details outlined in the Haiti case study. Again, the Haiti case study is located on the course ANGEL Web site and it is very important that you thoroughly read the case study and come to class prepared to engage in discussion on the issues found in the case study.

## Rubric for Haiti Case Study Participation and Presentation (30 points total)

This rubric has been adapted from the Association of American Colleges and Universities.

(2011). *Critical thinking value rubric*. Retrieved from:

<http://www.aacu.org/value/rubrics/CriticalThinking.cfm>

	3	2	1	0
<b>1. Explanation of issues in the development of ICT infrastructure access and use after a natural disaster</b>	Issue/problem to be considered in ICT development is stated clearly and described comprehensively, delivering all relevant information necessary for full understanding.	Issue/problem to be considered critically is stated, described, and clarified so that understanding is not seriously impeded by omissions.	Issue/problem to be considered critically is stated but description/justification is ambiguous and unclear	No issue/problem to be considered is stated. No description/justification is provided
<b>2. Provision of evidence in formation of solution</b> <i>Selecting and using information to investigate a point of view or conclusion</i>	Information is taken from source(s) with enough interpretation/evaluation to develop a comprehensive analysis or synthesis. Viewpoints of experts are questioned thoroughly.	Information is taken from source(s) with enough interpretation/evaluation to develop a coherent analysis or synthesis. Viewpoints of experts are subject to questioning.	Information is taken from source(s) with some interpretation/evaluation, but not enough to develop a coherent analysis or synthesis. Viewpoints of experts are taken as mostly fact, with little questioning.	No interpretation of proposed solutions are provided. Viewpoints of experts are taken as fact.
<b>3. Influence of context and assumptions</b>	Thoroughly analyzes own (as sector representative) and other group members' (other sectors) assumptions and evaluates the relevance of contexts when presenting a position.	Identifies own and others' assumptions and several relevant contexts when presenting a position.	Questions some assumptions. Identifies several relevant contexts when presenting position.	Assumptions of own and others' sectors are taken as given or are not provided.
<b>4. Provision of potential solutions</b>	Potential solutions are imaginative, taking into account the complexities of the issue. Limits of position are acknowledged.	Specific position takes into account the complexities of an issue. Others' points of view are acknowledged within position. However, more details are needed.	Specific position taken by group is provided but little acknowledgment of different sides of the potential solution are given.	Specific position taken by group is provided with no acknowledgment of different sides of potential solutions given.
<b>5. Conclusions and related outcomes (implications and consequences)</b>	Conclusions and related outcomes (consequences and implications) are logical and reflect student's informed evaluation and ability to effectively use evidence to bolster proposed solution.	Conclusion is logically tied to a range of information, including potential negative outcomes (consequences and implications) are identified clearly. However, some key evidentiary details are omitted.	Conclusion is logically tied to information; some related outcomes (consequences and implications) are identified clearly. Evidence is missing or misinterpreted.	Conclusion is unrelated to course material and discussion. There is lack of adequate evidentiary material indicating how group reached its conclusion.
<b>6. Group participation in class</b>	Student frequently participates during the in-class case study activity	Student intermittently participates in in-class case study discussion and work. Student tends to be distracted.	Student seldom participates. Lets other group members complete the majority of in-class case study discussion and work	Student never participates in in-class case study discussion and work.
<b>7. Citation</b>	Citations are correctly written in APA format	Almost all citations are correctly written in APA format	A few citations are are correctly written in APA format and some are missing	Citations are not included and/or not written in correct APA format (CAREFUL: THIS IS GROUNDS FOR PLAGIARISM)

	3	2	1	0
GROUP PRESENTATION				
<b>8. Member participation</b> (see <b>Peer Grading</b> handout on ANGEL)	All group members participate and speak to the class during the presentation of their proposed solution. It is apparent that all members contributed and that the presentation is cohesive. It is clear that the <b>Working as an Effective Team</b> guidelines were followed (pp. 24-25 in <i>Puzzled about Team</i> handbook in ANGEL)	Only a few members participate. It is apparent that a couple of members carried most of the weight for the group. Not all members spoke during the presentation. Some of the effective teamwork skills were followed in the <b>Working as an Effective Team</b> guidelines.	--	Only one member participates/presents the group's information and conclusion. It is clear that the <b>Working as an Effective Team</b> guidelines were not followed.
<b>9. Use of visuals in group presentation</b>	A visual is used that is effective at conveying the group's work and proposed solution	A visual is used. However, it does not adequately convey the group's work and proposed solution	--	A visual is not used
<b>10. Use of time</b>	Students hit the 15-minute time limit (Exactly at 15 minutes)	Students go over or are under the 15-minute time limit (1-2 minute range)	--	Students are either well over or well under the 15-minute time limit (3-5 minute range)

## PEER GRADING

Please fill out the form below by providing the name of your group members and their role in the group (remember from the *Puzzled about teams* handbook, roles include: *Facilitator, Time Keeper, Record Keeper, Devil's Advocate*). Give points to your peer from 3 to 0. Three points would indicate that this peer consistently participated and was helpful to the group. Two points would mean this peer intermittently participated and 0 points would mean that this peer hardly ever (if ever) participated or helped the group. The way your peers grade you will factor into the number of points you receive in the member participation (number 8) on the **Rubric for Haiti Case Study Participation and Presentation**. If your group members grade you well, your points may increase (unless you already have the maximum of 3). If your group members grade your work as 0, your points may come down. If your group members give you a zero, I will set up a meeting with you where we can discuss the situation in greater detail.

Date: \_\_\_\_\_

Name and Role: \_\_\_\_\_

Points: \_\_\_\_\_

Name and Role: \_\_\_\_\_

Points: \_\_\_\_\_

Name and Role: \_\_\_\_\_

Points: \_\_\_\_\_

Name and Role: \_\_\_\_\_

Points: \_\_\_\_\_

## APPENDIX.

### HANDOUT for in-class group activity on relationship between ICTs and society

**Instructions:** Your group will be given 15 minutes to answer the following questions. Please write down the answers to these questions. Delegate someone in your group to serve as the speaker for your group. This person will present your answers/conclusions to the rest of the class. We will spend about 30 minutes presenting and discussing group answers/conclusions.

#### QUESTIONS TO BE ANSWERED:

1. Brainstorm: What are some of the social, political, and economic goals of use of ICTs in developing countries?
2. Create a new use for ICTs to meet a development goal in a developing country. You may want to reference the United Nation's Millennium Development Goals (see below).
  - 1). What is the new use?
  - 2). Whom does the new use help?
  - 3). How does the new use work?
  - 4). Why does the new use help?
  - 5). Where would the new use be implemented (i.e., continent, country, etc.)
  - 6). What are the potential barriers to the success of the new use?
  - 7). What are the potential opportunities that will aid the success of the new use?



United Nations (2011). *United Nations Millennium Development Goals*. Retrieved from: [www.un.org/millenniumgoals.bkgd.shtml](http://www.un.org/millenniumgoals.bkgd.shtml)