

IDEV 410
INFORMATION AND COMMUNICATION TECHNOLOGIES FOR
INTERNATIONAL DEVELOPMENT

Spring 2011

Wednesday, 2:00 – 4:30 pm

Lindy Boggs Building, Room 204

PROFESSORS:

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Office Hours: After class and by appointment

COURSE DESCRIPTION

In this current era of globalization, Information and Communication Technologies (ICT) have been both transformative and problematic, for example exacerbating the digital divide while increasing the participation of global civil society. The world has become faster and flatter as information continues to speed up, but many in the developing world have potentially been left behind. This course will examine key issues and trends around ICT and development using different theories, case studies (such as mobile phones in Kenya; the use of social network technologies in Iran post-election protests; and mobile money and its role in development), and participatory hands-on learning approaches (i.e., developing mobile- and web-based applications in class). This course uses three approaches or lenses: neoliberalism, Capabilities Approach (human development) and critical post-developmentalism to evaluate these innovations, technologies, trends, and larger themes that we encounter. We learn about movements and issues such as: ICT4D, “appropriate” technologies for development, the digital divide, social movements, gender, human-centered design, the social construction of technology and more.

GOALS AND LEARNING OBJECTIVES

This course targets international development students with little formal training in information and communication technologies (ICT). You want to understand what ICT means and how ICT as innovations/tools and change-making forces fit into the larger scheme of international development, how they related to normative goals of poverty alleviation and positive social change, and how different ICTs reflect a range of institutions, policies, projects, funding decisions of people and agencies – including you. The goal is to help you, the student, become a more effective researcher, practitioner, and/or policy-maker able to harness ICT for human development. As part of your hands-on learning, you will conceptualize, build or advance, and critically reflect on an ICT application. Thus, this course is intended to familiarize you with the range of tools and applications relevant in the field of development and to provide critical lenses and perspectives to think about how to apply and assess ICT technologies. At the end of

the course, if you complete all assignments, readings and participate actively, you should be able to:

- Correctly use terminology to discuss information and communication technologies, related trends, and issues for development practitioners
- Define and discuss how ICT (generally, and with regard to a specific technology) intersects with development aims, agencies, practice and impacts (i.e., reflects the forces of gender/power/culture, economic development, and co-evolving socio-technical systems)
- Recognize the diverse ways that contemporary technologies are actually used by technical assistance institutions, development projects, and individuals in resource-constrained settings;
- Critically evaluate current ICT tools and their application in development projects, as well as new proposals for using ICT, based on human development, economic growth, and post-developmental/social change perspectives (i.e., reflecting different development theories we introduce in class);
- Distinguish critical barriers to adoption of and innovations in ICT for development by different users, principally the poor and marginalized;
- Identify and use reliable resources and relevant literature for further research on ICT issues and trends in the developing world;
- Appreciate and articulate the challenges and limits of working with ICTs through an applied, human-centered, and hands-on exercise (i.e., web or mobile application) to address a development problem

READINGS

The course uses one main text plus many electronic readings, resources, lecture materials, and handouts. The textbook is available for purchase on-line:

Unwin, Tim. (2009). *ICT4D: Information and Communication for Development*. Cambridge: Cambridge University Press. **ISBN-10:** 052171236X **ISBN-13:** 978-0521712361

Certain chapters are also available online at: <http://www.gg.rhul.ac.uk/ict4d/ict4dbook.html>
Chapters will be assigned for each day of class. Read the selected material prior to class, which will be discussed during class time. All students are expected to participate in class discussion, and group exercises, which count towards the participation grade.

In addition to the textbook, other websites, reports, articles, and book chapters comprise additional readings. Find these on Blackboard.

COURSE REQUIREMENTS

Detailed requirements for each assignment will be posted on Blackboard (BB). Follow instructions! Citations should be in APA format.

Deadlines on assignments are strictly enforced. Every day an assignment is late accounts for a half grade level reduction (i.e. for an A to an A-).

Weekly updates/reports (10)	20%
Short response papers (3)	30%
Hands-on Application	20%
Final Paper	25%
<u>Participation</u>	<u>5%</u>
Final Course Grade	100%

Weekly Updates/Reports

The weekly update/report allows you to reflect on what is new in ICT for development and how technology might help you clarify, identify and solve problems. Students will follow a website, web portal, blog or news service reporting on ICT events in relation to development (or developing areas), and each week share pertinent current events in the ICT world through their blog on the blackboard site, as well as verbally in class. You should follow and report one site continuously throughout the semester and visit others many others as you develop your areas of interest. This exercise will help you relate the course content to real world initiatives, as well as identify your hands-on project and final paper ideas. Your weekly update/report is due each Tuesday by midnight. You post your short update on your own blog through the BB site.

Short (Response) Papers

Short response papers (SRP) present an opportunity to react to specific themes and issues raised in readings and class around ICT and development. Students will write brief (1 page) memos, letter, or essay (while maintaining a blog, website or journal) about a topic of their choice that falls within the scope of international development. Researching the topic and reading current articles around the issue will be necessary. Short papers can be used to construct a literature review for the final research paper. They are due the Friday of the week they are assigned following the pertinent lecture.

- **SRP1** – Barriers to ICT – Using lecture materials, relevant readings and your weekly update/reports; write a short response paper focusing on a specific barrier to ICT use and/or access (such as gender, age/generations, geography, infrastructure, policy)
- **SRP2** – Human-centered design –using examples, explain why is human-centered design is a critical component of ICT for human development (capabilities)
- **SRP3** – Appropriate technology – Think about the concept of appropriate technology, reflect on the role of “appropriate ICT” for rural development and/or economic development, using specific examples

Hands-on Application

Effective use of digital (web, web 2.0, mobile) and non-digital (paper, book, bulletin board) resources are central to development. This assignment forces you to work hands-on to address a specific problem using a range of tools as well as the theoretical and normative concepts of the class (human development, human-centered design). The goal of the hands-on application is for you to identify a real-world (development) problem, discuss and debate possible internet,

mobile-phone or non-digital solutions, implement it if possible, and finally to critically reflect on the process of addressing the problem. Your goal is to take the next feasible next step toward solving a problem in a place you know: New Orleans or your home community. You will use human-centered design principles that address human development concerns.

First, you will identify a problem and develop a short proposal to lay out the problem and conceive of solutions with your target audience in mind. Your project should be based in New Orleans or an area that you are familiar with, rather than an abstract place that you have never been to. You will then be matched with a faculty advisor (one of our instructors or guest speakers) who will work with you as you develop a solution or advance a potential application based on your proposal. You make work in groups of up to (3). You will be responsible for maintaining an individual journal documenting your process and reflections. In-class “labs” (and outside meetings as needed) with faculty advisors will provide dedicated time, space and guidance on using (open source) software and readily available mobile, web or other media or tools to design your solution, develop the code, build a website, conceptualize the human-centered focus group, or other activity. Finally, you will critically reflect on your experience and share your insights in a class presentation (scheduled for the end of the class). You will incorporate this practical experience into your final paper.

Final Paper

The final paper should be approximately 5 to 7 pages (1.5 spacing) of written narrative, plus photos, figures, graphics, etc. as relevant. It will be an in-depth exploration into ICT topics raised in class, focusing on a specific technology, issue in adoption, critical perspectives, or policy issue. This will be most fruitful if it is linked with your hands-on application/exercise, so that your paper can link theoretical, other empirical work, and your practical experiences. We will provide more instructions and guidance in class and help you identify a pertinent topic.

Attendance and Participation

Attend regularly and join in intelligently in class discussion/exercises. **Informed** participation means reading the assigned materials, being prepared and engaged. 100% attendance is expected (with the exception of illness or family emergency or academic conferences with advance warning). Let us know if you cannot make a class, and talk with instructors and students to find out what you missed. Attendance counts towards your overall participation grade.

Grading Scale

A	93-100	C+	77-79
A-	90-92	C	73-76
B+	87-89	C-	70-72
B	83-86	D+	67-69
B-	80-82	F	0-59

Honor Code

All student work is governed by the Tulane University Honor Code. Any violations will be reported to the Honor Board for review. In short, don't cheat and don't plagiarize! You may use statistical data or paraphrase other published works, but only if you provide the complete citation. If you quote someone's exact words, you must use quotation marks and provide the complete citation in the list of references. You may not plagiarize web sites or any other published or unpublished materials. If you have any questions concerning the honor code policy, please direct your questions to the professor for clarification or check the honor code website: www.tulane.edu/~jruscher/dept/Honor.Code.html.

Using Blackboard

Class logistics will be managed via the Tulane Blackboard system. All announcements, homework assignment and guidelines, relevant course materials, PowerPoint presentations, etc. will be posted on Blackboard. There will also be forums on the discussion board where students can ask question to other students, as well as to the professor.

All assignments are to be submitted via Blackboard's Digital Drop Box (DDB) on the due date before midnight. Please keep a copy of all submissions. Be sure submissions are 'sent' as they will be considered late if they are not received by their respective due dates/times. Please save all documents as your "last name_name of exercise". For example: Priebe_WU1 or Priebe_SP1. Detailed instructions for using the DDB can be found on blackboard.

COURSE SCHEDULE

Date	Theme	Key Concepts	Assignment	Readings
Wed, 1/12	Overview of course, Introduction to ICT and Development: The Case of the Cellphone through three development lenses (Laura Murphy, Alexandra Priebe)	Modernization theory, neoliberalism, capabilities approach, postdevelopment/critical theory		Unwin, Ch. 1 & 2
Wed, 1/19	Unpacking ICT for Development: Critical Thinking around ICT and "Development" (Alexandra Priebe)	The Digital Divide, Knowledge vs. Information, the Network Society	Weekly update	Unwin, Ch. 3 & 4
Wed, 1/26	Gender and Generation issues, constraints and trends in ICT for Development (Alexandra Priebe)	Gender, Youth, Policy, Exclusion	SRP 1 (due Friday by Midnight)	Unwin, Ch. 5

Wed, 2/2	Social Movements, Citizen's media, Democracy (Alexandra Priebe)	Participatory media, crowdsourcing, web 2.0, censorship Case Studies: Iran 2009; Mumbai, India 2008	Weekly update	TBA Websites
Wed, 2/9	Social networking/ Virtual Networks (Deborah Elzie)	Human-centered design	SRP 2 (due Friday by midnight)	TBA
Wed, 2/16	The Mobile Phone in Rural Africa (Laura Murphy)	Capabilities, mobile money, transnational households, livelihoods, digital divide Case Study: Cellphones in Kakichuma, Kenya	Weekly update	Economist, 2009; IDS, 2007; Murphy & Priebe 2010
Wed, 2/23	ICT and education (Gloria Toro)	OLPC, E-learning, knowledge transmission • Tech lab	Weekly update	Unwin, Ch. 7 Additional readings
Wed, 3/2	Digital Government (Gloria Toro)	e-Government, Governance, Democratization, Empowerment, Hypersurveillance, G2C, M2C • Tech lab	Weekly update	Unwin, Ch. 9 Additional readings
Wed, 3/9	Spring Break – No class			
Wed, 3/16	ICT and Economic Development (Gloria Toro)	e- and m-Business, e- and m-entrepreneurship, Incubators, Bottom of the pyramid business models, productivity paradox • Tech lab	Weekly update	Unwin, Ch. 6 Economist, 2009
Wed, 3/23	ICT and Rural Development (Gloria Toro)	ICT and rural communities. Telecenters - E-Community Centers for capacity building. E-agriculture • Tech lab	SRP 3 (due Friday by midnight)	Unwin, Ch. 10
Wed, 3/30	ICT and Health (Laura Murphy, Alex Priebe)	e-Health, m-Health, telemedicine, HMIS, data collection, disease surveillance Case study: The use of mobile phones in a RDS study of migrant workers in New Orleans (John Hembling) Tech demonstration: Episurveyor (Louis Rosencrans)	Weekly update	Unwin, Ch. 8
Wed, 4/6	Humanitarian Disaster, Complex Emergencies and ICT (Alexandra Priebe)	Information flows, early warning systems, interoperability and resilient technology, actors, crisis mapping Case study: Kenya post-election violence, 2008	Weekly update	Coyle & Meier, 2009
Wed, 4/13	Multimedia for Development – “The	Multimedia production	Weekly update	TBA

	Do's and Don'ts" (Deborah Elzie)			
Wed, 4/20	Student Presentations		Weekly update	
Wed, 4/27	Student presentations		Final Paper (due Friday by midnight)	

Vocabulary/Terminology

ICT	Technology leapfrogging	<i>Neoliberalism</i>
Digital divide	e-Government	Privatization
Globalization	e-Commerce	Liberalization
Network society	e-Business	Regulatory framework
Information Society	Productivity paradox	
Knowledge society	Value chain	<i>Post-developmentalism</i>
Socio-technical systems	e- entrepreneurship	Critical theory
Diffusion of innovations	microenterprise	Gender
Knowledge management	Mobile money	Power
Appropriate technology	Bottom of the pyramid	grass-roots
Intermediate technology	business models	community-based
Internet	Incubators	knowledge(s)
New media	Telecenters	participation
Digital media	Kiosks	
Web 2.0	Cybercafes	<i>Human Development (UNDP)</i>
Mash-up	Village phones	Capabilities approach
Participatory media	e-Health	functionings
Crowdsourcing	m-Health	freedoms
Convergence	telemedicine	deprivations (poverty as
Mass media	surveillance systems	deprivations)
Social Networking	electronic health records	globalization (UNDP variant)
Collaborative content projects	ICT4D	governance
Citizen journalism	M4D	human security
Twitter	Telecommunications	livelihoods framework
Blogs	infrastructure	poverty (income-poverty)
Wikipedia	Electrification	deprivations
Mobile Applications	Access	social capital
VoIP	Connectivity	
SMS	Teledensity	<i>Rights-based development</i>
IM	Broadband	human rights (natural rights)
Mobile web	3G/4G	
Public access Internet	e-Waste	
Open source	Conflict minerals	
Transparency	Human centered design	
Hacking/denial of service		
Cybercrime		
Censorship		
Control		
Exclusion		
User rights		