

# Deepti Chittamuru

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## EDUCATION

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<b>PhD</b>	Jul '17
UNIVERSITY OF PENNSYLVANIA, Communication	
<i>Focus: Health Communication, Persuasive Technologies, Information &amp; Communication Technologies for Development</i>	
<b>Masters</b>	Jun '12
UNIVERSITY OF PENNSYLVANIA, Communication	
<i>Focus: Health Communication, Persuasive Technologies, Information &amp; Communication Technologies for Development</i>	
<b>Masters</b>	Aug '09
UNIVERSITY of CALIFORNIA BERKELEY, Information Management & Systems	
<i>Focus: Human Computer Interaction, Information &amp; Communication Technologies for Development</i>	
<b>B. Tech</b>	May '06
ANDHRA UNIVERSITY, GITAM College of Engineering, Computer Science	
<i>Major: Computer Science &amp; Systems Engineering</i>	

## GRANTS

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<b>University of Pennsylvania</b>	
Dissertation Research Grant, \$1,200	'17
Dissertation Research Fellowship, \$28,000	'15
Doctoral Fellowship, \$50,000 per annum	'10 – '15
Dean's Summer Research Fellowship, \$5,000 per annum	'10 – '15
COMPASS Fellowship, \$5,000	'13
Provost Interdisciplinary Seminar Fund, \$30,000	'12
Center for Advanced Studies Summer Research Grant, \$1,500	'11
<b>University of California Berkeley</b>	
Berkeley International Office Scholarship, \$3,000	'08
Berkeley Institute of Design Research Assistant Fellowship, \$15,000	'08
School of Information Graduate Fellowship, \$30,000	'07

## PROFESSIONAL EXPERIENCE

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<b>Postdoctoral Research Fellow, School of Nursing</b>	Aug '17 – Present
<b>Distinguished Research Fellow, Annenberg School for Communication</b>	
UNIVERSITY OF PENNSYLVANIA, Philadelphia, PA	
– Collaborate on an NIH funded project to design, deploy and evaluate a technology-supported HIV risk reduction intervention for African American and Hispanic sexual minorities.	

- Analyze correlates of PrEP awareness amongst young men who have sex with men and drivers of their retention in technology-based HIV prevention interventions  
PI: Dr. Jose A. Bauermeister
- Conduct a content analysis of Twitter data on an NIH funded project to identify key characteristics of messages discussing sexual behavior and HIV/STI risk related topics amongst men aged, 13-24 years
- Lead a qualitative coding team of four to code a body of nearly 10,000 tweets  
PI: Dr. Robin Stevens
- Collaborate on an NIH funded project to analyze effects of PrEP stigma and PrEP initiation attitudes, norms and self-efficacy on PrEP initiation intention amongst at-risk women in Philadelphia and NYC  
PI: Dr. Anne Teitelman

**Doctoral Candidate: Dissertation Thesis**

Dec '14 – Jul '17

UNIVERSITY OF PENNSYLVANIA, Philadelphia, PA

- Conducted a randomized controlled trial with 203 participants to evaluate an online video-based structural intervention to reduce HIV risk amongst African Americans between the ages of 18 and 24
- This theory-informed HIV prevention intervention's development was funded by the NIH
- Conducted three measurements of behaviors and theoretical mediators using baseline, immediate-post and 3-month follow-up surveys and interviews with a random sample of 20 participants to identify mechanisms of intervention effect
- Managed project through ideation, proposal development, web design, project planning, implementation and reporting with a team of participant recruiters and web development engineers  
PI: Dr. Deepti Chittamuru

**Research Associate**

Jan '11 – Jul '17

UNIVERSITY OF PENNSYLVANIA, Philadelphia, PA

- Conducted statistical analysis i.e. multilevel analyses, structural equation modeling, mediation analysis and moderation analysis for two datasets collected in two cluster randomized controlled trial with four and six follow up measurements respectively after the interventions
- The two datasets were generated from NIH grant funded trials conducted in Philadelphia's barbershops for young adult African American men and in housing projects across Philadelphia for African American Mother-Son dyads respectively
- Conducted usability testing for a mobile phone based HIV risk reduction intervention developed using NIH grant funding  
PI: Dr. John B. Jemmott III and Dr. Loretta S. Jemmott

**Research Intern**

Oct '13 – Dec '13

MICROSOFT RESEARCH INDIA, Bangalore, India

- Conducted a qualitative research study of a mobile phone based Tuberculosis medication adherence application (99DOTs), for low literate populations.
- Conducted 20+ in-depth interviews to elicit feedback on user experience of the application. Proposed design changes to the mobile application to improve user experience and enhance efficacy  
PI: Dr. Bill Thies

**Health Technology Expert**

May '13 – Jun '13

THE WORLD BANK, Washington D.C.

- Acted as subject matter expert on Information and Communication Technologies for Development for maternal, child health and microfinance projects in Africa. Conducted a literature review of technology-based behavioral interventions for maternal health

- Evaluated efficacy of mobile platforms to monitor maternal and child health interventions in Africa.
  - Recommended labor efficient alternatives, resulting in ~10% savings on technology costs
- Supervisor: Andreas Seiter

**Research Intern**

May '12 – Aug '12

MICROSOFT RESEARCH INDIA, Bangalore, India

- Conducted a qualitative research study that employed unstructured interviews and participant observation to elicit attitudes, beliefs and values that inform healthcare decisions amongst pregnant women and their families in rural India.
  - Received best paper award for one of the papers authored, based on the insights from the study
- PI: Dr. Deepti Chittamuru

**Graduate Researcher**

May '11 – Aug '12

UNIVERSITY OF PENNSYLVANIA, Philadelphia, PA

- Conducted a needs assessment for mobile-based maternal health interventions in rural India.
  - Conducted 120+ unstructured interviews, participant observation and focus groups to identify challenges to adopting recommended maternal health behaviors.
- PI: Dr. Deepti Chittamuru

**Researcher**

Jun '10 – Aug '10

UNIVERSITY OF CALIFORNIA BERKELEY, Berkeley, CA

- Designed a quasi-experiment that employed non-random participant selection and a control group to study the effects of a multiple mice computer interface (*Meta Mouse*) on children's learning abilities and collaborative behavior in rural India.
  - Conducted baseline unstructured interviews with teachers, students and school administrators.
- PI: Dr. Kurtis Heimerl

**Graduate Researcher**

May '09 – Aug '09

UNIVERSITY OF CALIFORNIA BERKELEY, Berkeley, CA

- Conducted needs and usability assessment of a Voice Based Online Community (*Avaaj Otalo*)
  - Used qualitative research methods like ethnography to understand the influence of social, cultural and political forces on the usage of Voice Based Online Community in rural India.
  - Elicited needs, discovered behaviors to be supported and features to be added to *Avaaj Otalo*.
  - Co-authored a conference paper presented at CHI (The world's premier Human Computer Interaction conference) that won best paper award, based on insights from the study
- PI: Dr. Tapan Parikh

**Graduate Researcher**

May '08 – May '09

UNIVERSITY OF CALIFORNIA BERKELEY, Berkeley, CA

- Funded by the NSF to evaluate usability of mobile learning games (*MILLEE*) in rural India
  - Elicited personas and scenarios for mobile phone-based learning in the daily lives of rural children
  - Conducted interviews and participant observation to gain insight into social, cultural and political aspects of their learning and play environments
  - Recommended major changes in the design of the application based on insights from field study and interviews with the children
- PI: Dr. John Canny

## **PUBLICATIONS**

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**Chittamuru, D.**, Icard, L., Jemmott, J. B., O Leary, A. (2018). Prospective Predictors of Multiple Sexual Partners among African American Men who have Sex with Men (MSM). *Archives of Sexual Behavior (in print)*

Wagner, D. A., Buek, K., Adler, A. Castillo, N., Zahra, F. T., Lee, J., **Chittamuru, D.** & Lee, S. (2016). Review of *World Development Report: Mind, Society and Behavior* by World Bank, *Comparative Education Review*. 60 (3). pp. 601-603. DOI: 10.1086/687036

## **MANUSCRIPTS SUBMITTED FOR PUBLICATION**

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**Chittamuru, D.**, Jemmott J. B. "Randomized Controlled Trial of Reality Check: An Online HIV Prevention Intervention for African American Young Adults"

Icard, I., **Chittamuru, D.**, Rutledge, S. "Predictors of The Retention of African American Mothers In A Parent Centered HIV Preventive Intervention"

Meanley, S., Tingler, R., **Chittamuru, D.**, Bauermeister, J. A. "Applying resilience theory models to contextualize transactional sex engagement among young sexual minority men"

## **MANUSCRIPTS IN PREPARATION**

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**Chittamuru, D.**, Bhavsar, M. "Evaluating CommCare: A Mobile Phone Based Job Aid for Community Health Workers in Rural India"

**Chittamuru, D.**, "Mother's Beliefs About Iron Folic Acid Consumption in Rural India: A Theory Based Elicitation Study"

**Chittamuru, D.**, Jemmott J. B. "Mediation of Effects in An Online HIV Prevention Intervention for Young Adult African Americans"

**Chittamuru, D.**, Teitelman, A. M., Koblin, B. "The Effect of PrEP Stigma on PrEP Initiation Intention Among At-Risk Women in New York and Philadelphia"

Jemmott L. S., Jemmott J. B., **Chittamuru, D.**, O'Leary, A. "Effects of a Theory-based HIV Risk-Reduction Intervention for Mothers on Sexual Behaviors among African American Mothers and their Adolescent Sons: A Randomized Controlled Trial"

Jemmott L. S., Jemmott J. B., **Chittamuru, D.**, O'Leary, A. "Efficacy And Mediation of a Theory-based HIV Risk-Reduction Intervention In Barbershops for Young Adult African American Men: A Randomized Controlled Trial"

**Chittamuru, D.**, Weingarten, R., Connochie, D., Stephenson, R., Bauermeister, J. "Addressing retention challenges in a community-based online program for young men who have sex with men and transgender women in Metro Detroit"

**Chittamuru, D.**, Weingarten, R., Connochie, D., Stephenson, R., Bauermeister, J. "Limited PrEP awareness and use among young men who have sex with men and transgender women in Metro Detroit"

## CONFERENCE PAPERS & AWARDS

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**Chittamuru, D.** (2016, March). Mobile Technologies in Maternal health: A Literature Review presented at *Comparative And International Education Society*, Vancouver, Canada.

**Chittamuru, D.** (2015, July). The Role of Social Influence In HIV/AIDS Prevention Interventions presented at *International Association for Media & Communication Research Conference*, Montreal, Canada.

**Chittamuru, D.** (2015, March). Meaning Making, Mobiles & Maternal Health in Rural India presented at *Comparative And International Education Society*, Washington D.C.

**Chittamuru, D.** (2014, July). Habits: Randomized Controlled Trial of a Diabetes Prevention Program presented at *International Association for Media & Communication Research Conference*, Hyd., India.

**Chittamuru, D.** (2013, June). Beliefs In Rural India About Recommended Maternal Health Behaviors: An Elicitation Study presented at *International Association for Media & Communication Research Conference*, Dublin, Ireland.

**Chittamuru, D.** (2012, July). CommCare: Evaluation of a Mobile Application for Maternal Health, presented at *International Association for Media & Communication Research Conference*, Durban, South Africa. **Best Paper Award** in Communication Policy and Technology Section

**Chittamuru, D.** (2012, July). Issues Influencing Maternal Healthcare Behaviors in Rural India, presented at *International Association for Media & Communication Research Conference*, Durban, South Africa

**Chittamuru, D.** (2011, May). MILLEE- Social Dynamics of Mobile Phone Use Amongst Children in Rural India, presented at *International Communication Association Conference*, Boston, MA.

Patel, N., **Chittamuru, D.**, Jain, A., Dave, P., Parikh, T.S. (2010, May). Avaaj Otalo- A Case Study of Voice Based Social Media in Rural India presented at *ACM Conference on Human Factors in Computing Systems (CHI) Conference*, Atlanta, GA. **Best Paper Award**

Kumar, A., Tewari, A., Shroff, G., **Chittamuru, D.**, Kam, M., Canny, J. (2010, May). An Exploratory Study of Unsupervised Mobile Learning in Rural India, presented at *ACM Conference on Human Factors in Computing Systems (CHI)*, Atlanta, GA. **Honorable Mention**

## TALKS & PRESENTATIONS

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“Reality Check: A Case Study in Leveraging Entertainment-Education for HIV Prevention” Feb 2018

“Deploying Technology for Maternal Health in Rural India”, at Indian Institute of Management Bangalore, India Aug 2017

“Reality Check: An Online HIV Prevention Intervention”, at Saint Joseph’s University, Philadelphia, PA. Apr 2017

“Human Centered Design for Development: Designing A Theory Based HIV Prevention Intervention”, at Temple University, Philadelphia, PA. Feb 2016

“Meaning Making, Mobiles & Maternal Health”, at <i>Temple University</i> , Philadelphia, PA.	Apr 2015
“99DOTS: Evaluation of A Mobile Phone Based Medication Adherence Application”, at <i>Microsoft Research India</i> , Bangalore, India	Dec 2013
“Persuasive Technologies in Maternal Health”, at <i>The World Bank</i> , Washington D.C.	May 2013
“CommCare: Evaluation of a Mobile Phone Based Maternal Health Intervention”, at <i>Microsoft Research India</i> , Bangalore, India	May 2012
“Millee: Social Dynamics Of Mobile Phone Use By Children In Rural India” at <i>University of California Berkeley</i> , Berkeley, CA	May 2009
“Lulan – An exercise in redefining a brand”, Team Presentation with Garg, S., Onsrud. H. & Pearson, M. at <i>University of California Berkeley</i> , Berkeley, CA	Dec 2008
“WhtWhnWhr – Novel Interaction with Event Calendars”, Team Presentation with Narayan, S. & Gordon, J. at <i>University of California Berkeley</i> , Berkeley, CA	May 2008
“aAqua – Visualization of an Online Community of Farmers in Rural India”, Team Presentation with Kumar, R. & Sen, A. at <i>University of California Berkeley</i> , Berkeley, CA	May 2008
“UCWise – Redesigning an Online Learning System at the CS department of UC Berkeley”, Team Presentation with Narayan, S., Rogan. S. & Lim, M. at <i>University of California Berkeley</i> , Berkeley, CA	Dec 2007

## SELECTED PROFESSIONAL ACTIVITIES

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### Manuscript Reviewer

Information Technologies And International Development, Ad Hoc  
Journal of Children and Media, Ad Hoc

## MEMBERSHIP IN PROFESSIONAL AND SCIENTIFIC SOCIETIES

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Member, International Association of Media and Communication Researchers	May '11 – May '16
Member, International Association of Communication	May '11 – May '12
Member, Comparative and International Education Society	Mar '12 – Mar '17

## TEACHING EXPERIENCE

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**Certificate in University Teaching, Center for Teaching & Learning** Aug '13  
UNIVERSITY OF PENNSYLVANIA, Philadelphia PA

**Teaching Assistant, Introduction To Communication Behavior** Jan '13 – May '13  
UNIVERSITY OF PENNSYLVANIA, Philadelphia PA

- Taught two weekly 60 minute sessions of 20 students each for the duration of the semester.
- Designed and administered assignments and tests.
- Graded and offered feedback on final papers and capstone projects.

**Teaching Assistant, *Persuasion And Communication*** Jan '11 – May '11  
UNIVERSITY OF PENNSYLVANIA, Philadelphia PA

- Delivered lectures to a class of 70+ students in the absence of the professor.
- Designed and administered assignments and tests.
- Critiqued and offered feedback on final papers and capstone projects.

**Teaching Assistant, *User Interface Design & Development*** Jan '09 – May '09  
UNIVERSITY OF CALIFORNIA BERKELEY, Berkeley CA

- Graded papers and assignments and answered questions regarding lecture or homework materials

**Teaching Assistant, *Society & Information Technology*** Jan '08 – May '08  
UNIVERSITY OF CALIFORNIA BERKELEY, Berkeley CA

- Graded papers and assignments and answered questions regarding lecture or homework materials

## **NON-ACADEMIC WORK EXPERIENCE**

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**Program Manager Intern** Feb '10 – May '10  
INTEL, Bangalore, India

- Designed technology solutions for e-governance challenges like the Mahatma Gandhi National Rural Employment Guarantee (MGNREGA) program and wrote white papers about the same.
- Liaised with state and central government officials to bring the Govt. of India onboard and persuaded them to support our implementation of the said technology solutions.

**Technology Research Intern** Nov '09 – Feb '10  
BASIX, Hyderabad, India

- Conducted a study with the social performance management team in BASIX to inform the design of a technology enabled process that delivers financial services to customers in rural India.
- Employed document analysis, interviews and participant observation of employees and customers to identify inefficiencies in existing business processes and
- Designed new business processes which were ~15% more efficient

**Product Management Intern** Jun '08 – Aug '08  
LITHIUM TECHNOLOGIES, Emeryville, CA

- Conducted a user needs assessment for their new product offering, 'Analytics'.
- Created visualizations for large data-sets to highlight insightful patterns hidden in the data.

**Quality Lead** Jun '06 – Jun '07  
COMPUTER SCIENCE CORPORATION INDIA Pvt. Ltd., Chennai, India

- Helped senior management gain a better understanding of the reasons for the ineffectiveness of the standard QA methods, practiced across CSC, at their India facility.
- Recommended changes to QA processes to suit the cultural context, reducing UAT errors by ~20%.

**Lead Member** Mar '94 – Sep '99  
ONENESS UNIVERSITY, Chennai, India

- Youngest member (15 years old) of a six-member leadership team that managed the institution
- Set up centers in several cities and gave public speeches to large audiences (1000+ attendees)
- Managed teams of 50+ people and organized events attended by 5000+ participants

- Conducted Personal Development workshops with 100+ participants per workshop

## **VOLUNTEER ACTIVITIES**

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### **Fundraiser**

Sep '08 – Sep '13

VIDYASTHALI, Uttar Pradesh, India

- Raised ~\$9000 over six years to sponsor school girls in rural Uttar Pradesh in India.

### **Founding Member, ICT4D Organizing Committee**

Sep '10 – May '11

UNIVERSITY OF PENNSYLVANIA, Philadelphia, PA

- Led an interdisciplinary faculty and student committee across five graduate schools at Penn to organize a seminar series on Information & Communication Technologies for Development.
- Raised \$30,000 for the seminar series and invited speakers from Europe, Asia and across USA
- Managed a team of engineers, audio-visual team and administrative staff.

### **Member, Graduate Student Council**

Sep '10 – May '11

UNIVERSITY OF PENNSYLVANIA, Philadelphia, PA

- Elected to represent student interests to the school administration, offer student feedback on hiring new faculty and curriculum as well as organize social events.

### **Student Representative, Academic Affairs Committee**

Dec '07 – May '09

UNIVERSITY OF CALIFORNIA BERKELEY, Berkeley, CA

- Elected to represent the students and their concerns to the school's administration and to provide student feedback regarding matters such as hiring new faculty and curriculum.

### **Chairperson of Social Service/Recreation Committee**

Aug '06 – Jun '07

COMPUTER SCIENCE CORPORATION INDIA Pvt. Ltd., Chennai, India

- Successfully led a team of employees with decades of experience in the IT industry.
- Conducted health awareness and vocational training camps in a village adopted by CSC

## **SKILLS**

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### **STATISTICAL ANALYSIS**

Regression Analysis, ANOVA, Mediation and Moderation Analysis, Cluster Analysis, Hierarchical Linear Modeling, Structural Equation Modeling

### **QUANTITATIVE METHODS**

Surveys, Lab Experiments, Randomized Controlled Trials, A/B Testing

### **QUALITATIVE METHODS**

Ethnography, Unstructured Interviews, Focus Groups, Participant Observation, Contextual Inquiry

### **USER EXPERIENCE METHODS**

Scenarios, Personas, Needs Assessment, Heuristic Evaluation, Usability Testing

### **STATISTICAL SOFTWARE**

MPLUS, STATA, SPSS, SAS

### **TECHNICAL**

HTML, CSS, Adobe Premiere Pro CC

### **LANGUAGES**

English, Hindi, Telugu, Tamil, Kannada