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South Asia Institute Summer 2015 Program
Using Mobile Technology to Change Societies
Syllabus
http://southasiainstitute.harvard.edu/mobile-technology-summer-program-internal-page/

APRIL & MAY
Focus: Preparatory Meetings
Location: Cambridge

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April 16, 10 – 12 pm, Harvard University Loeb House
Mobile Technology to Access Healthcare Services: Case Studies from the Global South

April 16, 12 – 1 pm, Harvard University Loeb House
Meeting with Satchit Balsari

April 30, 4 – 5:30 pm, S050, CGIS South
Pre-Departure Orientation with the South Asia Institute

May 5, 4:30 – 5:30 pm, S153, CGIS South
Meeting with Tarun Khanna, JP Onnela, and Ian Barnett

*Readings: It is recommended that you read at least **two reading from the India and South Asia Introduction** section and **three from each of the other categories** for a general introduction to the program topics.*

INDIA AND SOUTH ASIA INTRODUCTION *(Choose two readings)*
Guha, Ramchandra (2007). *India After Gandhi: The History of the World's Largest Democracy*. New York: HarperCollins Publishers.
Khanna, Tarun (2007). *Billions of Entrepreneurs: How China and India are Reshaping Their Future and Yours.* Boston: HBS Publishing.
Luce, Edward (2007). *In Spite of the Gods: The Rise of Modern India*. New York: First Anchor Books Edition.
Afford Two: Eat One: Financial Inclusion in Rural Myanmar (Part 1) (Part 2) (Part 3) (Part 4)
The Economist: Special Report: Modi's India
EkStep Background Slide Deck

TECHNOLOGY INTRODUCTION *(Choose three readings)*
GSMA. (2015). *Mobile for Development mHealth Mobile SIM based Medical Applications.* Kleeman M., Harris M. & Erasmus J. Available at: http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2015/02/GSMA-M4D-mHealth-Mobile-SIM-based-Medical-_Applications.pdf
Vodafone Group Plc. (2014).*Connected Worker: How mobile technology can improve working life in emerging economies*. Available at:http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2013/08/Vodafone-Connected-Worker.pdf
GSMA. (2014). *Digital Inclusion.* Available at: http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2014/11/GSMA_Digital-Inclusion-Report_Web_Singles_2.pdf
GSMA. (2014). *State of the Industry Mobile Financial Services for the Unbanked.* Available at http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2015/03/SOTIR_2014.pdf
GSMA (2015). *M4D Impact Products & Services Landscape Report.* Available at: http://draft-content.gsmaintelligence.com/AR/assets/6717456/Products%20%26%20Services%20Annual%20Review.pdf
Thomas, A. (2013). The imminent take-off of mobile technology. Airline Business, 29(8), 16-17. (Available on HOLLIS)
10 mobile technology trends of 2014. (2013, Dec 30). PCQuest. (Available on HOLLIS)
Mcandrew, P., Taylor, J., & Clow, D. (2010). Facing the challenge in evaluating technology use in mobile environments. Open Learning: The Journal of Open and Distance Learning, 233-249. (Available on HOLLIS)
Maurer, B., Nelms, T., & Rea, S. (2013). 'Bridges to cash': Channelling agency in mobile money. Journal of the Royal Anthropological Institute, 19(1), 52-74. (Available on HOLLIS)
Banerjee, A., Duflo, E., Goldberg,N., Karlan,D., Osei,R., Parienté, W., Shapiro,J., Thuysbaert,B., and Udry,C. (2015). A multifaceted program causes lasting progress for the very poor: Evidence from six countries. Science 15 May 2015: 348 (6236), 1260799 [DOI:10.1126/science.1260799]. Available at:http://www.sciencemag.org/content/348/6236/1260799.abstract
Appadurai, A. (2004). The Capacity to Aspire: Culture and the Terms of Recognition. In Rao, V. & Walton, M. (Eds.), *Culture and Public Action.* Stanford University Press. Available at: http://www.laboratorio-

REGULATIONS AND PRIVACY INTRODUCTION (Choose three readings)
Government Policies & Regulations: Impact on Mobile Commerce in Indian
Context. http://www.m4life.org/proceedings/2006/PDF/22_Sharma.pdf
Challenges for Mobile Governance in India: A Legal Perspective, 2014http://link.springer.com/chapter/10.1007%2F978-1-4899-7439-6_15
Information Technology Act, 2000 http://en.wikipedia.org/wiki/Information_Technology_Act_2000
Overview of regulations in the education sector, 2012 http://www.idfc.com/pdf/report/2012/Chapter_1.pdf
Untangling the data debate: definitions and implications - Tim Davies: http://www.timdavies.org.uk/wp-content/uploads/Untangling-the-data-debate.pdf
Big Myths About Big Data: Daniel Solove; http://www.techpolicy.com/Blog/September-2014/Big-Myths-About-Big-Data.aspx
Who owns the data once it becomes part of big data?: Michael Kassner; http://www.techrepublic.com/article/who-owns-the-data-once-it-becomes-part-of-big-data/
Big Data's Dangerous New Era of Discrimination: Michael Schrage; https://hbr.org/2014/01/big-datas-dangerous-new-era-of-discrimination/
The Big Data conundrum: Missing the big picture on Big Data - G. Sampath: http://www.thehindu.com/news/national/the-big-data-conundrum/article7224734.ece
Freedom from Monitoring: India Inc Should Push For Privacy Laws - Sunil Abraham:
http://forbesindia.com/article/recliner/freedom-from-monitoring-india-inc-should-push-for-privacy-laws/35911/1
Being Facebook's guinea pig: Time for India to get a privacy law? - First Post staff: http://www.firstpost.com/living/being-facebooks-guinea-pig-time-for-india-to-get-a-privacy-law-1596899.html
Has Privacy Become a Luxury Good?: Julia Angwin; http://www.nytimes.com/2014/03/04/opinion/has-privacy-become-a-luxury-good.html?_r=0
The Tradeoff Fallacy: How Marketers are Misrepresenting American Consumers and Opening Them Up to Exploitation: Joseph Turow, Michael Hennessey, Nora Draper; https://www.asc.upenn.edu/sites/default/files/TradeoffFallacy_1.pdf
Web privacy is the newest luxury item in era of pervasive tracking: Paul F. Roberts;
http://www.csmonitor.com/World/Passcode/2015/0216/Web-privacy-is-the-newest-luxury-item-in-era-of-pervasive-tracking
Selected blog posts from a series by Chuck Cosson at the Stanford Center for Internet & Society:
    A Tool Without a Handle: http://cyberlaw.stanford.edu/blog/2012/10/tool-without-handle
    Tools for Civic Purposes: http://cyberlaw.stanford.edu/blog/2013/02/tools-civic-purposes
    Tool Without a Handle: The Dark Side:
     http://cyberlaw.stanford.edu/blog/2013/06/tool-without-handle-dark-side
Findings of the Big Data and Privacy Working Group Review - John Podesta, The White House Blog:
https://www.whitehouse.gov/blog/2014/05/01/findings-big-data-and-privacy-working-group-review

USER BEHAVIOR INTRODUCTION (*Choose three readings*)
Turkle, Sherry (2011). *Alone Together: Why we expect more from technology and less from each other*. New York: Basic Books.
Abrahamson, S. (2015.). How startups are redesigning cities. Available
at: http://money.cnn.com/2015/04/09/smallbusiness/smart-cities-startups/index.html?iid=ob_homepage_money_pool&iid=obnetwork
Information Technologies and International Development (2013). Power to the Peers: Authority of Source Effects for a Voice-Based Agricultural Information Service in Rural India. Patel N., Savani K., Dave P., Shah K., Klemmer S.R. & Parikh T. Available at:http://people.ischool.berkeley.edu/~parikh/papers/1054-2951-1-PB.pdf
Hampton T. Recent Advances in Mobile Technology Benefit Global Health, Research, and Care. JAMA. 2012;307(19):2013-2014. doi:10.1001/jama.2012.4465. Available at: https://www.k4health.org/sites/default/files/jmn120118_2013_2014.pdf
 Drula, G., PhD. (2014). Media convergence and mobile technology. Journal of Media Research, 7(3), 47-71. Retrieved fromhttp://search.proquest.com.ezp-prod1.hul.harvard.edu/docview/1649753314?accountid=11311 (Needs HUID)
Bibault, J., Leroy, T., Blanchard, P., Biau, J., Cervellera, M., Diaz, O., . . . Giraud, P. (2014). Mobile Technology and Social Media in the Clinical Practice of Young Radiation Oncologists: Results of a Comprehensive Nationwide Cross-sectional Study. International Journal of Radiation Oncology Biology Physics, 90(1), 231-237. Available at: http://ac.els-cdn.com.ezp-prod1.hul.harvard.edu/S0360301614005975/1-s2.0-S0360301614005975-main.pdf?_tid=83aa0d98-f58c-11e4-b0a2-00000aacb361&acdnat=1431094638_22155a8ef1d885d7461078d023df6171
Eulich, W. (2012, Jul 28). Developing countries lead the way in deploying mobile technology. The Christian Science Monitor Retrieved fromhttp://search.proquest.com.ezp-prod1.hul.harvard.edu/docview/1029947022?accountid=11311 (Needs HUID)
Lobo, S., & Elaluf-Calderwood, S. (2012). The BlackBerry veil: Mobile use and privacy practices by young female saudis. Journal of

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Islamic Marketing, 3(2), 190-206. doi: http://dx.doi.org/10.1108/17590831211232582 (Needs HUID)

Pew Research Center. (2014). *Cellphones, Social Media and Campaign 2014.* Smith A. Available at:http://www.pewinternet.org/files/2014/10/PI_CellPhonesSocialMediaCampaign2014_110314.pdf

Boor, P., Oliveira, P., & Veloso, F. (2014). Users as innovators in developing countries: The global sources of innovation and diffusion in mobile banking services. Research Policy, 1594-1607. Available at: http://www.sciencedirect.com.ezp-prod1.hul.harvard.edu/science/article/pii/S0048733314001000#(Need HUID)

Adams P.. (2015). Why 'Mobile First' may already be outdated. Available at: https://blog.intercom.io/why-mobile-first-may-already-be-outdated/

1

WEEK OF JUNE 21 – JUNE 27
Focus: Orientation
Location: Ahmedabad
Faculty leads: Satchit Balsari, Harvard; and Arvind Sahay and Rekha Jain, IIM Ahmedabad

June 20 - Arrive at IIM Ahmedabad

Monday, June 22:

Morning:	An Introduction to the India Telecom Sector (Rekha Jain)
	Mobile Usage Profile (Arvind Sahay)
Afternoon:	Afternoon Self-Study Session (Satchit Balsari to facilitate)
	Discussion / Blog: How can mobile technology in India be employed to impact social change?
Evening:	Using cell phones to study behavior from the level of individuals to entire nations (JP Onnela-Teleconference)

Readings For June 22:
- Industry Note on Indian Telecom Service Sector (students are encouraged to obtain updated information from the web)
- Digital Media and Politicians Video – View the first 45 minutes of this video: https://drive.google.com/file/d/0B4eghUxJN0KDaElpM3VaTUdBQTQ/view?usp=sharing_eid&invite=CLHgn7MB
- Telecom Issues Overview, IDF 2015 (Rekha Jain, IIM-A IDEA Telecom Centre for Excellence
- Lessons of Reforms of the Telecom Sector, (Rekha Jain and G. Raghuram)

Tuesday, June 23:

Morning:	Case Study: Net Neutrality (Arvind Sahay)
	TRAI Consultation Paper (Rekha Jain)
Afternoon:	Afternoon Self-Study Session (Satchit Balsari)
	Background Note on Financial Inclusion
Evening:	Who owns Big Data? (Malavika Jayaram, videoconference)

Readings For June 23:
- TRAI Consultation Paper: Regulator framework for OTT services. Available at: http://www.trai.gov.in/WriteReaddata/ConsultationPaper/Document/OTT-CP-27032015.pdf
- Financial Inclusion, 2014: Global Financial Development Report. Available at: http://indiamicrofinance.com/financial-inclusion-2014-global-financial-development-report.html
- Nuts and bolts of financial inclusion: http://www.thehindubusinessline.com/opinion/columns/s-s-tarapore/nuts-and-bolts-of-financial-inclusion/article5620559.ece
- Financial Inclusion in India – An Assessment: http://rbidocs.rbi.org.in/rdocs/Speeches/PDFs/MFI101213FS.pdf
- Report Summaries: Committee on Comprehensive Financial Services for small businesses and low income households. Available at: http://www.prsindia.org/parliamenttrack/report-summaries/committee-on-comprehensive-financial-services-for-small-businesses-and-low-income-households-3092/

Wednesday, June 24:

Field Trip: Mobile Technology for Financial Inclusion in Rural India

Thursday, June 25:

Morning: Visit to Self Employed Women's Association
SEWA is a trade union registered in 1972. It is an organisation of poor, self-employed women workers. These are women who earn a living through their own labour or small businesses. They do not obtain regular salaried employment with welfare benefits like workers in the organised sector. They are the unprotected labour force of our country. Constituting 93% of the labour force, these are workers of the unorganised sector. Of the female labour force in India, more than 94% are in the unorganised sector. Students will be introduced to the way SEWA uses mobile applications to facilitate their work.

Afternoon:
Debrief from field trip (Rekha Jain and Satchit Balsari)
Business Model Innovations for ICT Based Services (Rekha Jain)
1) Case-Study: Surveilling the World's Largest Mass Gathering (Satchit Balsari)
2) Case-Study: Retinopathy of Prematurity Using Mobile Phones (Rekha Jain)

Readings For June 25:
▪ Business Model Innovations for ICT Based Services for Low Income Segments in Emerging Economies
▪ Case Study – Narayana Nethralaya: A Precious Gift to a Premature Child

Friday, June 26:

Morning 1) Student Presentations
2) Case-Study: Retinopathy of Prematurity Using Mobile Phones (Rekha Jain)

Afternoon (Group-work, facilitated by Satchit Balsari)
Formulating the research questions for field-study

Sunday, June 28:

Afternoon: Depart for Delhi
You will be picked up on Sunday, June 28 at 1530 (3:30 pm) from IIM-A to take you to the airport for the Ahmedabad-Delhi flight - Flight 6E 162 departing at 1840 from Ahmedabad and arriving in Delhi at 2010.

Readings:
Background Reading:
McKinsey Global Institute. (2014). *India's technology opportunity: Transforming work, empowering people.* Kaka N., Madgavkar A., Manyika J., Bughin J. & Parameswaran P. Available at: http://www.mckinsey.com/insights/high_tech_telecoms_internet/indias_tech_opportunity_transforming_work_empowering_people
International Finance Corporation. (2013). *IFC Mobile Money Scoping Country Report: India.* Available at: http://www.ifc.org/wps/wcm/connect/49a11580407b921190f790cdd0ee9c33/India+Scoping+report+063013+for+publication.pdf?MOD=AJPERES

Assignment:

Throughout the summer, you will be asked to keep a diary of your experiences – you may do so on your own blog or in a word doc. You will be asked to use this diary as a reflection tool at the weekly debrief sessions.

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This week:
"Summarize your background reading and sessions at IIM-A, reflect on what you plan to look for and observe over the next 8 weeks. What do you hope to learn? What are your thoughts on how can mobile technology in India be employed to impact social change? Reflect on your field trip/s"

2

WEEK OF JUNE 28 – JULY 4
Focus: Technology
Location: Delhi
Faculty leads: Satchit Balsari
Point of Contact: Nora Maginn

Monday, June 29:
10:30 AM   Visit SAI Delhi Office, Connaught Place

Afternoon: Visit to FINO PayTech Inc.
                FINO PayTech is a thought leader, innovator and implementer of technology solutions for institutions like banks, governments and insurance companies.

Tuesday, June 30
11:00 AM   Visit to Aspiring Minds, 809A, Third Floor, Udyog Vihar, Phase V, Gurgaon, Haryana, India
                Aspiring Minds Assessment Private Limited is an Indian "employability evaluation and certification company", headquartered in Gurgaon with an office in Bangalore and a pan-Indian operational presence

2 – 4 pm   Bharti Airtel
                Plot No.4, Phase I, Sector 22A, Sector 20, Gurgaon, Haryana, India
                Bharti Airtel Limited is an Indian multinational telecommunications services company headquartered in New Delhi, India. It operates in 20 countries across South Asia, Africa, and the Channel Islands.

Wednesday, July 1

10:00 am   Operation Asha
                Operation ASHA (OpASHA) is a non-profit organization founded in 2005 to bring tuberculosis (TB) treatment to disadvantaged communities. The organization's primary work is curing TB and preventing Multi-drug-resistant tuberculosis (MDR-TB) in India and Cambodia. Operation ASHA specializes in last-mile connectivity , bridging the gap between government medicine distribution centers and the communities of patients to deliver treatment at the doorsteps of the under-served. Students will be introduced to how Operation Asha uses technology to deliver their services.

Afternoon
                TRAI
                The Telecom Regulatory Authority of India (TRAI) is the independent regulator of the telecommunications business in India. TRAI was established on February 20, 1997 by an Act of Parliament to regulate telecom services and tariffs in India. Earlier regulation of telecom services and tariffs was overseen by the Central Government.

6:30 pm   Harvard Alumni Meeting
                India International Club, #40, Max Mueller Marg, New Delhi, Delhi 110003, India, +91 11 2461 9431

Thursday, July 2

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Visit to Delhi government ICT Projects and meeting with IT Department officials. (Time to be confirmed)

Friday, July 3

Visit to VNL and field full day
VNL makes it possible for mobile operators to profitably serve the world's rural communities. Our WorldGSM™ technology is the industry's first micro.

Saturday, July 4

9:15 am, transfer to airport, Jet Airways, 11:45 am Flight 9W 815 to Bangalore, arrive in Bangalore at 2:25 pm.

Readings:

The World Bank. (2012). *Maximizing Mobile.* Washington DC. Available at: http://siteresources.worldbank.org/EXTINFORMATIONANDCOMMUNICATIONANDTECHNOLOGIES/Resources/IC4D-2012-Report.pdf*Chapters: Executive Summary, Chapter 1: Overview, Part II – Key trends in the development of the Mobile Sector & Data Notes*

UIDAI Technology Center. 2014. *Aadhar Technology & Architecture: Principles, Design, Best Practices & Key Lessons.* Available at: https://uidai.gov.in/images/AadhaarTechnologyArchitecture_March2014.pdf

Olla, P., & Choudrie, J. (2014). *Mobile technology utilization for social development in developing countries: An ethnographic futures research study.* Information Systems Frontiers, 16(3), 369-382. (Available on HOLLIS)

Gasser, Urs and Zittrain, Jonathan and Faris, Robert and Heacock Jones, Rebekah, *Internet Monitor 2014: Reflections on the Digital World: Platforms, Policy, Privacy, and Public Discourse* (December 15, 2014). Berkman Center Research Publication No. 2014-17. Available at SSRN: http://ssrn.com/abstract=2538813. Chapters: Community Mesh Networks, Warrant Canaries Beyond the First Amendment, Devices design and digital news for India's next billion users, Data and Privacy, Data Revolutions: Bottom-Up Participation or Top-Down Control?, Mapping the Next Frontier of Open Data: Corporate Data Sharing, The Future of of the Internet – and How to Secure it

The Boston Consulting Group. (2015). *The Mobile Revolution: How Mobile Technologies Drive a Trillion-Dollar Impacttechnologies Drive a Trillion Dollar Impact.* Available at: https://www.bcgperspectives.com/content/articles/telecommunications_technology_business_transformation_mobile_revolution/Sections: Mobile Value Chain & The Global Economic Impact of Mobile Technologies

Blondel, V., Decuyper, A., & Krings, G. (2015). *A survey of results on mobile phone datasets analysis.* Eprint ArXiv:1502.03406. Retrieved April 10, 2015, from http://arxiv.org/pdf/1502.03406v1.pdf

IEEE Internet Computing (2012). MobileWorks: Designing for Quality in a Managed Crowdsourcing Architecture. Kulkarni, A., Gutheim, P., Narula, P., Rolnitzky, D. , Parikh, T. & Hartmann, B. Available at: http://www.cs.berkeley.edu/~bjoern/papers/kulkarni-mobileworks-ieee2012.pdf

Video: Top 7 Reasons Why Most ICT4D FAILS – Dr Clint Rogers: https://www.youtube.com/watch?v=wLVLh0L7qJ0

Oreku, G. S. (2013). Mobile technology interaction to e-commerce in promising of u-commerce. African Journal of Business Management, 7(2), 85-95. (Available on HOLLIS)

Aranda-Jan, C. B., Mohutsiwa-Dibe, N., & Loukanova, S. (2014). Systematic review on what works, what does not work and why of implementation of mobile health (mHealth) projects in Africa. BMC Public Health, 14, 188. doi:10.1186/1471-2458-14-188. Available at: http://www-ncbi-nlm-nih-gov.ezp-prod1.hul.harvard.edu/pmc/articles/PMC3942265/

The Lancet. "40 million deaths a year go unrecorded, study shows; mobile phone data collection could crack the problem." ScienceDaily. ScienceDaily, 11 May 2015. Available at: www.sciencedaily.com/releases/2015/05/150511091433.htm.

Bakshi, Ishann & Mitra, Sounak (2015) *Mobile Wallet Outshines Credit Cards in India.* Business Standard. Available at: http://www.business-standard.com/article/companies/mobile-wallet-outshines-credit-cards-in-india-115011000171_1.html

Basu, S. et al. "The Health System and Population Health Implications of Large-Scale Diabetes Screening in India: A Microsimulation Model of Alternative Approaches," Plos Medicine, May 19, 2015. Available at: http://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1001827

For field trip to Aspiring Minds: Employability Reports. http://www.aspiringminds.in/docs/national_employabilityReport_engineers_annual_report_2014.pdf

Assignments:

Responding to Reading #1 *Aadhar Technology & Architecture,* think about how the information environment in India is likely to change as a result of every resident ultimately having a unique biometric ID that can be validated in real-time. How is the Aadhar technology transferable? Respond to this in a post on the Mobile Technology Program Blog by the end of the week.

3

Focus: Technology
Location: Bangalore
Faculty lead: Satchit Balsari
Point of Contact: Nora Maginn

Sunday, July 5   Debrief with Satchit via Skype

Monday, July 6
9 – 5 pm   First Day at Jana Care and EkStep. Students will spend 9-5 on weekdays at either Jana Care or EkStep (two students per organizations. With their organizations, students will develop projects to work on over the next 6 weeks, incorporating information gathered through academic courses in Ahmedabad and through site visits in Delhi.

EkStep
EkStep is a not-for-profit learner-centric, technology enabled platform to improve applied literacy and numeracy. The goal is to create a learning tool that will be available on devices such as smart phones and tablets for millions of children in their environment, be it home, school or tuition centre. Learning gaps can affect student performances, especially primary level students. If left unaddressed, this can affect the child's confidence and continued engagement in the education process. Filling these learning gaps, which EkStep calls micro concept gaps, is central to addressing the educational needs of a child. The EkStep solution proposes to understand the learning level of each child in numeracy and literacy. The solution then personalises learning through engaging and interactive content that can be used in school or outside school, even at home. This will complement and augment their existing education resources.

Jana Care
In India alone, there are nearly fifty million diabetic patients, a number that is expected to rise to eighty million by 2030. Only two out of ten diagnosed diabetes patients in India currently test blood glucose on a regular basis due to the prohibitively high cost of testing. We spent years as biomedical and electrical engineers creating devices like pacemakers, insulin pumps, and MRIs, which will only reach those with the most resources. Jana Care aims to make glucose monitoring drastically cheaper and simpler for diabetic patients in developing countries by leveraging the power of mobile devices. How do you plan for large health interventions and impact public health through data? Mass screening for diabetes and pre-diabetes is a dire necessity in South Asia where nearly 60% of the population remain undiagnosed. A novel mobile diagnostic device developed by Jana Care can enable quick and cost-effective diagnosis of Diabetes but requires careful planning and execution to deploy within the state health apparatuses and through private health care providers. Moreover, these agencies can benefit from data collected from screening to help inform health systems. Data at the individual level, city level and state level can lead to systemic change in healthcare services.

Tuesday, July 8
9 – 5 pm   Jana Care / EkStep
7:30 pm   Harvard Students in Bangalore meet up

Wednesday, July 9
9-5 pm   Jana Care / EkStep

Friday, July 10
9-5 pm   Jana Care / EkStep

Evening   Weekly Check in with Satchit Balsari, via Skype

Readings:
Microsoft Research Technical Report. (2013). *Using Automated Voice Calls to Improve Adherence to Iron Supplements During Pregnancy: A Pilot Study.* Pai N., Supe P., Kore S., Nandanwar Y.S, Hegde A., Cutrell E., & Thies W. Avaialble

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at: http://research.microsoft.com/pubs/205196/ICTD2013-Pai-VoiceandIronAdherance.pdf
The Truly Personal Computer; Telecoms and Society. (2015, February 28). The Economist. Available
at: http://www.economist.com/news/briefing/21645131-smartphone-defining-technology-age-truly-personal-computer?frsc=dg%7Cc

Mukhopadhyay P., Muralidharan K., Niehaus P. & Sukhtankar S. Implementing a Biometric Payment System: The Andhra Pradesh Experiment.Available
at: http://econweb.ucsd.edu/~kamurali/papers/Other%20Writing/Implementing%20a%20Biometric%20Payment%20System%20%2818%20May%202013%29.pdf
Microsoft Research Technical Report. (2015). *AutoCharge: Automatically Charge Smartphones Using a Light Beam.* Liu Y., Qin Z. & Zhao C. Available at: http://research.microsoft.com/pubs/238337/AutoCharge-TR.pdf
Veeramallu, B., Raghuveer, A., & Sairam, U. (2013). Analyzing the Generations of Mobile Technology. International Journal of Soft Computing and Engineering, 2(6). Available at: http://www.ijsce.org/attachments/File/v2i6/F1191112612.pdf
Quadir, I. Z. (2013). It's economics, stupid: Mobile technology in low-income countries. Harvard International Review, 34(3), 44-49. (Available on HOLLIS)
Techatassanasoontorn, A., & Kauffman, R. (2014). Examining the growth of digital wireless phone technology: A take-off theory analysis. Decision Support Systems, 58, 53-67. (Available on HOLLIS)

Assignments:
"Given the above readings, the lectures and field visits, what would be the most important thing to do when starting out seeking to create innovations utilizing mobile technology?

How do these lessons apply to the organization you have been assigned to? What are expected to be the key challenges they may face in implementation? What could the possible solutions be? How will you gather more information about these challenges or your proposed solutions?

4

WEEK OF JULY 12 – JULY 18
Focus: User Behavior
Location: Bangalore
Faculty lead: Satchit Balsari
Point of Contact: Anisha Gopi

Monday, July 13
9-5 pm   Jana Care / EkStep

Tuesday, July 14
10:30 am   Visit to Microsoft Research India Labs
                In keeping with the global mission of Microsoft Research, Microsoft Research India is engaged in basic research in multiple fields in Computer Science and related areas. Microsoft Research India also collaborates with a wide range of scientific and academic institutions to advance the state of the art in computing research in India.

12 - 5 pm   Jana Care / EkStep

Wednesday, July 15
9-5 pm   Jana Care / EkStep

Thursday, July 16
9-5 pm   Jana Care / EkStep

Friday, July 17
9-5 pm   Jana Care / EkStep
Evening   Weekly Check in with Satchit Balsari, via skype

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Readings:

Microsoft Research Technical Report. (2012). *Massively Empowered Classroom: Enhancing Technical Education.* Edward C., Bala S.,Bansal C., Cross A., Datha N., John A., Kumar R., Parthasarathy M., Prakash S., Rajamani S., & Thies W. Avaialble at: http://research.microsoft.com/pubs/207167/MEC-TechReport_v3.pdf

United Nations Development Programme. (2012). *Mobile Technologies and Empowerment: Enhancing human development through participation and innovation.* Available at: http://www.undpegov.org/sites/undpegov.org/files/undp_mobile_technology_primer.pdf

UNESCO. (2014). Reading in the Mobile Era. Available at: http://www.unesco.org/new/en/unesco/themes/icts/m4ed/mobile-reading/reading-in-the-mobile-era/

Cortesi, Sandra and Haduong, Paulina and Gasser, Urs and Aricak, Osman Tolga and Saldaña, Mark and Lerner, Zach, Youth Perspectives on Tech in Schools: From Mobile Devices to Restrictions and Monitoring (January 15, 2014). Berkman Center Research Publication No. 2014-3. Available at SSRN:http://ssrn.com/abstract=2378590 or http://dx.doi.org/10.2139/ssrn.2378590

Herman Leonard and Qahir Dhanani, "Roshan: Light at the end of the tunnel in Afghanistan," Harvard Business School Case Study 9-310-041, July 2010.Video of CEO of Roshan speaking at MIT: http://techtv.mit.edu/videos/3560-legatum-lectures-karim-khoja-ceo-roshan-afghanistan

Jensen, R. (2007). The Digital Provide: Information (Technology), Market Performance, and Welfare in the South Indian Fisheries Sector. The Quarterly Journal of Economics, 122(3), 879-924. Available at: https://mmd4d.files.wordpress.com/2009/04/jensen-indian-fisheries.pdf

GSMA. (2014). Case study: Nextdrop. Richardson F. Available at: http://draft-content.gsmaintelligence.com/AR/assets/4850657/M4D%20Impact%20Case%20Study%20-%20Nextdrop.pdf

Tiarawut, S. (2013). *Mobile Technology: Opportunity for Entrepreneurship*. Wireless Personal Communications, 1025-1031. Available at: http://link.springer.com.ezp-prod1.hul.harvard.edu/article/10.1007/s11277-013-1062-7/fulltext.html

Ally, M., & Samaka, M. (2013). Open education resources and mobile technology to narrow the learning divide. International Review of Research in Open and Distance Learning, 14(2). Retrieved from http://search.proquest.com.ezp-prod1.hul.harvard.edu/docview/1634343088?accountid=11311 (Needs HUID)

Merritt, C. (2013). MOBILE TECHNOLOGY: Transforming the money transfer market. Scitech Lawyer, 9(3), 18-23. Retrieved from http://search.proquest.com.ezp-prod1.hul.harvard.edu/docview/1318021654?accountid=11311 (Needs HUID)

ASER. (2014). Trends over time: Supplement to ASER 2014. Available at: http://img.asercentre.org/docs/Publications/ASER%20Reports/ASER%20TOT/fullasertrendsovertimereport.pdf

Assignments:

1) Carefully critique the journal article by R. Jensen, and post on the Mobile Technology Program Blog by the end of the week.

2) How will you test your hypotheses about the problems and solutions you identified for your respective organizations ? Design a plan to gather the additional information you need that is experiential and evidence-based. Plan and conduct a pilot to test your plan.

Remember to address regulatory, technological and user adoption issues.

How will it benefit EkStep / JanaCare?

5

WEEK OF JULY 19 – JULY 25
Focus: User Behavior
Location: Bangalore
Faculty lead: Satchit Balsari
Point of Contact: Anisha Gopi

Monday, July 20
9-5 pm   Jana Care / EkStep

Tuesday, July 21

9 – 11 am   Jana Care / EkStep
12 – 2 pm   Lunch Meeting at Babajob

       Babajob is India's first web and mobile start-up dedicated to bringing better job opportunities to aspiring workers like delivery staff, office helpers, drivers, cooks, maids, security guards among others by appropriately connecting

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                    the right employers and job seekers.
2 - 5 pm   Jana Care / EkStep

Wednesday, July 22
9-5 pm   Jana Care / EkStep

Thursday, July 23
9-5 pm   Jana Care / EkStep

Friday, July 24
9-5 pm   Jana Care / EkStep
Evening   Weekly Check in with Satchit Balsari, via skype

Readings:
Gasser, Urs and Cortesi, Sandra and Malik, Momin and Lee, Ashley, Youth and Digital Media: From Credibility to Information Quality (February 16, 2012). Berkman Center Research Publication No. 2012-1. Available at SSRN: http://ssrn.com/abstract=2005272 or http://dx.doi.org/10.2139/ssrn.2005272
Montjoye, Y., Hidalgo, C., Verleysen, M., & Blondel, V. (2013). *Unique in the Crowd: The privacy bounds of human mobility*. Scientific Reports. Retrieved April 10, 2015, from http://www.nature.com/srep/2013/130325/srep01376/pdf/srep01376.pdf
Kumaraguru P. & Sachdeva N., (2012). Privacy in India: Attitudes and Awareness V 2.0. Indraprastha Institute of Information Technology, Delhi. Available at: http://precog.iiitd.edu.in/research/privacyindia/PI_2012_Complete_Report.pdf
Investigating Population Dynamics of the Kumbh through the Lens of Cellphone Data. JP Onnela, HSPH and Tarun Khanna, HBS Microsoft Research Technical Report. (2013). *Understanding Jugaad: ICTD and the Tensions of Appropriation, Innovation and Utility.* Rangaswamy N. & Densmore M. Avaialble at: http://research.microsoft.com/pubs/205396/ICTD2013-Rangaswamy-Jugaad.pdf
GSMA. (2014). Case study: *BBC Janala*. McNally P., Available at: http://draft-content.gsmaintelligence.com/AR/assets/4850652/M4D%20Impact%20Case%20Study%20-%20BBC%20Janala.pdf
Eyles et al. BMC Public Health 2014, 14:950 Available at: http://www.biomedcentral.com/1471-2458/14/950
GSMA: Mobile technology poised to transform education worldwide. (2012). Entertainment Close – Up, Retrieved from http://search.proquest.com.ezp-prod1.hul.harvard.edu/docview/976606823?accountid=11311 (Needs HUID)
Kratzke, C., Wilson, S., & Vilchis, H. (n.d.). Reaching Rural Women: Breast Cancer Prevention Information Seeking Behaviors and Interest in Internet, Cell Phone, and Text Use. Journal of Community Health, 54-61. Available at: http://link.springer.com.ezp-prod1.hul.harvard.edu/article/10.1007/s10900-012-9579-3/fulltext.html (Needs HUID)
Assignments:
1) Based on the Kumbh reading and previous discussions, propose another intervention using mobile technology to further improve the experience of the Kumbh visitors (this could range from logistics, sanitation to healthcare etc). Address the technical consideration to be addressed while planning new mobile technological considerations in India. Respond to this in a post on the Mobile Technology Program Blog by the end of the week

2) Complete the pilot; revise and Implement your plan.

6

WEEK OF JULY 26 – AUGUST 1
Focus: Regulations and Policy
Location: Bangalore
Faculty lead: Malavika Jayaram
Point of Contact: Malavika Jayaram

Monday, July 27
9-5 pm   Jana Care / EkStep

Tuesday, July 28
9 – 5 pm   Jana Care / EkStep

Wednesday, July 29
9-5 pm   Jana Care / EkStep

Thursday, July 30
9-5 pm   Jana Care / EkStep

Friday, July 31
9-12 pm   Jana Care / EkStep
Afternoon/Evening   Field trip to Center for Internet and Society and Weekly Check in with Malavika Jayaram
          Center for Internet & Society
          The Centre for Internet and Society is a non-profit research organization that works on policy issues relating to freedom of expression, privacy, accessibility for persons with disabilities, access to knowledge and IPR reform, and openness (including open government data, free/open source software, open standards, open access to scholarly literature, open educational resources, and open video), and engages in academic research on digital natives and digital humanities.

Readings:
India Healthcare: Inspiring Possibilities, Challenging Journey, 2012 Link TBC
Evaluating the Impact of Government Policies and Regulations on M-Commerce in India: A System Dynamics Modeling Approach, 2012 http://www.ccsenet.org/journal/index.php/ijbm/article/viewFile/19387/14286
King, G., Pan, J., & Roberts, M. (n.d.). How Censorship in China Allows Government Criticism but Silences Collective Expression. American Political Science Review, 107(2, 326-343. doi:10.1017/S0003055413000014. Available at: http://gking.harvard.edu/files/censored.pdf
Assignments:
Carefully critique the journal article on Censorship in China. Respond to this in a post on the Mobile Technology Program Blog by the end of the week.

Review preliminary findings. Is your line of questioning working / is your methodology correct? Are you getting the information you need?

7

WEEK OF AUGUST 2-10
Focus: Regulations and Policy
Location: Bangalore
Faculty lead: Malavika Jayaram

Monday, August 3
9-5 pm   Jana Care / EkStep

Tuesday, August 4
9 – 5 pm   Jana Care / EkStep

Wednesday, August 5
9-5 pm   Jana Care / EkStep

Thursday, August 6
9-5 pm   Jana Care / EkStep

Friday, August 7
9-12 pm   Jana Care / EkStep
Afternoon/Evening   Check in with Malavika Jayaram, Center for Internet & Society

Readings:
Mobile Money: the Opportunity for India – MMAI & GSMA Submission to the Reserve Bank of India (RBI), 2013 http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2013/12/MMAI-GSMA-on-Mobile-Money-in-India-for-RBI-Financial-Inclusion-Committee_Dec13.pdf
Mobile Policy Handbook, 2014 http://mph.gsma.com/publicpolicy/handbook

Assignments:
A young entrepreneur interested in piloting a new mobile tech intervention seeks to understand the regulations pertaining to the industry. Based on the readings and your discussions the past two weeks, write a short 2 page note outlining the important legal perspectives that this entrepreneur should be cognizant.

Complete study by end of week. Hold follow-up meetings within and outside the organization to fill in knowledge gaps. Complete draft of final report.

8

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WEEK OF AUGUST 11-15
Focus: Debrief and Reflection
Location: Bangalore
Faculty leads: Tarun Khanna and Satchit Balsari

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Monday, August 10:
9 – 5 pm   Jana Care / EkStep

Tuesday, August 11
9 – 5 pm   Jana Care / EkStep
TBD   Session with Tarun Khanna

Wednesday, August 12
9 – 12 pm   Jana Care / EkStep
Afternoon   Debrief session with Tarun Khanna and Satchit Balsari

Friday, August 14
Evening   Final Presentations Event

Saturday, August 15: Program Concludes

Assignment: Hold follow-up meetings within and outside the organization to fill in knowledge gaps.

Submit your report/s

Prepare for final presentation (details forthcoming).

Two course-end outputs will be expected:

1) A summary paper on the key regulatory, technological and user-adoption challenges (combing, and building on deliverables from Week 1, 5 and 7)

2) Findings from your field-research at EkStep and JanaCare