



Economic Development in the Digital Age

Academic Year	2017-18, Hilary Term
Day and Time	Tuesdays, Weeks 1-9, 14:00-16:00
Location	Seminar Room, Oxford Internet Institute, 1 St Giles, Oxford, OX1 3JS
Course Providers	Professor Mark Graham, Oxford Internet Institute, mark.graham@oii.ox.ac.uk Dr Amir Anwar, Oxford Internet Institute Dr Alex Wood, Oxford Internet Institute
Prerequisites	None

Background

This course will introduce students to the debates and practices surrounding the uses of Information and Communication Technologies (ICTs) with a focus on the Global South. It will draw on resources from Anthropology, Development Studies, Economics, Geography, and History in order to examine the theoretical and conceptual frameworks that underpin development - as a practice, as a subject of research, and as a discourse. The course will also draw heavily on case-studies in order to ground theory in practice and will introduce students to a range of projects that have employed ICTs as a solution to problems in Africa, Asia and the Americas.

ICTs have the power to fundamentally transform the economic, social and political relationships in poorer parts of our planet. However, potentials often do not translate into realities, and it is important to be aware of not only the promises, but also the perils of the transformative nature of communication technologies. As such, this course will provide an opportunity to reflect on local appropriateness, social inclusion and the range of arguments for and against any ICT for development project in a variety of contexts.

Course Objectives

This course will expose students to some of the most innovative ICTD solutions to economic, social and political challenges in the Global South. Students will be familiarised with a variety of theoretical movements in development studies. Through detailed case studies in weeks 6-8, students will be exposed to a wide range of methods that are employed to study ICTD projects. Ultimately, students will also be encouraged to critically examine the notion of development, how it can be achieved, and whose needs it meets best.

Learning Outcomes

Upon course completion students will:

- Have a familiarity with key debates in ICTD
- Have a sophisticated understanding of the potential for the internet and other ICTs to alter the practice of development in the Global South.
- Be able to formulate well-grounded research questions on ICTD topics.
- Be able to link development theory and ICTD practice.

Teaching Arrangements

There will be eight weekly two hour classes which will cover theory and case-studies. The classes will meet in weeks 1-4 and 6-9 of Hilary term and consist of lectures and discussion. Eight topics will be covered: (1) Uneven development and the origins of ICTD; (2) Development theory; (3) Critiques of ICTD; (4) Development in the Network Society; (5) ICTs as interventions for social development; (6) market creation, expansion and inclusion through ICTs; (7) knowledge economies, technology entrepreneurship and innovation; and (8) digital labour.

Note

Students should note that over the course of the year, small changes may be made to the content, dates or teaching arrangements set out in this reading list, at the course provider's discretion. These changes will be communicated to students directly and will be noted on the internal course information website.

Summative Assessment

Students will be assessed through a final essay that is no longer than 5000 words which must be submitted via Weblearn by 12 noon of Monday of Week 1 of Trinity term. The essay will cover one or several of the course topics, and students will choose a topic in consultation with the course providers in advance. The essay should be clearly related to the topics of the course. Students are not required to write a formative essay, as the weekly reflections on readings fulfil a similar purpose.

Formative Assignment

Each student will be required to give one ten minute presentation on a specific aspect of the session topic or to review the argument of one of the books under the additional readings for each session topic. Details of these presentations will be agreed in Week 2.

Students will also be required to write one short (advised length: 1500-3000 words) essay on any of the 8 topics covered. This essay will provide a means for students to obtain feedback on the progress they have achieved.

Submission of Summative Assignments

The summative assignment for this course is due on Monday of Trinity Term Week 1 (23 April) by 12.00pm and should be submitted electronically via the [Assignment Submission WebLearn Site](#). The assignment should also be submitted electronically by 5:00 pm on the same day to teaching@oii.ox.ac.uk. If anything goes wrong with your submission, email teaching@oii.ox.ac.uk immediately. In cases where a technical fault that is later determined to be a fault of the Weblearn system (and not a fault of your computer) prevents your submitting the assessment on time, having a time stamped email message will help the Proctors determine if your assessment will be accepted. Please note that you should not wait until the last minute to submit materials since Weblearn can run slowly at peak submission times and this is not considered a technical fault.

Full instructions on using WebLearn for electronic submissions can be found on Plato under General Information. There is also an FAQ page on the Assignment Submission WebLearn Site.

Please note that work submitted after the deadline will be processed in the standard manner and, in addition, the late submission will be reported to the Proctors' Office. If a student is concerned that they will not meet the deadline they must contact their college office or examinations school for advice. For details on the regulations for late and non-submissions please refer to the Proctors website at <https://www.admin.ox.ac.uk/proctors/examinations/candidates/>

Any student failing this assessment will need to follow the rules set out in the OII Examining Conventions regarding re-submitting failed work.

Key Readings

A reading list is given below for each class. Those items marked with an asterisk (*) are essential reading and MUST be read by all students in preparation for the class. Items which are not marked with an asterisk are recommended readings.

Week 1: Uneven Development and the Origins of ICTD

What is development? In this topic we will closely reflect on the variety of ways in which development can be understood and trace the history of ICTD. While traditionally a variety of economic measurements have been used, notions of 'developed' and 'underdeveloped' places can also incorporate a range of environmental, social, and political elements. We will additionally engage with the objectives of ICTD. Development can be seen as a desire to bring about positive economic, social and political change in less privileged parts of the world or, alternatively, an external implementation of new forms of power-relationships. Finally, we will reflect on the two forms of unevenness that drive ICT projects: (1) unevenness in 'development'; and (2) digital divides.

- Burrell, J. & Toyama, K. 2009. "What Constitutes Good ICTD Research?". *Information Technologies & International Development*, 5(3): 82-94.
- Sen, Amartya (1999). *Development as freedom* (1st ed.). New York: Oxford University Press
- Castells, M., 2003. *The Rise of the Fourth World* in Held, D. and McGrew, A. (Eds). *The Global Transformations Reader*. Oxford: Blackwell. pp. 430-439
- Crow, B., Zlatunich, N. & Fulfroost, B. 2009, "Mapping Global Inequalities: Beyond Income Inequality to Multi-Dimensional Inequalities.". *Journal of International Development*, 21:1051-1065.
- Heeks, R. 2002. "i-Development not e-Development: Special Issue on ICTs and Development.". *Journal of International Development*, 14(1): 1-11.
- Heeks, R. 2009. "The ICT4D 2.0 Manifesto: Where Next for ICTs and International Development?". Manchester: Centre for Development Informatics, Working Paper No. 42 (online resource).
- Ocampo, J. A. & Vos, R. 2008. *Uneven Economic Development*. London: Zed Books.
- Williams, G., Meth, P. & Willis, K. 2009. *Geographies of Developing Areas*. London: Routledge.
- Willis, K. 2005. *Theories and Practices of Development*. London: Routledge.
- World Bank Atlas of Global Development. 2007. Washington, DC: World Bank

Week 2: Development Theory

It is important to become familiar with the variety of development theories that frame ICTD projects and plans. This topic will therefore offer a close look at some of the major movements in development. Dependency, modernisation, structuralism, socialism, neo-Marxism and neoliberalism will all be discussed within the context of international development.

- * Sachs, J. D., 2008. *The Geography of Poverty and Wealth* in Mellinger, A. D., Gallup, J. L., Chari, S. & Corbridge, S. (Eds). *The Development Reader*. Oxford: Routledge.
- * Smith, A. 2008. *Of the Advantages...* in Chari, S. & Corbridge, S. (Eds). *The Development Reader*. Oxford: Routledge.
- * Rostow, W. W. 1960. *The Stages of Economic Growth: A Non-Communist Manifesto*. Cambridge: Cambridge University Press.
 - *Chapter 2: The Five Stages of Growth--A Summary*, pp. 4-16 (<http://www.mtholyoke.edu/acad/intrel/ipe/rostow.htm>)
- * Frank, A. G. 1966. "The Development of Underdevelopment." *The Monthly Review*, 18(4): 17-31
- * Norberg, J. T. 2008. *Defence of Global Capitalism* in Roberts, J. T. and Hite, A. B. (Eds). *The Globalization and Development Reader*. Oxford: Blackwell. pp. 263-276

- * Wolf, M. 2008. *The Market Crosses Borders* in Chari, S. & Corbridge, S. (Eds). The Development Reader. Oxford: Routledge. pp. 401-408
- * Peet, R., Hartwick, E. 2015. Chapter: *From Kenyesian Economics to Neoliberalism* in Theories of Development. New York: Guilford Press,
- Pralahad, C. K & Hammond, A “Serving the World’s Poor, Profitably.” 2002. *Harvard Business Review*, 80(9): 48-57.
- Frank, A. G. 1966. “The Development of Underdevelopment.” *The Monthly Review* 18(4):17-31.
- Wallerstein, I. 1974. “The Rise and Future Demise of the World Capitalist System: Concepts for Comparative Analysis.” *Comparative Studies in Society and History*, 16(4): 387-415.
- Chatterjee, P. (2004) *The Politics of the Governed: Reflections on Popular Politics in Most of the World*, New York: Columbia University Press.
- Kothari, U. (2005) (ed) *A Radical History of Development Studies: Individuals, Institutions and Ideologies*, London: Zed Books.
- Woolcock, M., Szreter, S. and Rao, V. (2011) How and Why Does History Matter for Development Policy? *Journal of Development Studies* 47 (1), 70-96.

Week 3: Critiques of ICTD

In recent years powerful critiques have been raised against mainstream development theory and practice. It is thus important to be aware of these alternate approaches. This topic will review the most important feminist, postcolonialist, and poststructuralist critiques. Students will be encouraged to reflect on issues of power, social inclusion and local appropriateness as they relate to a range of ICTD projects.

- * Mitchell, T. 1991. “America’s Egypt: Discourse of the Development Industry.” *Middle East Report*, 169: 18-34+36.
- * Ya’u, Y Z. 2004. “The New Imperialism & Africa in the Global Electronic Village.” *Review of African Political Economy*, 31(99): 11–29.
- * Cline-Cole, R. & Powell, M. 2004. “ICTs, 'Virtual Colonisation' & Political Economy.” *Review of African Political Economy*, 31(99): 5-9.
- * Schech, S. 2002. “Wired for Change: The Links Between ICTs and Development Discourses.” *Journal of International Development*, 14(1): 13-23.
- * Escobar, A. 2008. *The Problematization of Poverty* in Chari, S. and Corbridge, S. (Eds). The Development Reader. Oxford:Routledge, pp. 131-140
- * Ferguson, J. 2008. *The Anti-Politics Machine* in Chari, S. and Corbridge, S. (Eds). The Development Reader. Oxford:Routledge. pp. 322-332
- * Peet, R & Hartwick, E. 2015. Chapter: *Poststructuralism, Postcolonialism, and Postdevelopment* in Theories of Development. New York: Guilford Press,
- Escobar, A. 1995. *Encountering Development*. Princeton, NJ: Princeton University Press.
- Ishemo, S. L. 2004. “Culture & Historical Knowledge in Africa: A Cabralian Approach”. *Review of African Political Economy*, 31(99): 65-82.
- Mercer, C. 2004. “Engineering Civil Society: ICT in Tanzania”. *Review of African Political Economy*, 31(99): 49-64.
- Willis, K. 2005. *Theories and Practices of Development*. London: Routledge

Week 4: Development in the Network Society

Information technologies are often promoted as an essential development strategy in both rich and poor countries due to their ability to alter economic connections and shape economic space. This topic will allow us to take a close look at the potentials for economic change in the globalised economy by focusing on digital divides, value chain disintermediation and e-commerce within the context of ICTD. The session will examine some of the dynamics of digitally-driven production as well as the opportunities and tensions that arise from non-proximate interactions in order to allow us to carefully consider the various ways in which the internet can influence the global positionalities of economic actors. Examples from both the Global North and South will be used in this session

- * Massey, D. 1993. *Power-geometry and a progressive sense of place* in Bird, B. et al. (Eds). *Mapping the Futures: Local Cultures, Global Change*. London: Routledge, pp. 60–70
- * Malecki, E. J. & Moriset, B. 2008. *The Digital Economy*. Oxford: Routledge.
 - Chapter 8: *The paradox of a “double-edged geography*, pp. 174-198
- * Dicken, P. 2011. *Global Shift* (6th Edition). New York: Guildford Press.
 - Chapter 3: *Tangled Webs*, pp. 51-74
 - Chapter 4: *Technological Change*, pp. 75-108
 - Chapter 14: *‘Capturing Value’ within Global Production Networks*, pp. 429-453
 - Chapter 16(part of): *Winning and Losing*, pp. 429-453, 492-521
- * Best, M. L., Kenny, C. 2009. *ICTs, Enterprise and Development* in Unwin, T. (Ed). *Information and Communication Technology for Development*. Cambridge: Cambridge University Press, pp. 177-201
- * Weber, S. 2017. *Data, Development, and Growth*. *Business and Politics*. 1-27.
- Heeks, R. 2007. “Using Competitive Advantage Theory to Analyze IT Sectors in Developing Countries: A Software Industry Case Analysis.”. *Information Technologies and International Development*, 3(3): 5-34.
- Castells, M. 2010. *The Rise of the Network Society* (2nd Edition). Oxford: Basil Blackwell.
- Gereffi, G. 2001. “Shifting Governance Structures in Global Commodity Chains, With Special Reference to the Internet.” *American Behavioral Scientist*, 44(10):1616-1637.
- Gereffi, G., Humphrey, J., Kaplinsky, R. & Sturgeon, T. 2001. “Globalisation, Value Chains and Development.” *IDS Bulletin*, 32(3):1-14.
- Graham, M. 2008. “Warped Geographies of Development: The Internet and Theories of Economic Development.” *Geography Compass*, 2(3): 771-789.
- Keniston, K. 2004. *Introduction: The Four Digital Divides* in Keniston, K. and Kumar, Deepak. *IT Experience in India: Bridging the Digital Divide*. London: Sage., pp. 11-36
- Molla, A & Heeks, R. 2007. “Exploring E-Commerce Benefits for Businesses in a Developing Country.” *The Information Society*, 23(2): 95-108.
- Porter, M. E. 2001. “Strategy and the Internet.” *Harvard Business Review*, March: 63-78.
- Warschauer, M. 2002. “Reconceptualizing the Digital Divide.” *First Monday*, 7(1).

Week 5: BREAK

For weeks 6-9, the course will examine some key assumptions that underlie different focus areas of ICTD. Each week, the class will discuss (1) the implied view of the poor, (2) the implied view of development, and (3) the implied view of technology.

Week 6: ICTs as interventions for social development

There are strong links between measures of development and social development policies (in education, health, poverty, gender) and many of the UN’s Sustainable Development Goals revolve around these core issues. This session will focus on how pressing social issues have been conceptualised within mainstream development, and the variety of technical solutions that have been proposed to meet social development goals. We consider social development projects critically. For all their good intentions, projects can often embed assumptions or power that lead to less than ideal outcomes. Particular attention will be paid to the success and failures of the application of mobile phone technology as means to achieve social inclusion and development goals.

- View of the poor: poor as passive objects of development, users of technology, informants for interventions
- View of development: development can be designed and created by organizations and governments
- View of technology: technology as an intervention with “impact”
- Subthemes, topics: health, education, e-government
- Theory & debates: social shaping, use, participation, resistance

Note: Required readings will be identified at the beginning of the term.

Readings

- Heeks, R. (2010), Do information and communication technologies (ICTs) contribute to development? *Journal of International Development*, 22: 625–640.
- Bailur, S., 2007. Complexities of Community Participation in ICT for Development. Conference paper presented at the 9th International Conference on Social Implications of Computers in Developing Countries, São Paulo, Brazil.
- Khan, F. and Ghadially, R. (2010), Empowerment through ICT education, access and use: A gender analysis of Muslim youth in India. *Journal of International Development*, 22: 659–673.
- Blaya, J.A., Fraser, H.S.F. and Holt, B., 2010. E-Health Technologies Show Promise in Developing Countries”. *Health Affairs* 29, 244–251.
- Aminuzzaman, S., Baldersheim, H. and Jamil, I., 2003. Talking Back! Empowerment and Mobile Phones in Rural Bangladesh: A Study of the Village Phone Scheme of Grameen Bank. *Contemporary South Asia* 12, 327–348.
- For update - read with Shaffer, R., 2007. “Unplanned Obsolescence – Muhammad Yunus - Nobel Peace Prize – Bangladesh”. *Fast Company*. Online at <http://www.fastcompany.com/magazine/118/unplanned-obsolence.html>.
- Dangwal, R., Jha, S., Chatterjee, S., & Mitra, S. (2005). A Model of How Children Acquire Computing Skills from Hole-in-the-Wall Computers in Public Places. *Information Technologies & International Development*, 2(4), 41–60.
- Braund, P., & Schwittay, A. (2006). The Missing Piece: Human-Driven Design and Research in ICT and Development. 2006 International Conference on Information and Communication Technologies and Development (pp. 2–10).
- Johri, A., and Pal, J. (2012). Capable and convivial design (CCD): a framework for designing information and communication technologies for human development. *Information Technology for Development*, 18(1), 61–75.
- MacKenzie, D. and Wajcman, J., 1999. *The Social Shaping of Technology*. Open University Press: Buckingham, *Introductory essay: the social shaping of technology*.
- [Murphy](#), J. T. and [Carmody](#), P. (2015) *Africa's Information Revolution: Technical Regimes and Production Networks in South Africa and Tanzania*, Sussex: Wiley Blackwell.
- Buskens, I. and Webb, A., 2009. *African women and ICTs: Investigating technology, gender and empowerment*. London: Zed books.
- Kleine, D., 2010. ICT4WHAT?—Using the choice framework to operationalise the capability approach to development”. *Journal of International Development* 22, 674–692.
- Molony, T., 2007. “I Don’t Trust the Phone; It Always Lies’: Trust and Information and Communication Technologies in Tanzanian Micro-and Small Enterprises”. *Information Technologies and International Development* 3 (4), 67–83.
- Unwin, P.T.H., 2009. *ICT4D: Information and communication technology for development*. Cambridge University Press.
- Chapter 3: *Information and Communication in Development practices*, 39-75
- Chapter 4: *The Technologies*, pp. 76-124.
- Krishna, S. & Madon, S. (2003) *The Digital Challenge: Information Technology in Development*, Ashgate. [Murphy](#), J.T., [Carmody](#), P. and [Surborg](#), B. (2014) Industrial transformation or business as usual? Information-communication technologies and Africa’s place in the global information economy, *Review of African Political Economy* 41(140): 264–83.
- Urquhart, C., Liyanage, S. and Kah M. (2008). ICTs and poverty reduction: a social capital and knowledge perspective. *JIT*. 23, pp.203-213.
- [Shoba](#), A, [Heeks](#), R. and [Morgan](#), S. (2004) *ICT initiatives, women and work in developing countries: reinforcing or changing gender inequalities in South India?* Working

Paper. Institute for Development Policy and Management, University of Manchester.
URL: <https://e-space.mmu.ac.uk/97901/>

Public sector reform:

- Benjamin, S., Bhuvanewari, R., Rajan, P., 2007. *Bhoomi: "E-governance", or, an anti-politics machine necessary to globalize Bangalore?* CASUM-m Working Paper.,
- Heeks, R., 2002. *Reinventing government in the information age*. Reinventing government in the information age. London: Sage
 - Chapters 1 & 2
- Kuriyan, R., Ray, I., 2009. "Outsourcing the State? Public-Private Partnerships and Information Technologies in India". *World Development* 37, 1663-1673.
- Masiero, S., 2015. "Redesigning the Indian Food Security System through E-Governance: The Case of Kerala". *World Development* 67, 126-137

Week 7: Market creation, expansion and inclusion through ICTs

Theories and practice of development are changing. Problems of poverty and marginalisation previously seen from the perspective of social inclusion are now recast as market failure. A lack of access to markets and an absence of economic transparency are seen as the fundamental barriers to development, where development will be driven as markets are created, supported or grown.

This session will critically examine some of the ways in which ICTs has been said to alter local information systems and markets of low-income groups and drive development. In addition to overarching readings, the class will explore three themes- rural market information, financial inclusion, and low-income groups as consumers.

- View of the poor: participants in markets
- View of development: functioning markets alleviate poverty
- View of technology: facilitator of markets and information flows
- Subthemes, topics: mobile money, market information systems, information in supply chains, low-income consumption, telecenters, physical outposts of information systems (M-Pesa vendors, extension agents, eSoko, eChoupal kiosks, etc.)
- Theory & debates: market-driven development, information asymmetries, re-intermediation, positionality

Note: Required readings will be identified at the beginning of the term.

Readings

- Walton, M. (2014) Pavement Internet: Mobile media economies and ecologies for young people in South Africa, in Goggin, Gerald and Larissa Hjorth, Eds. *The Routledge Companion to Mobile Media*, pages 450-461. London: Routledge.
- Donner, J. and Escobari, M. X. (2010), A review of evidence on mobile use by micro and small enterprises in developing countries. *Journal of International Development*, 22: 641-658.
- Avgerou, C. (2003). The Link between ICT and Economic Growth in the Discourse of Development. In M. Korpela, R. Montealegre, & A. Poulymenakou (Eds.), *Organizational Information Systems in the Context of Globalization*, IFIP — The International Federation for Information Processing (pp. 373-386). Springer US. Retrieved from http://link.springer.com/chapter/10.1007/978-0-387-35695-2_23. Genilo, J., Akther, M. and Haque, M. (2015) [Women's inclusion in digital Bangladesh](#), Proceedings of the Seventh International Conference on Information and Communication Technologies and Development, URL <http://dl.acm.org/citation.cfm?id=2737857>.
- Duncombe, R., 2007. "Using the Livelihoods Framework to Analyze ICT Applications for Poverty Reduction through Microenterprise". *Information Technologies and International Development* 3 (3), 81-100.

- Carmody, P. (2012) The informationalization of poverty in Africa: The mobile phone revolution and economic structure, *Information Technologies and International Development* 8(3): 1–17.

Rural market information:

- Aker, J.C., 2010. "Information from markets near and far: Mobile phones and agricultural markets in Niger". *American Economic Journal: Applied Economics* 2, 46–59.
- Burrell, J., Oreglia, E., 2013. "The Myth of Market Price Information: Mobile Phones and the Application of Economic Knowledge in ICTD". Working Paper. UC Berkeley, Berkeley, CA.
- Jensen, R 2007 "The Digital Divide: Information (Technology), Market Performance, and Welfare in the South Indian Fisheries Sector." *Quarterly Journal of Economics*, 122(3): 879-924
- Kumar, R., 2014. "Elusive Empowerment: Price Information and Disintermediation in Soybean Markets in Malwa, India". *Development and Change* 45, 1332–1360.
- Srinivasan, J., Burrell, J., 2013. "Revisiting the fishers of Kerala, India" in: *Proceedings of the Sixth International Conference on Information and Communication Technologies and Development: Full Papers-Volume 1*. ACM, pp. 56–66.

Financial inclusion & mobile money:

- Duncombe, R., Boateng, R., 2009. "Mobile phones and financial services in developing countries: a review of concepts, methods, issues, evidence and future research directions". *Third World Quarterly* 30, 1237–1258.
- Maitrot, M., Foster, C.G., 2014. Use of technology in delivering social protection: The Case of M-PESA, in Rahman, H., Hulme, D., Maitrot, M., Ragno, L.P. (Eds.), *Scaling-up Social Protection in Bangladesh*. University Press Limited, Dhaka, Bangladesh. Available at <https://infomediation.files.wordpress.com/2013/12/maitrot-and-foster-2014-use-of-technology-in-delivering-social-protection.pdf>
- Morawczynski, O., 2008. "Surviving in the 'dual system': How M-Pesa Is Fostering Urban-to-Rural Remittances in a Kenyan Slum" in: *Proceedings of the IFIP WG 9.4, Pretoria, South Africa*, pp. 110–127.
- Stuart, G., Cohen, M., 2011. *Cash In, Cash Out Kenya: The Role of M-PESA in the Lives of Low Income People*. IRIS Center, University of Maryland, College Park, MD.
- Hughes, N. and Lonie, S., 2007. "M-PESA: Mobile Money for the 'Unbanked' Turning Cellphones into 24-Hour Tellers in Kenya". *Innovations* 2, 63–81.
- Medhi I., Ratan A., and Toyama K. (2009) *Mobile-Banking Adoption and Usage by Low-Literate, Low-Income Users in the Developing World*. In: Aykin N. (eds) *Internationalization, Design and Global Development*. IDGD 2009. Lecture Notes in Computer Science, vol 5623. Springer, Berlin, Heidelberg.

Bottom of the pyramid & low income consumption:

- Anderson, J., Kupp, M., 2008. "Serving the Poor: Drivers of Business Model Innovation in Mobile". *info* 10, 5–12.
- Kuriyan, R., Ray, I., Toyama, K., 2008. "Information and Communication Technologies for Development: The Bottom of the Pyramid Model in Practice". *The Information Society* 24, 93–104.
- Prahalad, C.K., 2009. *The Fortune at the Bottom of the Pyramid: Eradicating Poverty Through Profits*, 5th Anniversary Edition. Wharton School Publishing, Philadelphia, PA.
 - Chapters 1 & 2
- Roy, A., 2012. "Subjects of Risk: Technologies of Gender in the Making of Millennial Modernity". *Public Culture* 24, 131–155.
- Chen P., Wang J., Si Z., Wang J., Liu Y. (2009) *The Application of ICTs and Digital Divide in Rural China*. In: Aykin N. (eds) *Internationalization, Design and Global Development*. IDGD 2009. Lecture Notes in Computer Science, vol 5623. Springer, Berlin, Heidelberg.

- Tarafdar, M., Anekal, P., & Singh, R. (2012). Market development at the bottom of the pyramid: examining the role of information and communication technologies. *Information Technology for Development*, 18(4), 311–331.
- Ilahiane, H., & Sherry, J. W. (2012). The Problematics of the “Bottom of the Pyramid” Approach to International Development: The Case of Micro-Entrepreneurs’ Use of Mobile Phones in Morocco. *Information Technologies & International Development*, 8(1), 13–26.

Week 8: Knowledge economies, technology and newly emerging services activities: lessons from low-income countries

With the growth of connectivity, lower income countries are beginning to look towards new service industries and knowledge economies to spur development. ICTs and the internet are seen as central to the transformation of economies that move away from reliance on agriculture and extractive industries and towards a focus on the quaternary and quinary sectors. This session explores new economic activities that have inspired hopes and aspirations across many middle- and low-income countries. The primary focus will be on the new knowledge economy activities such as IT-enabled services, business process outsourcing, online gig work, sharing economy work practices, etc. The vision is simple: the internet has flattened the world and therefore, low-income countries should be able to catch up with the high-income countries? The class will critically examine these assumptions and identify the barriers that remain. What impacts do these new economic activities have? The segment will also present some ground level evidence from case-studies in African countries based on the ongoing research led by the module coordinator.

Note: Required readings will be identified at the beginning of the term.

Readings

- Freeman, C. (2011). Technology, inequality and economic growth. *Innovation and Development*, 1(1), 11–24.
- Friederici, N., Ojanperä, S., & Graham, M. “The Impact of Connectivity in Africa: Grand Visions and the Mirage of Inclusive Digital Development” (*get copy from Nicolas*)
- Graham, M., Mann, L., 2013. “Imagining a Silicon Savannah? Technological and Conceptual Connectivity in Kenya’s BPO and Software Development Sectors”. *The Electronic Journal of Information Systems in Developing Countries* 56.
- Morozov E (2015) “Does Silicon Valley’s reign herald the end of social democracy?” *Guardian*, 20 September. <http://www.theguardian.com/commentisfree/2015/sep/20/silicon-valley-end-of-social-democracy>
- McKinsey & Company. (2013). *Lions go digital: The Internet’s transformative potential in Africa* | McKinsey & Company. Retrieved May 12, 2016, from <http://www.mckinsey.com/industries/high-tech/our-insights/lions-go-digital-the-internets-transformative-potential-in-africa>.
- Graham, M., 2014. “A Critical Perspective on the Potential of the Internet at the Margins of the Global Economy”, in: Graham, M., Dutton, W. (Eds.), *Society and the Internet: How Networks of Information and Communication Are Changing Our Lives*. pp. 301–318.
- Beerepoot, N., Keijser, C., 2015. “The Service Outsourcing Sector as Driver of Development: The Expectations of Ghana’s ICT for Accelerated Development Programme: Ghana’s ICT for Accelerated Development Programme”. *Tijdschrift voor economische en sociale geografie*.
- Heeks, R., Arun, S., 2010. “Social Outsourcing as a Development Tool: The Impact of Outsourcing It Services to Women’s Social Enterprises in Kerala”. *Journal of International Development* 22, 441–454. doi:10.1002/jid.1580
- Beerepoot, N., Hendriks, M., 2013. “Employability of offshore service sector workers in the Philippines: opportunities for upward labour mobility or dead-end jobs?” *Work Employment & Society* 27, 823–841.
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Week 9: Digital labour and development

Does ICT facilitated labour have the potential to aid development? The internet is seen as providing a way to boost economic activity in low-income countries by enabling workers to directly connect into the global economic system. In doing so workers are held to overcome the time-space barriers and national boundaries which have traditionally constrained job creation and entrepreneurial endeavour. This session will critically assess the potential for ICT facilitated labour to benefit both workers and governments in the Global South. We will develop a materialist account of supposedly 'immaterial' labour. Issues of job quality, casualization, informality, value capture and bargaining power will be considered and digital labour embedded within a wider context of the global third wave of labour commodification.

- View of the poor: the poor as a globalized workforce
- View of development: employment as a driver of development
- View of technology: global mediator and connector

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