

Blockchains: opportunities, risks and experience in developing countries

Start date	28 April 2018	End date	28 April 2018
Venue	Maddingley Hall Maddingley Cambridge		
Tutor	Dr Nicholas Duncan	Course code	1718NDX058

Director of Programmes Emma Jennings
For further information on this course, please contact Public Programme Coordinator, Clare Kerr
clare.kerr@ice.cam.ac.uk or 01223 746237
To book See: www.ice.cam.ac.uk or telephone 01223 746262

Tutor biography

Dr Nick Duncan works in the field of the social psychology of organisational ethics and development. He has directed both commercial and NGO organisations with activities in over 20 countries. Nick has specialised over the last 15 years in corruption, anti-corruption and organisational ethics as a practitioner and researcher. Nick has led OCI, Ford Foundation, Aga Khan and World Bank programmes during this period. He has a degree in international marketing, an MA in development economics and completed his PhD in the Centre of Development at the University of Cambridge. Nick has published, given papers, and lectured worldwide on these subjects. Nick has recently published 'Positive Social Identity: The Quantitative Analysis of Ethics' based on his recent research. Nick's current work focusses on the analysis and measurement of organisational ethics. A recent thread of research explores the impact of blockchains on both ethics and moral norms and also their potential in development settings. Nick mixes teaching styles and methods including lectures, audio-visual, discussion, and case work.

09:30	Terrace bar open for pre-course tea/coffee
10:00 – 11:15	<p>A brief history of Blockchains and Crypto-Currencies</p> <ul style="list-style-type: none">a) The origins and motivation for blockchainsb) Current scale of blockchain based activity world-wide and in developing countries and predictions for the future. Diffusion internationally. The Marginal Cost of Trustc) Major corporations and private blockchainsd) Market share and size and the power of the app: implications for DC'se) Identity and regulationf) Stability and self-organisation: Voluntary associationg) Potential and the problem of hyperbole. <p><i>h) Discussion: What are the areas appearing to offer potential and risks for blockchains in developing countries?</i></p>
11:15	Coffee
11:45 – 13:00	<p>The unusual economics of blockchains and its potential impact on International development policy</p> <ul style="list-style-type: none">a) Libertarianism and Self-organisation and public goodb) Institutional economics: hierarchy and authorityc) Proof of Value/Reputationd) Ethical uncertainties of blockchain organisations (incl. transparency, privacy, monetisation/tokenisation, corruption, inequality/polarisation)e) Fund-raising: Initial Currency Offerings and volatility and vulnerability, Crowd funding <p>Discussion: What is the likely relative enthusiasm for this economic-technology among different stakeholders</p>
13:00	Lunch
14:00 – 15:15	<p>Blockchains and the state in the developing world</p> <ul style="list-style-type: none">a) Cutting out the government/public sector – a parallel state. The maintenance of institutions as necessary for government to functionb) Anti-corruptionc) Property rights and shared resources – commonsd) Cartels in clearing – separation of interests <p>Discussion: Implications of the politics and economics of blockchains (stakeholders) on law and regulation</p>

15:15

Tea

15:30 – 16:45

Emerging Use Cases in International development

Diffusion and implementation experience:

- a) Nation state: bitnation (applications incl. Pangea and ID tools)
- b) Aid disbursement
- c) Humanitarian crisis - statelessness
- d) E-governance (title to land)
- e) Spontaneous order
- f) Altcoins
- g) Provenance (diamonds and Logging)
- h) (Micro) finance
- i) Identity based applications (incl. voting)

'End-specific' Alt coins (oppressive regimes, eco, race, Fake news)

Discussion: How do the economics and politics of blockchain technology explain why these have emerged and why they may be successful or otherwise

conclusion

16:45

Day-school ends

Course syllabus

Aims:

1. To introduce blockchains and their place and potential influence in international development
2. To enable a critical analysis of economic and social and regulatory models of blockchains
3. To become familiar with a broad range of contemporary use cases in development settings

Content:

The course begins with a summary of the phenomenon of blockchains and cryptocurrencies and their emerging value to international development

The course will then introduce with only a modest level of complexity, the technology of blockchains. Crypto-economics is introduced and discussed in terms of its implications and past 'aid and trade' policies. The latest developments of regulation, both national and international, and in the case of developing countries are introduced as are some of the legal and regulatory consequences likely to affect developing countries particularly. The impact of blockchains on the state is addressed in some detail, introducing their potential influence on the role of the state within the economic development process. We will review the potential role of blockchains from the perspective of state development and the politics surrounding their introduction.

Presentation of the course:

Talk (incl. ppt/web projection) and discussion

As a result of the course, within the constraints of the time available, students should be able to:

- 1) Understand the basics of blockchain technology and how it is likely to affect the political economy of development for both donors and recipients.
- 2) To understand the major social, legal and economic risks and opportunities of the emergence of blockchains
- 3) To be equipped to evaluate the potential strategic spaces for the uptake of blockchains and their possible consequences.

Reading and resources list

Listed below are a number of texts that might be of interest for future reference, but do not need to be bought (or consulted) for the course.

Author	Title	Publisher and date
Melanie Swan	<i>Blockchain: Blueprint for a New Economy</i>	O'Reilly, 2015
Sinclair Davidson,	<i>Economics of Blockchain</i>	Public Choice
Primavera De Filippi,		Conference, May 2016
Jason Potts		
Marc Pilkington,	<i>Blockchain and Bitcoin as a way to lift a</i>	SSRN 2016
Rodica Crudu, Lee	<i>country out of poverty</i>	
grant		

Additional information

Venue

Details of how to find Madingley Hall can be found on our website:
<http://www.ice.cam.ac.uk/who-we-are/how-to-find-the-institute>

Refreshments

Tea and coffee and lunch will be provided. If you have any specific dietary requirements or allergies and have not already advised us, please inform our Admissions Team on ice.admissions@ice.cam.ac.uk or +44 (0)1223 746262.

Note Students of the Institute of Continuing Education are entitled to 20% discount on books published by Cambridge University Press (CUP) which are purchased at the Press bookshop, 1 Trinity Street, Cambridge (Mon-Sat 9am – 5:30pm, Sun 11am – 5pm). A letter or email confirming acceptance on to a current Institute course should be taken as evidence of enrolment.

Information correct as of: 25 January 2018