

Digital monies for a sustainable future

Course code: EHFE016

Points: 7.5 ECTS

Level

PhD Program

Main category of the course

Doctoral School

To be offered through the Research School Agenda 2030.

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Course content

Growing inequality, apocalyptic environmental damage, and the protracted effects of a global financial crisis have resulted in a discussion on the role of our monetary system for the organization of society. At the same time, new technological and financial developments are giving rise to much experimentation on new forms of money. This interdisciplinary PhD course examines the technological developments that are facilitating monetary innovation and the role of monetary entrepreneurs in re-organising the production and circulation of money. The course provides students with the tools to explore opportunities for addressing big societal challenges and asks in particular how new forms of money can contribute to developing more just and equal societies. To understand these new digital monies, the course uses theories from the subfields of organisation studies, innovation and entrepreneurship, and STS (science and technology studies).

Course design

The course is structured in 3 modules as follows:

1. **Setting the Stage** (online)

The purpose of this module is to provide the student with an introduction to the discourse on the role digital monies can play in organising a sustainable future. The key points of focus will be: an overview of contemporary money; and the digital technologies that are enabling the re-imagination of currency. This module is in two sessions:

- 1.1. Money, its production and management today – Where does money come from? And how is it organised? Although we use money everyday, few stop to wonder where the money they use comes from and how it is managed. And yet, the traits of the creation and management process shape the form of our economies and societies. In this session, we will learn the process through which today's money is created and managed today. In this doing, we will look at how our ideas on money are shaped by monetary theories that may have little to do with the actual management of money and monetary systems.

1.2. Crypto-technology – Today's discussion on money is as much driven by a frustration with the current financial system as it is by excitement about new technological developments. Among others, much hope is placed on blockchain technology and the cryptocurrencies that use it. In this session we will discuss the technology behind digital and cryptocurrencies, the principles that guide the development of these novel technologies and the ideals that stimulate organisational innovation for the management of these currencies. What are the possibilities they open? And what are their limitations for efforts to re-organize our economy?

2. Monetary innovations past and present (online)

This module looks at past and present efforts to change the monetary system (both their production and management). Some of the key questions that will be discussed are: How are past monetary ideas being adapted into today's tech and monetary innovations? And how do they contribute (or not) to create more resilient communities, more equal societies, and a more sustainable environment? We will discuss such questions in four sessions, each focusing on one particular type of monetary organisation:

- 2.1. Sovereign Money: Banque Générale (John Law) & Central Bank Digital Currencies (CBDC)
- 2.2. Global cryptocurrencies: Bitcoin & FairCoin
- 2.3. Citizens Monies: Wörgl & Kenyan Community Cryptocurrencies
- 2.4. Corporate Monies

3. Money Co-Design Workshop (1,5 days physical offline workshop)

Imagine you have the possibility to re-imagine our monetary system: Where would you start? How would you build it on the new monetary technologies? How would you organise it to make it more conducive to just, equal and sustainable societies? This session puts that question to work in the design of a monetary system for a particular social challenge of your choice. We will work in groups to apply the theories seen throughout the course to the co-design of a monetary system that you will be presenting in class.

Learning objectives

A passing grade will be given to students that:

Knowledge and understanding:

- Demonstrate an ability to use relevant theories to understand how our national and international monetary systems are organised and managed.
- Demonstrate an ability to apply theories from various fields to understand how new digital technologies are contributing to re-organise the monetary system.

Competence and skills:

- Demonstrate an ability to integrate knowledge from business administration, engineering and innovation studies to analyse the organisational opportunities and challenges associated to various forms of monies.
- Demonstrate an ability to assess the potentials and limitations both of particular monetary systems and of digital monetary technologies and clearly present conceptual arguments for their organisational strengths and weaknesses.

Judgement and approach:

- Demonstrate an ability to identify relevant research topics at the intersection between the fields of business administration, engineering and innovation studies.

- Demonstrate an ability to critically discuss central issues in the organization of digital monies in an informed way and convey this knowledge to others interested in the topic.

Examination

Examination in this course includes several moments:

1. Mandatory participation in all course seminars. Students are expected to attend all seminars having read all texts relevant for each seminar, and actively take part in course discussions. Students who are unable to attend any seminar are required to contact the course co-ordinator with a view to undertaking a compensatory assignment.
2. Group work – Students will be grouped in interdisciplinary teams. Each group will be asked to design a monetary system for a particular sustainability challenge and present it for the rest of the class. In this presentation, student groups will be asked to use theories from the subfields of organisation studies, innovation and entrepreneurship, and STS seen in the course to argue for the particular monetary and organisational design. Their presentation will be the basis for class discussion in the course's last session.
3. Individual written essay; max. length 3,500 words. After the course, students will be asked to choose one case of digital currencies and apply the business administration, engineering and grassroots innovation theories treated in the course to discuss how it re-thinks money.

The course is graded on a Pass or Fail basis.

Teaching methods

The course is designed as a blended course, that is with online and offline moments. It combines a variety of teaching methods, ranging from mini-lectures, webinars, case studies, reading groups, student debates, and group work. Students are expected to participate actively in class.

Course schedule

The online sessions will be given on September 1, 8, 15, 22, and 29, as well as October 6. The course ends with a one-and-a-half physical money co-design workshop on October 12 and 13.

Entry requirements and selection

The course is open to PhD students from all faculties. If the number of applicants exceeds the number of available places in the course, students from the Agenda 2030 Research School, Lund University, will be given priority.

Preliminary Course literature

- Benes, J. & Kumhof, M. 2012. "The model under the current monetary system." *The Chicago Plan Revisited*, pp.33-56. IMF Working Paper.
- Bjerg, O. 2016. [How is Bitcoin money?](#) *Theory, Culture and Society*, 33(1):53-72.
- CCIA. 2015. *People Powered Money*.
- De Filippi & Loveluck. 2016. The invisible politics of Bitcoin: governance crisis of a decentralised infrastructure. *Internet Policy Review*, 5(3).
- Dodd, N. 2014. *The Social Life of Money*. Princeton University Press.
- Donovan. 2012. [Mobile Money, More Freedom?](#) The Impact of M-PESA's Network Power on Development as Freedom. *International Journal of Communication* 6 (2012), 2647–2669
- Douthwaith, R. 2006. *The Ecology of Money*.

- Dyson, Hodgson & van Lerven. 2016. [Sovereign Money](#): An introduction.
- Fisher, I. 1933. *Stamp Scrip*.
- Gesell, S. 1936. “A story of Robinson Crusoe”, “Basic interest”, “Transfer of basic interest to the wares”, “Transfer of basic interest to so-called real-capital” & “Completion of the free-money theory of interest.” In [The Natural Economic Order](#), part V (“The free-money theory of interest”), pp. 365-420.
- Graeber, D. 2011. *Debt: The first 5,000 years*. Chapters 2 and 3.
- Hayek, F. A. 1990. Denationalisation of money: the argument refined: an analysis of the theory and practice of concurrent currencies (Vol. 70). *Institute of Economic Affairs*.
- Jack & Suri. 2011. [Mobile money](#): The economics of M-pesa. National Bureau of Economic Research (NBER)
- Kennedy, M. 2012. *Occupy Money: Creating an economy where everybody wins*. New Society Publishers. • Landesmann. “John M. Keynes: Proposal for an International Currency Union.”
- Martin, F. 2014. *Money: The Unauthorised Biography*. Vintage. Chapters 1 & 16.
- McLeay et al. 2014. “[Money in the modern economy](#): an introduction.” *Quarterly Bulletin*, Bank of England
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- Nakamoto, S. 2008. [Bitcoin](#): A peer-to-peer electronic cash system.
- Naqvi, M. & Southgate, J. 2013. “Banknotes, local currencies and central bank objectives.” *Quarterly Bulletin*, Bank of England.
- Neal, L. (2000) How it all began: the monetary and financial architecture of Europe during the first global capital markets, 1648–1815, *Financial History Review* pp. 117-140
- Nichols, D.M. (revised by Gonczy, M.L.). 1961/1992. “[Modern Money Mechanics](#).” Federal Reserve Bank of Chicago.
- North, P. 2007. *Money and Liberation: The Micropolitics of Alternative Currency Movements*. University of Minnesota Press.
- von Mises, L. 1953. “[The return to sound money](#).” *The theory of money and credit*.
- Velde, F. (2007) John Law’s system *American Economic Review* 97, pp. 276-279
- Werner, R.2014. [Can banks individually create money out of nothing?](#) The theories and the empirical evidence. *International Review of Financial Analysis*, 36:1-19.
- Xiaochuan, Z. 2009. “Reform the international monetary system”. Speech by Governor of the People’s Bank of China, on March 23.
- Ögren, A. (2019) Ögren, A. 2019. Replacing Bank Money with Base Money: The Consequences of Ending the Private Bank Note Issuance in Sweden. *Working paper LUPEH*.

Cases to be discussed throughout the course include: Bitcoin, Faircoin, Kenyan Community Currencies, the Miracle of Wörgl, e-Kronan and Libra