Digital Monies for a Sustainable Future
The syllabus is preliminary and subject to changes till the course's start.

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<td>Module 1: Setting the stage</td>
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| 1  | Money today, theory and practice | Readings:  
  Further readings:  
2. Where does money come from? Theory and practice  
3. Group discussion  
Where does money come from? And how is it created? Although we use money everyday, few stop to wonder where the money they use comes from and how the traits of the creation process shape the form of our economies and the ties in our societies.  
In this session, we will discuss the process through which today's money is created and how our ideas on money and monetary systems are shaped by monetary theories that may have little to do with the actual working of money and monetary systems.  
Note: Although some of the articles in the course are quite technical, the students are not asked to validate the mathematical derivations of the problems, but rather to understand the underlying assumptions as well as how they shape the outcome (conclusions). |
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| 2  | Digital technology for a monetary infrastructure | Case: Bitcoin  
Readings:  
  Bitcoin White Paper.  
• tbc | 1. What problem did the original cryptocurrencies intend to address?  
2. The technology behind the solution  
3. Group discussion  

Today’s discussion on money is as much driven by a frustration towards the 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 and the principles that guide the development of these novel technologies. What are the possibilities they open? And what are their limitations for efforts to re-organize our economy? |
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| 3 | Global Cryptocurrencies | Case: Faircoin  
Readings:  
• Rozas et al. 2018, When Ostrom Meets Blockchain: Exploring the Potentials of Blockchain for Commons Governance.  
• Swartz, L. 2017, Blockchain dreams: Imagining techno-economic alternatives after Bitcoin. In Castells, M. et al. (eds.) Another economy is possible: Culture and economy in a time of crisis, Ch.4 (pp.82-105). Polity Press.  
2. FairCoin  
3. Group discussion: Is blockchain a neutral technology to ease economic exchange? Or, can blockchain technologies be designed to inscribe values and practices more conducive to sustainable, fair and just economies? |

Cryptocurrencies have been criticised for its high energy consumption, its promotion of competitive values and the lack of a real economy that supports them. A variety of monetary and technology activists are devising cryptocurrencies that overcome those three challenges. Through the case of FairCoin we will look into how cooperative values can be inserted into the technology. Further, we will look at how values of cooperation serve to organise a real economy that can back the cryptocurrency. Are an economy and a technological infrastructure organised around cooperation the key to re-imagine money for a sustainable future? What are the potentials and what the risks?
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| 4 | Sovereign Money | Cases: John Law & Central Bank Digital Currencies (CBDC)  
Readings:  
• Sweden Central Bank, E-krona project, [report 2](#) And [here](#)  
Newspapers, homepages:  
• CNBC. 2018. [Tether](#): What you need to know about the cryptocurrency worrying markets.  
For further reading:  
• Positive Money 2018. *Escaping growth dependency*: Why reforming money will reduce the need to pursue economic growth at any cost to the environment.  
• Wolf, M. 2014. *Strip private banks of their power to create money*, *Financial Times*. | 1. Historical overview of Sovereign Money  
2. Cases: John Law’s system, Tether and Central bank Digital Currencies  
3. Student debate  

An increasing number of economists are arguing for governments and central banks to take back the power to issue the larger part of our money. From the Positive Money movement to Modern Monetary Theorists, sovereign money is being put back on the agenda. These ideas are however not new, and have been tested with various degrees of success. What are the differences between sovereign monetary systems in history and today? Is the new technology solving those issues? What problems do still remain? Are other problems created by these potential solutions? If so, which ones? |
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| 5 | People Powered Money | Case: The miracle of Wörgl  
Required readings:  
Suggestions for further reading:  
2. Wörgl: How do people currencies address this contradiction?  
3. Group discussion: How do the values and theories guiding monetary design? And how do they shape economic behaviour?  
Financial crisis have followed each other since the beginning of capitalism and cities and their citizens have creatively innovated with money to address the social challenges and meet the economic needs such crisis bring. People powered money, as its proponents call these grassroots innovations, are showing one way to re-imagine, re-claim and re-organize money.  
In this session, students will be presented to one of the currencies that most inspires today’s people money movement. How are the values and practices such currencies promote help us re-think money? |
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| 6 | Community Cryptocurrencies | Case: Kenyan community cryptocurrencies  
Readings:  
Suggestions for further reading:  
- Varoufakis, "The minotaur…"  
2. Case: Miyani-pesa  
3. Group discussion: How are community-based cryptocurrencies re-imagining money? Have the values, practices, and knowledges they inscribe the potential to project us into a sustainable future?  
The recent wave of monetary experimentation takes most concrete form in two areas. The first, digital currencies with global ambitions (such as Bitcoin and Ethereum), are redesigning the technologies that are to underpin a new monetary system. The second, local currencies with geographically confined reach (ex. Time Dollars, Reigogeld or Transition Town currencies), are rethinking the way the production of money is to be embedded in community structures. Distinct on the outset, both global and local currencies are opening up our possibilities to re-imagine, re-organize and re-claim money to put it at the service of a commons. It is this shared determination to develop a monetary system that serves the many that has led participants on both sides to reach out towards each other:  
This session looks at one such attempt. Through the case of the Kenyan community currencies, we will discuss how social entrepreneurs build on the technological possibilities of cryptocurrencies to develop a monetary system that is embedded in the communities that are to use it. |
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 work to make it more conducive to just and equal 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 co-design a monetary system and its governance rules.

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| 7 | Money Co-Design Workshop<br>June 8, 09.00-12.00 & 13.00-16.00 (double session – 6h)<br>Ester Barinaga, Anders Ögren, Paul Stankovski & Christian Gehrmann | Readings:  
• CCIA. 2015. *People Powered Money*.  
Further readings:  
• Hornborg, A. 2017. *How to turn an ocean liner*: a proposal for voluntary degrowth by redesigning money for sustainability, justice, and resilience. *Journal of Political Ecology*, 24(1) | 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 work to make it more conducive to just and equal 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 co-design a monetary system and its governance rules. |
Examination in this course includes:

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 of 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 seen in the course to discuss its organisational dimensions as well as to problematise the economic, social and environmental consequences of the way that currency is organising money.

The course in graded on a Pass or Fail basis.

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<td>Upload your final individual written essay to Canvas.</td>
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