



**UNIARTS
HELSINKI**

UNIARTS HELSINKI = ACADEMY OF FINE ARTS + SIBELIUS ACADEMY + THEATRE ACADEMY

Metaverse and the New Digital Economy

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Week #1 2024



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Lesson Plan

16:00 – 18:30 (3*45 minute segments)

Socialised learning – mid break 15 minutes

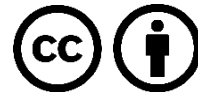
Time	Content
16:00 – 16:45	Introductions – people and the course
16:45 – 17:00	The Digital Economy – Terminologies
17:00 – 17:25	Activity#1
17:25 – 17:40	15 Minutes Break
17:40 – 18:00	The Digital Economy – Evolution and Societal Importance
18:00 – 18:25	Activity#2
18:25 – 18:30	Reflection



Welcome!

Let's do a round of introductions, answering the following questions:

- What is your name and preferred pronoun/s?
- What creative practice are you coming from?
- What area/s of creative practice are you interested in?
- What are your expectations from this course?



In Today's class we will...

- × Overview of the course objectives and structure**
- × Definition of the digital economy and its significance**
- × Historical context and evolution of the digital economy**
- × Importance of the digital economy in contemporary society**



Teaching Approach

- × **Collaborative Learning and Social Constructivism:** places emphasis on social interaction, dialogue in the construction of knowledge, and engaged learning for collaborative activities → Lots of group discussion and activities
- × **Problem Based Learning:** explore and solve real-world problems through discussion and critical thinking
- × **Reflection**

- × **Be Curious!**





Terminologies



Augmented Reality

- ✘ **Augmented reality:** A real world environment is enhanced by virtual objects. Where the real world is a backdrop and digital images are added on top, with the combination appearing seamless when viewed through a smartphone or goggles.
- ✘ A good example is Pokémon Go, which adds Pokémon to a natural landscape being viewed by your smartphone's camera.

[Missing a copyrighted image of Catching Pokémon in AR+ mode — Pokémon GO Help Center]

Source: <https://niantic.helpshift.com/hc/en/6-pokemon-go/faq/28-catching-pokemon-in-ar-mode/>



Augmented Reality Sculpture

Example#1

Koo Jeong A's
augmented reality
artwork, *density* (2019)

[Missing a copyrighted
image of AR at Frieze
Sculpture, Regent's Park]

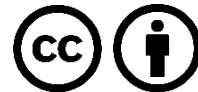


Augmented Reality in Performance

[Missing a
copyrighted image of
a student that uses
the augmented reality
ipad app on stage of a
local theatre]

Source:

<https://www.husson.edu/news/2019/04/husson-university-to-demonstrate-new-augmented-reality-app-for-theatrical-set-designers>



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Virtual Reality

- ✘ Virtual reality: A simulation of the real world, but not necessarily a digital copy. A virtual reality experience is usually paired with a VR headset, allowing the user to move and see as if they're part of a 3D world.

[Missing a copyrighted image of use of MasterpieceVR to create 3D paintings]

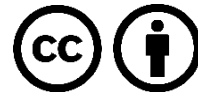
Source: <https://www.viar360.com/creating-art-in-virtual-reality/>



Virtual Reality in Music

[Missing a copyrighted image of conducting an entire virtual orchestra in Maestro VR]

Source: <https://mixed-news.com/en/conduct-an-entire-orchestra-in-maestro-vr/>



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Mixed Reality

- ✘ Mixed Reality: A combination of virtual reality and augmented reality.
- ✘ Microsoft HoloLens is an example of Mixed Reality

[Missing a copyrighted image of a Microsoft HoloLens device with the clicker and a mixed reality spectrum.]

Image: Aruanno, Beatrice & Garzotto, Franca. (2019). MemHolo: mixed reality experiences for subjects with Alzheimer's disease. Multimedia Tools and Applications. 78. 10.1007/s11042-018-7089-8.



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Avatar

- ✘ **Avatar:** A digital and graphical representation of a real-life person. This can be a 2D picture or an animated, walking-and-talking digital figurine. Avatars are mostly used in games and social media. The user decides what the avatar looks like.
- ✘ Who has made an Avatar?

[Missing a copyrighted image of avatar maker preview]

Source: <https://avatarmaker.net>



Blockchain

[Missing a copyrighted
image of how
blockchain works]

- ✘ Blockchain: A digitally shared and decentralized ledger that keeps track of transactions. Its list of records (blocks) are linked through cryptography and cannot be altered.

Source: <https://www.geeksforgeeks.org/how-does-the-blockchain-work/>



What's the difference between a blockchain transaction and "normal" transaction?

Blockchain	Normal Transaction
Blockchain transaction, data is recorded on a distributed ledger known as a blockchain.	A normal transaction, data is typically recorded in centralized databases managed by a central authority or intermediary, such as a bank or financial institution
Each transaction is verified and added to a block by a network of computers (nodes) using consensus mechanisms such as Proof of Work (PoW) or Proof of Stake (PoS).	Transactions are processed and validated by the central authority or intermediary, which maintains control over the transaction process.
Once a transaction is added to a block, it becomes immutable and tamper-proof, meaning it cannot be altered or deleted.	While some level of security measures may be in place, normal transactions may be susceptible to fraud, hacking, or manipulation , as the centralized database can be vulnerable to attacks or unauthorized access.
The transaction history is transparent and publicly accessible , allowing anyone to view the details of transactions on the blockchain	Transaction history and details may not be as transparent or publicly accessible compared to blockchain transactions, as access to centralized databases is typically restricted to authorized parties
Blockchain transactions are decentralized , meaning they do not rely on a central authority or intermediary to facilitate and validate transactions	Normal transactions may involve fees and delays associated with intermediaries and third-party processing



Blockchain examples

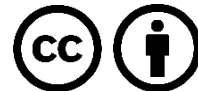
- × Cryptocurrency transactions
- × Smart contracts
- × Supplychain tracking

[Missing a
copyrighted image of
an example of a
smart contract written
in Solidity]

”Normal transactions”

- × Bank transfers
- × Credit card payments
- × Online payments

Image: Oliva, G. A., Hassan, A. E., & Jiang, Z. M. (2020). An exploratory study of smart contracts in the Ethereum blockchain platform. *Empirical Software Engineering*, 25, 1864-1904.



Cryptocurrency

Cryptocurrency: A digital and decentralized valuta such as Bitcoin, Ethereum, Ripple, and Cardano.

Cryptocurrencies use cryptography for transaction.

[Missing a copyrighted image of categorization of cryptocurrency fourfold table]

Source: <https://jelvix.com/blog/how-to-create-a-cryptocurrency-for-your-business/>



Decentralization and DAO

- ✘ Decentralization: Power is distributed away from a central authority. It is often thought that the metaverse should be decentralized, not governed by a person or small group of people.
- ✘ DAO: A decentralized autonomous organization that is owned by its members. The rules and transactions are managed on the blockchain.

[Missing a copyrighted image of traditional top down organizations vs. decentralized autonomous organizations]

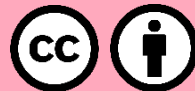


Source: <https://medium.com/iosg-ventures/overview-of-decentralized-autonomous-organization-dao-f9ac47051d07>



Discussion: What are some examples of books, films, media etc, that depict virtual worlds or alternative realities similar to the Metaverse?

Can you identify any recurring themes?



15 Minutes BREAK



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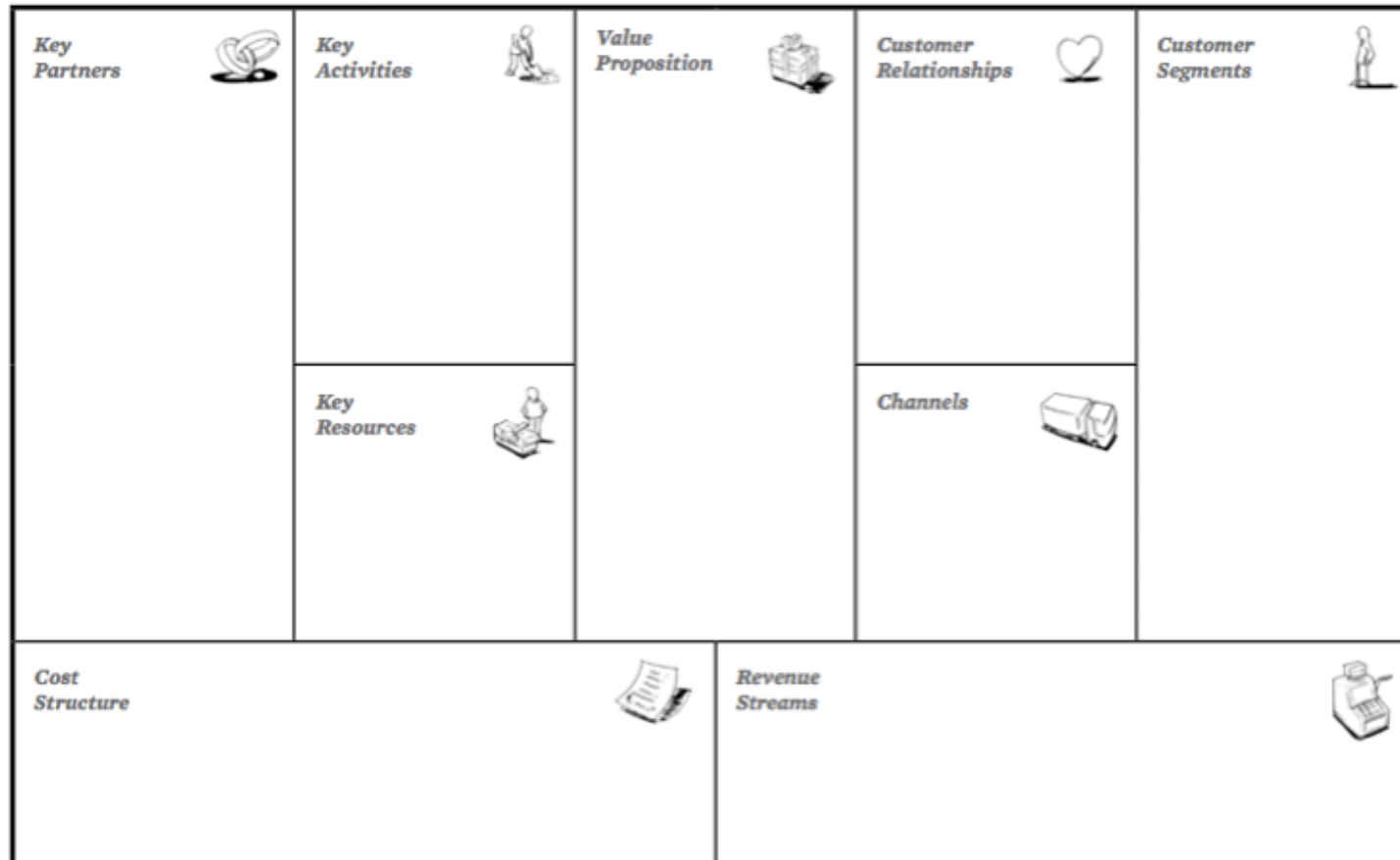


Digital Economy – Evolution and Societal Importance



Business Models

The Business Model Canvas



Source: Osterwalder A., Pigneur Y., 2010, Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers, Alexander Osterwalder, Yves Pigneur, Editor John Wiley & Sons Ltd, 2010



[Missing a
copyrighted image of
Digital Business
Models Map: Digital
Business Model
Types –
FourWeekMBA]

Source:
[https://fourweekmba.com/
digital-business-models/](https://fourweekmba.com/digital-business-models/)

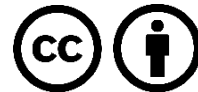


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[Missing a copyrighted image
of Netflix Business Model
Canvas | Netflix business
model, Business model
canvas, Business model
example]

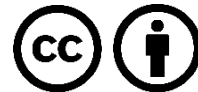
Source:

<https://www.garyfox.co/netflix-business-model/>



[Missing a copyrighted image of
Spotify Business Model Canvas]

Source:
<https://stephenfmccarthy.wordpress.com/2014/12/03/planning-for-success-with-the-business-model-canvas/>



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In groups research and discuss some examples of digital business models in creative industries. What factors contributed to their success or failure?



Discussion and Reflection: What lessons can we draw?

× Class exercise



We made it!



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