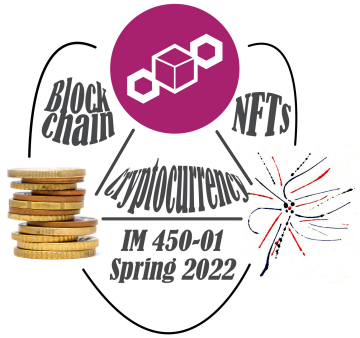
IM 450-01 Issues in IM: *Blockchain, Cryptocurrency, NFTs*

Spring 2022

Class 1: January 20

Intro & Syllabus



Syllabus Review

- http://interactivemedia.bradley.edu/ell/im450/im450_sp22_bl_cr_nft/im450sp22_schedule.html
- **There is also a Canvas site.**

THIS COURSE IS NOT "RUN" USING CANVAS. CANVAS IS AS A CONTENT CONTAINER. THE COURSE OPERATES THROUGH THE SYLLABUS.

The syllabus of the course is the master document. You should refer to it regularly in addition to indications on CANVAS.

DO NOT DEPEND ON CANVAS FOR NAVIGATING THE CLASS. USE THE SYLLABUS.

Introduction

- Many refer to the coming Internet as 3.0.
- I prefer describing 4 Internet Phases.
- Phase 1: Developed (largely) by higher education using government $.
  - At the start, the Internet was decentralized, distributed, and relatively free and anonymous.
  - It appeared to favor egalitarian and libertarian preferences to the point of, perhaps
  - encouraging participative democracy as “the people” were given the means of production and distribution of content.

Phase 1: Not-for-profit and more

- Developed (largely) by higher education using government $. At the start, the Internet was
  - decentralized, distributed, and relatively free, anonymous and not-for-profit.
  - Distribution of access to information was it's mission.
  - It appeared to favor egalitarian and libertarian preferences to the point of, perhaps
    - encouraging participative democracy as "the people" were given the means of production and distribution of content.

A Declaration of the Independence of Cyberspace, John Perry Barlow

- https://www.eff.org/cyberspace-independence
- **Absolutely crucial to remember that this sort of thinking represented what many believed was the Internet's promise.**
- **When you read or hear about early developers or participants lamenting the ways that the Internet has turned out, keep in mind that they are not just old and slow to change. In many cases, they were revolutionary pioneers. They simply did not envision the need for commercial applications of the technology (though they probably suspected those would someday develop)**

At the point that the Internet began to diffuse, the government pulled out funding.

- Without another viable funding model, the US government consorted with private enterprise.
- Government agreed to (1) limit regulation and taxation
- Private enterprise agreed to (2) fund the Internet with advertising dollars.
- To an extent, this arrangement fit the socio-economic mindset of many Silicon Valley entrepreneurs
  - Most were libertarians.
  - Some were outright anti-government
  - And who doesn't love doing business without government regulation and sales tax?

Phase Two: Commercialization via Advertising Capitalism

- Based on experience with legacy media (print, radio, tv).
- With traditional media, the value of an advert was known and the value of it's output was at least (speculatively) predictable (using broad demographic techniques).
- However,
  - (1) the Internet offered potentially infinite advert inventory
    - making it difficult to fix ad prices
    - Driving down the cost an advert
    - Which drove down the return many to many participants
  - (2) no clarity about what an ad was worth in terms of effect
    - Users clicked through banner adverts
    - Did advert "impressions" (seeing adverts) really matter?
    - Did clicking through adverts translate to sales?

Phase Three: Commercialization via marketing: Surveillance Capitalism

- Technological solutions for the problems presented by traditional advertising on the net: Better marketing through technology.
- Cookies and other ubiquitous technologies of surveillance enabled
  - Data collection about users
  - A marketplace to trade, buy, and sell user profiles/dossiers
  - A data marketplace that enabled targeted advertising
  - Diversion of much of the vast amounts spent on advertising toward Internet moguls/platforms instead of traditional advertising modalities.

Now we enter Phase 4: Algorithmic Capitalism & Data Colonialism

- The initial goals for (and look of) block chain and cyber-currencies are virtually the same as the initial hopes for the internet:
- Decentralization
- Distributed networking
- Relatively anonymous
- The technological evasion of governmental control and institutional participation.
- There's little-to-no reason to believe that this vision will result in the wanted ends any more than the vision that initially fostered the development of the Internet. And we know how that turned out:
  - In China, total government control.
  - In the US, total commercial control.
  - Redistribution of wealth toward digital platform owners.
  - Disruption of traditional/legacy forms and processes, often without proper replacement/substitution.

- “Those who don't know history are destined to repeat it.” (Edmund Burke)
- "Those who cannot remember the past are condemned to repeat it.” (George Santayana)

Plus, “hi-tech” Blockchain and cybercurrency could be even WORSE for democracy

- Blockchain, cyber-currency, and NFTs are even more mysterious to, and out of the reach of, most people than were the initial features of the Internet.
- They are no more resistant to re-centralization than are any other programmed functions.
  - They APPEAR to be more resistant because they are yet to see “normalizing institutional uptake” and governmental intrusion/control functions.
  - As we go through the term, you will see that virtually all of the use cases either imply or involve eventual adoption by traditional industries and players.
- Another similarity that might be “different” this time: the 2nd and 3rd Internet phases moved both money from localities and control from the government toward very rich, elite, technologists. This 4th phase could . . . In fact, probably promises to . . . further exacerbate that trend.
- “The people” are once again thwarted by the technology AND centralized control
  - monetization is the very life-blood of capitalism while centralized control rules totalitarianism.

IM 450-01 Goals & Objectives

A) To learn about and appreciate Blockchain, Cryptocurrency, NFTs by answering the following questions:

1) What are Blockchain, Cryptocurrency, NFTs?
2) How do Blockchain, Cryptocurrency, NFTs work?
3) What are the Career and/or Pro-sumer applications for Blockchain, Cryptocurrency, NFTs?
4) What does the future hold for Blockchain, Cryptocurrency, NFTs?

IM 450-01 Goals & Objectives

B) To critically examine Blockchain, Cryptocurrency, NFTs by answering the following questions (from Neil Postman) <https://www.youtube.com/watch?v=dBlfPhsrvtw>

1) What is the problem to which this technology is a solution?
2) Whose problem is it?
3) What new problems might be created by solving the original problem?
4) Which people and what institutions will be most seriously harmed by this new technology?
5) What sort of people and institutions gain special economic and political power from this new technology?
6) What changes in language are being forced by these new technologies?

So does this all mean that Lamoureux is against these technologies? And if so, why teach the class?

- **NO. I am NOT against them**
  - **For example, it's clear that blockchain tech has NUMEROUS very positive/helpful features, is being used now, and isn't going away.**
  - **NTFs are a format for the distribution of popular culture objects. I have nothing against pairing creators with buyers.**
  - **My jury is out on cryptocurrencies.**
- **I'm teaching this course for the same reason I developed the three other classes (Intro, IP law, Privacy): I believe these innovations are important and that you need to understand them in order to function effectively as developer and as a citizen.**
- **I will present these in as even-handed way as I can. We'll examine what they are and how they work and what they can be used for. BUT, we'll also examine them critically, as we should do for all new tech that might diffuse and change our culture.**
- **This is not a "how-to" or "hands on" course. We won't make or invest.**

Your Goals & Objectives for IM 450-01?

- **What do you want to accomplish?**
- **What did I not preview/mention that you think is important or wanted to know (about)?**