

BUILDING A FUTURE WEB - WEB 3.0 + AI

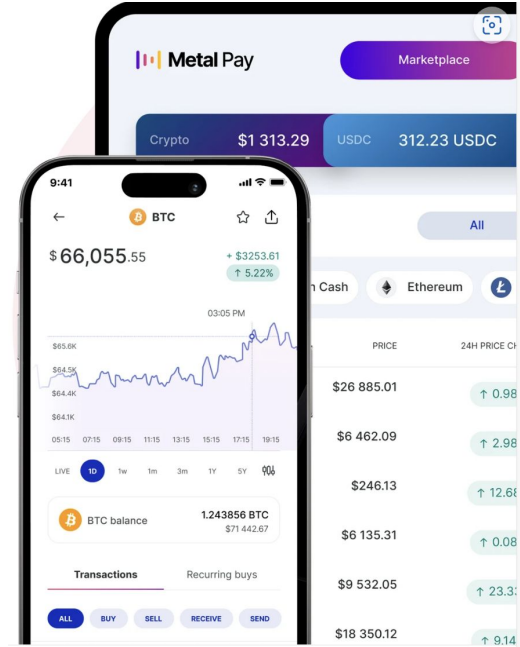
COMPUT/HER 2024



Maura Wilder, Vice President of Engineering at Metallicus Inc.

My team creates and operates software to enable the exchange of value and collectibles.

Think Venmo for cryptocurrency and banking, except that the focus is more on digital assets than money in the bank.



OUTLINE

- Intro to Web 3.0
- Intro to AI
- Show examples of Web 3 + AI
- Women in Computing
- Wrap up

INTRO TO WEB 3.0

WEB 1.0

- Information only
- Very little interactivity
- Hosted on central server



[Campus Renovations](#)

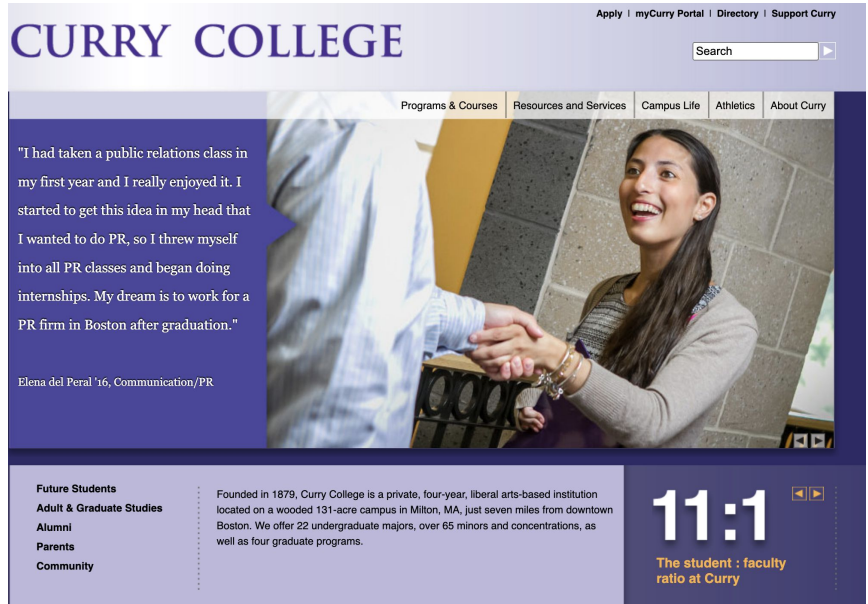
[Gateway Computer Program](#)

Curry College is an independent liberal arts college located on 120 rolling wooded acres in suburban Milton, Massachusetts. The College's main campus, situated about seven miles from downtown Boston, offers both the advantages of a suburban campus and the cultural and educational attractions of New England's premier city. Curry College also extends its educational programs to [Continuing Education](#) satellite campuses in Plymouth, Abington, Cambridge, Medford, Peabody, and South Boston, Massachusetts.

INTRO TO WEB 3.0

WEB 2.0

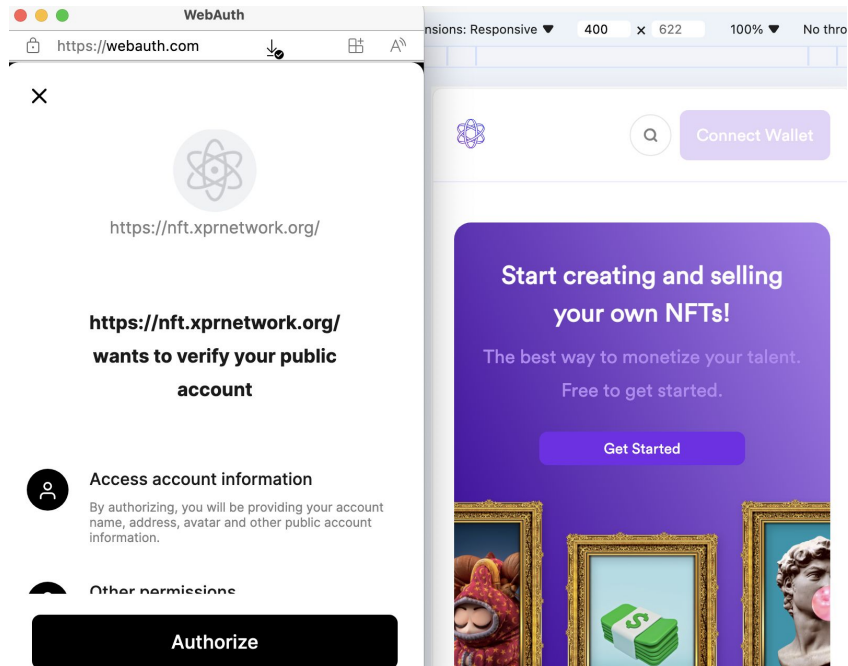
- Web 1.0 +
- More interactive
- Hosted on central server, but often using data from other sites

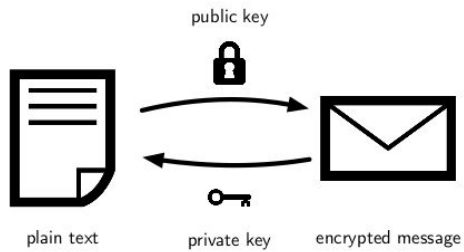


INTRO TO WEB 3.0

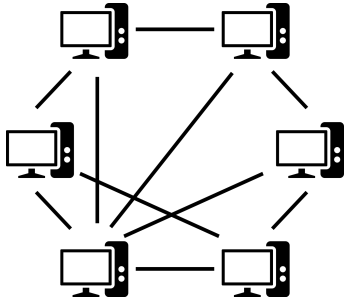
WEB 3.0

- Web 2.0 +
- Some data on blockchain
- Ability to prove identity
- Ability to send value





Cryptography - Math that keeps communications secure



Peer-to-peer network, so no single company controls your data

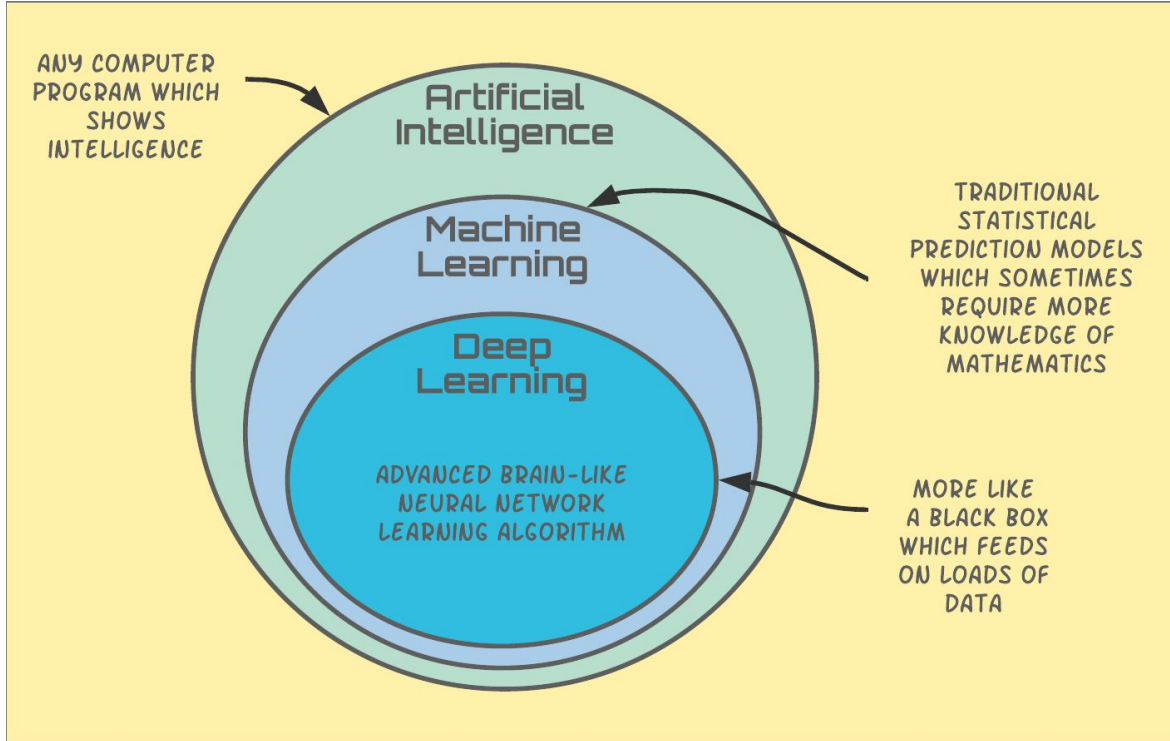


Digital money that can be sent over the internet



See a WEB 3 site

INTRO TO AI



Credit: Ahmad Abdullah,
https://figshare.com/articles/figure/AI_vs_ML_vs_DL_Venn_Diagram_png/14915505/1

INTRO TO AI

- Computer vision
- Robotics
- Natural language processing
- Generative AI

INTRO TO AI

- Applications of Generative AI:
 - Image and video creation
 - Text creation
 - Coding assistance



See some GEN AI

Who is
this?

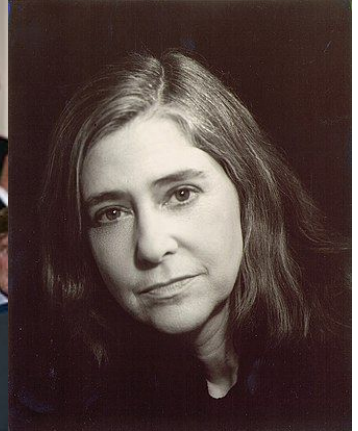


Metallicus

MARGARET HAMILTON: NASA LEAD "SOFTWARE ENGINEER"

- Started as MIT researcher
- Lead team writing software that got humans to the moon
- Her innovative design of the Apollo 11 Lunar Lander software helped avert disaster just minutes before the first moon landing
- Invented term "Software Engineer"

<https://www.youtube.com/watch?v=kYCZPXSVv00>



BOMBSHELL: THE HEDY LAMARR STORY (2017)

- Famous Hollywood actress
- Co-invented an early version of spread spectrum wireless communication technology, the foundation of Bluetooth, Wi-Fi, and GPS
- Developed during World War II to secure communications.

<https://www.imdb.com/title/tt6752848/>

https://en.wikipedia.org/wiki/Bombshell:_The_Hedy_Lamarr_Story



HIDDEN FIGURES (2016)

True story of three African American women mathematicians who played a crucial role in NASA's early space program during the 1960s.

- Katherine Johnson calculated flight paths for Project Mercury
- Dorothy Vaughn supervised the programming department
- Mary Jackson became NASA's first Black female engineer

<https://www.imdb.com/title/tt4846340/>

https://en.wikipedia.org/wiki/Hidden_Figures



Metallicus

DR. NICOLE FORSGREN

- Leads the Developer Experience Lab at Microsoft Research in Cambridge (NERD)
- Focuses on measuring and improving developer productivity
- Co-author of 2 award-winning books:
 - “Accelerate: The Science of Lean Software and DevOps”
 - “The DevOps Handbook.”

<https://nicolefv.com>



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RESOURCES & LINKS

- Github Copilot: <https://github.com/features/copilot>
- Edge Browser: <https://www.microsoft.com/en-us/edge>
- ChatGPT: <https://chatgpt.com/>

WRAP UP

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THANK YOU!