

INTEGRATED FUTURE(S)

POINTS OF INTEGRATION

A look across several new developments

Welcome to Integrated Future(s), IF.

IF is a weekly newsletter about the future of emerging technology and the impact on science, medicine and society. We'll look at how artificial intelligence, blockchain, quantum and neuromorphic computing, neurotech and more will integrate with each other and with *technoscience*, the technological infrastructure of science in our society.

This week we'll go around the world of emerging tech seeing some of what is happening in governments and industry.

The VA's new fully 5G hospital is a vision of the world to come as this advancement will allow for an array of integrated functionality. Blockchain and AI are at the heart of new health applications, and the EU is getting out ahead in preparing for that integrated data world. New neural processing to be showcased at the TinyML Summit along with investment in an array of new tech start ups at the UC Berkley SkyDeck show us how things are keeping pace on the industry side as well.

Please remember that the map is not the territory.

- Sean

CALIFORNIA VA HOSPITAL TO DEPLOY 5G NETWORK: 5 THINGS TO KNOW

<https://www.beckershospitalreview.com/healthcare-information-technology/california-va-hospital-to-deploy-5g-network-5-things-to-know.html>

VA Sec Wilkie announced at the National Press Club last week that the Palo Alto VA Medical Center would become the first fully 5G equipped hospital in the country and possibly the world. It will certainly be something to be watched, studied and even potentially modelled after. We'll be keeping an eye on developments there.

TO 5G OR NOT TO 5G

There has been a lot of discussion, hope, fear and consternation about 5G. The fear concerns a) groups or countries falling behind other countries in 5G technology, and therefore everything else that will run on it, b) potential physiological impact and damage that may occur from environmental exposure to 5G and c) overarching concerns about 5G technology making the "internet of all the things" (IOATT) an existential threat to our lives from hackers, Skynet or just always being connected. I don't have a definitive answer on these. Suffice to say they need more a) competition and/or cooperation, b) science and c) cybersecurity and philosophizing.

NEW EU POLICY PUSHES FOR DATA SHARING TO FOSTER BLOCKCHAIN, AI USE

<https://www.pymnts.com/news/international/europe/2020/new-eu-policy-pushes-for-data-sharing-to-foster-blockchain-ai-use/>

How data is used, shared and not shared is a major area of discussion and policy in the world of healthcare and emerging tech. The EU, with some of the most advanced data privacy standards via GDPR, is leading the way in the next level of discussion on how these new technologies will interact with our data.

HOW AI AND BLOCKCHAIN ARE POWERING THE NEXT GENERATION OF HEALTHCARE

<https://www.fxempire.com/education/article/how-ai-and-blockchain-are-powering-the-next-generation-of-healthcare-521998>

The integration of blockchain and artificial intelligence is rapidly becoming the yin and yang or chocolate and peanut butter of any discussion about the future of health tech. Both are critical.

BRAINCHIP SHOWCASES VISION AND LEARNING CAPABILITIES OF ITS AKIDA NEURAL PROCESSING IP AND DEVICE AT TINYML SUMMIT 2020

<https://finance.yahoo.com/news/brainchip-showcases-vision-learning-capabilities-130000656.html>

Innovation continues to get smaller and more powerful as neuromorphic circuitry reaches the next level. Here we see how the brain continues to be the inspiration for next level processing. And we still know only a little about the brain.

UC BERKELEY SKYDECK: 23 STARTUPS SHOWCASE NEXT BIG IDEAS AT BERKELEY SKYDECK'S DEMO DAY

<https://www.finanznachrichten.de/nachrichten-2020-02/48767201-uc-berkeley-skydeck-23-startups-showcase-next-big-ideas-at-berkeley-skydeck-s-demo-day-200.htm>

An array of new ideas across the emerging tech spectrum on display and primed for success in the tech heartland.

That's it for this week. Next week we'll look at why health AI without a blockchain is nothing but a lawsuit waiting to happen. Share as you like. Questions and comments to seanmanion@sciencedistributed.com. Thanks for reading.

Sean T Manion PhD is a technoscientist with a focus on blockchain and other emerging tech, neuroscientist, former federal researcher/admin and bureauscientist. He is a Chief Editor at Frontiers' Blockchain for Science, a Fellow of the British Blockchain Association and co-author of the book Blockchain for Medical Research: Accelerating Trust in Healthcare with Yaël Bizouati-Kennedy (CRC Press, April 2020). He is currently performing the duties of self-appointed strategic planner for science.

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