GT CDAIT
Biweekly IoT News Digest (03/22 – 2)

COVID-19 & THE INTERNET OF THINGS

See some perspectives gathered by CDAIT on the use of IoT technologies in preventing and monitoring COVID-19 like infectious diseases, & pandemic impact on IoT and related (incl. post-pandemic) issues – as of 3/31/2022 – 1214 entries:
https://cdait.gatech.edu/sites/default/files/2022-03/Covid-19_IoT_January_2020_March_31_2022.pdf

GOVERNANCE & TH E INTERNET OF THINGS

MD Newsroom, "**United States and EU Announce Trans-Atlantic Data Privacy Framework**," Modern Diplomacy (MD), March 26, 2022
https://moderndiplomacy.eu/2022/03/26/united-states-and-eu-announce-trans-atlantic-data-privacy-framework/

Open Access Government posting, "**Bridging the gap between academic research and industrial application** -- *why it is vital that academia meets industry from the perspective of Industry 4.0* ," Open Access Government (UK), March 24, 2022
https://www.openaccessgovernment.org/bridging-gap-between-academic-research-industrial-application-industry-4-0/132489/

Scott Stein, "**The Metaverse Isn't a Destination. It's a Metaphor** - *Is this the hype peak of the metaverse? Or are we seeing something emerge that's been evolving for a long time?*" CNET, March 21, 2022
https://www.cnet.com/tech/computing/features/the-metaverse-isnt-a-destination-its-a-metaphor/?mc_cid=c969dfcebe&mc_eid=cf0b0e87e1#ftag=CAD590a51e

Misheck Mwaba, Noel Baldwin, and Steve Richter, "**Micro-credentials are surging in popularity, but how should they be shaped?**" Policy Options [Canada], March 21, 2-022
https://policyoptions.irpp.org/magazines/micro-credentials-training-education/

Alex Chesosi, "**Internet of Things is the way for technological innovation**," The Sunday Standard (Kenya), March 20, 2022
https://www.standardmedia.co.ke/business/opinion/article/2001440803/internet-of-things-is-the-way-for-technological-innovation

Rear Admiral (Ret.) Tim Gallaudet and Tim Janssen, "**The US needs open ocean data to avoid an innovation wipeout**," The Hill, March 16, 2022
https://thehill.com/opinion/technology/598504-the-us-needs-open-ocean-data-to-avoid-an-innovation-wipeout

IoT News and Market Reports

(Second Half of March 2022)

- Selected **IoT-related announcements and featured activities/topics** gathered by CDAIT from governments; agencies; consortia; alliances; associations; standards, research and other similar groups around the world – 16 entries - See: https://cdait.gatech.edu/sites/default/files/2022-03/IoT_News_Filings_March_2022__Second_Half.pdf
- Sample list of **IoT-related market reports** gathered by CDAIT– 97 entries – See: https://cdait.gatech.edu/sites/default/files/2022-03/IoT_Market_Reports_March_2022_Second_Half.pdf

Georgia Tech IoT-related Info/Research Noticed by CDAIT

- Qiang, Zheng, Yue Hou, Hailu Yang, Puchuan Tan, Hongyu Shi, Zhoujin Ye, Ning Chen et al. [incl. Zhong-Lin Wang]"**Towards a Sustainable Monitoring: A Self-Powered Smart Transportation Infrastructure Skin**," pre-print article, not peer-reviewed posted on March 1, 2022
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4046683
- Suresha, P.B.; Hegde, C.; Jiang, Z.; Clifford, G.D. "**An Edge Computing and Ambient Data Capture System for Clinical and Home Environments**." Preprints 2022, 2022020246 (doi: 10.20944/preprints202202.0246.v2) – version 2 approved and online on March 16, 2022
https://www.preprints.org/manuscript/202202.0246/v2
- Georgia Parmelee, "**MagTrack Technology Opens Doors for Independent Operation of Smartphones, Computers, and Other Devices for Wheelchair Users,"** Georgia Tech Research, March 3, 2022
https://research.gatech.edu/magtrack-technology-opens-doors-independent-operation-smartphones-computers-and-other-devices

OF NOTE: Inmarsat press release, **" Skills shortages remain the top barrier to Industrial IoT adoption, Inmarsat research reveals,"** PR Newswire, March 15, 2022 https://www.prnewswire.co.uk/news-releases/skills-shortages-remain-the-top-barrier-to-industrial-iot-adoption-inmarsat-research-reveals-831270435.html;

Special Reading Suggestions

- Sumon Ahmed Sabir, "**IoT will define the future and we must be ready for it**," The Businsess Standard (Bangladesh), March 30, 2022
https://www.tbsnews.net/thoughts/iot-will-define-future-and-we-must-be-ready-it-393750
- Jim Tyson, "**Internet of Things forces rethink of KPIs: McKinsey,"** CFO Dive, March 22, 2022 https://www.cfodive.com/news/internet-things-forces-rethink-kpis-mckinsey-IOT/620829/
- Rockwell Automation, "**Using the digital thread as the foundation of autonomous factories,"** dpaonthenet, March 17, 2022
https://www.dpaonthenet.net/article/189936/Using-the-digital-thread-as-the-foundation-of-autonomous-factories.aspx
- Hugo Britt, "**Industry 5.0 Is Coming: Here's What You Should Know,"** Thomas, March 17, 2022 https://www.thomasnet.com/insights/what-is-industry-5-0/
- Data Journalism Team, "**Internet of things hiring levels in the power industry rose to a year-high in February 2022**," Data Journalism, March 17, 2022 https://www.power-technology.com/features/internet-of-things-hiring-levels-in-the-power-industry-rose-to-a-year-high-in-february-2022/
- Georve Westerman, "**The Questions Leaders Should Ask in the New Era of Digital Transformation,"** MIT Sloan Management Review, March 7, 2022 https://sloanreview.mit.edu/article/the-questions-leaders-should-ask-in-the-new-era-of-digital-transformation/

Selected IoT Perspectives

The Internet of Nanothings

"For Professor Ian Akyildiz, Professor of Telecommunications at the Georgia Institute of Technology, this means the inevitable end point [of the Internet of Things] is the internet of nanothings." (*)

(*) Roland Pease, " ***Internet of things: Trash talk signals mobile future,"*** *BBC Future, November 18, 2014 https://www.bbc.com/future/article/20130314-trash-talk-signals-mobile-future*

- Industry Research press release, "**Global Internet of Nano Things Market 2022 | Upcoming Trends, Latest Developments, Covid19 Analysis with Top Most Key Vendors – Cisco, IBM, Qualcomm, Amazon, Bosch**," Digital Journal, March 21, 2022
https://www.digitaljournal.com/pr/global-internet-of-nano-things-market-2022-upcoming-trends-latest-developments-covid19-analysis-with-top-most-key-vendors-cisco-ibm-qualcomm-amazon-bosch#ixzz7OGsJGSTY
- Ferry Emveep, "**Blockchain-Integrated Internet of Nano Things Can't Be Stopped**," IoT Business News, March 10, 2022
https://iotbusinessnews.com/2022/03/10/79043-blockchain-integrated-internet-of-nano-things-cant-be-stopped/
- Market.US (Powered by Prudour Private Limited) press release, "**Internet of Nanothings Market To Showcase Vigorous Demand During The Period Until 2031,**" Taiwan News, February 2, 2022 https://www.taiwannews.com.tw/en/news/4429263
- Emergen press release, "**Internet of Nanothings Market Size, Share, Trends, By Product Type (Nano Phones, Nanosensors, others), By Communication Type, By Network Architecture Type, By Application, and By Region Forecast to 2028**," Emergen website, January 2022 https://www.emergenresearch.com/industry-report/internet-of-nanothings-market
- Allen, "**Internet of Nano Things,"** Security Boulevard, December 22, 2021 https://securityboulevard.com/2021/12/internet-of-nano-things/

Research background info (sample):, Senturk, Seyda, Ibrahim Kok, and Fatmana Senturk. "**Internet of Nano, Bio-Nano, Biodegradable and Ingestible Things: A Survey,**" arXiv preprint v1 (online February 24, 2022) https://arxiv.org/abs/2202.12409 ; Mishra, Anoop, Abhishek Tripathi, and Deepak Khazanchi. "**A framework for applying artificial intelligence (AI) with Internet of nanothings (IoNT),"** Machine Learning for Sustainable Development [Book] 9 (2021): 1 https://www.degruyter.com/document/doi/10.1515/9783110702514-001/html ; Almazrouei, Ebtesam, Raed M. Shubair, and Fabrice Saffre. "**Internet of nanothings: Concepts and applications**," arXiv preprint arXiv:1809.08914 (online, September 21, 2018).Ian F. Akyildiz, "**Internet of Nanothings and Bio-nanothings**," 2017, https://futurecomresearch.eu/previous/2017/site_pres/K/IAN_Akyildiz.pdf; I. F. Akyildiz and J. M. Jornet, "**The Internet of nano-things,"** in IEEE Wireless Communications, vol. 17, no. 6, pp. 58-63, December 2010, doi: 10.1109/MWC.2010.5675779, https://ieeexplore.ieee.org/abstract/document/5675779

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March 31, 2022