GT CDAIT
Biweekly IoT News Digest (01/22 – 2)

February 2021 Highlights

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 1/31/2022 – 1145 entries:
https://cdait.gatech.edu/sites/default/files/2022-01/Covid-19_IoT_January_2020_January_31_2022.pdf

GOVERNANCE & THE INTERNET OF THINGS

Board of Governors of the [U.S.] Federal Reserve System, "**Money and Payments: The U.S.Dollar in the Age of Digital Transformation**" January 2022
https://www.federalreserve.gov/publications/files/money-and-payments-20220120.pdf

Gigi Onag, "**IoT deployments a top cause of technical debt in 2021,**" Future IoT, January 20, 2022 ["*A technical debt is defined as coding or development that is left undone or unfinished at the time that the application/platform goes live. It is the result of the software development approach that prioritises a quick delivery of a project with expectation that there will be an additional cost down the road as the development team rework on the program – as they learn more about how it interacts with other applications,*"] https://futureiot.tech/iot-deployments-a-top-cause-of-technical-debt-in-2021/

Yonhap, "**South Korea's spy agency detects malware infection in over 100 local IoT devices,**" The Korea Herald, January 19, 2022
http://www.koreaherald.com/view.php?ud=20220119000736

Kate O'Flaherty, "**The UK's IoT proposals [***The Product Security and Telecommunications Infrastructure (PTSI) Bill***] are riddled with 'astonishing' gaps** " IT Pro, January 19, 2022
https://www.itpro.co.uk/network-internet/internet-of-things-iot/361985/iot-product-security-telecommunications-infrastructure-gaps

Dashveenjit Kaur , "**Is the world still too dependent on Asia to solve the chip shortage?,** "TechWire Asia, Janujary 18, 2022 https://techwireasia.com/2022/01/is-the-world-still-too-dependent-on-taiwan-to-fight-the-chip-shortage/

Sarita Nayar, "**How can we ensure a safe and equitable digital transformation? Business leaders explain,**" World Economic Forum, January 17, 2022
https://www.weforum.org/agenda/2022/01/equitable-digital-transformation-business-leaders-davos-agenda-2022-digitization/

IoT News and Market Reports
(Second Half of January 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/2022-01/IoT_News_Filings_January_2022_Second_Half.pdf

- Sample list of **IoT-related market reports** gathered by CDAIT– 85 entries – See:
https://cdait.gatech.edu/sites/default/files/2022-01/IoT_Market_Reports_January_2022_Second_Half.pdf

Georgia Tech IoT-related Info/Research Noticed by CDAIT

- Anne Wainscott-Sargent, "**Microelectronics Momentum Drives the Nation's Semiconductor Resurgence --** *Georgia Tech drives trailblazing chip research and nurtures the future microelectronics workforce that are key to America's long-term semiconductor competitiveness,*" GT, n.d., https://research.gatech.edu/microelectronics-momentum-drives-nations-semiconductor-resurgence

- Pudlewski, Scott, and Katherine Landers. "**DIMA: Distributed IoT Modeling Architecture.**" In 2021 IEEE International Conference on Communications Workshops (ICC Workshops), pp. 1-6. IEEE, 2021 https://ieeexplore.ieee.org/abstract/document/9473662

OF NOTE: See December 2021 inaugural issue of **Discover Internet of Things** -- Editorial of Volume 1, Issue 1: "*Discover IoT* is among the Discover Journals series by Springer, which is a collection of fully open access journals …[It] aims to publish original research papers in a variety of areas pertinent to IoT… [and] of importance to experts, researchers, teachers, practitioners, engineers, and students"
https://link.springer.com/journal/43926/volumes-and-issues/1-1

Special Reading Suggestions

- ResearchandMarkets.com press release "**Worldwide Largest Cellular IoT Projects Database 2021: The 500 Largest Projects with 5-Year Forecasts for Each Project,**" Business Wire, January 28, 2022 https://www.businesswire.com/news/home/20220128005313/en/

- Christopher Mimms, "**The Nanotechnology Revolution Is Here—We Just Haven't Noticed Yet,**" The Wall Street Journal, January 22, 2022 https://www.wsj.com/articles/the-nanotechnology-revolution-is-herewe-just-havent-noticed-yet-11642827640?mc_cid=df41641f1f&mc_eid=cf0b0e87e1

- Sumit Sharma, "**IoT is playing an increasingly important role in the logistics industry**," Express Mobility, January 21, 2022 https://www.financialexpress.com/express-mobility/interview-sumit-sharma-gobolt-iot-is-playing-important-role-in-logistics-industry/2412264/

- Jan Koztorek, "**What CEOs talked about in Q4/2021: Disrupted supply chains, vaccine mandates, and the metaverse,**" IoT Analytics, January 19, 2022 https://iot-analytics.com/what-ceos-talked-about-in-q4-2021-disrupted-supply-chains-vaccine-mandates-and-the-metaverse/

- Data Journalism Team, "**Mining industry companies are increasingly innovating in internet of things,**" Mining Technology, January 19, 2021 https://www.mining-technology.com/features/mining-industry-companies-are-increasingly-innovating-in-internet-of-things/

Selected IoT Perspectives
The Internet of Things and Industry 5.0

"Industry 5.0 is the next revolution. In 2022, we will hear it mentioned more often in strategy meetings and at future-focused events. This is because intelligent leaders already know that a better future awaits in building a positive and symbiotic relationship between machines and the workforce." (*)

(*) Kalyan Kumar, "**How Industry 5.0 Might Deliver Human-Centric Work Cultures,**" CMS Wire, January 21, 2022
https://www.cmswire.com/digital-workplace/how-industry-50-might-deliver-human-centric-work-cultures/

- Olesia Martynova, "**Industry 5.0: Announcing the Era of Intelligent Automation,**" Intellias website, December 17, 2021
https://intellias.com/industry-5-0-announcing-the-era-of-intelligent-automation/

- Michael Rada, "**What is (and isn't) Industry 5.0?**" Control Design, December 7, 2021 https://www.controldesign.com/articles/2021/what-is-and-isnt-industry-5-0/

- Anu Dev Geoff Giordano, "**Industry 5.0 Is Coming. Here's Why You Should Care,**" Plastics Today, November 23, 2021 https://www.plasticstoday.com/industry-trends/industry-50-coming-heres-why-you-should-care

- Andreas Eschach, "**How Indusry 5.0 Will Transform Process Manufacturing As We Know It,**" Forbes, July 13, 2021 https://www.forbes.com/sites/forbestechcouncil/2021/07/13/how-industry-50-will-transform-process-manufacturing-as-we-know-it/?sh=3d8062642ad4

- Marina Ruggieri, "**How Industry 5.0 will transform the working environment,**" Open Access Government, April 16, 2021 https://www.openaccessgovernment.org/how-industry-5-0-will-transform-the-working-environment/108743/

- James Jardine, "**Industry 5.0: Top 3 Things You Need to Know,**" MasterControl website, July 30, 2020 https://www.mastercontrol.com/gxp-lifeline/3-things-you-need-to-know-about-industry-5-0/

Research background info (sample): Xu, Xun, Yuqian Lu, Birgit Vogel-Heuser, and Lihui Wang. "**Industry 4.0 and Industry 5.0—Inception, conception and perception,**" Journal of Manufacturing Systems 61 (online October 2021): 530-535 https://www.sciencedirect.com/science/article/pii/S0278612521002119; Praveen Kumar Reddy Maddikunta, Quoc-Viet Pham, Prabadevi B, N Deepa, Kapal Dev, Thippa Reddy Gadekallu, Rukhsana Ruby, Madhusanka Liyanage, "**Industry 5.0: A survey on enabling technologies and potential applications,**" Journal of Industrial Information Integration, (online August 11,2021), 100257, ISSN 2452-414X, https://doi.org/10.1016/j.jii.2021.100257; Di Nardo, M.; Yu, H. "**Special Issue "Industry 5.0: The Prelude to the Sixth Industrial Revolution,**". Applied System Innovation (published July 11 2021), 4, 45. https://doi.org/10.3390/asi4030045; European Union, "**Industry 5.0,**" January 7, 2021 https://ec.europa.eu/info/research-and-innovation/research-area/industrial-research-and-innovation/industry-50_en ---- See also: Association for Advancing Automation (A3), "**Simplify Manufacturer's Lives With Industry 5.0**," July 14, 2021 https://www.automate.org/news/simplify-manufacturers-lives-with-industry-5-0 ; and Esben H. Østergaard, "**Welcome to Industry 5.0,**" International Society of Automation (ISA), March 2018 https://www.isa.org/intech-home/2018/march-april/features/welcome-to-industry-5-0

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