



GT CDAIT

Biweekly IoT News Digest (08/22 – 2)

CHRONICLE OF DIGITAL TRANSFORMATION THROUGH INTERNET OF THINGS TECHNOLOGIES

Some biweekly perspectives from around the globe gathered by CDAIT (400 entries)

https://cdait.gatech.edu/sites/default/files/2022-08/Digital_Transformation_Through_IoT_Technologies_August_31_2022.pdf

GOVERNANCE & THE INTERNET OF THINGS

Edgar Honning, "Solve the problem of unstructured data with machine learning," VentureBeat, August 27, 2022 <https://venturebeat.com/data-infrastructure/solve-the-problem-of-unstructured-data-with-machine-learning/>

Mahajan, Sajit, "Design and development of an open-source framework for citizen-centric environmental monitoring and data analysis," Scientific Reports 12, 14416 (published August 24, 2022). <https://doi.org/10.1038/s41598-022-18700-z>

Hector Figari Costa, "People won't use technology that they don't trust," Leaders League, August 23, 2022 <https://www.leadersleague.com/en/news/people-won-t-use-technology-that-they-don-t-trust>

Dan O'Shea, "CHIPS Act may offer IoT sector a well-timed boost," Fierce Electronics, August 22, 2022 <https://www.fierceelectronics.com/iot-wireless/chips-act-may-offer-iot-sector-well-timed-boost>

Michael Stead and Paul Coulton, "Liberate the tractors: the right to repair movement that's regaining control of our devices," The Conversation, August 22, 2022 <https://theconversation.com/liberate-the-tractors-the-right-to-repair-movement-that-s-regaining-control-of-our-devices-188954>

Tammy (Tamera) Max, "Understanding the Current Global Semiconductor Shortage, Preparing for the Future," S&P Global, August 22, 2022 <https://ihsmarkit.com/research-analysis/understanding-the-current-global-semiconductor-shortage.html>

Joanne Zaaier, Xavier Pican and Gianluigi Marino, "Smart cities pose 'fit for purpose' questions for data regulation [European Union, France, United Kingdom]," Lexology, August 17, 2022 <https://www.lexology.com/library/detail.aspx?g=d6b21696-2711-4d85-9439-076a1a434e2>

Katie Cunningham, "Ask all the time: why do I need this? How to stop your vacuum from spying on you," The Guardian, August 15, 2022 https://www.theguardian.com/technology/2022/aug/16/ask-all-the-time-why-do-i-need-this-how-to-stop-your-vacuum-from-spying-on-you?mc_cid=4e2a4b06e2&mc_eid=cf0b087e1

IoT News and Market Reports

(Second Half of August 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/2022-08/IoT_News_Filings_August_2022_Second_Half_2.pdf
- Sample list of IoT-related market reports gathered by CDAIT– 74 entries – See: https://cdait.gatech.edu/sites/default/files/2022-08/IoT_Market_Reports_August_2022_Second_Half.pdf

Georgia Tech IoT-related Info/Research Noticed by CDAIT

- Grace Wyner, "Public Policy Researchers Win Awards for Paper Revealing Need for Strengthened Ethics Education for Computing Students," GT Ivan Allen College of Liberal Arts website, July 13, 2022 <https://iac.gatech.edu/news/item/659380/public-policy-researchers-awards-paper-revealing-need-strengthened-ethics>
- Peter Swire, "The Bipartisan, Bicameral Privacy Proposal Is a Big Deal," Lawfare, June 9, 2022 <https://www.lawfareblog.com/bipartisan-bicameral-privacy-proposal-big-deal> [see August 24, 2022 related article by Jim Dempsey: <https://www.lawfareblog.com/preemption-state-cybersecurity-laws-its-complicated>]
- X. He, K. Hu, Y. Cui, R. Bahr, B. Tehrani and M. M. Tentzeris, "Additively Manufactured "Smart" RF/mm-Wave Packaging Structures: A Quantum Leap for On-Demand Customizable Integrated 5G and Internet of Things Modules," in IEEE Microwave Magazine, vol. 23, no. 8, pp. 94-106, Aug. 2022, doi: 10.1109/MMM.2022.3173479. <https://ieeexplore.ieee.org/document/9819817>

OF NOTE: James Tyrell, "Industrial IoT: smart factory KPI survey signals growth - Manufacturers are accelerating their smart factory efforts in 2022, according to analysis commissioned by Microsoft and Intel," Tech HQ, August 16, 2022 <https://techhq.com/2022/08/smart-factory-trends-industrial-iot/>

Special Reading Suggestions

- Mike Knapp, "The United States is behind the curve on Blockchain," The War on the Rocks, August 30, 2022 <https://warontherocks.com/2022/08/the-united-states-is-behind-the-curve-on-blockchain/>
- Data Journalism Team, "Internet of things vacancies in the medical industry were the hardest tech roles to fill in Q2 2022," August 29, 2022 <https://www.medicaldevice-network.com/analysis/internet-of-things-vacancies-in-the-medical-industry-were-the-hardest-tech-roles-to-fill-in-q2-2022/>
- Yanitsa Boyadzhieva, "How eSIM and iSIM will play a critical role in massive IoT adoption," Telecom TV, August 24, 2022 <https://www.telecomtv.com/content/access-evolution/how-esim-and-isim-will-play-a-critical-role-in-massive-iot-adoption-45236/>
- Mary Jo Foley, "Google is exiting the IoT services business. Microsoft is doing the opposite," ZDNet, August 23, 2022 <https://www.zdnet.com/article/google-is-exiting-the-iot-services-business-microsoft-is-doing-the-opposite/>
- Expert Panel Forbes, "15 Essential Steps Toward Realizing A Successful IoT Project," Forbes, August 17, 2022 <https://www.forbes.com/sites/forbestechcouncil/2022/08/17/15-essential-steps-toward-realizing-a-successful-iot-project/?sh=19882c65228c>
- FutureIoT Editors, "5G remains unpopular with IoT roaming use cases," FutureIoT, August 15, 2022 <https://futureiot.tech/5g-remains-unpopular-with-iot-roaming-use-cases/>

Selected IoT Perspectives

The Internet of Things and the Industrial Metaverse

"Like metaverse itself, "industrial metaverse" has become a catch-all phrase to describe similar technology deployed for industrial applications. The Industrial metaverse sits at the crossroads of industrial Internet of Things (IoT), AR, MR, and Virtual Reality (VR) for industrial use, the creation of "digital twins," and the rich, blending of real-world elements with contextualized and meaningful data to help decision makers stay better informed and to keep business processes operating at peak efficiency." ()*

(*) Peter Cohen, "What is the industrial metaverse?" Enterprise IoT Insights, August 12, 2022 <https://enterpriseiotsights.com/20220812/smart-factory/what-is-the-industrial-metaverse>

- Kevin McAllister, "How could the metaverse improve most in the next year?" Protocol [interview of 9 experts], August 30, 2022 <https://www.protocol.com/braintrust/metaverse-improvements-next-12-months?rebellitem=9#rebellitem9>
- Rob Spiegel, "The Metaverse Is Familiar Territory for Manufacturers," Design News, August 23, 2022 <https://www.designnews.com/automation/metaverse-familiar-territory-manufacturers>
- Hendrik Witt, "Industrial Metaverse: Convergence of physical world, connectivity and immersive technology," The Hindu Business Line, August 17, 2022 <https://www.thehindubusinessline.com/opinion/industrial-metaverse-convergence-of-physical-world-connectivity-and-immersive-technology/article65778927.ece>
- Joe McKendrick, "Here Comes the 'Industrial Metaverse'," RT Insights, July 28, 2022 <https://www.rtinsights.com/here-comes-the-industrial-metaverse/>
- Rutva Safi, "Industrial Metaverse: The Factory of the Future," AR Post, July 23, 2022 <https://arpost.co/2022/07/23/industrial-metaverse-factory-of-the-future/>
- Rory Greener, "Industrial Metaverse to Tackle Labour Crisis, Experts Say," XR Today, May 19, 2022 <https://www.xrtoday.com/augmented-reality/industrial-metaverse-to-tackle-labour-crisis-experts-say/>
- John Burton, "The industrial metaverse is coming...can you take advantage?" Smart Industry Forum, January 17, 2022 <https://www.smartindustry.com/blog/smart-industry-connect/the-industrial-metaverse-is-coming-can-you-take-advantage/>

Research background info (sample): Kang, Jiawen, Dongdong Ye, Jiangnan Nie, Jiang Xiao, Xianjun Deng, Siming Wang, Zehui Xiong, Rong Yu, and Dusit Niyato. "Blockchain-based Federated Learning for Industrial Metaverses: Incentive Scheme with Optimal AoI [Age of Information]" arXiv preprint arXiv:2206.07384 (2022) <https://arxiv.org/abs/2206.07384>; Wan, Ziwei, Zhen Gao, Marco Di Renzo, and Lajos Hanzo. "The Road to Industry 4.0 and Beyond: A Communications-, Information-, and Operation Technology Collaboration Perspective." arXiv preprint arXiv:2205.04741 (2022) <https://arxiv.org/abs/2205.04741>;