

Digest is compiled by Alain Louchez, CDAIT Co-founder & Director Emeritus

CHRONICLE OF DIGITAL
TRANSFORMATION THROUGH
INTERNET OF THINGS
TECHNOLOGIES
Some biweekly perspectives fron

TECHNOLOGIES
Some biweekly perspectives from around the globe gathered by CDAIT
(2400 entries since April 1, 2022)
https://cdait.gatech.edu/sites/def ault/files/202404/Digital_Transformation_Throu gh_IoT_Technologies_April_30_2
024.pdf

GOVERNANCE & THE INTERNET OF THING

Tom Bleach, "The New PSTI [UK's Product Security and Telecommunications Infrastructure] Act is a Good Start, But do Smart Devices Still Need Better Protections?" The Fintech Times, April 27, 2024 https://thefintechtimes.com/the-new

https://thefintechtimes.com/the-newpsti-act-is-a-good-start-but-do-smartdevices-still-need-better-protections/

Dimitris Paraskevopoulos,
"Challenges with 10T product
launches: Why time-to-market has
increased 80% in 4 years," 10T
Analytics, April 25, 2024
https://iot-analytics.com/challengesiot-product-launches-why-time-tomarket-has-increased-80-percent-in4-vears/

Prashant Pujara, "Investing in IoT Applications: All You Need to Know," HackerNoon, April 25, 2024 https://hackernoon.com/investing-iniot-applications-all-you-need-to-know

Chad Cox, "Is Talk of Industry 5.0 Premature?" Embedded Computing, April 24, 2024 https://embeddedcomputing.com/application/industrial/industrial-iot/istalk-of-industry-50-premature

Jen Roberts, Trey Herr, Emma Taylor, Nitansha Bansal, "Markets Matter: A Glance into the Spyware Industry," The Digital Forensic Research Lab (DFRLab) at the Atlantic Council,

April 22, 2024 https://dfrlab.org/2024/04/22/marke ts-matter-a-glance-into-the-spyware-

Deepak Gupta, "The Unseen Powerhouse: Demystifying Authentication Infrastructure for Tech Leaders," Security Boulevard, April 17, 2024 https://securityboulevard.com/2024/ 04/the-unseen-powerhousedemystifying-authenticationinfrastructure-for-tech-leaders/

GT CDAIT Biweekly IoT News Digest (4/24 – 2)

IoT News and Market Reports

(First Half of April 2024)

- 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 15 entries:
- https://cdait.gatech.edu/sites/default/files/2024-04/IoT_News_Filings_April_2024_Second_Half.pdf

things/storage-a-secret-to-iot-innovation/

 Sample list of IoT-related market reports gathered by CDAIT – 65 entries: https://cdait.gatech.edu/sites/default/files/2024-04/IoT_News_Filings_April_2024_Second_Half.pdf

Georgia Tech IoT-related Info/Research Noticed by CDAIT

- Zhou, Ping, Xuewu Dai, Kyriakos G, Vamvoudakis, Jan Faigl, and Hong Wang, "Guest Editorial Special Issue on Learning From Imperfect Data for Industrial Automation," IEEE Transactions on Automation Science and Engineering 21, no. 2 (2024): 1088-1091 https://ieeexplore.ieee.org/abstract/document/10494825
- Hu, Yuexiao, Xinyuan Li, Yikui Gao, Zhihao Zhao, Xiaoru Liu, Lixia He, Baofeng Zhang, Linglin Zhou, Zhong Lin Wang, and Jie Wang, "A Combined Wind Harvesting and Speed Sensing System Based on Constant-Voltage Triboelectric Nanogenerator," Advanced Energy Materials (2024): 2400672 https://onlinelibrary.wiley.com/doi/abs/10.1002/aenm.202400672
- Colosimo, B. M., Jones-Farmer, L. A., Megahed, F. M., Paynabar, K., Ranjan, C., & Woodall, W. H. (2024), "Statistical Process Monitoring from Industry 2.0 to Industry 4.0: Insights into Research and Practice," Technometrics, 1–24. https://doi.org/10.1080/00401706.2024.2327341

OF NOTE: DirectIndustry, "Hannover Messe 2024 [April 22-26] Kicks Off Today: What's in Store?" Direct Industry, April 22, 2024 https://emag.directindustry.com/2024/04/22/hannover-messe-2024-kicks-off-today-whats-in-store/; MSCN Reporter, "Microsoft premieres updates to its IoT transformation strategy at Hannover Messe 2024," MSDW, April 22, 2024 https://msdynamicsworld.com/story/microsoft-premieres-updates-its-iot-transformation-strategy-hannover-messe-2024; Scarlett Evans, "AWS Demonstrates Industrial IoT Tools, Hannover 2024," IoT World Today, April 22, 2024 https://www.iotworldtoday.com/iiot/aws-demonstrates-industrial-iot-tools-hannover-2024

Special Reading Suggestions

- MedTech Outlook posting, "Power of IoT Integration in Revolutionizing Medical Sensors," Medical Outlook, April 24, 2024 https://www.medicaltechoutlook.com/news/power-of-iot-integration-in-revolutionizing-medical-sensors-nwid-3371.html
- DatasSciencetest posting, "Internet of Things (IoT): What is it and how does it work?" DatasSciencetest, April 24, 2024 https://datascientest.com/en/all-about-internet-of-things
- Tiffani Neilson, "How the IoT Market is Changing," IoT for All [video 31:20], April 23, 2024 https://www.iotforall.com/podcasts/e341-how-the-iot-
- market-is-changing#watch-the-video

 Russell Ruben, "Storage: A Secret to IoT Innovation," DevPro Journal, April 23, 2024 https://www.devprojournal.com/technology-trends/internet-of-
- Keith Shaw chats with David Howard, director of technical sales at Quectel, "Has the hype around 'Internet of Things' paid off?," Network World [Video 36:04], April 18, 2024 https://www.networkworld.com/video/2093393/has-the-hype-around-internet-of-things-paid-off.html
- Satyajit Sinha, "The rise of smart and AI-capable cellular IoT modules: Evolution and market outlook," IoT Analytics, April 16, 2024 https://iot-analytics.com/rise-of-smart-ai-capable-cellular-iot-modules/
- Curtis Govan, "What is Hyperlocal Global IoT Connectivity?" IoT For All Podcast [22:50], April 16, 2024 https://www.iotforall.com/podcasts/e340-what-is-hyperlocal-global-iot-connectivity

Selected IoT Perspectives

Ambient IoT

"The next stage of evolution for the IoT, the Ambient IoT refers to a new class of innovative form-factor designs and low-maintenance or maintenance-free devices primarily powered by harvesting energy from any viable ambient source. Ambient energy sources can include radio waves, light, motion, and heat, among others." Chuck Sabin, "Ambient IoT is the next wave of IoT technology," Fierce Electronics, April 5, 2024

https://www.fierceelectronics.com/iot-wireless/ambient-iot-next-wave-iot-technology

- James Blackman, "'We'll ask how the economy ever ran offline' pressure to fast-track ambient IoT," RCR Wireless,
 December 12, 2023 https://www.rcrwireless.com/20231212/internet-of-things-4/well-ask-how-the-economy-ever-ran-offline-pressure-to-fast-track-ambient-iot
- Joe O'Halloran, "IoT seeks 5G Advanced possibilities with world's first ambient IoT visibility platform," Computer Weekly, September 28, 2023 https://www.computerweekly.com/news/366553675/IoT-seeks-5G-Advanced-possibilities-with-worlds-first-ambient-IoT-visibility-platform
- Dan O'Shea, "Tired of IoT? Change is in the air with 'Ambient IoT'," Fierce Electronics, September 28, 2023 https://www.fierceelectronics.com/iot-wireless/tired-iot-change-air-ambient-iot
- Steve Statler, "Ambient Internet of Things: Biggest Retail Advancement Since the Price Tag," Sourcing Journal, August 7, 2023 https://sourcingjournal.com/topics/thought-leadership/ambient-internet-of-things-wiliot-retail-inventory-shrink-omnichannel-supply-chain-448871/
- Robert J. Bowman, "Welcome to the World of 'Ambient' IoT," SupplyChainBrain, June 5, 2023 https://www.supplychainbrain.com/articles/3738o-welcome-to-the-world-of-ambient-iot

Research background info (sample): Butt, M. Majid, Nitin R. Mangalvedhe, Nuno K. Pratas, Johannes Harrebek, John Kimionis, Muhammad Tayyab, Oana-Elena Barbu, Rapeepat Ratasuk, and Benny Vejlgaard, "Ambient IoT: A missing link in 3GPP IoT devices landscape," IEEE Internet of Things Magazine 7, no. 2 (2024): 85-92 https://ieeexplore.ieee.org/abstract/document/10463656; YANG, Yibing, Ming LIU, Rongtao XU, Gongpu WANG, and Wei GONG, "Link Budget and Enhanced Communication Distance for Ambient Internet of Things," ZTE Communications 22, no. 1 (2024): 16 http://zte.magtechjournal.com/CN/10.12142/ZTECOM.202401003; Ren, Xiongpeng, Jin Cao, Hui Li, and Yinghui Zhang, "Novel Authentication Protocols Tailored for Ambient IoT Devices in 3GPP 5G Networks," arXiv preprint arXiv:2404.02425 (2024) https://arxiv.org/abs/2404.02425; Liao, Jingyi, Kalle Koskinen, Xiyu Wang, Boxuan Xie, Kalle Ruttik, Riku Jäntti, and Dinh-Thuy Phan-Huy, "UE [User Equipment] Assisted Ambient Internet of Things in LTE Downlink, Energy Autonomous," In 6G Summit Abu Dhabi. 2023 https://research.aalto.fi/en/publications/demo-ue-assisted-ambient-iot-in-lte-downlink-in-real-time-and-ope



Georgia Tech • Center for Advanced Communications Policy
Center for the Development and Application
of Internet of Things Technologies