



CHRONICLE OF DIGITAL TRANSFORMATION THROUGH INTERNET OF THINGS TECHNOLOGIES

Some biweekly perspectives from around the globe gathered by CDAIT

(1400 entries since April 1, 2022)

https://cdait.gatech.edu/sites/default/files/2023-06/Digital_Transformation_Through_IoT_Technologies_June_30_2023.pdf

GOVERNANCE & THE INTERNET OF THINGS

European Commission press release, "Data Act: Commission welcomes political agreement on rules for a fair and innovative data economy," EC, June 28, 2023

https://ec.europa.eu/commission/presscorner/detail/en/ip_23_3491

James Blackman, "IoT's dirty secret – 78 million IoT batteries dumped every day (by 2025)," RCR Wireless News, June 27, 2023

<https://www.rcrwireless.com/20230627/internet-of-things-4/iots-dirty-secret-78-million-iot-batteries-dumped-every-day-by-2025>

Indika de Soya, "Why digital economy is key for Sri Lanka's economic growth," Daily FT [Sri Lanka], June 23, 2023

<https://www.ft.lk/columns/Why-digital-economy-is-key-for-Sri-Lanka-s-economic-growth/4-749840>

Respect Gwenzi, "Is Africa ready to join the IoT revolution?" The Zimbabwe Independent, June 23, 2023

<https://www.newsday.co.zw/theindependent/opinion/article/200013125/is-africa-ready-to-join-the-iot-revolution>

Sairaj Iyer, "In WFH [Working-From-Home] we trust no more," Sify.com [India], June 19, 2023

<https://www.sify.com/digital-transformation/in-wfh-we-trust-no-more/>

International Association of Privacy Professionals (IAPP), "FTC offers IoT privacy guidance," IAPP Daily Dashboard, June 14, 2023

<https://iapp.org/news/a/ftc-offers-iot-privacy-guidance/>

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Biweekly IoT News Digest (06/23 – 2)

IoT News and Market Reports

(Second Half of June 2023)

- 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/2023-06/IoT_News_Filings_June_2023_Second_Half.pdf
- Sample list of IoT-related market reports gathered by CDAIT – 80 entries: https://cdait.gatech.edu/sites/default/files/2023-06/IoT_Market_Reports_June_2023_Second_Half.pdf

Georgia Tech IoT-related Info/Research Noticed by CDAIT

- Georgia Parmelee, "AI Hub at Georgia Tech to Unite Campus in Artificial Intelligence R&D and Commercialization Efforts," GT College of Computing, June 8, 2023
<https://www.cc.gatech.edu/news/ai-hub-georgia-tech-unite-campus-artificial-intelligence-rd-and-commercialization-efforts>
- Olimat, Hosam, Hexu Liu, and Osama Abudayyeh. "Enabling Technologies and Recent Advancements of Smart Facility Management." Buildings 13, no. 6 (2023): 1488
<https://www.mdpi.com/2075-5309/13/6/1488> ["With a total contribution of 62 documents, Georgia Institute of Technology had the highest number of documents [related to smart facility management] among the United States universities."]
- Berger, Arne, Albrecht Kurze, Andreas Bischof, Jesse Josua Benjamin, Richmond Y. Wong, and Nick Merrill. "Accidentally Evil: On Questionable Values in Smart Home Co-Design," In Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems, pp. 1-14. 2023
<https://dl.acm.org/doi/abs/10.1145/3544548.3581504>

OF NOTE: Harald Bauer, David Ebenstein, Giulietta Poltronieri, and Jan Paul Stein, "Is industrial automation headed for a tipping point?" McKinsey & Company, June 16, 2023 <https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/is-industrial-automation-headed-for-a-tipping-point>

Special Reading Suggestions

- Suruchi Dhingra, "Choosing the right IoT connectivity technology for agriculture (Reader Forum)," RCR Wireless, June 26, 2023
<https://www.rcrwireless.com/20230626/internet-of-things/choosing-the-right-iot-connectivity-technology-for-agriculture-reader-forum>
- Tom Woodbury, "IoT Technology To Boost Safety, Compliance, and Efficiency: How to Get Started," Food Safety Tech, June 25, 2023
<https://foodsafetytech.com/column/iot-technology-to-boost-safety-compliance-and-efficiency-how-to-get-started/>
- Spencer Chin, "Sensors Become Brains in the IoT of the Future," Design News, June 22, 2023 <https://www.designnews.com/mems-sensor-technology/sensors-become-brains-iot-future>
- Sagar Joshi, "70 IoT Statistics to Unveil the Past, Present, and Future of IoT," G2 website, June 15, 2023 <https://learn.g2.com/iot-statistics>
- Diana Ambolis, "Everything You Need To Know About Blockchain And IoT Market," Blockchain Magazine, June 15, 2023
<https://blockchainmagazine.net/everything-you-need-to-know-about-blockchain-and-iot-market/>
- James Blackman, "The drugs do work – enterprises get buzzed on the tech-no-one-shall-speak-of (aka Industry 4.0)," RCR Wireless, June 12, 2023 <https://www.rcrwireless.com/20230612/private-5g/the-drugs-do-work-enterprises-get-buzzed-on-the-tech-no-one-shall-say-industry-4-0>

Selected IoT Perspectives

Wi-Fi and the Internet of Things

"Even with Wi-Fi 7 already advanced in its development, Wi-Fi 6 is a new generation of Wi-Fi and will therefore exist for a long time in-step with the IoT industry's growth. As IoT device deployment hits mass scale, more and more devices require high throughput such as virtual reality devices. Others demand low latency – such as industrial controls – or require low power consumption, such as those that use battery power. Wi-Fi 6 is well-positioned to serve these needs and also deal with radically increased device density that the multi-billion device era demands."

Dominikus Hierl, "Wi-Fi 6 and 5G provide today's optimal wireless IoT connectivity," IoT News, October 21, 2022
<https://www.iottnews.com/news/2022/oct/21/wi-fi-6-and-5g-provide-optimal-wireless-iot-connectivity/>

- SkyQuest press release, "Wi-Fi 6 Market to Surpass \$[64.1 Billion by 2030 Drives Due to Rising Expansion of Telecommunication Services," Globe Newswire, June 27, 2023 <https://www.globenewswire.com/news-release/2023/06/27/2695112/0/en/Wi-Fi-6-Market-to-Surpass-64-1-Billion-by-2030-Drives-Due-to-Rising-Expansion-of-Telecommunication-Services.html>
- Stacey Higginbotham, "What Broadcom's latest Wi-Fi 7 chips tell us about the IoT," Stacey on IoT, June 26, 2023
<https://staceyoniot.com/what-broadcoms-latest-wi-fi-7-chips-tell-us-about-the-iot/>
- CityLife "Passive Wi-Fi: A Catalyst for Innovation in the Internet of Things," Citylife, June 9, 2023
<https://citylife.capetown/uncategorized/passive-wi-fi-a-catalyst-for-innovation-in-the-internet-of-things/213367/>
- Marcin Frackiewicz, "Unlocking the Full Potential of IoT with Wi-Fi 6," TS2, June 4, 2023 <https://ts2.space/en/unlocking-the-full-potential-of-iot-with-wifi-6/>
- Ross Sabolcik, "Interoperability Will Drive IoT Innovation Across Industries in 2023," Microwaves & RF, March 1, 2023
<https://www.mwrf.com/markets/iot/article/21261046/silicon-labs-interoperability-will-drive-iot-innovation-across-industries-in-2023>

Research background info (sample): López-Pastor, José Antonio, Miguel Poveda-García, Alejandro Gil-Martínez, David Cañete-Rebenaque, and José Luis Gómez-Tornero, "Two-dimensional localization system for mobile IoT devices using a single Wi-Fi access point with a passive frequency-scanned antenna," IEEE Internet of Things Journal (March 29, 2023) <https://ieeexplore.ieee.org/abstract/document/10086563>; Aziz, Azlan Abd, and Syamsuri Yaacob, "IoT Performance and Security Analysis Based on Wi-Fi Systems," (2023): 3
<https://books.google.com/books?hl=en&lr=&id=5bKJEAQAQAJ&oi=fnd&pg=PA3&dq=%22Internet+of+Things%22+%22Wi-Fi%22&ots=qpW6GgPCDx&sig=GuXaGSO3n4pLdXjW-t40XXQFo7Q#v=onepage&q=%22Internet%20of%20Things%22%20%22Wi-Fi%22&f=false>; Kumar, Vijay, Poonam Yadav, and Leandro Soares Indrusiak, "Resilient Edge: Building an adaptive and resilient multi-communication network for IoT Edge using LPWAN and Wi-Fi," IEEE Transactions on Network and Service Management (2023) <https://ieeexplore.ieee.org/abstract/document/10016650>; Asaad, Safar Maghddid, and Halgurd Sarhang Maghddid, "Novel integrated matching algorithm using a deep learning algorithm for Wi-Fi fingerprint-positioning technique in the indoors-IoT era," PeerJ Computer Science 9 (2023): e1406 <https://peerj.com/articles/cs-1406/>; Varma, Pothuri Surendra, and Veena Anand, "Intelligent scanning period dilation based Wi-Fi fingerprinting for energy efficient indoor positioning in IoT applications," The Journal of Supercomputing 79, no. 7 (2023): 7736-7761 <https://link.springer.com/article/10.1007/s11227-022-04980-9>; Kumar, Anil, Jafer Hussain, and Anthony Chun, "Wi-Fi," In Connecting the Internet of Things: IoT Connectivity Standards and Solutions, pp. 145-213. Berkeley, CA: Apress, 2023 https://link.springer.com/chapter/10.1007/978-1-4842-8897-9_3; Wi-Fi Alliance: <https://www.wi-fi.org/>



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