



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

CHRONICLE OF DIGITAL TRANSFORMATION THROUGH INTERNET OF THINGS TECHNOLOGIES

Some biweekly perspectives from
around the globe gathered by
CDAIT

(2650 entries since April 1, 2022)
https://cdait.gatech.edu/sites/default/files/2024-07/Digital_Transformation_Through_IoT_Technologies_July_15_2024.pdf

GOVERNANCE & THE INTERNET OF THINGS

Anna Ribeiro, "Nozomi reports on OT/IoT threat landscape and regulatory challenges, highlighting global cyber threat evolution," Industrial Cyber, July 11, 2024
<https://industrialecyber.co/reports/nozomi-reports-on-ot-iot-threat-landscape-and-regulatory-challenges-highlighting-global-cyber-threat-evolution/>

Billy Mitchell, "Senate NDAA [National Defense Authorization Act] calls for guidance to apply zero trust to 'internet of military things' devices," Defensescoop, July 10, 2024
<https://defensescoop.com/2024/07/10/senate-2025-ndaa-zero-trust-internet-of-military-things-devices/>

Andrea Carcano and Michael Dugent, "Enhancing IoT Security in Critical Infrastructure," Pipeline Magazine, July 8, 2024
<https://www.pipelinepub.com/IoT-2024/IoT-security-for-protecting-critical-infrastructure>

Joe Fay, "Less than a fifth of European companies will use AI by 2030, Digital Decade report reveals -- The EU's digital transformation is running late -- just like everyone else's. What do this mean for the future of tech across the Continent?" The Stack, July 3, 2024
<https://www.thestack.technology/less-than-a-fifth-of-european-companies-will-use-ai-by-2030-digital-decade-report-reveals/>

Ravi Dave, and Bidyut Sarkar, "9 ways to ensure a cyber secure IIoT strategy," Security Infowatch.com, July 3, 2024
<https://www.securityinfowatch.com/cybersecurity/article/55093480/9-ways-to-ensure-a-cyber-secure-iiot-strategy>

The European Commission (EC) has launched a call for proposals mitigating new threats and adapting investigation strategies in the era of Internet of things [deadline: November 30, 2024], Funds for NGOs, July 1, 2024
<https://www2.fundsforngos.org/latest-funds-for-ngos/cfps-mitigating-new-threats-and-adapting-investigation-strategies-in-the-era-of-internet-of-things/>

GT CDAIT Biweekly IoT News Digest (7/24 – 1)

IoT News and Market Reports

(First Half of July 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/2024-07/IoT_News_Filings_July_2024_First_Half.pdf
- Sample list of IoT-related market reports gathered by CDAIT – 65 entries: https://cdait.gatech.edu/sites/default/files/2024-07/IoT_Market_Reports_July_2024_First_Half.pdf

Georgia Tech IoT-related Info/Research Noticed by CDAIT

- Karen Kirkpatrick, "Defining Smart City Digital Twins," Georgia Tech News Center [interview of Neda Mohammadi, city infrastructure analytics director in Georgia Tech's Network Dynamics Lab, and John Taylor, professor in the School of Civil and Environmental Engineering,] July 1, 2024
<https://news.gatech.edu/news/2024/07/01/defining-smart-city-digital-twins>
- Jung, Kuchul, Jongseok Woo, and Saibal Mukhopadhyay, "Enhancing IoT Security with a Hardware Accelerated Machine Learning Model coupling Autoencoder and Long-Short-Term-Memory for Anomaly Detection," In 2024 IEEE International Symposium on Circuits and Systems (ISCAS), pp. 1-5. IEEE, 2024
<https://ieeexplore.ieee.org/abstract/document/10558328>
- Al Jamal, Hani, Marvin Joshi, Manos M. Tentzeris, and Nickolas Kingsley, "A Multi-Channel, Embedded, and Geometrically Optimized Filter Bank Utilizing Advanced Packaging Topologies for Miniaturized RF Modules in IoT and Wearable Systems," In 2024 IEEE 74th Electronic Components and Technology Conference (ECTC), pp. 208-214. IEEE, (added to IEEE Xplore, June 26 2024) <https://ieeexplore.ieee.org/abstract/document/10565227>

OF NOTE: Melissa Heikkilä, "What are AI agents? --The next big thing is AI tools that can do more complex tasks. Here's how they will work." MIT Technology Review, July 5, 2024 <https://www.technologyreview.com/2024/07/05/1094711/what-are-ai-agents/>

Special Reading Suggestions

- Amy Sarah Jones, "IoT continues to dominate corporate tech priorities with AI leading the way – IoT Analytics report," Wire19, July 11, 2024
<https://wire19.com/iot-continues-to-dominate-corporate-tech-priorities/>
- Szabolcs Szecsei, "Internet of Things Software Development: The Ultimate Guide (2024)," DesignRush, July 9, 2024
<https://www.designrush.com/agency/software-development/trends/iot-software-development>
- Aaron Wise, "IoT Vulnerabilities and BotNet Infections: What Executives Need to Know," Security Boulevard, July 8, 2024
<https://securityboulevard.com/2024/07/iot-vulnerabilities-and-botnet-infections-what-executives-need-to-know/>
- Ray Fernandez, "2.5 Million Threats Target IoT & Smart Homes Every Day – Are Your Devices Safe?" Techopedia, July 8, 2024
<https://www.techopedia.com/news/2-5-million-threats-target-iot-smart-homes-every-day>
- Fahmida Y. Rashid, "Any IoT Device Can Be Hacked, Even Grills," Dark Reading, July 3, 2024 [https://www.darkreading.com/iot/any-iiot-device-can-be-hacked-even-grills](https://www.darkreading.com/iot/any-iot-device-can-be-hacked-even-grills)
- Ryan Chacon with Brian Bonson, "AIoT: Exploring the Intelligent Future," IoT for all video [20'21], July 2, 2024
<https://www.iotforall.com/podcasts/e350-aiot-exploring-the-intelligent-future>
- Alun Williams, "Viewpoint: Image Sensing – Taking a new look at Camera SDKs, IoT and Smart Cities," Electronics Weekly, July 1, 2024
<https://www.electronicweekly.com/news/viewpoint-image-sensing-taking-a-new-look-at-camera-sdks-iiot-and-smart-cities-2024-07/>

Selected IoT Perspectives Blockchain and the Internet of Things in 2024

"Blockchain strengthens the foundation of the IoT with immutable data and enhanced security, ensuring the integrity of information critical for effective AI analysis. AI reciprocates by driving optimization across IoT networks and unlocking predictive capabilities." Tayyub Yaqoob, "How blockchain, IoT and AI come together: Unveiling potential," Cointelegraph, updated April 16, 2024 <https://cointelegraph.com/learn/blockchain-iiot-ai-unveiling-potential>

- Nick Flaherty, "Industrial blockchain technology IOTA has opened a research lab at Imperial College London to explore ways of using its distributed ledger technology for sustainable systems across the Internet of Things (IoT)," EE News Europe, July 4, 2024
<https://www.eenewseurope.com/en/blockchain-lab-explores-sustainable-iiot/>
- Albert Peter, "How Is Cryptocurrency Development Integrating with IoT in 2024?" Medium, July 1, 2024
<https://medium.com/coinmonks/how-is-cryptocurrency-development-integrating-with-iiot-in-2024-db3a446026bb>
- IoT World Magazine Newsdesk, Artificial Intelligence, "10 Best AI Tools for IoT and Blockchain Applications in 2024 for UK, Europe, Asia, and Latin America," IoT World Magazine, June 13, 2024 <https://iiotworldmagazine.com/2024/06/13/2336/10-best-ai-tools-for-iiot-and-blockchain-applications-in-2024-for-uk-europe-asia-and-latin-america>
- Unicode Systems, "In 2024, what are the current trends in blockchain-based IoT applications?" LinkedIn, April 30, 2024, https://www.linkedin.com/pulse/2024-what-current-trends-blockchain-based-iiot-applications-qz1qc?trk=organization_guest_main-feed-card_feed-article-content
- Angelika Candie, "How Blockchain and IoT Shape Supply Chain Intelligence In 2024?" Medium, February 26 2024
<https://medium.com/nftdailydose/how-blockchain-and-iiot-shape-supply-chain-intelligence-in-2024-244caf6c65d7>

Research background info (sample): Call for papers [submission deadline: August 15, 2024] "Blockchain-Enabled IoT: Opportunities, Challenges, and Future Prospects," - A special issue of Electronics (ISSN 2079-9292) https://www.mdpi.com/journal/electronics/special_issues/Blockchain-Enabled_IoT; Haque, E.U., Shah, A., Iqbal, J. et al. "A scalable blockchain based framework for efficient IoT data management using lightweight consensus," Scientific Reports 14, 7841 (published April 21, 2024) <https://www.nature.com/articles/s41598-024-58578-7>; Deepak et al., "Exploring the Potential of Blockchain Technology in an IoT-Enabled Environment: A Review," in IEEE Access, vol. 12, pp. 31197-31227, published February 24, 2024, doi: 10.1109/ACCESS.2024.3366656 <https://doi.org/10.1109/ACCESS.2024.3366656> <https://doi.org/10.1038/s41598-024-58578-7>; • Iraq Ahmad Reshi and Sahil Sholla editors, "Blockchain-based Internet of Things," [Book] ISBN 9781032524870, 238 Pages 51 B/W Illustrations, Published March 28, 2024 by Chapman & Hall <https://www.routledge.com/Blockchain-based-Internet-of-Things-Opportunities-Challenges-and-Solutions/AhmadReshi-Sholla/p/book/9781032524870>



Georgia Tech • Center for Advanced Communications Policy

Center for the Development and Application
of Internet of Things Technologies

July 15, 2024

<https://cdait.gatech.edu>