



Digest is compiled by Alain Louchez,
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CHRONICLE OF DIGITAL TRANSFORMATION THROUGH INTERNET OF THINGS TECHNOLOGIES

Some biweekly perspectives from around the globe gathered by CDAIT (2600 entries since April 1, 2022)
https://cdait.gatech.edu/sites/default/files/2024-06/Digital_Transformation_Through_IoT_Technologies_June_30_2024.pdf

GOVERNANCE & THE INTERNET OF THINGS

David DiMolfetta, "A House committee is scrutinizing LiDAR and IoT cyber risks from China," Nextgov, June 24, 2024
<https://www.nextgov.com/cybersecurity/2024/06/house-committee-scrutinizing-lidar-and-iot-cyber-risks-china/397585/>

Multimedia Investments Ltd Open Source Information (MLI-OSI) publisher, "MIL-OSI Economics: How governments can help deploy digital solutions for climate action," Foreign Affairs (New Zealand), June 22, 2024
<https://foreignaffairs.com.nz/2024/06/22/mil-osi-economics-how-governments-can-help-deploy-digital-solutions-for-climate-action/>

IoT Business News posting, "Impending us Cyber Trust Mark adds another layer of security (or confusion) for IoT?" IoT Business News, June 20 2024
<https://iotbusinessnews.com/2024/06/20/68865-impending-us-cyber-trust-mark-adds-another-layer-of-security-or-confusion-for-iot/>

Ravishankar Chamarajnar, "The Impending Identity Crisis Of Machines: Why We Need To Secure All Non-Human Identities, From GenAI To Microservices And IoT," Security Boulevard, June 18, 2024
<https://securityboulevard.com/2024/06/the-impending-identity-crisis-of-machines-why-we-need-to-secure-all-non-human-identities-from-genai-to-microservices-and-iot/>

John Chen, "How we can avoid an AI ice age," The Hill, June 18, 2024
<https://thehill.com/opinion/4726873-how-we-can-avoid-an-ai-ice-age/>

Ian Verhappen, "IoT proliferation implications," Control, June 17, 2024
<https://www.controlglobal.com/network/wireless/article/55089163/iot-proliferation-implications>

Carsten Rhod Gregersen, "[The United Kingdom's] IoT password ban a start, but admins can't afford to wait for regulators," Tech Radar, June 17, 2024
<https://www.techradar.com/pro/iot-password-ban-a-start-but-admins-cant-afford-to-wait-for-regulators>

GT CDAIT Biweekly IoT News Digest (6/24 – 2)

Georgia Tech IoT-related Info/Research Noticed by CDAIT

IoT News and Market Reports

(Second Half of June 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/2024-06/IoT_News_Filings_June_2024_Second_Half.pdf
- Sample list of IoT-related market reports gathered by CDAIT – 65 entries: https://cdait.gatech.edu/sites/default/files/2024-06/IoT_Market_Reports_June_2024_Second_Half.pdf

OF NOTE: Nasscom community [India], "Five Industries Going Big on IoT," Wire19, June 19, 2024 <https://wire19.com/five-industries-going-big-on-iot/>

Special Reading Suggestions

- Vadim Karpus, "China has created a «super SIM card» for the Internet of Things – with a RISC-V core, 10 times more memory and NFC support," ITC, June 28, 2024 <https://itc.ua/en/news/china-has-created-a-super-sim-card-for-the-internet-of-things-with-a-risc-v-core-10-times-more-memory-and-nfc-support/>
- Sok Yee Tham, "Forrester identifies GenAI, TuringBots and IoT security as 2024 top emerging technologies," Channel Asia, June 26, 2024 <https://www.channelasia.tech/article/2503533/forrester-identifies-genai-turingbots-and-iot-security-as-2024-top-emerging-technologies.html>
- Jeff Cross, "How AI and IoT are Transforming the Commercial Cleaning Industry," Cleaning & Maintenance Management, June 26, 2024 <https://cmmonline.com/articles/how-ai-and-iot-are-transforming-the-commercial-cleaning-industry>
- Paul Brody, "The Internet of Things Is Still Broken (But DePIN [Decentralized Physical Infrastructure] Can Fix it)," CoinDesk, June 24, 2024 <https://www.coindesk.com/opinion/2024/06/24/the-internet-of-things-is-still-broken-but-depin-can-fix-it/>
- Andrew Hajitofi, "Revolutionising Healthcare: The Future with AI, IoT, and Robotics," Whatech, June 21, 2024 <https://www.whatech.com/og/artificial-intelligence/blog/845385-revolutionising-healthcare-the-future-with-ai-iot-and-robotics/amp>
- Emily Newton, "IoT Monitoring Sets New Standards in Railway Safety," IoT for all, June 19, 2024 <https://www.iotforall.com/iot-monitoring-sets-new-standards-in-railway-safety>
- Michael Israel, "Recall Revolution: Harnessing IoT to Transform Manufacturing Resilience," RT Insights, June 18, 2024 <https://www.rtinsights.com/recall-revolution-harnessing-iot-to-transform-manufacturing-resilience/>
- Spencer Chin, "What Role Do Sensors Play in the Age of the IoT and AI?" Design News, June 17, 2024 <https://www.designnews.com/sensors/what-role-do-sensors-play-in-the-age-of-the-iot-and-ai->
- Sunil Sonkar, "IoT Technology to Illuminate Unexplored Ocean Mysteries," Techexpert, June 17, 2024 <https://www.techexpert.com/iot-technology-to-illuminate-unexplored-ocean-mysteries/>

Selected IoT Perspectives

Ontology and Semantic Interoperability in the Internet of Things

"Ontology has been increasingly implemented to facilitate the Internet of Things (IoT) activities, such as tracking and information discovery, storage, information exchange, and object addressing," Qaswar, Fahad, M. Rahmah, Muhammad Ahsan Raza, A. Noraziah, Basem Alkazemi, Z. Fauziah, Mohd. Khairul Azmi Hassan, and Ahmed Sharaf. 2023. "Applications of Ontology in the Internet of Things: A Systematic Analysis" *Electronics* 12, no. 1: 111, published December 27, 2022 <https://doi.org/10.3390/electronics12010111>

- Magda Dabrowska, "Interoperability issues: The hidden challenges of IoT integration," IoT Now, June 4, 2024 <https://www.iot-now.com/2024/06/04/144693-interoperability-issues-the-hidden-challenges-of-iot-integration/>
- Libelium, "Interoperability in IoT: Speaking the Same Language," Libelium website, March 27, 2024 <https://www.libelium.com/libeliumworld/the-importance-of-interoperability-in-iot/>
- Raúl García-Castro, "An IoT ontology for cross-domain smart applications," Embedded, October 7, 2020 <https://www.embedded.com/an-iot-ontology-for-cross-domain-smart-applications/>
- Niklas Widell, Ari Keränen, and Ramamurthy Badrinath, "What is semantic interoperability in IoT and why is it important?" Ericsson, July 23, 2020 <https://www.ericsson.com/en/blog/2020/7/semantic-interoperability-in-iot>

Research background info (sample): Arazzi, Marco, Antonino Nocera, and Emanuele Storti, "The SemIoE Ontology: A Semantic Model Solution for an IoE-based Industry," arXiv preprint arXiv:2401.06667 (published January 12, 2024) <https://arxiv.org/abs/2401.06667>; Guerrero, Bughio, Kulsoom S., David M. Cook, and Syed Afaq A. Shah, "Developing a Novel Ontology for Cybersecurity in Internet of Medical Things-Enabled Remote Patient Monitoring," *Sensors* 24, no. 9 (published April 27, 2024): 2804 <https://www.mdpi.com/1424-8220/24/9/2804>; Frendi, Mohammed, Bakhta Nchet, and Abdelkader Adla, "Physical Internet Based Ontology for Supporting Traceability in Logistic IoT," *International Journal of Computing and Digital Systems* 15, no. 1 (2024): 1-13 <https://journal.uob.edu.bh/handle/123456789/5390>; Okonta, Ebere Donatus and Rahimian, Farzad and Vukovic, Vladimir and Rodriguez, Sergio, "Semantic Interoperability on Iot: Aligning IFC and Smart Application Reference (Saref) Sensor Data Models," posted May 7, 2024 Available at SSRN: <https://ssrn.com/abstract=4819827> or <http://dx.doi.org/10.2139/ssrn.4819827>; Rahman, Hafizur, Kishore Medhi, and Md Iftekar Hussain, "DyNO-IoT: a dynamic ontology for provisioning semantic interoperability in internet of things," *International Journal of Sensor Networks* 41, no. 2 (published March 10, 2023): 114-125 <https://www.inderscienceonline.com/doi/abs/10.1504/IJSNET.2023.129651>; Mario Scrocca, Ilaria Baroni and Irene Celino, "Urban IoT ontologies for sharing and electric mobility," *Semantic Web*, vol. 14, no. 4, pp. 617-638, 2023, published April 24, 2023 <https://content.iiospress.com/articles/semantic-web/sw210445>

<https://cdait.gatech.edu>



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