



GT CDAIT

Biweekly IoT News Digest (01/23 – 2)

CHRONICLE OF DIGITAL TRANSFORMATION THROUGH INTERNET OF THINGS TECHNOLOGIES

Some biweekly perspectives from around the globe gathered by CDAIT (900 entries since April 1, 2022) https://cdait.gatech.edu/sites/default/files/2023-01/Digital_Transformation_Through_IoT_Technologies_January_31_2023.pdf

GOVERNANCE & THE INTERNET OF THINGS

Greg Noone, "The world needs tighter IoT governance. But reforms are on the way," *Techmonitor*, January 30, 2023 <https://techmonitor.ai/the-age-of-ambient/the-world-needs-tighter-iot-governance-but-reforms-are-on-the-way>

Megan L. Brown, Thomas M. Johnson, Jr. and Kathleen E. Scott, "United States: Enter Stage Right – A New Cyber Regulator Steps Into The Spotlight," *Mondaq*, January 30, 2023 <https://www.mondaq.com/unitedstates/security/1276522/enter-stage-right--a-new-cyber-regulator-steps-into-the-spotlight>

Lynley Meyers, "Beware the IoT data deluge: action for better social care and housing," *Open Access Government*, January 27, 2023 <https://www.openaccessgovernment.org/beware-iot-data-deluge-action-better-social-care-housing/152045/>

Charles Lyons-Burt, "How the [U.S.] DOD Is Keeping Pace with Emerging Technologies Through R&D," *GovCon Wire*, January 26, 2023 <https://www.govconwire.com/2023/01/how-the-dod-is-keeping-pace-with-emerging-technologies-through-randd/>

Inmarsat press release, "Business Leaders Do Not Trust Each Others' Climate Claims - Inmarsat Research," [based on Inmarsat independent research report "Accelerating sustainable action through IoT"], *Business Wire*, January 24, 2023 <https://www.businesswire.com/news/home/20230124005125/en/Business-Leaders-Do-Not-Trust-Each-Others-Climate-Claims---Inmarsat-Research>

World Economic Forum, "State of the Connected World 2023 Edition," [a publication that tracks governance gaps related to the Internet of Things (IoT)], WEF, published on January 17, 2023 (49 pages) https://www3.weforum.org/docs/WEF_State_of_the_Connected_World_2023_Edition.pdf

Future IoT Editors, "Japan's Society 5.0 initiative promises a humanise digital future," *Future IoT*, January 16, 2023 <https://futureiot.tech/japans-society-5-0-initiative-promises-a-humanise-digital-future/>

IoT News and Market Reports

(Second Half of January 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 – 16 entries - See: https://cdait.gatech.edu/sites/default/files/2023-01/IoT_News_Filings_January_2023__Second_Half.pdf
- Sample list of IoT-related market reports gathered by CDAIT– 80 entries – See: https://cdait.gatech.edu/sites/default/files/2023-01/IoT_Market_Reports_January_2023__Second_Half.pdf

Georgia Tech IoT-related Info/Research Noticed by CDAIT

- A. J. London, Y. S. Razin, J. Borenstein, M. Eslami, R. Perkins and P. Robinette, "Ethical Issues in Near-Future Socially Supportive Smart Assistants for Older Adults," in *IEEE Transactions on Technology and Society* (January 16, 2023), doi: 10.1109/TTS.2023.3237124 <https://ieeexplore.ieee.org/abstract/document/10017383>
- Yang, Qian, Richmond Wong, Thomas Gilbert, Margaret Hagan, Steven Jackson, Sabine Junginger, and John Zimmerman. "Designing Technology and Policy Simultaneously: Towards A Research Agenda and New Practice," (2023) https://www.researchgate.net/profile/Qian-Yang-19/publication/367118347_Designing_Technology_and_Policy_Simultaneously_Towards_A_Research_Agenda_and_New_Practice/links/63c1e373d9fb5967c2d354b6/Designing-Technology-and-Policy-Simultaneously-Towards-A-Research-Agenda-and-New-Practice.pdf
- Ben Snedeker, "Manufacturing, Finance Among Industries to Benefit from What's Next in AI for 2023," [a small group of GT Ph.D. students from the College of Computing involved in foundational and applied AI research look into 2023], *GT College of Computing*, January 10, 2023 <https://www.cc.gatech.edu/news/manufacturing-finance-among-industries-benefit-whats-next-ai-2023>

OF NOTE: U.S. Government Accountability Office (GAO), "Cybersecurity High-Risk Series: Challenges in Establishing a Comprehensive Cybersecurity Strategy and Performing Effective Oversight," GAO, January 19, 2023 <https://www.gao.gov/products/gao-23-106415>; IoT Analytics, "What CEOs talked about in Q4/2022: - Interest rates, the labor market and reshoring," IoT Analytics, January 18, 2023 <https://h9e3r9w2.rocketcdn.me/wp/wp-content/uploads/2023/01/Insights-Release-What-CEOs-talked-about-in-Q4-2022.pdf>

Special Reading Suggestions

- Keith Basil, "IIoT is powering the transition to Industry 4.0, and enterprises shouldn't risk being left behind," *VentureBeat*, January 26, 2023 <https://venturebeat.com/data-infrastructure/iiot-is-powering-the-transition-to-industry-4-0-and-enterprises-shouldnt-risk-being-left-behind/>
- Mike Dano, "AT&T, other network operators navigate IoT turmoil," *Light Reading*, January 26, 2023 <https://www.lightreading.com/iot/atandt-other-network-operators-navigate-iot-turmoil/d/d-id/782905>
- Paul Coventry, "Step into your future workplace: Five insights for the year ahead," *Ericsson*, January 25, 2023 <https://www.ericsson.com/en/blog/2023/1/future-of-work-insights-2023>
- Kevin Purdy, "Appliance makers sad that 50% of customers won't connect smart appliances," *Ars Technica*, January 24, 2023 <https://arstechnica.com/gadgets/2023/01/half-of-smart-appliances-remain-disconnected-from-internet-makers-lament/>
- Charlie Parton, "Chinese Cellular IoT technology: An analysis of threats and mitigation measures," *Oodalooop*, January 23, 2023 <https://www.oodalooop.com/globalrisk/2023/01/23/chinese-cellular-iot-technology-an-analysis-of-threats-and-mitigation-measures/>
- Mark Chillingworth, "eSIMs to enable CIOs to deliver IoT and savings," *Diginomica*, January 19, 2023 <https://diginomica.com/esims-enable-cios-deliver-iot-and-savings>
- Sun Chi, "China takes lead in IoT connections," *China Daily*, January 19, 2023 <https://www.chinadaily.com.cn/a/202301/19/WS63c8d70da31057c47ebaa9eb.html>

Selected IoT Perspectives

The Internet of Things (IoT) and Artificial Intelligence

"The Internet of Things (IoT) and artificial intelligence (AI) are two of the fastest-growing technologies in business today. AI, the ability for computers to think like humans, continues to rapidly evolve as developers continue to create new algorithms and programming languages that make applications and ultimately business processes and programs smarter. IoT is essentially a network of internet-connected devices capable of transmitting data remotely. Combining the two together leads to AIoT Technology which can greatly boost business headed into 2023." IoT.nxt, "AIoT Technology Can Boost Business in 2023," *IoT for All*, December 9, 2022 <https://www.iotforall.com/press-releases/aiot-technology-can-boost-business-in-2023>

- See **World AI IoT Congress 2023** at the University of Washington, Seattle, June 8-10, 2023 <https://worldaiotcongress.org/>
- ResearchAndMarkets.com press release, "Global Artificial Intelligence of Things Solutions Market Report 2022: AIoT Market will Reach \$83.6 Billion by 2027, Growing at 39.1% CAGR," *Business Wire*, August 3, 2022 <https://www.businesswire.com/news/home/20220803005630/en/Global-Artificial-Intelligence-of-Things-Solutions-Market-Report-2022-AIoT-Market-will-Reach-83.6-Billion-by-2027-Growing-at-39.1-CAGR---ResearchAndMarkets.com>
- Nahla Davis, "The AIoT Revolution: How AI and IoT Are Transforming Our World," *KDnuggets*, July 22, 2022 <https://www.kdnuggets.com/2022/07/aiot-revolution-ai-iot-transforming-world.html>

Research background info (sample): Lin, Shih-Chun, Tsung-Hui Chang, Eduard Jorswieck, and Pin-Hsun Lin. "Applications in AIoT: IoT Security and Secrecy," In *Information Theory, Mathematical Optimization, and Their Crossroads in 6G System Design*, pp. 331-373. Springer, Singapore, 2023 https://link.springer.com/chapter/10.1007/978-981-19-2016-5_9; Nagaty, Khaled Ahmed. "IoT Commercial and Industrial Applications and AI-Powered IoT," In *Frontiers of Quality Electronic Design (QED)*, pp. 465-500. Springer, Cham, 2023 https://link.springer.com/chapter/10.1007/978-3-031-16344-9_12; Mahor, Vinod, Sadhna Bijrothiya, Romil Rawat, Anil Kumar, Bhagwati Garg, and Kiran Pachlasiya. "IoT and Artificial Intelligence Techniques for Public Safety and Security," *Smart Urban Computing Applications* (2023): 111 <https://books.google.com/books?hl=en&lr=&id=ApqhEAAQBAJ&oi=fnd&pg=PA111&dq=%22IoT%22+%22AI%22&ots=ZyYtSnMOQG&sig=zkm-cm95BXd75x24TWGX-xL-H5A#v=onepage&q=%22IoT%22%20%22AI%22&f=false>; Sipola, Tuomo, Janne Alatalo, Tero Kokkonen, and Mika Rantonen. "Artificial Intelligence in the IoT Era: A Review of Edge AI Hardware and Software," In 2022 31st Conference of Open Innovations Association (FRUCT), pp. 320-331. IEEE, 2022 <https://ieeexplore.ieee.org/abstract/document/9770931> --- See forthcoming book (submission deadline: June 30, 2023) **AI-aided IoT Technologies and Applications in the Smart Business and Production** <http://gritex.org/ai-aided-iot-technologies-and-applications.htm>;

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