



CHRONICLE OF DIGITAL TRANSFORMATION THROUGH INTERNET OF THINGS TECHNOLOGIES

Some biweekly perspectives from around the globe gathered by CDAIT (700 entries)

https://cdait.gatech.edu/sites/default/files/2022-11/Digital_Transformation_Through_IoT_Technologies_November_30_2022.pdf

GOVERNANCE & THE INTERNET OF THINGS

Sander van 't Noordende and Stefano Scarpetta, "Digital skills: How businesses and policymakers can respond to future demand in the labour market," World Economic Forum, November 25, 2022 <https://www.weforum.org/agenda/2022/11/digital-skills-labour-market-future/>

Luca Bertuzzi, "EU Council mulls broad national security carveouts in IoT cybersecurity law," Euractiv, November 22, 2022 <https://www.euractiv.com/section/cybersecurity/news/eu-council-mulls-broad-national-security-carveouts-in-iot-cybersecurity-law/>

ADG Expo Group press release, "Smart City Development Forum 2022 [Shenzhen, China] Marks a New Beginning for Future Cities with Digital and Intelligent Services," PR Newswire, November 21, 2022 <https://www.prnewswire.com/news-releases/smart-city-development-forum-2022-marks-a-new-beginning-for-future-cities-with-digital-and-intelligent-services-301683546.html>

Andre Marino, "Preventing energy waste in buildings: How insulation and IoT tech are weathering extreme climate events," Smart Industry, November 21, 2022 <https://www.smartindustry.com/tools-of-transformation/production-technologies/article/21438167/preventing-energy-waste-in-buildings-how-insulation-and-iot-tech-are-weathering-extreme-climate-events>

David Sax, "Why Smart Cities Aren't the Future," Built in, November 17, 2022 <https://builtin.com/internet-things/smart-city-future-is-analog>

Lindsey Ellefson, "Telehealth Sites Put Addiction Patient Data at Risk," Wired, November 16, 2022 https://www.wired.com/story/substance-abuse-telehealth-privacy-tracking-tech/?mc_cid=1f5ac72d3c&mc_eid=cf0b0e87e1

Stuart Waine, "Could IoT and reliable mobile coverage be the antidote to climate change?" Mobile News, November 14, 2022 <https://www.mobilenewscoop.co.uk/features/article/iot-reliable-mobile-coverage-antidote-climate-change>

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Biweekly IoT News Digest (11/22 – 2)

Georgia Tech IoT-related Info/Research Noticed by CDAIT

IoT News and Market Reports

(Second Half of November 2022)

- 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 - See: https://cdait.gatech.edu/sites/default/files/2022-11/IoT_News_Filings_November_2022_Second_Half.pdf
- Sample list of IoT-related market reports gathered by CDAIT – 85 entries – See: https://cdait.gatech.edu/sites/default/files/2022-11/IoT_Market_Reports_November_2022_Second_Half.pdf

- GTMI, Factory Information Systems (FIS) Center, 2022 IoT for Manufacturing (IoTfM) Symposium, November 9, 2022 <https://iotfm2022.fis.gatech.edu/>
- Park, Michael, Douglas Britton, Wayne Daley, Gary McMurray, Milad Navaei, Alex Samoylov, Colin Usher, and Jie Xu. "Artificial intelligence, sensors, robots, and transportation systems drive an innovative future for poultry broiler and breeder management," Animal Frontiers 12, no. 2 (2022): 40-48 <https://academic.oup.com/af/article/12/2/40/6576392>
- Brock, Juergen Kai-Uwe, and Ajay K. Kohli. "The emerging world of digital exploration services," Journal of Business Research 155 (2023): 113434 <https://www.sciencedirect.com/science/article/abs/pii/S0148296322008992>

OF NOTE: António Guterres, "UN Secretary-General's remarks to the G20 Summit [Bali, Indonesia] session on Digital Transformation," United Nations, November 16, 2022 <https://www.un.org/sg/en/content/sg/statement/2022-11-16/un-secretary-generals-remarks-the-g20-summit-session-digital-transformation-delivered---U.S.GovernmentAccountabilityOffice>, "Offshore Oil and Gas: Strategy Urgently Needed to Address Cybersecurity Risks to Infrastructure," GAO, Publicly released November 17, 2022 <https://www.gao.gov/products/gao-23-105789>

Special Reading Suggestions

- Llewellyn King, "Utilities Beware: The Whole IoT Is At Risk From Itself," White House Chronicle, November 26, 2022 <http://whchronicle.com/utilities-beware-the-whole-iot-is-at-risk-from-itself/>
- Joe O'Halloran, "Internet of things market continues to surge," Computer Weekly, November 24, 2022 <https://www.computerweekly.com/news/252527666/Internet-of-things-market-continues-to-surge>
- Sailesh Chittipeddi, "AI At The IoT Edge Is Disrupting The Industrial Market," Semiengineering, November 21, 2022 <https://semiengineering.com/ai-at-the-iot-edge-is-disrupting-the-industrial-market/>
- Mobile World Live, "Time for carriers to join the IoT revolution," Mobile World Live, November 21, 2022 <https://www.mobileworldlive.com/latest/time-for-carriers-to-join-the-iot-revolution-2/>
- Lindsay Clark, "IBM to fire Watson IoT Platform from its cloud," The Register, November 15, 2022 https://www.theregister.com/2022/11/15/ibm_set_to_retire_watson/
- Angus Loten, "Investors Cool on Internet-of-Things Startups, a Tech Conduit for Retailers," The Wall Street Journal, November 15, 2022 https://www.wsj.com/articles/investors-cool-on-internet-of-things-startups-a-tech-conduit-for-retailers-11668475669?mod=hp_minor_pos4
- Scarlett Evans, "How IoT is Making the NFL Smarter," IoT World Today, November 14, 2022 <https://www.iotworldtoday.com/2022/11/14/how-iot-is-making-the-nfl-smarter/>

Selected IoT Perspectives

Low-power wide-area networks (LPWAN) and the Internet of Things (IoT)

"The range of communication is a major drawback in Wi-Fi and Bluetooth based IoT devices. This drawback can be controlled by using a technology with long range wireless communication with low power consumption. LPWAN is a wireless technology that can be used to communicate over long distance with low power consumption."

Sarath Kumar R; Gokul Prasanth M; Bharath Kumar R; Abbashek J; and Ajay D, "LPWAN for IoT," 2022 International Conference on Advanced Computing Technologies and Applications (ICACTA), 2022, pp. 1-4, <https://ieeexplore.ieee.org/document/9753563>

- Global Market Insights Inc. press release, "Low Power Wide Area Network Market to Hit \$350 Bn By 2032," Globe Newswire, November 29, 2022 <https://www.globenewswire.com/news-release/2022/11/29/2563703/0/en/Low-Power-Wide-Area-Network-Market-to-Hit-350-Bn-By-2032-Says-Global-Market-Insights-Inc.html>
- Emily Newton, "LPWAN and IoT Technologies Make Agriculture Smarter," IoT for All, November 15, 2022 <https://www.iotforall.com/lpwan-and-iot-technologies-make-agriculture-smarter>
- Semtech, "Extreme Smart Home Makeover: Interoperability Edition with LPWAN," IoT for All, November 3, 2022 <https://www.iotforall.com/extreme-smart-home-makeover-interoperability-with-lorawan>

Research background info (sample): Malik, Praveen, Naveen Bilandi, and Anish Gupta. "Narrow Band-IoT and Long-Range Technology of IoT Smart Communication: Designs and Challenges," Computers & Industrial Engineering (October 2022): 108572 <https://www.sciencedirect.com/science/article/abs/pii/S0360835222005733>; Zemko, Ladislav, and Pavel Čičák. "IoT and LPWAN Networks: Increasing Efficiency by Communication Planning," In 2022 45th International Conference on Telecommunications and Signal Processing (TSP), pp. 116-121. IEEE, (Added to IEEE Xplore, August 18, 2022 <https://ieeexplore.ieee.org/abstract/document/9851258>; Widianto, Mochammad Haldi, Ardiles Sinaga, and Maria Artanta Ginting. "A Systematic Review of LPWAN and Short-Range Network using AI to Enhance Internet of Things," Journal of Robotics and Control (JRC) 3, no. 4 (2022): 505-518 <https://journal.umy.ac.id/index.php/jrc/article/view/15419>; Stanco, Giovanni, Alessio Botta, Flavio Fratini, Ugo Giordano, and Giorgio Ventre. "On the performance of IoT LPWAN technologies: the case of Sigfox, LoRaWAN and NB-IoT," In ICC 2022-IEEE International Conference on Communications, pp. 2096-2101. IEEE, (Added to IEEE Xplore, August 11, 2022 <https://ieeexplore.ieee.org/abstract/document/9839078>; Agrawal, Shilpy, and Khvati Chopra. "Analysis of Energy Efficient Narrowband Internet of Things (NB-IoT): LPWAN Comparison, Challenges, and Opportunities," Wireless Communication with Artificial Intelligence: 197-217 <https://www.taylorfrancis.com/chapters/edit/10.1201/9781003230526-11/analysis-energy-efficient-narrowband-internet-things-nb-iot-lpwan-comparison-challenges-opportunities-rasveen-shilpy-agrawal-khvati-chopra>