GT CDAIT
Biweekly IoT News Digest (11/22 – 2)

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, 202 2 https://www.euractiv.com/section/cybersecurity/news/eu-council-mulls-broad-national-security-carveouts-in-iot-cybersecurity-law/

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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.mobilenewscwp.co.uk/Features/article/iot-reliable-mobile-coverage-antidote-climate-change

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

Georgia Tech IoT-related Info/Research Noticed by CDAIT

- GTMI, Factory Information Systems (FIS) Center**, 2022 IoT for Manfucturing (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. Government Accountability Office, "**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; Abhishek 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 Frattini, 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