



# GT CDAIT

## Biweekly IoT News Digest (08/22 – 1)

### CHRONICLE OF DIGITAL TRANSFORMATION THROUGH INTERNET OF THINGS TECHNOLOGIES

Some biweekly perspectives from around the globe gathered by CDAIT since April 1, 2022 (350 entries)  
[https://cdait.gatech.edu/sites/default/files/2022-08/Digital\\_Transformation\\_Through\\_IoT\\_Technologies\\_August\\_15\\_2022.pdf](https://cdait.gatech.edu/sites/default/files/2022-08/Digital_Transformation_Through_IoT_Technologies_August_15_2022.pdf)

### GOVERNANCE & THE INTERNET OF THINGS

Katia Gonzales, "Over a year following FCC's STIR/SHAKEN, America still has a huge robocall problem" [Adopting more measures to combat fraud and security threats will only become more important in a 5G and Internet of Things (IoT) world.] VentureBeat, August 12, 2022 <https://venturebeat.com/datadecisionmaker/s/over-a-year-following-fccs-stir-shaken-america-still-has-a-huge-robocall-problem/>

Felix Gachtgens, "Six Takeaways from Gartner® Hype Cycle™ for Digital Identity, 2022, [IoT has become the next wave for MIM (Machine Identity Management)];" Security Boulevard, August 8, 2022 <https://securityboulevard.com/2022/08/six-takeaways-from-gartner-hype-cycle-for-digital-identity-2022/>

China Intelligence posting, "Nation [China] seen leading in IoT, digital economy," China Intelligence, August 6, 2022 <https://www.chineseintelligence.com/nation-seen-leading-in-iot-digital-economy/>

Eurostat (Statistical Office of the European Union), "Our progress towards the EU's Digital Decade targets," Eurostat, August 5, 2022 <https://ec.europa.eu/eurostat/en/web/products-eurostat-news/-/ddn-20220805-2>

Charles Lyons-Burt, " [U.S.] DOD Leaders Urge Cross-Industry Collaboration, "Paradigm Shifts" in Digital Battlefield Panel," GovCon Wire, August 4, 2022 <https://www.govconwire.com/2022/08/government-military-leaders-urge-cross-industry-collaborations-paradigm-shifts/>

Andreas Kluth, "Germany's Anti-Digital Law Is a Case Study in Stunting Progress," The Washington Post, August 3, 2022 [https://www.washingtonpost.com/business/germanys-anti-digital-law-is-a-case-study-in-stunting-progress/2022/08/03/f4e5b174-12e9-11ed-8482-06c1c84ce8f2\\_story.html](https://www.washingtonpost.com/business/germanys-anti-digital-law-is-a-case-study-in-stunting-progress/2022/08/03/f4e5b174-12e9-11ed-8482-06c1c84ce8f2_story.html)

### IoT News and Market Reports

(First Half of August 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/2022-08/IoT\\_News\\_Filings\\_August\\_2022\\_First\\_Half.pdf](https://cdait.gatech.edu/sites/default/files/2022-08/IoT_News_Filings_August_2022_First_Half.pdf)
- Sample list of IoT-related market reports gathered by CDAIT– 80 entries – See: [https://cdait.gatech.edu/sites/default/files/2022-08/IoT\\_Market\\_Reports\\_August\\_2022\\_First\\_Half.pdf](https://cdait.gatech.edu/sites/default/files/2022-08/IoT_Market_Reports_August_2022_First_Half.pdf)

### Georgia Tech IoT-related Info/Research Noticed by CDAIT

- Paul M.A. Baker and Adina Martinez, "Design Considerations for an Accessible Internet of Things," CXOTech Magazine, July 2022 <https://cxotechmagazine.com/design-considerations-for-an-accessible-internet-of-things/>
- Shekari, Tohid, Alvaro A. Cardenas, and Raheem Beyah. "MaDIoT 2.0: Modern High-Wattage IoT Botnet Attacks and Defenses," 31st USENIX Security Symposium, August 10–12, 2022 <https://www.usenix.org/conference/usenixsecurity22/presentation/shekari>
- Li, Xiaoli, Huanhuan Chen, Thomas Ploetz, Min Wu, and Zhenghua Chen. "Guest Editorial Special Issue on Computational Intelligence for IoT-based Human Activity Recognition," IEEE Transactions on Emerging Topics in Computational Intelligence 6, no. 4 (2022): 725-727 <https://ieeexplore.ieee.org/abstract/document/9834992>

**OF NOTE:** Lily Hay Newman, "One of 5G's Biggest Features Is a Security Minefield - New research found troubling vulnerabilities in the 5G platforms carriers offer to wrangle embedded device data," Wired, August 9, 2022 [https://www.wired.com/story/5g-api-flaws/?mc\\_cid=e98c55d580&mc\\_cid=cf0b0e87e1](https://www.wired.com/story/5g-api-flaws/?mc_cid=e98c55d580&mc_cid=cf0b0e87e1)

### Special Reading Suggestions

- Rekha Nair, "The Expanding Internet of Things (IoT) Creates More Opportunities for Cybercrime," Business News This Week, August 8, 2022 <http://businessnewsthisweek.com/technology/the-expanding-internet-of-things-iot-creates-more-opportunities-for-cybercrime/>
- Semtech press release, "Semtech Corporation to Acquire Sierra Wireless -- Creating a comprehensive IoT platform to enable the transformation to a smarter, more sustainable planet," August 3, 2022 <https://www.semtech.com/company/press/semtech-corporation-to-acquire-sierra-wireless>
- Prateek Shukla, "5G and IoT – The Beginning of a New Era," Indian Television, August 1, 2022 <https://indiantelevision.com/iworld/over-the-top-services/guest-article-5g-and-iot-the-beginning-of-a-new-era-220801>
- Thales press release, "Telit and Thales announce the creation of a leading western IoT solutions provider: Telit Cinterion," Thales website, July 29, 2022 [https://www.thalesgroup.com/en/worldwide/security/press\\_release/telit-and-thales-announce-creation-leading-western-iot-solutions](https://www.thalesgroup.com/en/worldwide/security/press_release/telit-and-thales-announce-creation-leading-western-iot-solutions)

### Selected IoT Perspectives

#### The Internet of Things and the Circular Economy

*"IoT Supports the Circular Economy -- For me, the main obvious contribution IoT can make is by supporting the prolonging and also sharing in most inner loops in the technical lifecycle. This can be done through design of the product, including the opportunity to both upgrade and share in a sustainable business model. But IoT can also support redistribution. This means reducing the overall need to produce products." (\*)*  
(\*) Linda Ekener Mägi, "Can IoT Contribute to a More Circular Economy?" Tele2IoT, April 29, 2021 <https://tele2iot.com/blog/can-iot-contribute-to-a-more-circular-economy/>

- Nishi, "Water conservation gets a 'New Normal' with smart technology and innovation ["Intelligent water management is made possible by innovative water systems that combine the Internet of Things, data analytics, and artificial intelligence.]," Innova, August 9, 2022 <https://www.inventiva.co.in/trends/water-conservation-gets-a-new-normal-with-smart-technology-and-innovation/>
- Hau L. Lee, Barchi Gillai, and Caroline Yuandi Ling, "The Road Toward A Circular Value Chain," Stanford Graduate Business School, Value Chain Innovation Initiative, July 18, 2022 <https://www.gsb.stanford.edu/faculty-research/publications/road-toward-circular-value-chain>
- Naveen Joshi, "Understanding The Significance Of IoT In The Creation Of Circular Cities," Forbes, February 28, 2022 <https://www.forbes.com/sites/naveenjoshi/2022/02/28/understanding-the-significance-of-iot-in-the-creation-of-circular-cities/?sh=646fceb73cc0>
- Jane Porter, "IoT and the circular economy," Technative, May 6, 2021 <https://technative.io/iot-and-the-circular-economy>

**Research background info (sample):** Rejeb, Abderahman, Zailani Sahaiza, Karim Rejeb, Stefan Seuring, and Horst Treiblmaier. "The Internet of Things and the circular economy: A systematic literature review and research agenda." Journal of Cleaner Production (May 2022): 131439. <https://www.sciencedirect.com/science/article/pii/S0959652622010617>; Alcayaga, Andres, and Erik G. Hansen. "Internet of things enabling the circular economy: an expert study of digitalisation practices in B2B firms." (March 2022) <https://epub.jku.at/obvulioa/content/pageview/7654935>; Alcayaga, A. & Hansen, E. G. (March 2022): "Internet of Things Enabling the Circular Economy: An Expert Study of Digitalisation Practices in B2B Firms," (IQD Research 2022, No. 1). Institute for Integrated Quality Design (IQD), Johannes Kepler University Linz (JKU), Austria <https://epub.jku.at/obvulioa/download/pdf/7592486?originalfilename=true>; Xiaoli Sun & Xuan Wang, "Modeling and Analyzing the Impact of the Internet of Things-Based Industry 4.0 on Circular Economy Practices for Sustainable Development: Evidence From the Food Processing Industry of China," Frontiers in Psychology 13 (2022) <https://www.frontiersin.org/articles/10.3389/fpsyg.2022.866361/full>; Bressanelli, G.; Adrodegari, F.; Pigosso, D.C.A.; Parida, V. "Towards the Smart Circular Economy Paradigm: A Definition, Conceptualization, and Research Agenda," Sustainability 2022, 14, 4960. <https://doi.org/10.3390/su14094960>; Awan, Usama, Robert Sroufe, and Muhammad Shahbaz. "Industry 4.0 and the Circular Economy: A Literature Review and Recommendations for Future Research." Business Strategy and the Environment 30, no. 4 (May 1, 2021): 2038–60. doi:10.1002/bse.2731 [https://journals.scholarportal.info/details/09644733/v30i0004/2038\\_i4atcerariff.xml&sub=all](https://journals.scholarportal.info/details/09644733/v30i0004/2038_i4atcerariff.xml&sub=all); I. Askoxyllakis, "A Framework for Pairing Circular Economy and the Internet of Things," 2018 IEEE International Conference on Communications (ICC), July 30 on IEEEExplore, 2018, pp. 1-6. doi: 10.1109/ICC.2018.8422488 <https://ieeexplore.ieee.org/document/8422488>