GT CDAIT
Biweekly IoT News Digest (05/22 – 1)

CHRONICLE OF DIGITAL TRANSFORMATION THROUGH INTERNET OF THINGS TECHNOLOGIES

Some biweekly perspectives from around the globe gathered by CDAIT

(107 entries)

https://cdait.gatech.edu/sites/default/files/2022-05/Digital_Transformation_Through_IoT_Technologies_May_15_2022.pdf

GOVERNANCE & TH E INTERNET OF THINGS

Melissa Heikkilä, "**A quick guide to the most important AI [EU] law you've never heard of**," Technology Review, May 13, 2022 https://www.technologyreview.com/2022/05/13/1052223/guide-ai-act-europe/?utm_source=acquisition&utm_medium=email&utm_campaign=WKLYSUN&utm_content=05.15.22.eng_nonsubs&mc_cid=2deff3f5e2&mc_eid=cf0b0e87e1

Denham Sadler, "**[Australian] Govt to make its voluntary IoT cybersecurity standards mandatory**," InnovationAus.com, May 12, 2022 https://www.innovationaus.com/govt-to-make-its-voluntary-iot-cybersecurity-standards-mandatory/

European Investment Bank, "**COVID-19 pandemic intensified EU's transition to a digital economy** " Science Busisness, May 10, 2022 https://sciencebusiness.net/network-updates/eib-report-covid-19-pandemic-intensified-eus-transition-digital-economy

PYMNTS posting, "**How Banks Are Pulling the Plug on Financial Fraud in a Connected Age**," PYMNTS, May 6, 2022 https://www.pymnts.com/cybersecurity/2022/crowdsourced-bug-bounty-programs-help-eu-firms-beat-hackers-at-their-own-game/

Wayan Vota, "**Have You Read the UNDP [Uniited Nations Development Programme] Digital Strategy for 2022-2025**?" ICT Works, May 3, 2022 https://www.ictworks.org/undp-digital-strategy-2022-2025/#.YnGQyNPMJPa

Umang Modi, "**What Year Three of the Pandemic, Hybrid Work and IoT Means for the Government**," Newsweek, May 2, 2022 https://www.newsweek.com/what-year-three-pandemic-hybrid-work-iot-means-government-1702277

Shawn Nichols, "**Cyberespionage group exploiting network and IoT blind spots**," TechTarget, May 2, 2022 https://www.techtarget.com/searchsecurity/news/252516622/Cyberespionage-group-exploiting-network-and-IoT-blind-spots

Katherine MacPhail, "**NIST [U.S. National Institute of Standards and Technology]'s Vision for the Future of Smart Health Care Systems**," Government CIO Media & Research, April 29, 2022 https://governmentciomedia.com/nists-vision-future-smart-health-care-systems

IoT News and Market Reports

(First Half of May 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/2022-05/IoT_News_Filings_May_2022__First_Half.pdf
- Sample list of **IoT-related market reports** gathered by CDAIT– 87 entries – See: https://cdait.gatech.edu/sites/default/files/2022-05/IoT_Market_Reports_May_2022_First_Half.pdf

Georgia Tech IoT-related Info/Research Noticed by CDAIT

- Farmer, Sarah, Victoria Razin, Amanda Foster Peagler, Samantha Strickler, W. Bradley Fain, Gregory L. Damhorst, Russell R. Kempker et al. **"Don't Forget About Human Factors: Lessons Learned from COVID-19 Point-of-Care Testing."** Cell Reports Methods (2022): 100222. Available online May 3, 2022 https://www.sciencedirect.com/science/article/pii/S2667237522000856
- Shekari, Tohid, Alvaro A. Cardenas, and Raheem Beyah,**"MaDIoT 2.0: Modern High-Wattage IoT Botnet Attacks and Defenses**," Prepublication https://www.usenix.org/conference/usenixsecurity22/presentation/shekari
- Yan, Hui, Weidong Bao, Xiaomin Zhu, Ji Wang, and Ling Liu. "**Data Offloading Enabled by Heterogeneous UAVs for IoT Applications under Uncertain Environments**." IEEE Internet of Things Journal (online February 14, 2022) https://ieeexplore.ieee.org/abstract/document/9712650

OF NOTE: Vodafone Business' Erik Brenneis**, "The Impact of IoT on Society,"** IoT for All, May 10, 2022 https://www.iotforall.com/podcasts/e183-impact-of-iot-on-society**,** Roland Kelts, **"Japan once led global tech innovation. How did it fall so behind?** - *For decades, the country's tech triumphs have disguised its seized-up digital systems."* Rest of World, May 12, 2022 https://restofworld.org/2022/japan-led-global-tech-innovation-fall-

Special Reading Suggestions

- Ramya Mohanakrishnan. "**What Is the Internet of Things? Definition, Role, Examples, and Trends for 2022**," Toolbox, May 11, 2022 https://www.toolbox.com/tech/iot/articles/what-is-internet-of-things/
- Jane Turner, "**How sensors are making an impact in the IoT and pandemic era**," Fierce Electronics, May 6, 2022 https://www.fierceelectronics.com/sensors/how-sensors-are-making-impact-iot-and-pandemic-era
- Verdict Comment, "**Future infrastructure trends: IoT top term on Twitter Q1 2022,"** Verdict (UK), May 6, 2022 https://www.verdict.co.uk/future-infrastructure-trends-iot-twitter/
- Rhod Gregersen, "**Past, Present, Future: The Evolution of IoT Pricing,"** RFID Journal, May 5, 2022 https://www.rfidjournal.com/past-present-future-the-evolution-of-iot-pricing
- CIO Review posting, "**Need for IoT in 2022**," CIO Review, May 2, 2022 https://www.cioreview.com/news/need-for-iot-in-2022-nid-35290-cid-133.html

Selected IoT Perspectives
V2X (Vehicle to Everything) and the Internet of Things

"Vehicle-to-everything (V2X) technology enables equipped vehicles to communicate with other devices in their surroundings – those carried by pedestrians, other vehicles, or devices embedded in road traffic systems. V2X promises to make the roads safer for all users and more convenient for drivers by enabling a wide range of new s afety, information and entertainment applications. The V2X concept encompasses several sub-categories of application, each with their own commonly used names. These are vehicle-to-(transport)-infrastructure (V2I), vehicle-to-pedestrian (V2P), vehicle-to-network (V2N), and vehicle-to-vehicle (V2V)." (*)

*(*) Global Mobile Suppliers Association, "**C-V2X Ecosystem – Member Report January 2022,"** https://gsacom.com/paper/c-v2x-ecosystem-member-report-january-2022/*

"The modern automobile is fast becoming a sensor-laden mobile Internet of Things device, with considerable on-board computing power and communication systems devoted to three broad areas: vehicle location, driver behaviour, engine diagnostics and vehicle activity (telematics); the surrounding environment (vehicle-to-everything or V2X communication); and the vehicle's occupants (infotainment)." (**)

*(**) Charles McLellan, "**Connected cars: How 5G and IoT will affect the auto industry,"** ZDNet, February 3, 2020 https://www.zdnet.com/article/connected-cars-how-5g-and-iot-will-affect-the-auto-industry/*

- AUTO Connected Car, "**Connected Car History and Timeline**," Auto Connected Car, May 2022 https://www.autoconnectedcar.com/auto-connected-car-news-connected-car-history-and-timeline/
- Astute Analytica press release, "**Global Vehicle- to- Everything (V2X) Market is projected to reach USD 18,877.1 Million by 2027, owing to rise in adoption of connected cars, favorable government initiatives and rising technology penetration | CAGR: 33.8%,"** Queen Anne & Magnolia News, May 2, 2022 https://www.magnolianews.net/Content/global-vehicle-to-everything-v2x-market-is-projected-to-reach-usd-18877-1-million-by-2027-owing-to-rise-in-adoption-of-connected-cars-favorable-government-initiatives-and-rising-technology-pene/
- Zachariah Peterson, "**Cellular vs. DSRC for V2X Communication: The Debate Continues...,"** Octopart, December 30, 2021 https://octopart.com/blog/archives/2021/12/Cellular%20vs.%20DSRC%20for%20V2X%20Communication:%20The%20Debate%20Continues...

Research background info (sample): Saraswathi, Pedada, GVS RAJKUMAR, and Patruni Muralidhara Rao. **"Intelligent Transport System using IoT-V2X: Communication Technologies, Security Issues, Challenges and Countermeasures**." (March 16,2022) https://assets.researchsquare.com/files/rs-1290602/v1/a8f36cc7-42b6-4ed4-8e22-ec7254c5caf6.pdf?c=1647465401 ; Sehla, Khabaz, Thi Mai Trang Nguyen, Guy Pujolle, and Pedro Braconnot Velloso. **"Resource Allocation Modes in C-V2X: From LTE-V2X to 5G-V2X**." IEEE internet of things journal (March 15, 2022) https://ieeexplore.ieee.org/abstract/document/9734746 ; Kiela, Karolis, Vaidotas Barzdenas, Marijan Jurgo, Vytautas Macaitis, Justas Rafanavicius, Aleksandr Vasjanov, Leonid Kladovscikov, and Romualdas Navickas. **"Review of V2X–IoT standards and frameworks for ITS applications."** Applied sciences 10, no. 12 (2020): 4314 https://www.mdpi.com/2076-3417/10/12/4314

See also: Sustmeme posting, **"Vehicle-to-Everything tech hits the road in smart-city Georgia,"** June 2, 2021 https://sustmeme.com/2021/06/02/vehicle-to-everything-tech-hits-the-road-in-smart-city-georgia/; Lynn Walford, **"Georgia DOT, The Ray, Kia and Panasonic Demo Connected V2X Vehicles on The Ray Highway,"** AUTO Connected Car, May 5, 2022 https://www.autoconnectedcar.com/2022/05/georgia-dot-the-ray-kia-and-panasonic-demo-connected-v2x-vehicles-on-the-ray-highway/ and Tom Stone, **"Georgia DOT V2X improving safety on public highway, The Ray,"** Traffic Technology Today, May 11, 2022 https://www.traffictechnologytoday.com/videos/video-georgia-dot-v2x-improving-safety-on-public-highway-the-ray.html

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